Morgan Stanley

Fifth Addendum to the Base Listing Document dated 17 March 2023 relating to Non-collateralised Structured Products

Issuer

Morgan Stanley Asia Products Limited

(Incorporated in the Cayman Islands with limited liability)

Guarantor

Morgan Stanley

(Incorporated in the State of Delaware, United States of America)

Manager

Morgan Stanley Asia Limited

(Incorporated in Hong Kong)

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This document, for which we and the Guarantor accept full responsibility, includes particulars given in compliance with the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited ("**Stock Exchange's Listing Rules**") for the purpose of giving information with regard to the Issuer, the Guarantor and the warrants, callable bull/bear contracts ("**CBBCs**") and any other structured products (together, "**our structured products**") referred to in this document. The Issuer and the Guarantor, having made all reasonable enquiries, confirm that to the best of their knowledge and belief the information contained in this document, our base listing document dated 17 March 2023 ("**Base Listing Document**"), our first addendum to the Base Listing Document dated 19 April 2023 ("**First Addendum**"), our second addendum to the Base Listing Document dated 23 May 2023 ("**Second Addendum**"), our third addendum to the Base Listing Document dated 23 August 2023 ("**Third Addendum**") and our fourth addendum to the Base Listing Document dated 4 October 2023 ("**Fourth Addendum**") is accurate and complete in all material respects and not misleading or deceptive, and there are no other matters the omission of which would make any statement herein or these documents, when read together, misleading. This document should be read together with the Base Listing Document, the First Addendum, the Second Addendum, the Third Addendum and the Fourth Addendum.

We, the Issuer of our structured products, are publishing this document in order to obtain a listing on the Stock Exchange of our structured products.

The structured products are complex products. You should exercise caution in relation to them. Investors are warned that the price of the structured products may fall in value as rapidly as it may rise and holders may sustain a total loss of their investment. Prospective purchasers should therefore ensure that they understand the nature of the structured products and carefully study the risk factors set out in the Base Listing Document and, where necessary, seek professional advice, before they invest in the structured products.

The structured products constitute general unsecured contractual obligations of the Issuer and of no other person and the guarantee constitutes the general unsecured contractual obligations of the Guarantor and of no other person and will rank equally among themselves and with all our and the Guarantor's other unsecured obligations (save for those obligations preferred by law) upon liquidation. If you purchase the structured products, you are relying upon the creditworthiness of the Issuer and the Guarantor, and have no rights under the structured products against (a) the company which has issued the underlying securities, (b) the fund which has issued the underlying securities or its trustee (if applicable) or manager, or (c) the index sponsor of any underlying index or any other person. If the Issuer becomes insolvent or default on its obligations under the structured products or the Guarantor becomes insolvent or defaults on its obligations under the guarantee, you may not be able to recover all or even part of the amount due under the structured products (if any).

The structured products are not bank deposits or protected deposits for the purposes of the Deposit Protection Scheme in Hong Kong and are not insured or guaranteed by the United States Federal Deposit Insurance Corporation ("**FDIC**"), or any other governmental agency. The structured products are guaranteed by Morgan Stanley and the guarantee will rank *pari passu* with all other direct, unconditional, unsecured and unsubordinated indebtedness of Morgan Stanley.

The distribution of this document, the Base Listing Document, the First Addendum, the Second Addendum, the Third Addendum, the Fourth Addendum, the relevant launch announcement and supplemental listing document, any addendum and the offering, sale and delivery of structured products in certain jurisdictions may be restricted by law. You are required to inform yourselves about and to observe such restrictions. Please read Annex 3 "Purchase and Sale" in the Base Listing Document. The structured products have not been approved or disapproved by the SEC or any state securities commission in the United States or regulatory authority, nor has the SEC or any state securities commission or any regulatory authority passed upon the accuracy or the adequacy of this document. Any representation to the contrary is a criminal offence. **The structured products and the guarantee have not been and will not be registered under the United States Securities Act of 1933, as amended ("Securities Act"), and the structured products may not be offered or sold within the United States or to, or for the account or benefit of, U.S. Persons (as defined in Regulation S under the Securities Act).**

Dated 24 November 2023

IMPORTANT

If you are in doubt as to the contents of this document, you should obtain independent professional advice.

This document contains (i) the supplemental information about the Guarantor and (ii) the extracts of the Guarantor's quarterly report on Form 10-Q for the quarterly period ended 30 September 2023. You should read this document, the Base Listing Document, the First Addendum, the Second Addendum, the Third Addendum, the Fourth Addendem and the relevant launch announcement and supplemental listing document published by us in relation to the particular series of structured products you are considering for investment to understand our structured products before deciding whether to buy our structured products.

Copies of this document, the Base Listing Document, the First Addendum, the Second Addendum, the Third Addendum, the Fourth Addendum and the relevant launch announcement and supplemental listing document (together with a Chinese translation of each of these documents) and other documents listed under the section "Where can I read copies of the Issuer's and Guarantor's documentation?" in the Base Listing Document are available on the website of the HKEX at *www.hkexnews.hk* and our website at *www.mswarrants.com.hk*.

本文件、基本上市文件、第一份增編、第二份增編、第三份增編、第四份增編及相關發行公佈及補充上市文件(及以上各份文件的英文本)連同基本上市文件的「本人從何處可查閱發行人及擔保人的文件副本?」一節所列的其他文件的副本,可於香港交易所披露易網站 (www.hkexnews.hk) 以及本公司網站 (www.mswarrants.com.hk) 瀏覽。

We do not give you investment advice; you must decide for yourself, after reading the listing documents for the relevant structured products and, if necessary, seeking professional advice, whether our structured products meet your investment needs.

Our Guarantor's long term credit ratings (as of the day immediately preceding the date of this document) are: A1 (Stable) by Moody's Investors Service, Inc. and A- (Stable) by S&P Global Ratings.

Save as disclosed in the Base Listing Document, the First Addendum, the Second Addendum, the Third Addendum, the Fourth Addendum and this document, the Issuer and our Guarantor are not aware, to the best of our and our Guarantor's knowledge and belief, of any litigation or claims of material importance pending or threatened against us or our Guarantor.

Save as disclosed in Annex 5 and Annex 6 to the Base Listing Document, the First Addendum, the Second Addendum, the Third Addendum, the Fourth Addendum and this document, there has been no material adverse change in the Issuer's and our Guarantor's financial or trading position since the date of the most recently published audited consolidated financial statements of the Issuer and our Guarantor that would have a material adverse effect on the Issuer's and our Guarantor's ability to perform their respective obligations in respect of the structured products.

CONTENTS

SUPPLEMENTAL INFORMATION ABOUT THE GUARANTOR

Unless the context otherwise requires, the term the "Firm" means Morgan Stanley together with its consolidated subsidiaries.

LEGAL PROCEEDINGS

The following developments have occurred since previously reporting certain matters in the Firm's 2022 Form 10-K and the Firm's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2023 (the "**First Quarter Form 10-Q**") and the quarterly period ended June 30, 2023 (the "**Second Quarter Form 10-Q**"). See also the disclosures set forth under "Legal Proceedings" in the 2022 Form 10-K, the First Quarter Form 10-Q and the Second Quarter Form 10-Q.

Block Trading Matter

The Firm has been responding to requests for information from the Enforcement Division of the SEC and the United States Attorney's Office for the Southern District of New York in connection with their investigations into various aspects of the Firm's blocks business, certain related sales and trading practices, and applicable controls (the "**Investigations**"). The Investigations are focused on whether the Firm and/or its employees shared and/or used information regarding impending block transactions in violation of federal securities laws and regulations. The Firm continues to cooperate with, and has continued to engage in ongoing discussions regarding potential resolution of, the Investigations. There can be no assurance that these discussions and continuing engagement will lead to resolution of either matter. The Firm also faces potential civil liability arising from claims that have been or may be asserted by, among others, block transaction participants who contend they were harmed or disadvantaged including, among other things, as a result of a share price decline allegedly caused by the activities of the Firm and/or its employees, or as a result of the Firm's and/or its employees' failure to adhere to applicable laws and regulations. In addition, the Firm has responded to demands from shareholders under Section 220 of the Delaware General Corporation Law for books and records concerning the Investigations.

Antitrust Related Matters

On September 1, 2023, the court in Iowa Public Employees' Retirement System et al. v. Bank of America Corporation et al. granted preliminary approval of the settlement.

The Firm is a defendant in three antitrust class action complaints which have been consolidated into one proceeding in the United States District Court for the Southern District of New York under the caption City of Philadelphia, et al. v. Bank of America Corporation, et al. Plaintiffs allege, inter alia, that the Firm, along with a number of other financial institution defendants, violated U.S. antitrust laws and relevant state laws in connection with alleged efforts to artificially inflate interest rates for Variable Rate Demand Obligations ("**VRDO**"). Plaintiffs seek, among other relief, treble damages. The class action complaint was filed on behalf of a class of municipal issuers of VRDO for which defendants served as remarketing agent. On November 2, 2020, the court granted in part and denied in part the defendants' motion to dismiss the consolidated complaint, dismissing state law claims, but denying dismissal of the U.S. antitrust claims. On September 21, 2023, the court granted plaintiffs' motion for class certification. On October 5, 2023, defendants sought leave to appeal this ruling from the United States Court of Appeals for the Second Circuit.

Qui Tam Matter

On August 22, 2023, the Firm reached an agreement in principle to settle the litigation in State of New Jersey ex. rel. Hayes v. Bank of America Corp., et al.

U.K. Gilt Matter

On September 28, 2023, the defendants in Oklahoma Firefighters Pension and Retirement System v. Deutsche Bank Aktiengesellschaft, et al. filed a joint motion to dismiss the complaint.

EXTRACT OF THE GUARANTOR'S QUARTERLY REPORT ON FORM 10-Q FOR THE QUARTERLY PERIOD ENDED 30 SEPTEMBER 2023

This information set out in the following pages has been extracted from the Guarantor's quarterly report on Form 10-Q for the quarterly period ended 30 September 2023. References to page numbers in this extract are to the pages in the Guarantor's quarterly report on Form 10-Q for the quarterly period ended 30 September 2023 and not to the pages in this document.

Consolidated Income Statement (Unaudited)

Morgan Stanley

in millions, except per share data	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022
Revenues				
Investment banking	**$ 1,048**	$ 1,373	**$ 3,533**	$ 4,281
Trading	**3,679**	3,331	**11,958**	10,911
Investments	**144**	(168)	**384**	(70)
Commissions and fees	**1,098**	1,133	**3,427**	3,769
Asset management	**5,031**	4,744	**14,576**	14,775
Other	**296**	63	**1,036**	245
Total non-interest revenues	**11,296**	10,476	**34,914**	33,911
Interest income	**13,305**	6,101	**36,223**	12,363
Interest expense	**11,328**	3,591	**29,890**	5,355
Net interest	**1,977**	2,510	**6,333**	7,008
Net revenues	**13,273**	12,986	**41,247**	40,919
Provision for credit losses	**134**	35	**529**	193
Non-interest expenses				
Compensation and benefits	**5,935**	5,614	**18,607**	17,438
Brokerage, clearing and exchange fees	**855**	847	**2,611**	2,607
Information processing and communications	**947**	874	**2,788**	2,560
Professional services	**759**	755	**2,236**	2,217
Occupancy and equipment	**456**	429	**1,367**	1,286
Marketing and business development	**191**	215	**674**	610
Other	**851**	829	**2,718**	2,713
Total non-interest expenses	**9,994**	9,563	**31,001**	29,431
Income before provision for income taxes	**3,145**	3,388	**9,717**	11,295
Provision for income taxes	**710**	726	**2,028**	2,382
Net income	**$ 2,435**	$ 2,662	**$ 7,689**	$ 8,913
Net income applicable to noncontrolling interests	**27**	30	**119**	120
Net income applicable to Morgan Stanley	**$ 2,408**	$ 2,632	**$ 7,570**	$ 8,793
Preferred stock dividends	**146**	138	**423**	366
Earnings applicable to Morgan Stanley common shareholders	**$ 2,262**	$ 2,494	**$ 7,147**	$ 8,427
Earnings per common share				
Basic	**$ 1.39**	$ 1.49	**$ 4.37**	$ 4.95
Diluted	**$ 1.38**	$ 1.47	**$ 4.33**	$ 4.88
Average common shares outstanding				
Basic	**1,624**	1,674	**1,635**	1,704
Diluted	**1,643**	1,697	**1,653**	1,725

Consolidated Comprehensive Income Statement (Unaudited)

$ in millions	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022
Net income	**$ 2,435**	$ 2,662	**$ 7,689**	$ 8,913
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments	**(149)**	(268)	**(240)**	(661)
Change in net unrealized gains (losses) on available-for-sale securities	**(366)**	(1,307)	**125**	(4,778)
Pension and other	**(1)**	5	**(3)**	13
Change in net debt valuation adjustment	**(414)**	816	**(960)**	2,628
Net change in cash flow hedges	**(3)**	—	**(16)**	—
Total other comprehensive income (loss)	**$ (933)**	$ (754)	**$ (1,094)**	$ (2,798)
Comprehensive income	**$ 1,502**	$ 1,908	**$ 6,595**	$ 6,115
Net income applicable to noncontrolling interests	**27**	30	**119**	120
Other comprehensive income (loss) applicable to noncontrolling interests	**(31)**	(17)	**(145)**	(142)
Comprehensive income applicable to Morgan Stanley	**$ 1,506**	$ 1,895	**$ 6,621**	$ 6,137

Consolidated Balance Sheet

Morgan Stanley

$ in millions, except share data	(Unaudited) At September 30, 2023	At December 31, 2022
Assets		
Cash and cash equivalents	$ **108,401**	$ 128,127
Trading assets at fair value (**$137,504** and $124,411 were pledged to various parties)	**346,685**	301,315
Investment securities:		
Available-for-sale at fair value (amortized cost of **$81,573** and $89,772)	**76,261**	84,297
Held-to-maturity (fair value of **$58,324** and $65,006)	**70,705**	75,634
Securities purchased under agreements to resell (includes **$—** and $8 at fair value)	**101,569**	113,907
Securities borrowed	**120,916**	133,374
Customer and other receivables	**76,495**	78,540
Loans:		
Held for investment (net of allowance for credit losses of **$1,157** and $839)	**202,742**	198,997
Held for sale	**14,230**	14,788
Goodwill	**16,699**	16,652
Intangible assets (net of accumulated amortization of **$4,704** and $4,253)	**7,204**	7,618
Other assets	**27,106**	26,982
Total assets	$ **1,169,013**	$ 1,180,231
Liabilities		
Deposits (includes **$6,318** and $4,796 at fair value)	$ **345,458**	$ 356,646
Trading liabilities at fair value	**150,298**	154,438
Securities sold under agreements to repurchase (includes **$1,002** and $864 at fair value)	**76,661**	62,534
Securities loaned	**13,064**	15,679
Other secured financings (includes **$7,012** and $4,550 at fair value)	**9,668**	8,158
Customer and other payables	**200,479**	216,134
Other liabilities and accrued expenses	**26,034**	27,353
Borrowings (includes **$86,556** and $78,720 at fair value)	**247,193**	238,058
Total liabilities	**1,068,855**	1,079,000
Commitments and contingent liabilities (see Note 13)		
Equity		
Morgan Stanley shareholders' equity:		
Preferred stock	**8,750**	8,750
Common stock, $0.01 par value:		
Shares authorized: **3,500,000,000**; Shares issued: **2,038,893,979**; Shares outstanding: **1,642,250,165** and 1,675,487,409	**20**	20
Additional paid-in capital	**29,595**	29,339
Retained earnings	**98,007**	94,862
Employee stock trusts	**5,244**	4,881
Accumulated other comprehensive income (loss)	**(7,202)**	(6,253)
Common stock held in treasury at cost, $0.01 par value (**396,643,814** and 363,406,570 shares)	**(29,959)**	(26,577)
Common stock issued to employee stock trusts	**(5,244)**	(4,881)
Total Morgan Stanley shareholders' equity	**99,211**	100,141
Noncontrolling interests	**947**	1,090
Total equity	**100,158**	101,231
Total liabilities and equity	$ **1,169,013**	$ 1,180,231

Consolidated Statement of Changes in Total Equity (Unaudited)

Morgan Stanley

$ in millions	Three Months Ended September 30, 2023		Nine Months Ended September 30,	
	2023	2022	**2023**	2022
Preferred Stock				
Beginning balance	**$ 8,750**	$ 7,750	**$ 8,750**	$ 7,750
Issuance of preferred stock	**—**	1,000	**—**	1,000
Ending balance	**8,750**	8,750	**8,750**	8,750
Common Stock				
Beginning and ending balance	**20**	20	**20**	20
Additional Paid-in Capital				
Beginning balance	29,245	28,394	29,339	28,841
Share-based award activity	**350**	505	**256**	57
Issuance of preferred stock	**—**	(6)	**—**	(6)
Other net increases (decreases)	**—**	—	**—**	1
Ending balance	**29,595**	28,893	**29,595**	28,893
Retained Earnings				
Beginning balance	97,151	92,889	94,862	89,432
Net income applicable to Morgan Stanley	**2,408**	2,632	**7,570**	8,793
Preferred stock dividends[1]	**(146)**	(138)	**(423)**	(366)
Common stock dividends[1]	**(1,404)**	(1,329)	**(4,001)**	(3,802)
Other net increases (decreases)	**(2)**	1	**(1)**	(2)
Ending balance	**98,007**	94,055	**98,007**	94,055
Employee Stock Trusts				
Beginning balance	5,258	4,900	4,881	3,955
Share-based award activity	**(14)**	(40)	**363**	905
Ending balance	**5,244**	4,860	**5,244**	4,860
Accumulated Other Comprehensive Income (Loss)				
Beginning balance	(6,300)	(5,021)	(6,253)	(3,102)
Net change in Accumulated other comprehensive income (loss)	**(902)**	(737)	**(949)**	(2,656)
Ending balance	**(7,202)**	(5,758)	**(7,202)**	(5,758)
Common Stock Held in Treasury at Cost				
Beginning balance	(28,480)	(22,436)	(26,577)	(17,500)
Share-based award activity	**77**	95	**1,479**	1,677
Repurchases of common stock and employee tax withholdings	**(1,556)**	(2,608)	**(4,861)**	(9,126)
Ending balance	**(29,959)**	(24,949)	**(29,959)**	(24,949)
Common Stock Issued to Employee Stock Trusts				
Beginning balance	(5,258)	(4,900)	(4,881)	(3,955)
Share-based award activity	**14**	40	**(363)**	(905)
Ending balance	**(5,244)**	(4,860)	**(5,244)**	(4,860)
Noncontrolling Interests				
Beginning balance	975	1,066	1,090	1,157
Net income applicable to noncontrolling interests	**27**	30	**119**	120
Net change in Accumulated other comprehensive income (loss) applicable to noncontrolling interests	**(31)**	(17)	**(145)**	(142)
Other net increases (decreases)	**(24)**	(1)	**(117)**	(57)
Ending balance	**947**	1,078	**947**	1,078
Total Equity	**$ 100,158**	$ 102,089	**$ 100,158**	$ 102,089

1. See Note 16 for information regarding dividends per share for each class of stock.

Consolidated Cash Flow Statement (Unaudited)

Morgan Stanley

$ in millions	Nine Months Ended September 30, 2023	2022
Cash flows from operating activities		
Net income	**$ 7,689**	$ 8,913
Adjustments to reconcile net income to net cash provided by (used for) operating activities:		
Stock-based compensation expense	**1,348**	1,377
Depreciation and amortization	**2,850**	2,791
Provision for credit losses	**529**	193
Other operating adjustments	**44**	508
Changes in assets and liabilities:		
Trading assets, net of Trading liabilities	**(53,171)**	(23,285)
Securities borrowed	**12,458**	(6,765)
Securities loaned	**(2,615)**	798
Customer and other receivables and other assets	**3,884**	7,966
Customer and other payables and other liabilities	**(15,265)**	8,283
Securities purchased under agreements to resell	**12,338**	8,875
Securities sold under agreements to repurchase	**14,127**	(2,055)
Net cash provided by (used for) operating activities	**(15,784)**	7,599
Cash flows from investing activities		
Proceeds from (payments for):		
Other assets—Premises, equipment and software	**(2,483)**	(2,308)
Changes in loans, net	**(4,186)**	(23,280)
AFS securities:		
Purchases	**(9,522)**	(22,636)
Proceeds from sales	**5,315**	21,922
Proceeds from paydowns and maturities	**12,017**	11,682
HTM securities:		
Purchases	**—**	(5,231)
Proceeds from paydowns and maturities	**4,922**	7,837
Other investing activities	**(346)**	(516)
Net cash provided by (used for) investing activities	**5,717**	(12,530)
Cash flows from financing activities		
Net proceeds from (payments for):		
Other secured financings	**146**	(1,352)
Deposits	**(11,188)**	(16,816)
Issuance of preferred stock, net of issuance costs	**—**	994
Proceeds from issuance of Borrowings	**60,916**	54,283
Payments for:		
Borrowings	**(48,847)**	(27,019)
Repurchases of common stock and employee tax withholdings	**(4,836)**	(9,126)
Cash dividends	**(4,286)**	(4,023)
Other financing activities	**(325)**	(202)
Net cash provided by (used for) financing activities	**(8,420)**	(3,261)
Effect of exchange rate changes on cash and cash equivalents	**(1,239)**	(7,837)
Net increase (decrease) in cash and cash equivalents	**(19,726)**	(16,029)
Cash and cash equivalents, at beginning of period	**128,127**	127,725
Cash and cash equivalents, at end of period	**$ 108,401**	$ 111,696
Supplemental Disclosure of Cash Flow Information		
Cash payments for:		
Interest	**$ 30,299**	$ 4,339
Income taxes, net of refunds	**1,248**	2,805

1. Introduction and Basis of Presentation

The Firm

Morgan Stanley is a global financial services firm that maintains significant market positions in each of its business segments—Institutional Securities, Wealth Management and Investment Management. Morgan Stanley, through its subsidiaries and affiliates, provides a wide variety of products and services to a large and diversified group of clients and customers, including corporations, governments, financial institutions and individuals. Unless the context otherwise requires, the terms "Morgan Stanley" or the "Firm" mean Morgan Stanley (the "Parent Company") together with its consolidated subsidiaries. See the "Glossary of Common Terms and Acronyms" for the definition of certain terms and acronyms used throughout this Form 10-Q.

A description of the clients and principal products and services of each of the Firm's business segments is as follows:

Institutional Securities provides a variety of products and services to corporations, governments, financial institutions and ultra-high net worth clients. Investment Banking services consist of capital raising and financial advisory services, including the underwriting of debt, equity securities and other products, as well as advice on mergers and acquisitions, restructurings and project finance. Our Equity and Fixed Income businesses include sales, financing, prime brokerage, market-making, Asia wealth management services and certain business-related investments. Lending activities include originating corporate loans and commercial real estate loans, providing secured lending facilities, and extending securities-based and other financing to customers. Other activities include research.

Wealth Management provides a comprehensive array of financial services and solutions to individual investors and small to medium-sized businesses and institutions covering: financial advisor-led brokerage, custody, administrative and investment advisory services; self-directed brokerage services; financial and wealth planning services; workplace services, including stock plan administration; securities-based lending, residential real estate loans and other lending products; banking; and retirement plan services.

Investment Management provides a broad range of investment strategies and products that span geographies, asset classes, and public and private markets to a diverse group of clients across institutional and intermediary channels. Strategies and products, which are offered through a variety of investment vehicles, include equity, fixed income, alternatives and solutions, and liquidity and overlay services. Institutional clients include defined benefit/defined contribution plans, foundations, endowments, government entities, sovereign wealth funds, insurance companies, third-party fund sponsors and corporations. Individual clients are generally served through intermediaries, including affiliated and non-affiliated distributors.

Basis of Financial Information

The financial statements are prepared in accordance with U.S. GAAP, which requires the Firm to make estimates and assumptions regarding the valuations of certain financial instruments, the valuations of goodwill and intangible assets, the outcome of legal and tax matters, deferred tax assets, ACL, and other matters that affect its financial statements and related disclosures. The Firm believes that the estimates utilized in the preparation of its financial statements are prudent and reasonable. Actual results could differ materially from these estimates.

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

The accompanying financial statements should be read in conjunction with the Firm's financial statements and notes thereto included in the 2022 Form 10-K. Certain footnote disclosures included in the 2022 Form 10-K 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 Firm, its wholly owned subsidiaries and other entities in which the Firm has a controlling financial interest, including certain VIEs (see Note 14). Intercompany balances and transactions have been eliminated. For consolidated subsidiaries that are not wholly owned, the third-party holdings of equity interests are referred to as Noncontrolling interests. The net income attributable to Noncontrolling interests for such subsidiaries is presented as Net income applicable to noncontrolling interests in the income statement. The portion of shareholders' equity that is attributable to noncontrolling interests for such subsidiaries is presented as Noncontrolling interests, a component of Total equity, in the balance sheet.

For a discussion of the Firm's significant regulated U.S. and international subsidiaries and its involvement with VIEs, see Note 1 to the financial statements in the 2022 Form 10-K.

2. Significant Accounting Policies

For a detailed discussion about the Firm'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 Form 10-K.

During the nine months ended September 30, 2023 there were no significant updates to the Firm's significant accounting policies, other than for the accounting updates adopted.

Accounting Updates Adopted in 2023

Fair Value Measurement - Equity Securities Subject to Contractual Sale Restrictions

The Firm early adopted the *Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions* accounting update on July 1, 2023, with no material impact on the Firm's financial condition or results of operations upon adoption. The update clarifies that a contractual sale restriction is not considered part of the unit of account of an equity security and, therefore, is not considered in measuring fair value.

Financial Instruments - Credit Losses

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

This accounting update eliminates the accounting guidance for troubled debt restructurings ("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 9, Loans, Lending Commitments and Related Allowance for Credit Losses, for the new disclosures.

3. Cash and Cash Equivalents

$ in millions	At September 30, 2023	At December 31, 2022
Cash and due from banks	$ 7,029	$ 5,409
Interest bearing deposits with banks	101,372	122,718
Total Cash and cash equivalents	**$ 108,401**	$ 128,127
Restricted cash	$ 28,638	$ 35,380

For additional information on cash and cash equivalents, including restricted cash, see Note 2 to the financial statements in the 2022 Form 10-K.

4. Fair Values

Recurring Fair Value Measurements

Assets and Liabilities Measured at Fair Value on a Recurring Basis

	At September 30, 2023				
$ in millions	Level 1	Level 2	Level 3	Netting[1]	Total
Assets at fair value					
Trading assets:					
U.S. Treasury and agency securities	$ 63,418	$ 36,553	$ —	$ —	$ 99,971
Other sovereign government obligations	36,432	6,050	94	—	42,576
State and municipal securities	—	1,153	112	—	1,265
MABS	—	1,499	536	—	2,035
Loans and lending commitments[2]	—	5,946	2,039	—	7,985
Corporate and other debt	—	29,292	2,463	—	31,755
Corporate equities[3,5]	104,786	676	195	—	105,657
Derivative and other contracts:					
Interest rate	7,172	197,954	524	—	205,650
Credit	—	9,471	448	—	9,919
Foreign exchange	23	95,172	83	—	95,278
Equity	1,807	46,557	607	—	48,971
Commodity and other	2,075	12,334	2,910	—	17,319
Netting[1]	(7,953)	(280,170)	(1,023)	(42,600)	(331,746)
Total derivative and other contracts	3,124	81,318	3,549	(42,600)	45,391
Investments[4,5]	624	646	934	—	2,204
Physical commodities	—	2,381	—	—	2,381
Total trading assets[4]	208,384	165,514	9,922	(42,600)	341,220
Investment securities—AFS	46,572	29,654	35	—	76,261
Total assets at fair value	**$254,956**	**$195,168**	**$ 9,957**	**$(42,600)**	**$417,481**

	At September 30, 2023				
$ in millions	Level 1	Level 2	Level 3	Netting[1]	Total
Liabilities at fair value					
Deposits	$ —	$ 6,302	$ 16	$ —	$ 6,318
Trading liabilities:					
U.S. Treasury and agency securities	22,819	106	—	—	22,925
Other sovereign government obligations	30,965	2,435	3	—	33,403
Corporate and other debt	—	9,979	50	—	10,029
Corporate equities[3]	51,164	125	41	—	51,330
Derivative and other contracts:					
Interest rate	6,183	192,109	773	—	199,065
Credit	—	9,735	358	—	10,093
Foreign exchange	208	86,626	212	—	87,046
Equity	1,667	55,795	1,389	—	58,851
Commodity and other	2,561	11,626	1,629	—	15,816
Netting[1]	(7,953)	(280,170)	(1,023)	(49,114)	(338,260)
Total derivative and other contracts	2,666	75,721	3,338	(49,114)	32,611
Total trading liabilities	107,614	88,366	3,432	(49,114)	150,298
Securities sold under agreements to repurchase	—	544	458	—	1,002
Other secured financings	—	6,914	98	—	7,012
Borrowings	—	85,028	1,528	—	86,556
Total liabilities at fair value	**$107,614**	**$187,154**	**$ 5,532**	**$(49,114)**	**$251,186**

$ in millions	At December 31, 2022 Level 1	Level 2	Level 3	Netting[1]	Total
Assets at fair value					
Trading assets:					
U.S. Treasury and agency securities	$ 38,462	$ 42,263	$ 17	$ —	$ 80,742
Other sovereign government obligations	24,644	4,769	169	—	29,582
State and municipal securities	—	1,503	145	—	1,648
MABS	—	1,774	416	—	2,190
Loans and lending commitments[2]	—	6,380	2,017	—	8,397
Corporate and other debt	—	23,351	2,096	—	25,447
Corporate equities[3]	97,869	1,019	116	—	99,004
Derivative and other contracts:					
Interest rate	4,481	166,392	517	—	171,390
Credit	—	7,876	425	—	8,301
Foreign exchange	49	115,766	183	—	115,998
Equity	2,778	40,171	406	—	43,355
Commodity and other	5,609	21,152	3,701	—	30,462
Netting[1]	(9,618)	(258,821)	(1,078)	(55,777)	(325,294)
Total derivative and other contracts	3,299	92,536	4,154	(55,777)	44,212
Investments[4]	652	685	923	—	2,260
Physical commodities	—	2,379	—	—	2,379
Total trading assets[4]	164,926	176,659	10,053	(55,777)	295,861
Investment securities—AFS	53,866	30,396	35	—	84,297
Securities purchased under agreements to resell	—	8	—	—	8
Total assets at fair value	$218,792	$207,063	$10,088	$(55,777)	$380,166

$ in millions	At December 31, 2022 Level 1	Level 2	Level 3	Netting[1]	Total
Liabilities at fair value					
Deposits	$ —	$ 4,776	$ 20	$ —	$ 4,796
Trading liabilities:					
U.S. Treasury and agency securities	20,776	228	—	—	21,004
Other sovereign government obligations	23,235	2,688	3	—	25,926
Corporate and other debt	—	8,786	29	—	8,815
Corporate equities[3]	59,998	518	42	—	60,558
Derivative and other contracts:					
Interest rate	3,446	161,044	668	—	165,158
Credit	—	7,987	315	—	8,302
Foreign exchange	89	113,383	117	—	113,589
Equity	3,266	46,923	1,142	—	51,331
Commodity and other	6,187	17,574	2,618	—	26,379
Netting[1]	(9,618)	(258,821)	(1,078)	(57,107)	(326,624)
Total derivative and other contracts	3,370	88,090	3,782	(57,107)	38,135
Total trading liabilities	107,379	100,310	3,856	(57,107)	154,438
Securities sold under agreements to repurchase	—	352	512	—	864
Other secured financings	—	4,459	91	—	4,550
Borrowings	—	77,133	1,587	—	78,720
Total liabilities at fair value	$107,379	$187,030	$ 6,066	$(57,107)	$243,368

MABS—Mortgage- and asset-backed securities
1. 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 and hedging activities, see Note 6.
2. For a further breakdown by type, see the following Detail of Loans and Lending Commitments at Fair Value table.
3. For trading purposes, the Firm holds or sells short equity securities issued by entities in diverse industries and of varying sizes.
4. 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.
5. At September 30, 2023, the Firm's Trading assets included an insignificant amount of equity securities subject to contractual sale restrictions that generally prohibit the Firm from selling the security for a period of time as of the measurement date.

Detail of Loans and Lending Commitments at Fair Value

$ in millions	At September 30, 2023	At December 31, 2022
Secured lending facilities	**$ —**	$ 6
Commercial Real Estate	**584**	528
Residential Real Estate	**2,555**	2,020
Securities-based lending and Other loans	**4,846**	5,843
Total	**$ 7,985**	$ 8,397

Unsettled Fair Value of Futures Contracts[1]

$ in millions	At September 30, 2023	At December 31, 2022
Customer and other receivables (payables), net	**$ 1,062**	$ 1,219

1. These contracts are primarily Level 1, actively traded, valued based on quoted prices from the exchange and are excluded from the previous recurring fair value tables.

For a description of the valuation techniques applied to the Firm's major categories of assets and liabilities measured at fair value on a recurring basis, see Note 5 to the financial statements in the 2022 Form 10-K. During the current quarter, there were no significant revisions made to the Firm's valuation techniques.

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

$ in millions	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022
U.S. Treasury and agency securities				
Beginning balance	$ —	$ 9	$ 17	$ 2
Realized and unrealized gains (losses)	—	—	—	(1)
Purchases	—	1	—	2
Sales	—	(4)	(10)	(7)
Net transfers	—	(5)	(7)	5
Ending balance	$ —	$ 1	$ —	$ 1
Unrealized gains (losses)	$ —	$ —	$ —	$ (1)
Other sovereign government obligations				
Beginning balance	$ 128	$ 161	$ 169	$ 211
Realized and unrealized gains (losses)	—	23	6	(24)
Purchases	17	43	18	69
Sales	(30)	(57)	(112)	(60)
Net transfers	(21)	(33)	13	(59)
Ending balance	$ 94	$ 137	$ 94	$ 137
Unrealized gains (losses)	$ 1	$ 23	$ 1	$ (22)
State and municipal securities				
Beginning balance	$ 40	$ 29	$ 145	$ 13
Realized and unrealized gains (losses)	(3)	(1)	(2)	(2)
Purchases	147	4	255	54
Sales	(20)	—	(218)	—
Net transfers	(52)	20	(68)	(13)
Ending balance	$ 112	$ 52	$ 112	$ 52
Unrealized gains (losses)	$ (3)	$ (3)	$ (3)	$ (2)
MABS				
Beginning balance	$ 486	$ 339	$ 416	$ 344
Realized and unrealized gains (losses)	(1)	8	13	(366)
Purchases	88	3	149	448
Sales	(33)	(33)	(79)	(116)
Settlements	—	—	50	—
Net transfers	(4)	27	(13)	34
Ending balance	$ 536	$ 344	$ 536	$ 344
Unrealized gains (losses)	$ 4	$ 9	$ 5	$ (12)
Loans and lending commitments				
Beginning balance	$ 2,400	$ 2,507	$ 2,017	$ 3,806
Realized and unrealized gains (losses)	(6)	(26)	(91)	8
Purchases and originations	997	541	1,569	800
Sales	(539)	(353)	(686)	(801)
Settlements	(666)	(144)	(717)	(618)
Net transfers	(147)	58	(53)	(612)
Ending balance	$ 2,039	$ 2,583	$ 2,039	$ 2,583
Unrealized gains (losses)	$ (6)	$ (27)	$ (91)	$ —

$ in millions	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022
Corporate and other debt				
Beginning balance	$ 2,223	$ 2,113	$ 2,096	$ 1,973
Realized and unrealized gains (losses)	108	(43)	231	446
Purchases and originations	346	132	561	752
Sales	(465)	(528)	(618)	(1,400)
Settlements	(6)	(30)	(6)	(26)
Net transfers	257	254	199	153
Ending balance	$ 2,463	$ 1,898	$ 2,463	$ 1,898
Unrealized gains (losses)	$ 113	$ (42)	$ 239	$ 454
Corporate equities				
Beginning balance	$ 166	$ 246	$ 116	$ 115
Realized and unrealized gains (losses)	(29)	(60)	(64)	(71)
Purchases	32	15	101	79
Sales	(34)	(37)	(38)	(67)
Net transfers	60	(19)	80	89
Ending balance	$ 195	$ 145	$ 195	$ 145
Unrealized gains (losses)	$ (25)	$ (60)	$ (36)	$ (65)
Investments				
Beginning balance	$ 968	$ 1,027	$ 923	$ 1,125
Realized and unrealized gains (losses)	17	(140)	24	(275)
Purchases	6	6	153	52
Sales	(76)	(18)	(183)	(33)
Net transfers	19	(2)	17	4
Ending balance	$ 934	$ 873	$ 934	$ 873
Unrealized gains (losses)	$ 19	$ (136)	$ 17	$ (267)
Investment securities—AFS				
Beginning balance	$ —	$ 38	$ 35	$ —
Realized and unrealized gains (losses)	(5)	(2)	(4)	(2)
Net transfers	40	—	4	38
Ending balance	$ 35	$ 36	$ 35	$ 36
Unrealized gains (losses)	$ (5)	$ (2)	$ (4)	$ (2)
Net derivatives: Interest rate				
Beginning balance	$ 49	$ (102)	$ (151)	$ 708
Realized and unrealized gains (losses)	49	(200)	(318)	(482)
Purchases	26	—	57	—
Issuances	(7)	—	(63)	—
Settlements	(110)	122	329	(38)
Net transfers	(256)	3	(103)	(365)
Ending balance	$ (249)	$ (177)	$ (249)	$ (177)
Unrealized gains (losses)	$ 7	$ (120)	$ (94)	$ (201)

$ in millions	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022
Net derivatives: Credit				
Beginning balance	$ 96	$ 190	$ 110	$ 98
Realized and unrealized gains (losses)	**9**	3	**(12)**	91
Purchases	**—**	—	**—**	3
Issuances	**—**	—	**—**	(1)
Settlements	**(7)**	(78)	**(7)**	(59)
Net transfers	**(8)**	7	**(1)**	(10)
Ending balance	**$ 90**	$ 122	**$ 90**	$ 122
Unrealized gains (losses)	**$ 8**	$ 7	**$ 4**	$ 83
Net derivatives: Foreign exchange				
Beginning balance	$ 28	$ (331)	$ 66	$ 52
Realized and unrealized gains (losses)	**(13)**	38	**(53)**	(18)
Settlements	**16**	73	**(68)**	47
Net transfers	**(160)**	395	**(74)**	94
Ending balance	**$ (129)**	$ 175	**$ (129)**	$ 175
Unrealized gains (losses)	**$ (16)**	$ 44	**$ (51)**	$ 18
Net derivatives: Equity				
Beginning balance	$ (775)	$ (530)	$ (736)	$ (945)
Realized and unrealized gains (losses)	**195**	1	**192**	275
Purchases	**38**	48	**157**	167
Issuances	**(166)**	(92)	**(492)**	(253)
Settlements	**252**	68	**229**	379
Net transfers	**(326)**	49	**(132)**	(79)
Ending balance	**$ (782)**	$ (456)	**$ (782)**	$ (456)
Unrealized gains (losses)	**$ 160**	$ (3)	**$ 93**	$ 399
Net derivatives: Commodity and other				
Beginning balance	$ 1,416	$ 1,344	$ 1,083	$ 1,529
Realized and unrealized gains (losses)	**(7)**	238	**549**	546
Purchases	**7**	2	**70**	107
Issuances	**(9)**	(7)	**(80)**	(97)
Settlements	**(92)**	69	**(313)**	(247)
Net transfers	**(34)**	155	**(28)**	(37)
Ending balance	**$ 1,281**	$ 1,801	**$ 1,281**	$ 1,801
Unrealized gains (losses)	**$ (142)**	$ 72	**$ 216**	$ 25
Deposits				
Beginning balance	$ 36	$ 19	$ 20	$ 67
Realized and unrealized losses (gains)	**(1)**	—	**(1)**	—
Issuances	**6**	2	**26**	2
Settlements	**—**	(1)	**—**	(3)
Net transfers	**(25)**	(13)	**(29)**	(59)
Ending balance	**$ 16**	$ 7	**$ 16**	$ 7
Unrealized losses (gains)	**$ (1)**	$ —	**$ (1)**	$ —
Nonderivative trading liabilities				
Beginning balance	$ 89	$ 104	$ 74	$ 61
Realized and unrealized losses (gains)	**(4)**	(8)	**(12)**	(41)
Purchases	**(29)**	(20)	**(49)**	(39)
Sales	**23**	16	**77**	88
Net transfers	**15**	(2)	**4**	21
Ending balance	**$ 94**	$ 90	**$ 94**	$ 90
Unrealized losses (gains)	**$ (2)**	$ (8)	**$ (11)**	$ (41)

$ in millions	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022
Securities sold under agreements to repurchase				
Beginning balance	$ 454	$ 514	$ 512	$ 651
Realized and unrealized losses (gains)	**4**	5	**11**	(3)
Issuances	**—**	—	**1**	9
Settlements	**—**	(11)	**(9)**	(22)
Net transfers	**—**	—	**(57)**	(127)
Ending balance	**$ 458**	$ 508	**$ 458**	$ 508
Unrealized losses (gains)	**$ 4**	$ 5	**$ 11**	$ —
Other secured financings				
Beginning balance	$ 90	$ 112	$ 91	$ 403
Realized and unrealized losses (gains)	**(1)**	(5)	**2**	(11)
Issuances	**15**	13	**59**	44
Settlements	**(6)**	(7)	**(54)**	(320)
Net transfers	**—**	—	**—**	(3)
Ending balance	**$ 98**	$ 113	**$ 98**	$ 113
Unrealized losses (gains)	**$ (1)**	$ (5)	**$ 2**	$ (11)
Borrowings				
Beginning balance	$ 1,787	$ 2,325	$ 1,587	$ 2,157
Realized and unrealized losses (gains)	**18**	(185)	**83**	(625)
Issuances	**342**	65	**626**	230
Settlements	**(182)**	(65)	**(355)**	(263)
Net transfers	**(437)**	(203)	**(413)**	438
Ending balance	**$ 1,528**	$ 1,937	**$ 1,528**	$ 1,937
Unrealized losses (gains)	**$ 18**	$ (185)	**$ 48**	$ (629)
Portion of Unrealized losses (gains) recorded in OCI—Change in net DVA	**(4)**	(36)	**10**	(126)

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 Firm 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 Trading revenues in the income statement.

Additionally, in the previous tables, consolidations of VIEs are included in Purchases, and deconsolidations of VIEs are included in Settlements.

Significant Unobservable Inputs Used in Recurring and Nonrecurring Level 3 Fair Value Measurements

Valuation Techniques and Unobservable Inputs

	Balance / Range (Average[1])	
$ in millions, except inputs	**At September 30, 2023**	At December 31, 2022
Assets at Fair Value on a Recurring Basis		
Other sovereign government obligations	**$ 94**	$ 169
Comparable pricing:		
Bond price	**61 to 111 points (86 points)**	57 to 124 points (89 points)
State and municipal securities	**$ 112**	$ 145
Comparable pricing:		
Bond price	**90 to 104 points (100 points)**	86 to 100 points (97 points)
MABS	**$ 536**	$ 416
Comparable pricing:		
Bond price	**0 to 90 points (65 points)**	0 to 95 points (68 points)
Loans and lending commitments	**$ 2,039**	$ 2,017
Margin loan model:		
Margin loan rate	**2% to 4% (3%)**	2% to 4% (3%)
Comparable pricing:		
Loan price	**91 to 102 points (99 points)**	87 to 105 points (99 points)
Corporate and other debt	**$ 2,463**	$ 2,096
Comparable pricing:		
Bond price	**30 to 136 points (82 points)**	51 to 132 points (90 points)
Discounted cash flow:		
Loss given default	**54% to 84% (62% / 54%)**	54% to 84% (62% / 54%)
Corporate equities	**$ 195**	$ 116
Comparable pricing:		
Equity price	**100%**	100%
Investments	**$ 934**	$ 923
Discounted cash flow:		
WACC	**15% to 18% (16%)**	15% to 17% (16%)
Exit multiple	**9 to 17 times (14 times)**	7 to 17 times (14 times)
Market approach:		
EBITDA multiple	**21 times**	7 to 21 times (11 times)
Comparable pricing:		
Equity price	**24% to 100% (87%)**	24% to 100% (89%)
Net derivative and other contracts:		
Interest rate	**$ (249)**	$ (151)
Option model:		
IR volatility skew	**62% to 118% (75% / 77%)**	105% to 130% (113% / 109%)
IR curve correlation	**51% to 97% (82% / 86%)**	47% to 100% (80% / 84%)
Bond volatility	**1% to 1% (1% / 1%)**	N/M
Inflation volatility	**22% to 70% (44% / 38%)**	22% to 65% (43% / 38%)
IR curve	**N/M**	4% to 5% (5% / 5%)
Credit	**$ 90**	$ 110
Credit default swap model:		
Cash-synthetic basis	**7 points**	7 points
Bond price	**0 to 90 bps (48 points)**	0 to 83 points (43 points)
Credit spread	**10 to 464 bps (108 bps)**	10 to 528 bps (115 bps)
Funding spread	**18 to 590 bps (57 bps)**	18 to 590 bps (93 bps)

	Balance / Range (Average[1])	
$ in millions, except inputs	**At September 30, 2023**	At December 31, 2022
Foreign exchange[2]	**$ (129)**	$ 66
Option model:		
IR curve	**-3% to 10% (3% / 1%)**	-2% to 38% (8% / 4%)
Foreign exchange volatility skew	**-2% to 8% (2% / 0%)**	10% to 10% (10% / 10%)
Contingency probability	**95% to 95% (95% / 95%)**	95% to 95% (95% / 95%)
Equity[2]	**$ (782)**	$ (736)
Option model:		
Equity volatility	**6% to 97% (21%)**	5% to 96% (25%)
Equity volatility skew	**-2% to 0% (0%)**	-4% to 0% (-1%)
Equity correlation	**9% to 97% (58%)**	10% to 93% (71%)
FX correlation	**-79% to 40% (-27%)**	-79% to 65% (-26%)
IR correlation	**13% to 30% (15%)**	10% to 30% (14%)
Commodity and other	**$ 1,281**	$ 1,083
Option model:		
Forward power price	$0 to $208 ($49) per MwH	$1 to $292 ($43) per MWh
Commodity volatility	12% to 145% (33%)	12% to 169% (34%)
Cross-commodity correlation	57% to 100% (94%)	70% to 100% (94%)
Liabilities Measured at Fair Value on a Recurring Basis		
Securities sold under agreements to repurchase	**$ 458**	$ 512
Discounted cash flow:		
Funding spread	**22 to 141 bps (77 bps)**	96 to 165 bps (131 bps)
Other secured financings	**$ 98**	$ 91
Comparable pricing:		
Loan price	**23 to 100 points (81 points)**	23 to 101 points (75 points)
Borrowings	**$ 1,528**	$ 1,587
Option model:		
Equity volatility	**6% to 71% (18%)**	7% to 86% (23%)
Equity volatility skew	**-3% to 0% (0%)**	-2% to 0% (0%)
Equity correlation	**50% to 95% (77%)**	39% to 98% (86%)
Equity - FX correlation	**-52% to 35% (-29%)**	-50% to 0% (-21%)
IR curve correlation	**51% to 88% (71% / 71%)**	N/M
IR volatility skew	**N/M**	47% to 136% (74% / 59%)
Discounted cash flow:		
Loss given default	**54% to 84% (62% / 5%)**	54% to 84% (62% / 54%)
Nonrecurring Fair Value Measurement		
Loans	**$ 5,224**	$ 6,610
Corporate loan model:		
Credit spread	**120 to 1215 bps (794 bps)**	91 to 1276 bps (776 bps)
Comparable pricing:		
Loan price	**15 to 98 points (70 points)**	36 to 80 points (65 points)
Warehouse model:		
Credit spread	**120 to 298 bps (237 bps)**	110 to 319 bps (245 bps)

Points—Percentage of par
IR—Interest rate
FX—Foreign exchange
1. A single amount is disclosed for range and average when there is no significant difference between the minimum, maximum and average. Amounts represent weighted averages except where simple averages and the median of the inputs are more relevant.
2. Includes derivative contracts with multiple risks (*i.e.*, hybrid products).

The previous table provides information on the valuation techniques, significant unobservable inputs, and the ranges and averages for each major category of assets and liabilities measured at fair value on a recurring and nonrecurring basis with a significant Level 3 balance. The level of aggregation and breadth of products cause the range of inputs to be wide and not evenly distributed across the inventory of financial instruments. Further, the range of unobservable inputs may differ across firms in the financial services industry because of diversity in the types of products included in each firm's inventory. Generally, there are no predictable relationships between multiple significant unobservable inputs attributable to a given valuation technique.

For a description of the Firm's significant unobservable inputs and qualitative information about the effect of hypothetical changes in the values of those inputs, see Note 5 to the financial statements in the 2022 Form 10-K. During the current quarter, there were no significant revisions made to the descriptions of the Firm's significant unobservable inputs.

Net Asset Value Measurements

Fund Interests

	At September 30, 2023		At December 31, 2022	
$ in millions	Carrying Value	Commitment	Carrying Value	Commitment
Private equity	$ 2,587	$ 747	$ 2,622	$ 638
Real estate	2,804	244	2,642	239
Hedge[1]	74	3	190	3
Total	$ 5,465	$ 994	$ 5,454	$ 880

1. Investments in hedge funds may be subject to initial period lock-up or gate provisions, which restrict an investor from withdrawing from the fund during a certain initial period or restrict the redemption amount on any redemption date, respectively.

Amounts in the previous table represent the Firm's carrying value of general and limited partnership interests in fund investments, as well as any related performance-based income 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 Firm's investments in private equity funds, real estate funds and hedge funds, which are measured based on NAV, see Note 5 to the financial statements in the 2022 Form 10-K.

See Note 13 for information regarding general partner guarantees, which include potential obligations to return performance fee distributions previously received. See Note 19 for information regarding unrealized carried interest at risk of reversal.

Nonredeemable Funds by Contractual Maturity

	Carrying Value at September 30, 2023	
$ in millions	Private Equity	Real Estate
Less than 5 years	$ 1,338	$ 979
5-10 years	1,172	1,771
Over 10 years	77	54
Total	$ 2,587	$ 2,804

Nonrecurring Fair Value Measurements

Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

	At September 30, 2023		
	Fair Value		
$ in millions	Level 2	Level 3[1]	Total
Assets			
Loans	$ 3,711	$ 5,224	$ 8,935
Total	$ 3,711	$ 5,224	$ 8,935
Liabilities			
Other liabilities and accrued expenses—Lending commitments	$ 156	$ 78	$ 234
Total	$ 156	$ 78	$ 234

	At December 31, 2022		
	Fair Value		
$ in millions	Level 2	Level 3[1]	Total
Assets			
Loans	$ 4,193	$ 6,610	$ 10,803
Other assets—Other investments	—	7	7
Other assets—ROU assets	4	—	4
Total	$ 4,197	$ 6,617	$ 10,814
Liabilities			
Other liabilities and accrued expenses—Lending commitments	$ 275	$ 153	$ 428
Total	$ 275	$ 153	$ 428

1. For significant Level 3 balances, refer to "Significant Unobservable Inputs Used in Recurring and Nonrecurring Level 3 Fair Value Measurements" section herein for details of the significant unobservable inputs used for nonrecurring fair value measurement.

Gains (Losses) from Nonrecurring Fair Value Remeasurements[1]

	Three Months Ended September 30,		Nine Months Ended September 30,	
$ in millions	**2023**	2022	**2023**	2022
Assets				
Loans[2]	$ (35)	$ (118)	$ (117)	$ (365)
Other assets—Other investments[3]	5	(2)	4	(8)
Other assets—Premises, equipment and software[4]	(2)	(1)	(6)	(3)
Other assets—ROU assets[5]	—	(1)	(10)	(7)
Total	$ (32)	$ (122)	$ (129)	$ (383)
Liabilities				
Other liabilities and accrued expenses—Lending commitments[2]	$ 7	$ (13)	$ 38	$ (172)
Total	$ 7	$ (13)	$ 38	$ (172)

1. Gains and losses for Loans and Other assets—Other investments are classified in Other revenues. For other items, gains and losses are recorded in Other revenues if the item is held for sale; otherwise, they are recorded in Other expenses.
2. Nonrecurring 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.
3. Losses related to Other assets—Other investments were determined using techniques that included discounted cash flow models, methodologies that incorporate multiples of certain comparable companies and recently executed transactions.
4. Losses related to Other assets—Premises, equipment and software generally include impairments as well as write-offs related to the disposal of certain assets.
5. Losses related to Other Assets—ROU assets include impairments related to the discontinued leased properties.

Financial Instruments Not Measured at Fair Value

$ in millions	At September 30, 2023 Carrying Value	Fair Value Level 1	Level 2	Level 3	Total
Financial assets					
Cash and cash equivalents	$ 108,401	$108,401	$ —	$ —	$108,401
Investment securities—HTM	70,705	24,323	32,964	1,037	58,324
Securities purchased under agreements to resell	101,569	—	99,208	2,355	101,563
Securities borrowed	120,916	—	120,916	—	120,916
Customer and other receivables	71,146	—	66,917	3,899	70,816
Loans[1]	216,972	—	27,399	180,698	208,097
Other assets	704	—	704	—	704
Financial liabilities					
Deposits	$ 339,140	$ —	$338,677	$ —	$338,677
Securities sold under agreements to repurchase	75,659	—	75,638	—	75,638
Securities loaned	13,064	—	13,059	—	13,059
Other secured financings	2,656	—	2,656	—	2,656
Customer and other payables	200,415	—	200,415	—	200,415
Borrowings	160,637	—	160,139	4	160,143
	Commitment Amount				
Lending commitments[2]	$ 147,201	$ —	$ 1,509	$ 749	$ 2,258

$ in millions	At December 31, 2022 Carrying Value	Fair Value Level 1	Level 2	Level 3	Total
Financial assets					
Cash and cash equivalents	$ 128,127	$128,127	$ —	$ —	$128,127
Investment securities—HTM	75,634	26,754	37,218	1,034	65,006
Securities purchased under agreements to resell	113,899	—	111,188	2,681	113,869
Securities borrowed	133,374	—	133,370	—	133,370
Customer and other receivables	73,248	—	69,268	3,664	72,932
Loans[1]	213,785	—	24,153	181,561	205,714
Other assets	704	—	704	—	704
Financial liabilities					
Deposits	$ 351,850	$ —	$351,721	$ —	$351,721
Securities sold under agreements to repurchase	61,670	—	61,620	—	61,620
Securities loaned	15,679	—	15,673	—	15,673
Other secured financings	3,608	—	3,608	—	3,608
Customer and other payables	216,018	—	216,018	—	216,018
Borrowings	159,338	—	157,780	4	157,784
	Commitment Amount				
Lending commitments[2]	$ 136,241	$ —	$ 1,789	$ 1,077	$ 2,866

1. Amounts include loans measured at fair value on a nonrecurring basis.
2. Represents Lending commitments accounted for as Held for Investment and Held for Sale. For a further discussion on lending commitments, see Note 13.

The previous tables exclude all non-financial assets and liabilities, such as Goodwill and Intangible assets, and certain financial instruments, such as equity method investments and certain receivables.

5. Fair Value Option

The Firm 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.

Borrowings Measured at Fair Value on a Recurring Basis

$ in millions	At September 30, 2023	At December 31, 2022
Business Unit Responsible for Risk Management		
Equity	$ 43,951	$ 38,945
Interest rates	27,180	26,077
Commodities	11,952	10,717
Credit	2,093	1,564
Foreign exchange	1,380	1,417
Total	$ 86,556	$ 78,720

Net Revenues from Borrowings under the Fair Value Option

$ in millions	Three Months Ended September 30, 2023	2022	Nine Months Ended September 30, 2023	2022
Trading revenues	$ 3,479	$ 4,034	$ (1,412)	$ 16,361
Interest expense	124	67	351	203
Net revenues[1]	$ 3,355	$ 3,967	$ (1,763)	$ 16,158

1. Amounts do not reflect any gains or losses from related economic hedges.

Gains (losses) from changes in fair value are recorded in Trading revenues and are mainly attributable to movements in the reference price or index, interest rates or foreign exchange rates.

Gains (Losses) Due to Changes in Instrument-Specific Credit Risk

$ in millions	Three Months Ended September 30, 2023 Trading Revenues	2023 OCI	2022 Trading Revenues	2022 OCI
Loans and other receivables[1]	$ (8)	$ —	$ (68)	$ —
Lending commitments	—	—	(2)	—
Deposits	—	4	—	(9)
Borrowings	(6)	(547)	—	1,091

$ in millions	Nine Months Ended September 30, 2023 Trading Revenues	2023 OCI	2022 Trading Revenues	2022 OCI
Loans and other receivables[1]	$ (112)	$ —	$ (59)	$ —
Lending commitments	11	—	(3)	—
Deposits	—	21	—	5
Borrowings	(15)	(1,289)	1	3,468

$ in millions	At September 30, 2023	At December 31, 2022
Cumulative pre-tax DVA gain (loss) recognized in AOCI	$ (1,725)	$ (457)

1. Loans and other receivables-specific credit gains (losses) were determined by excluding the non-credit components of gains and losses.

Difference Between Contractual Principal and Fair Value[1]

$ in millions	At September 30, 2023	At December 31, 2022
Loans and other receivables[2]	$ 10,707	$ 11,916
Nonaccrual loans[2]	8,162	9,128
Borrowings[3]	5,564	5,203

1. Amounts indicate contractual principal greater than or (less than) fair value.
2. The majority of the difference between principal and fair value amounts for loans and other receivables relates to distressed debt positions purchased at amounts well below par.
3. Excludes borrowings where the repayment of the initial principal amount fluctuates based on changes in a reference price or index.

The previous tables exclude non-recourse debt from consolidated VIEs, liabilities related to transfers of financial assets treated as collateralized financings, pledged commodities and other liabilities that have specified assets attributable to them.

Fair Value Loans on Nonaccrual Status

$ in millions	At September 30, 2023	At December 31, 2022
Nonaccrual loans	$ 410	$ 585
Nonaccrual loans 90 or more days past due	49	116

6. Derivative Instruments and Hedging Activities

Fair Values of Derivative Contracts

	Assets at September 30, 2023			
$ in millions	Bilateral OTC	Cleared OTC	Exchange-Traded	Total
Designated as accounting hedges				
Interest rate	$ 43	$ —	$ —	$ 43
Foreign exchange	243	65	—	308
Total	286	65	—	351
Not designated as accounting hedges				
Economic hedges of loans				
Credit	2	47	—	49
Other derivatives				
Interest rate	146,995	57,701	911	205,607
Credit	6,409	3,461	—	9,870
Foreign exchange	92,515	2,419	36	94,970
Equity	17,550	—	31,421	48,971
Commodity and other	14,536	—	2,783	17,319
Total	278,007	63,628	35,151	376,786
Total gross derivatives	$ 278,293	$ 63,693	$ 35,151	$ 377,137
Amounts offset				
Counterparty netting	(194,644)	(61,670)	(33,407)	(289,721)
Cash collateral netting	(40,734)	(1,291)	—	(42,025)
Total in Trading assets	$ 42,915	$ 732	$ 1,744	$ 45,391
Amounts not offset[1]				
Financial instruments collateral	(23,943)	—	—	(23,943)
Net amounts	$ 18,972	$ 732	$ 1,744	$ 21,448
Net amounts for which master netting or collateral agreements are not in place or may not be legally enforceable				$ 3,487

	Liabilities at September 30, 2023			
$ in millions	Bilateral OTC	Cleared OTC	Exchange-Traded	Total
Designated as accounting hedges				
Interest rate	$ 564	$ 1	$ —	$ 565
Foreign exchange	16	7	—	23
Total	580	8	—	588
Not designated as accounting hedges				
Economic hedges of loans				
Credit	24	581	—	605
Other derivatives				
Interest rate	137,420	60,141	939	198,500
Credit	6,187	3,301	—	9,488
Foreign exchange	84,080	2,725	218	87,023
Equity	26,669	—	32,182	58,851
Commodity and other	12,418	—	3,398	15,816
Total	266,798	66,748	36,737	370,283
Total gross derivatives	$ 267,378	$ 66,756	$ 36,737	$ 370,871
Amounts offset				
Counterparty netting	(194,644)	(61,670)	(33,407)	(289,721)
Cash collateral netting	(43,675)	(4,864)	—	(48,539)
Total in Trading liabilities	$ 29,059	$ 222	$ 3,330	$ 32,611
Amounts not offset[1]				
Financial instruments collateral	(4,049)	—	(562)	(4,611)
Net amounts	$ 25,010	$ 222	$ 2,768	$ 28,000
Net amounts for which master netting or collateral agreements are not in place or may not be legally enforceable				4,581

$ in millions	Assets at December 31, 2022 Bilateral OTC	Cleared OTC	Exchange-Traded	Total
Designated as accounting hedges				
Interest rate	$ 62	$ 1	$ —	$ 63
Foreign exchange	15	44	—	59
Total	77	45	—	122
Not designated as accounting hedges				
Economic hedges of loans				
Credit	2	59	—	61
Other derivatives				
Interest rate	141,291	29,007	1,029	171,327
Credit	5,888	2,352	—	8,240
Foreign exchange	113,540	2,337	62	115,939
Equity	16,505	—	26,850	43,355
Commodity and other	24,298	—	6,164	30,462
Total	301,524	33,755	34,105	369,384
Total gross derivatives	$ 301,601	$ 33,800	$ 34,105	$ 369,506
Amounts offset				
Counterparty netting	(214,773)	(32,250)	(32,212)	(279,235)
Cash collateral netting	(44,711)	(1,348)	—	(46,059)
Total in Trading assets	$ 42,117	$ 202	$ 1,893	$ 44,212
Amounts not offset[1]				
Financial instruments collateral	(19,406)	—	—	(19,406)
Net amounts	$ 22,711	$ 202	$ 1,893	$ 24,806
Net amounts for which master netting or collateral agreements are not in place or may not be legally enforceable				$ 4,318

$ in millions	Liabilities at December 31, 2022 Bilateral OTC	Cleared OTC	Exchange-Traded	Total
Designated as accounting hedges				
Interest rate	$ 457	$ 4	$ —	$ 461
Foreign exchange	550	101	—	651
Total	1,007	105	—	1,112
Not designated as accounting hedges				
Economic hedges of loans				
Credit	9	368	—	377
Other derivatives				
Interest rate	135,661	28,581	455	164,697
Credit	5,535	2,390	—	7,925
Foreign exchange	110,322	2,512	104	112,938
Equity	23,138	—	28,193	51,331
Commodity and other	19,631	—	6,748	26,379
Total	294,296	33,851	35,500	363,647
Total gross derivatives	$ 295,303	$ 33,956	$ 35,500	$ 364,759
Amounts offset				
Counterparty netting	(214,773)	(32,250)	(32,212)	(279,235)
Cash collateral netting	(45,884)	(1,505)	—	(47,389)
Total in Trading liabilities	$ 34,646	$ 201	$ 3,288	$ 38,135
Amounts not offset[1]				
Financial instruments collateral	(2,545)	—	(1,139)	(3,684)
Net amounts	$ 32,101	$ 201	$ 2,149	$ 34,451
Net amounts for which master netting or collateral agreements are not in place or may not be legally enforceable				$ 6,430

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

See Note 4 for information related to the unsettled fair value of futures contracts not designated as accounting hedges, which are excluded from the previous tables.

Notionals of Derivative Contracts

$ in billions	Assets at September 30, 2023 Bilateral OTC	Cleared OTC	Exchange-Traded	Total
Designated as accounting hedges				
Interest rate	**$ —**	**$ 67**	**$ —**	**$ 67**
Foreign exchange	**12**	**3**	**—**	**15**
Total	**12**	**70**	**—**	**82**
Not designated as accounting hedges				
Economic hedges of loans				
Credit	**—**	**1**	**—**	**1**
Other derivatives				
Interest rate	**3,943**	**8,316**	**563**	**12,822**
Credit	**209**	**167**	**—**	**376**
Foreign exchange	**3,413**	**194**	**7**	**3,614**
Equity	**559**	**—**	**437**	**996**
Commodity and other	**138**	**—**	**72**	**210**
Total	**8,262**	**8,678**	**1,079**	**18,019**
Total gross derivatives	**$ 8,274**	**$ 8,748**	**$ 1,079**	**$ 18,101**

$ in billions	Liabilities at September 30, 2023 Bilateral OTC	Cleared OTC	Exchange-Traded	Total
Designated as accounting hedges				
Interest rate	**$ 2**	**$ 195**	**$ —**	**$ 197**
Foreign exchange	**2**	**1**	**—**	**3**
Total	**4**	**196**	**—**	**200**
Not designated as accounting hedges				
Economic hedges of loans				
Credit	**1**	**20**	**—**	**21**
Other derivatives				
Interest rate	**4,123**	**8,125**	**466**	**12,714**
Credit	**221**	**161**	**—**	**382**
Foreign exchange	**3,387**	**167**	**28**	**3,582**
Equity	**596**	**—**	**621**	**1,217**
Commodity and other	**106**	**—**	**83**	**189**
Total	**8,434**	**8,473**	**1,198**	**18,105**
Total gross derivatives	**$ 8,438**	**$ 8,669**	**$ 1,198**	**$ 18,305**

$ in billions	Assets at December 31, 2022 Bilateral OTC	Cleared OTC	Exchange-Traded	Total
Designated as accounting hedges				
Interest rate	$ 2	$ 62	$ —	$ 64
Foreign exchange	2	2	—	4
Total	4	64	—	68
Not designated as accounting hedges				
Economic hedges of loans				
Credit	—	3	—	3
Other derivatives				
Interest rate	3,404	7,609	614	11,627
Credit	190	130	—	320
Foreign exchange	3,477	126	15	3,618
Equity	488	—	358	846
Commodity and other	141	—	59	200
Total	7,700	7,868	1,046	16,614
Total gross derivatives	$ 7,704	$ 7,932	$ 1,046	$ 16,682

$ in billions	Liabilities at December 31, 2022 Bilateral OTC	Cleared OTC	Exchange-Traded	Total
Designated as accounting hedges				
Interest rate	$ 3	$ 187	$ —	$ 190
Foreign exchange	12	2	—	14
Total	15	189	—	204
Not designated as accounting hedges				
Economic hedges of loans				
Credit	—	15	—	15
Other derivatives				
Interest rate	3,436	7,761	497	11,694
Credit	199	125	—	324
Foreign exchange	3,516	123	35	3,674
Equity	488	—	552	1,040
Commodity and other	101	—	79	180
Total	7,740	8,024	1,163	16,927
Total gross derivatives	$ 7,755	$ 8,213	$ 1,163	$ 17,131

The notional amounts of derivative contracts generally overstate the Firm'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 Firm's derivative instruments and hedging activities, see Note 7 to the financial statements in the 2022 Form 10-K.

Gains (Losses) on Accounting Hedges

$ in millions	Three Months Ended September 30, 2023	2022	Nine Months Ended September 30, 2023	2022
Fair value hedges—Recognized in Interest income				
Interest rate contracts	**$ 259**	$ 846	**$ 457**	$ 2,037
Investment Securities—AFS	**(239)**	(836)	**(423)**	(1,960)
Fair value hedges—Recognized in Interest expense				
Interest rate contracts	**$ (2,742)**	$ (5,379)	**$ (2,806)**	$ (15,629)
Deposits	**(15)**	25	**(31)**	143
Borrowings	**2,781**	5,372	**2,856**	15,499
Net investment hedges—Foreign exchange contracts				
Recognized in OCI	**$ 375**	$ 662	**$ 381**	$ 1,436
Forward points excluded from hedge effectiveness testing—Recognized in Interest income	**60**	18	**166**	(59)
Cash flow hedges—Interest rate contracts[1]				
Recognized in OCI	**$ (12)**	$ —	**$ (30)**	$ —
Less: Realized gains (losses) (pre-tax) reclassified from AOCI to interest income	**(6)**	—	**(9)**	—
Net change in cash flow hedges included within AOCI	**(6)**	—	**(21)**	—

1. For the current quarter ended September 30, 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 September 30, 2023, is approximately $(25) million. The maximum length of time over which forecasted cash flows are hedged is 2 years.

Fair Value Hedges—Hedged Items

$ in millions	At September 30, 2023	At December 31, 2022
Investment Securities—AFS		
Amortized cost basis currently or previously hedged	**$ 33,348**	$ 34,073
Basis adjustments included in amortized cost[1]	**$ (1,800)**	$ (1,628)
Deposits		
Carrying amount currently or previously hedged	**$ 10,278**	$ 3,735
Basis adjustments included in carrying amount[1]	**$ (88)**	$ (119)
Borrowings		
Carrying amount currently or previously hedged	**$ 147,076**	$ 146,025
Basis adjustments included in carrying amount—Outstanding hedges	**$ (15,567)**	$ (12,748)
Basis adjustments included in carrying amount—Terminated hedges	**$ (677)**	$ (715)

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

Gains (Losses) on Economic Hedges of Loans

$ in millions	Three Months Ended September 30, 2023	2022	Nine Months Ended September 30, 2023	2022
Recognized in Other revenues				
Credit contracts[1]	**$ (104)**	$ (44)	**$ (330)**	$ 160

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

Net Derivative Liabilities and Collateral Posted

$ in millions	At September 30, 2023	At December 31, 2022
Net derivative liabilities with credit risk-related contingent features	**$ 19,204**	$ 20,287
Collateral posted	**13,338**	12,268

The previous table presents the aggregate fair value of certain derivative contracts that contain credit risk-related contingent features that are in a net liability position for which the Firm has posted collateral in the normal course of business.

Incremental Collateral and Termination Payments upon Potential Future Ratings Downgrade

$ in millions	At September 30, 2023
One-notch downgrade	**$ 562**
Two-notch downgrade	**375**
Bilateral downgrade agreements included in the amounts above[1]	**$ 811**

1. Amount represents arrangements between the Firm and other parties where upon the downgrade of one party, the downgraded party must deliver collateral to the other party. These bilateral downgrade arrangements are used by the Firm to manage the risk of counterparty downgrades.

The additional collateral or termination payments that may be called in the event of a future credit rating downgrade vary by contract and can be based on ratings by either or both of Moody's Investors Service, Inc. and S&P Global Ratings. The previous table shows the future potential collateral amounts and termination payments that could be called or required by counterparties or exchange and clearing organizations in the event of one-notch or two-notch downgrade scenarios based on the relevant contractual downgrade triggers.

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

	Years to Maturity at September 30, 2023				
$ in billions	< 1	1-3	3-5	Over 5	Total
Single-name CDS					
Investment grade	**$ 16**	**$ 30**	**$ 39**	**$ 14**	**$ 99**
Non-investment grade	**7**	**13**	**20**	**6**	**46**
Total	**$ 23**	**$ 43**	**$ 59**	**$ 20**	**$ 145**
Index and basket CDS					
Investment grade	**$ 3**	**$ 18**	**$ 51**	**$ 21**	**$ 93**
Non-investment grade	**8**	**11**	**85**	**35**	**139**
Total	**$ 11**	**$ 29**	**$ 136**	**$ 56**	**$ 232**
Total CDS sold	**$ 34**	**$ 72**	**$ 195**	**$ 76**	**$ 377**
Other credit contracts	**—**	**—**	**—**	**3**	**3**
Total credit protection sold	**$ 34**	**$ 72**	**$ 195**	**$ 79**	**$ 380**
CDS protection sold with identical protection purchased					**$ 312**

	Years to Maturity at December 31, 2022				
$ in billions	< 1	1-3	3-5	Over 5	Total
Single-name CDS					
Investment grade	$ 12	$ 29	$ 29	$ 9	$ 79
Non-investment grade	5	13	16	2	36
Total	$ 17	$ 42	$ 45	$ 11	$ 115
Index and basket CDS					
Investment grade	$ 3	$ 13	$ 37	$ 3	$ 56
Non-investment grade	8	17	108	19	152
Total	$ 11	$ 30	$ 145	$ 22	$ 208
Total CDS sold	$ 28	$ 72	$ 190	$ 33	$ 323
Other credit contracts	—	—	—	—	—
Total credit protection sold	$ 28	$ 72	$ 190	$ 33	$ 323
CDS protection sold with identical protection purchased					$ 262

Fair Value Asset (Liability) of Credit Protection Sold[1]

$ in millions	**At September 30, 2023**	At December 31, 2022
Single-name CDS		
Investment grade	**$ 1,472**	$ 762
Non-investment grade	**(228)**	(808)
Total	**$ 1,244**	$ (46)
Index and basket CDS		
Investment grade	**$ 1,295**	$ 859
Non-investment grade	**(1,855)**	(1,812)
Total	**$ (560)**	$ (953)
Total CDS sold	**$ 684**	$ (999)
Other credit contracts	**178**	(1)
Total credit protection sold	**$ 862**	$ (1,000)

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 Firm uses quantitative models and judgment to estimate the various risk parameters related to each obligor.

Protection Purchased with CDS

	Notional	
$ in billions	**At September 30, 2023**	At December 31, 2022
Single name	**$ 172**	$ 140
Index and basket	**197**	173
Tranched index and basket	**32**	26
Total	**$ 401**	$ 339

	Fair Value Asset (Liability)	
$ in millions	**At September 30, 2023**	At December 31, 2022
Single name	**$ (1,553)**	$ (33)
Index and basket	**1,023**	1,248
Tranched index and basket	**(481)**	(217)
Total	**$ (1,011)**	$ 998

The Firm enters into credit derivatives, principally CDS, under which it receives or provides protection against the risk of default on a set of debt obligations issued by a specified reference entity or entities. A majority of the Firm's counterparties for these derivatives are banks, broker-dealers, and insurance and other financial institutions.

The fair value amounts as shown in the previous tables are prior to cash collateral or counterparty netting. For further information on credit derivatives and other credit contracts, see Note 7 to the financial statements in the 2022 Form 10-K.

7. Investment Securities

AFS and HTM Securities

	At September 30, 2023			
$ in millions	Amortized Cost[1]	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
AFS securities				
U.S. Treasury securities	**$ 47,939**	**$ 27**	**$ 1,394**	**$ 46,572**
U.S. agency securities[2]	**26,221**	**—**	**3,436**	**22,785**
Agency CMBS	**5,741**	**—**	**504**	**5,237**
State and municipal securities	**817**	**32**	**20**	**829**
FFELP student loan ABS[3]	**855**	**—**	**17**	**838**
Other ABS	**—**	**—**	**—**	**—**
Total AFS securities	**81,573**	**59**	**5,371**	**76,261**
HTM securities				
U.S. Treasury securities	**26,208**	**—**	**1,885**	**24,323**
U.S. agency securities[2]	**41,612**	**—**	**10,136**	**31,476**
Agency CMBS	**1,656**	**—**	**168**	**1,488**
Non-agency CMBS	**1,229**	**—**	**192**	**1,037**
Total HTM securities	**70,705**	**—**	**12,381**	**58,324**
Total investment securities	**$ 152,278**	**$ 59**	**$ 17,752**	**$ 134,585**

$ in millions	At December 31, 2022 Amortized Cost[1]	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
AFS securities				
U.S. Treasury securities	$ 56,103	$ 17	$ 2,254	$ 53,866
U.S. agency securities[2]	23,926	1	2,753	21,174
Agency CMBS	5,998	—	470	5,528
State and municipal securities	2,598	71	42	2,627
FFELP student loan ABS[3]	1,147	—	45	1,102
Total AFS securities	89,772	89	5,564	84,297
HTM securities				
U.S. Treasury securities	28,599	—	1,845	26,754
U.S. agency securities[2]	44,038	—	8,487	35,551
Agency CMBS	1,819	—	152	1,667
Non-agency CMBS	1,178	—	144	1,034
Total HTM securities	75,634	—	10,628	65,006
Total investment securities	$ 165,406	$ 89	$ 16,192	$ 149,303

1. Amounts are net of any 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 September 30, 2023 Fair Value	At September 30, 2023 Gross Unrealized Losses	At December 31, 2022 Fair Value	At December 31, 2022 Gross Unrealized Losses
U.S. Treasury securities				
Less than 12 months	**$ 6,932**	**$ 214**	$ 42,144	$ 1,711
12 months or longer	**31,798**	**1,180**	11,454	543
Total	**38,730**	**1,394**	53,598	2,254
U.S. agency securities				
Less than 12 months	**4,716**	**91**	13,662	1,271
12 months or longer	**17,968**	**3,345**	7,060	1,482
Total	**22,684**	**3,436**	20,722	2,753
Agency CMBS				
Less than 12 months	**2,111**	**201**	5,343	448
12 months or longer	**3,053**	**303**	185	22
Total	**5,164**	**504**	5,528	470
State and municipal securities				
Less than 12 months	**288**	**1**	2,106	40
12 months or longer	**253**	**19**	65	2
Total	**541**	**20**	2,171	42
FFELP student loan ABS				
Less than 12 months	**68**	**1**	627	23
12 months or longer	**693**	**16**	476	22
Total	**761**	**17**	1,103	45
Total AFS securities in an unrealized loss position				
Less than 12 months	**14,115**	**508**	63,882	3,493
12 months or longer	**53,765**	**4,863**	19,240	2,071
Total	**$ 67,880**	**$ 5,371**	$ 83,122	$ 5,564

For AFS securities, the Firm believes there are no securities in an unrealized loss position that have credit losses after performing the analysis described in Note 2 in the 2022 Form 10-K and the Firm expects to recover the amortized cost basis of these securities. Additionally, the Firm 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 September 30, 2023 and December 31, 2022, the securities in an unrealized loss position are predominantly investment grade.

The HTM securities net carrying amounts at September 30, 2023 and December 31, 2022 reflect an ACL of $45 million and $34 million, respectively, predominantly related to Non-agency CMBS. See Note 2 in the 2022 Form 10-K for a description of the ACL methodology used for HTM Securities. As of September 30, 2023 and December 31, 2022, Non-Agency CMBS HTM securities were predominantly on accrual status and investment grade.

See Note 14 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 September 30, 2023 Amortized Cost[1]	Fair Value	Annualized Average Yield[2,3]
AFS securities			
U.S. Treasury securities:			
Due within 1 year	**$ 15,009**	**$ 14,680**	**1.1 %**
After 1 year through 5 years	**32,224**	**31,187**	**1.8 %**
After 5 years through 10 years	**706**	**705**	**3.9 %**
Total	**47,939**	**46,572**	
U.S. agency securities:			
Due within 1 year	**24**	**23**	**(0.6)%**
After 1 year through 5 years	**431**	**397**	**1.6 %**
After 5 years through 10 years	**572**	**510**	**1.8 %**
After 10 years	**25,194**	**21,855**	**3.6 %**
Total	**26,221**	**22,785**	
Agency CMBS:			
Due within 1 year	**1**	**1**	**(2.2)%**
After 1 year through 5 years	**2,068**	**1,973**	**1.8 %**
After 5 years through 10 years	**2,459**	**2,309**	**2.1 %**
After 10 years	**1,213**	**954**	**1.4 %**
Total	**5,741**	**5,237**	
State and municipal securities:			
Due within 1 year	**24**	**24**	**5.2 %**
After 1 year through 5 years	**172**	**172**	**4.8 %**
After 5 years through 10 years	**17**	**20**	**4.7 %**
After 10 Years	**604**	**613**	**4.3 %**
Total	**817**	**829**	
FFELP student loan ABS:			
After 1 year through 5 years	**101**	**98**	**5.8 %**
After 5 years through 10 years	**104**	**100**	**6.0 %**
After 10 years	**650**	**640**	**6.3 %**
Total	**855**	**838**	
Total AFS securities	**81,573**	**76,261**	**2.3 %**

$ in millions	At September 30, 2023 Amortized Cost[1]	Fair Value	Annualized Average Yield[2]
HTM securities			
U.S. Treasury securities:			
Due within 1 year	8,102	7,982	1.9 %
After 1 year through 5 years	12,683	11,863	1.8 %
After 5 years through 10 years	3,864	3,445	2.4 %
After 10 years	1,559	1,033	2.3 %
Total	26,208	24,323	
U.S. agency securities:			
After 1 year through 5 years	7	6	1.8 %
After 5 years through 10 years	311	276	2.1 %
After 10 years	41,294	31,194	1.8 %
Total	41,612	31,476	
Agency CMBS:			
Due within 1 year	482	469	1.4 %
After 1 year through 5 years	928	828	1.2 %
After 5 years through 10 years	118	95	1.4 %
After 10 years	128	96	1.6 %
Total	1,656	1,488	
Non-agency CMBS:			
Due within 1 year	195	177	4.2 %
After 1 year through 5 years	353	315	4.4 %
After 5 years through 10 years	630	500	3.7 %
After 10 years	51	45	4.6 %
Total	1,229	1,037	
Total HTM securities	70,705	58,324	1.9 %
Total investment securities	152,278	134,585	2.1 %

1. Amounts are net of any 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 September 30, 2023, the annualized average yield, including the interest rate swap accrual of related hedges, was 1.2% for AFS securities contractually maturing within 1 year and 3.3% for all AFS securities.

Gross Realized Gains (Losses) on Sales of AFS Securities

$ in millions	Three Months Ended September 30, 2023	2022	Nine Months Ended September 30, 2023	2022
Gross realized gains	$ 15	$ 13	$ 66	$ 163
Gross realized (losses)	(1)	(4)	(21)	(92)
Total[1]	$ 14	$ 9	$ 45	$ 71

1. Realized gains and losses are recognized in Other revenues in the income statement.

8. Collateralized Transactions

Offsetting of Certain Collateralized Transactions

$ in millions	At September 30, 2023 Gross Amounts	Amounts Offset	Balance Sheet Net Amounts	Amounts Not Offset[1]	Net Amounts
Assets					
Securities purchased under agreements to resell	$244,528	$ (142,959)	$ 101,569	$ (98,203)	$ 3,366
Securities borrowed	133,184	(12,268)	120,916	(116,818)	4,098
Liabilities					
Securities sold under agreements to repurchase	$219,620	$ (142,959)	$ 76,661	$ (70,871)	$ 5,790
Securities loaned	25,332	(12,268)	13,064	(13,049)	15
Net amounts for which master netting agreements are not in place or may not be legally enforceable					
Securities purchased under agreements to resell					$ 2,160
Securities borrowed					380
Securities sold under agreements to repurchase					4,311
Securities loaned					4

$ in millions	At December 31, 2022 Gross Amounts	Amounts Offset	Balance Sheet Net Amounts	Amounts Not Offset[1]	Net Amounts
Assets					
Securities purchased under agreements to resell	$240,355	$ (126,448)	$ 113,907	$(109,902)	$ 4,005
Securities borrowed	145,340	(11,966)	133,374	(128,073)	5,301
Liabilities					
Securities sold under agreements to repurchase	$188,982	$ (126,448)	$ 62,534	$ (57,395)	$ 5,139
Securities loaned	27,645	(11,966)	15,679	(15,199)	480
Net amounts for which master netting agreements are not in place or may not be legally enforceable					
Securities purchased under agreements to resell					$ 1,696
Securities borrowed					624
Securities sold under agreements to repurchase					3,861
Securities loaned					250

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

For further discussion of the Firm's collateralized transactions, see Notes 2 and 9 to the financial statements in the 2022 Form 10-K. For information related to offsetting of derivatives, see Note 6.

Gross Secured Financing Balances by Remaining Contractual Maturity

$ in millions	At September 30, 2023 Overnight and Open	Less than 30 Days	30-90 Days	Over 90 Days	Total
Securities sold under agreements to repurchase	$ 93,944	$ 68,289	$23,622	$33,765	$219,620
Securities loaned	13,266	—	900	11,166	25,332
Total included in the offsetting disclosure	$ 107,210	$ 68,289	$24,522	$44,931	$244,952
Trading liabilities—Obligation to return securities received as collateral	16,548	—	—	—	16,548
Total	$ 123,758	$ 68,289	$24,522	$44,931	$261,500

$ in millions	At December 31, 2022 Overnight and Open	Less than 30 Days	30-90 Days	Over 90 Days	Total
Securities sold under agreements to repurchase	$ 54,551	$ 77,359	$20,586	$36,486	$188,982
Securities loaned	15,150	882	1,984	9,629	27,645
Total included in the offsetting disclosure	$ 69,701	$ 78,241	$22,570	$46,115	$216,627
Trading liabilities—Obligation to return securities received as collateral	22,880	—	—	—	22,880
Total	$ 92,581	$ 78,241	$22,570	$46,115	$239,507

Gross Secured Financing Balances by Class of Collateral Pledged

$ in millions	At September 30, 2023	At December 31, 2022
Securities sold under agreements to repurchase		
U.S. Treasury and agency securities	$ 83,594	$ 57,761
Other sovereign government obligations	102,679	98,839
Corporate equities	17,976	19,340
Other	15,371	13,042
Total	$ 219,620	$ 188,982
Securities loaned		
Other sovereign government obligations	$ 714	$ 862
Corporate equities	23,939	26,289
Other	679	494
Total	$ 25,332	$ 27,645
Total included in the offsetting disclosure	$ 244,952	$ 216,627
Trading liabilities—Obligation to return securities received as collateral		
Corporate equities	$ 16,523	$ 22,833
Other	25	47
Total	$ 16,548	$ 22,880
Total	$ 261,500	$ 239,507

Carrying Value of Assets Loaned or Pledged without Counterparty Right to Sell or Repledge

$ in millions	At September 30, 2023	At December 31, 2022
Trading assets	$ 38,682	$ 34,524

The Firm pledges certain of its trading assets to collateralize securities sold under agreements to repurchase, securities loaned, other secured financings and derivatives and to cover customer short sales. Counterparties may or may not have the right to sell or repledge the collateral.

Pledged financial instruments that can be sold or repledged by the secured party are identified as Trading assets (pledged to various parties) in the balance sheet.

Fair Value of Collateral Received with Right to Sell or Repledge

$ in millions	At September 30, 2023	At December 31, 2022
Collateral received with right to sell or repledge	$ 656,290	$ 637,941
Collateral that was sold or repledged[1]	499,905	486,820

1. Does not include securities used to meet federal regulations for the Firm's U.S. broker-dealers.

The Firm receives collateral in the form of securities in connection with securities purchased under agreements to resell, securities borrowed, securities-for-securities transactions, derivative transactions, customer margin loans and securities-based lending. In many cases, the Firm is permitted to sell or repledge this collateral to secure securities sold under agreements to repurchase, to enter into securities lending and derivative transactions or to deliver to counterparties to cover short positions.

Securities Segregated for Regulatory Purposes

$ in millions	At September 30, 2023	At December 31, 2022
Segregated securities[1]	$ 21,936	$ 32,254

1. Securities segregated under federal regulations for the Firm's U.S. broker-dealers are sourced from Securities purchased under agreements to resell and Trading assets in the balance sheet.

Customer Margin and Other Lending

$ in millions	At September 30, 2023	At December 31, 2022
Margin and other lending	$ 42,699	$ 38,524

The Firm provides margin lending arrangements that allow customers to borrow against the value of qualifying securities. Receivables from these arrangements are included within Customer and other receivables in the balance sheet. Under these arrangements, the Firm receives collateral, which includes U.S. government and agency securities, other sovereign government obligations, corporate and other debt, and corporate equities. Margin loans are collateralized by customer-owned securities held by the Firm. The Firm monitors required margin levels and established credit terms daily and, pursuant to such guidelines, requires customers to deposit additional collateral, or reduce positions, when necessary.

For a further discussion of the Firm's margin lending activities, see Note 9 to the financial statements in the 2022 Form 10-K.

Also included in the amounts in the previous table is non-purpose securities-based lending on non-bank entities in the Wealth Management business segment.

Other Secured Financings

The Firm has additional secured liabilities. For a further discussion of other secured financings, see Note 12.

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

Loans by Type

$ in millions	At September 30, 2023 HFI Loans	HFS Loans	Total Loans
Corporate	$ 7,181	$ 11,086	$ 18,267
Secured lending facilities	39,119	2,861	41,980
Commercial real estate	8,389	259	8,648
Residential real estate	59,002	23	59,025
Securities-based lending and Other loans	90,208	1	90,209
Total loans	203,899	14,230	218,129
ACL	(1,157)		(1,157)
Total loans, net	$ 202,742	$ 14,230	$ 216,972
Loans to non-U.S. borrowers, net			$ 26,246

$ in millions	At December 31, 2022 HFI Loans	HFS Loans	Total Loans
Corporate	$ 6,589	$ 10,634	$ 17,223
Secured lending facilities	35,606	3,176	38,782
Commercial real estate	8,515	926	9,441
Residential real estate	54,460	4	54,464
Securities-based lending and Other loans	94,666	48	94,714
Total loans	199,836	14,788	214,624
ACL	(839)		(839)
Total loans, net	$ 198,997	$ 14,788	$ 213,785
Loans to non-U.S. borrowers, net			$ 23,651

For additional information on the Firm's held-for-investment and held-for-sale loan portfolios, see Note 10 to the financial statements in the 2022 Form 10-K.

Loans by Interest Rate Type

	At September 30, 2023		At December 31, 2022	
$ in millions	Fixed Rate	Floating or Adjustable Rate	Fixed Rate	Floating or Adjustable Rate
Corporate	$ —	$ 18,267	$ —	$ 17,223
Secured lending facilities	—	41,980	—	38,782
Commercial real estate	198	8,450	204	9,237
Residential real estate	28,282	30,743	24,903	29,561
Securities-based lending and Other loans	22,525	67,684	24,077	70,637
Total loans, before ACL	$ 51,005	$ 167,124	$ 49,184	$ 165,440

See Note 4 for further information regarding Loans and lending commitments held at fair value. See Note 13 for details of current commitments to lend in the future.

Loans Held for Investment before Allowance by Origination Year

	At September 30, 2023			At December 31, 2022		
	Corporate					
$ in millions	IG	NIG	Total	IG	NIG	Total
Revolving	$ 2,349	$ 4,189	$ 6,538	$ 2,554	$ 3,456	$ 6,010
2023	134	20	154			
2022	—	166	166	6	107	113
2021	15	101	116	—	139	139
2020	33	25	58	—	58	58
2019	—	149	149	—	154	154
Prior	—	—	—	115	—	115
Total	$ 2,531	$ 4,650	$ 7,181	$ 2,675	$ 3,914	$ 6,589

	At September 30, 2023			At December 31, 2022		
	Secured Lending Facilities					
$ in millions	IG	NIG	Total	IG	NIG	Total
Revolving	$ 11,329	$ 19,873	$ 31,202	$ 9,445	$ 21,243	$ 30,688
2023	2,324	750	3,074			
2022	667	2,150	2,817	1,135	1,336	2,471
2021	254	151	405	254	208	462
2020	—	85	85	—	98	98
2019	60	345	405	60	486	546
Prior	302	829	1,131	215	1,126	1,341
Total	$ 14,936	$ 24,183	$ 39,119	$ 11,109	$ 24,497	$ 35,606

	At September 30, 2023			At December 31, 2022		
	Commercial Real Estate					
$ in millions	IG	NIG	Total	IG	NIG	Total
Revolving	$ —	$ 168	$ 168	$ —	$ 204	$ 204
2023	10	805	815			
2022	382	1,791	2,173	379	2,201	2,580
2021	286	1,574	1,860	239	1,609	1,848
2020	—	739	739	—	728	728
2019	325	1,242	1,567	659	1,152	1,811
Prior	85	982	1,067	211	1,133	1,344
Total	$ 1,088	$ 7,301	$ 8,389	$ 1,488	$ 7,027	$ 8,515

	At September 30, 2023					
	Residential Real Estate					
	by FICO Scores			by LTV Ratio		
$ in millions	≥ 740	680-739	≤ 679	≤ 80%	> 80%	Total
Revolving	$ 98	$ 32	$ 8	$ 137	$ 1	$ 138
2023	5,735	1,180	178	6,304	789	7,093
2022	11,039	2,445	390	12,771	1,103	13,874
2021	11,210	2,392	245	12,911	936	13,847
2020	7,006	1,443	105	8,118	436	8,554
2019	4,012	901	132	4,739	306	5,045
Prior	7,845	2,292	314	9,632	819	10,451
Total	$ 46,945	$ 10,685	$ 1,372	$ 54,612	$ 4,390	$ 59,002

	At December 31, 2022					
	Residential Real Estate					
	by FICO Scores			by LTV Ratio		
$ in millions	≥ 740	680-739	≤ 679	≤ 80%	> 80%	Total
Revolving	$ 90	$ 29	$ 5	$ 124	$ —	$ 124
2022	11,481	2,533	411	13,276	1,149	14,425
2021	11,604	2,492	257	13,378	975	14,353
2020	7,292	1,501	115	8,452	456	8,908
2019	4,208	946	137	4,968	323	5,291
2018	1,635	447	52	1,965	169	2,134
Prior	6,853	2,072	300	8,492	733	9,225
Total	$ 43,163	$ 10,020	$ 1,277	$ 50,655	$ 3,805	$ 54,460

	At September 30, 2023			
	Securities-based	Other[2]		
$ in millions	Lending[1]	IG	NIG	Total
Revolving	$ 71,389	$ 6,096	$ 1,220	$ 78,705
2023	1,369	543	238	2,150
2022	1,474	820	792	3,086
2021	375	417	341	1,133
2020	—	464	425	889
2019	14	903	522	1,439
Prior	202	1,466	1,138	2,806
Total	$ 74,823	$ 10,709	$ 4,676	$ 90,208

	December 31, 2022			
	Securities-based	Other[2]		
$ in millions	Lending[1]	IG	NIG	Total
Revolving	$ 77,115	$ 5,760	$ 1,480	$ 84,355
2022	1,425	1,572	269	3,266
2021	725	525	223	1,473
2020	—	580	418	998
2019	16	913	644	1,573
2018	202	268	304	774
Prior	—	1,581	646	2,227
Total	$ 79,483	$ 11,199	$ 3,984	$ 94,666

IG—Investment Grade
NIG—Non-investment Grade
1. Securities-based loans are subject to collateral maintenance provisions, and at September 30, 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 Form 10-K.
2. Other loans primarily include certain loans originated in the tailored lending business within the Wealth Management business segment, which typically consist of bespoke lending arrangements provided to ultra-high worth net clients. These facilities are generally secured by eligible collateral.

Past Due Loans Held for Investment before Allowance[1]

$ in millions	At September 30, 2023	At December 31, 2022
Corporate	$ 42	$ 112
Secured lending facilities	—	85
Commercial real estate	21	—
Residential real estate	153	158
Securities-based lending and Other loans	—	1
Total	$ 216	$ 356

1. As of September 30, 2023, the majority of the amounts are past due for a period of less than 90 days. As of December 31, 2022, the majority of the amounts are 90 days or more past due.

Nonaccrual Loans Held for Investment before Allowance[1]

$ in millions	At September 30, 2023	At December 31, 2022
Corporate	$ 115	$ 71
Secured lending facilities	92	94
Commercial real estate	153	209
Residential real estate	101	118
Securities-based lending and Other loans	120	10
Total	$ 581	$ 502
Nonaccrual loans without an ACL	$ 133	$ 117

1. There were no loans held for investment that were 90 days or more past due and still accruing as of September 30, 2023 and December 31, 2022. For further information on the Firm's nonaccrual policy, see Note 2 to the financial statements in the 2022 Form 10-K .

See Note 2 to the financial statements in the 2022 Form 10-K for a description of the ACL calculated under the CECL methodology, including credit quality indicators, used for HFI loans.

The Firm 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 September 30, 2023, there were no loans held for investment modified in the current year period with subsequent default.

Modified Loans Held for Investment

Modified during the three months ended September 30, 2023[1]

	At September 30, 2023	
$ in millions	Amortized Cost	% of Total Loans[2]
	Term Extension	
Corporate	$ 82	1.1 %
Commercial real estate	198	2.4 %
Securities-based lending and Other loans	105	0.1 %
Total	$ 385	

Modified during the nine months ended September 30, 2023[1]

	At September 30, 2023	
$ in millions	Amortized Cost	% of Total Loans[2]
	Term Extension	
Corporate	$ 114	1.6 %
Commercial real estate	219	2.6 %
Residential real estate	1	— %
Securities-based lending and Other loans	129	0.1 %
Total	$ 463	
	Combination - Multiple Modifications[3]	
Commercial real estate	$ 40	0.5 %

1. Lending commitments to borrowers for which the Firm has modified terms of the receivable are $424 million and $877 million during the current quarter and current year period, respectively as of September 30, 2023.
2. Percentage of total loans represents the percentage of modified loans to total loans held for investment by loan type.
3. Combination - Multiple Modifications includes loans with Term extension and Other-than-insignificant payment delay.

Financial Impact on Modified Loans Held for Investment

Modified during the three months ended September 30, 2023[1]

	At September 30, 2023
	Term Extension[2]
Corporate	Added 1 year, 11 months to the life of the modified loan(s)
Commercial real estate	Added 3 months to the life of the modified loan(s)
Securities-based lending and Other loans	Added 4 months to the life of the modified loan(s)

Modified during the nine months ended September 30, 2023[1]

	At September 30, 2023
	Term Extension[2]
Corporate	Added 1 year, 9 months to the life of the modified loan(s)
Commercial real estate	Added 3 months to the life of the modified loan(s)
Residential real estate	Added 4 months to the life of the modified loan(s)
Securities-based lending and Other loans	Added 8 months to the life of the modified loan(s)
	Combination - Multiple Modification
Commercial real estate	Added 7 months of Term extension and 6 months of Other-than-insignificant payment delay to the life of the modified loan(s)

1. Percentage of total loans represents the percentage of modified loans to total loans held for investment by loan type.
2. In instances where more than one loan was modified, modification impact is presented on a weighted-average basis.

Past Due Status for Loans Held for Investment Modified in the Last 12 months

	At September 30, 2023		
$ in millions	30-89 Days Past Due	90+ days Past Due	Total
Commercial real estate	$ 21	$ —	$ 21
Residential real estate	—	1	1
Total	**$ 21**	**$ 1**	**$ 22**

Troubled Debt Restructurings

$ in millions	At December 31, 2022
Loans, before ACL	$ 29
Lending commitments	—

TDRs included modifications of interest rates, collateral requirements, other loan covenants and payment extensions. See Note 2 to the financial statements in the 2022 Form 10-K for further information on TDRs guidance. The accounting guidance for TDRs was eliminated for the Firm, beginning on January 1, 2023. See Note 2 for further information herein.

Gross Charge-offs by Origination Year

	Three Months Ended September 30, 2023					
$ in millions	Corporate	Secured Lending Facilities	CRE	Residential Real Estate	SBL and Other	Total
Revolving	$ —	$ —	$ —	$ —	$ —	$ —
2020	—	—	—	—	(1)	(1)
2019	—	—	(39)	—	—	(39)
Total	**$ —**	**$ —**	**$ (39)**	**$ —**	**$ (1)**	**$ (40)**

	Nine Months Ended September 30, 2023					
$ in millions	Corporate	Secured Lending Facilities	CRE	Residential Real Estate	SBL and Other	Total
Revolving	$ (30)	$ —	$ —	$ —	$ —	$ (30)
2020	—	—	—	—	(2)	(2)
2019	—	—	(68)	—	(1)	(69)
Prior	—	—	(40)	—	—	(40)
Total	**$ (30)**	**$ —**	**$(108)**	**$ —**	**$ (3)**	**$ (141)**

Provision for Credit Losses

	Three Months Ended September 30,		Nine Months Ended September 30,	
$ in millions	**2023**	2022	**2023**	2022
Loans	**$ 123**	$ 6	**$ 462**	$ 137
Lending commitments	**11**	29	**67**	56

Allowance for Credit Losses Rollforward and Allocation—Loans

$ in millions	Corporate	Secured Lending Facilities	CRE	Residential Real Estate	SBL and Other	Total
December 31, 2022	$ 235	$ 153	$275	$ 87	$89	$839
Gross charge-offs	**(30)**	**—**	**(108)**	**—**	**(3)**	**(141)**
Recoveries	**—**	**—**	**—**	**1**	**—**	**1**
Net (charge-offs) recoveries	**(30)**	**—**	**(108)**	**1**	**(3)**	**(140)**
Provision (release)	**44**	**2**	**261**	**22**	**133**	**462**
Other	**(1)**	**(1)**	**(2)**	**—**	**—**	**(4)**
September 30, 2023	**$ 248**	**$ 154**	**$426**	**$ 110**	**$219**	**$1,157**
Percent of loans to total loans[1]	**4 %**	**19 %**	**4 %**	**29 %**	**44 %**	**100 %**

$ in millions	Corporate	Secured Lending Facilities	CRE	Residential Real Estate	SBL and Other	Total
December 31, 2021	$ 165	$ 163	$206	$ 60	$60	$654
Gross charge-offs	—	(3)	(7)	—	(21)	(31)
Recoveries	6	—	—	1	—	7
Net recoveries (charge-offs)	6	(3)	(7)	1	(21)	(24)
Provision (release)	46	(2)	35	26	32	137
Other	(6)	(2)	(10)	—	—	(18)
September 30, 2022	$ 211	$ 156	$224	$ 87	$71	$749
Percent of loans to total loans[1]	3 %	17 %	4 %	26 %	50 %	100 %

CRE—Commercial real estate
SBL—Securities-based lending
1. Percent 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	Residential Real Estate	SBL and Other	Total
December 31, 2022	$ 411	$ 51	$ 15	$ 4	$ 23	$ 504
Provision (release)	**29**	**24**	**12**	**—**	**2**	**67**
Other	**(1)**	**—**	**(1)**	**—**	**—**	**(2)**
September 30, 2023	**$ 439**	**$ 75**	**$ 26**	**$ 4**	**$ 25**	**$ 569**

$ in millions	Corporate	Secured Lending Facilities	CRE	Residential Real Estate	SBL and Other	Total
December 31, 2021	$ 356	$ 41	$ 20	$ 1	$ 26	$ 444
Provision (release)	64	7	(6)	1	(10)	56
Other	(12)	(1)	—	—	—	(13)
September 30, 2022	$ 408	$ 47	$ 14	$ 2	$ 16	$ 487

The allowance for credit losses for loans and lending commitments increased for the nine months ended September 30, 2023, primarily due to deteriorating conditions in the commercial real estate sector, including provisions for certain specific loans, mainly in the office portfolio, and modest growth in certain other loan portfolios. Charge-offs for the nine months ended September 30, 2023 were primarily related to commercial real estate and corporate loans. The base scenario used in our ACL models as of September 30, 2023 was generated using a combination of consensus economic forecasts, forward rates, and internally developed and validated models, and assumes weak economic growth in 2023 and 2024. Given the nature of our lending portfolio, the most sensitive model input is U.S. gross domestic product ("GDP"). For a further discussion of the Firm's loans as well as the Firm's allowance methodology, refer to Notes 2 and 10 to the financial statements in the 2022 Form 10-K.

Selected Credit Ratios

	At September 30, 2023	At December 31, 2022
ACL for loans to total HFI loans	**0.6 %**	0.4 %
Nonaccrual HFI loans to total HFI loans	**0.3 %**	0.3 %
ACL for loans to nonaccrual HFI loans	**199.1 %**	167.1 %

Employee Loans

$ in millions	**At September 30, 2023**	At December 31, 2022
Currently employed by the Firm[1]	**$ 4,262**	$ 4,023
No longer employed by the Firm[2]	**98**	97
Employee loans	**$ 4,360**	$ 4,120
ACL	**(130)**	(139)
Employee loans, net of ACL	**$ 4,230**	$ 3,981
Remaining repayment term, weighted average in years	**5.8**	5.8

1. These loans are predominantly current.
2. These loans are predominantly past due for a period of 90 days or more.

Employee loans are granted in conjunction with a program established primarily to recruit certain Wealth Management financial advisors, are full recourse and generally require periodic repayments, and are due in full upon termination of employment with the Firm. These loans are recorded in Customer and other receivables in the balance sheet. See Note 2 to the financial statements in the 2022 Form 10-K for a description of the CECL allowance methodology, including credit quality indicators, for employee loans.

10. Other Assets—Equity Method Investments

Equity Method Investments

$ in millions	**At September 30, 2023**	At December 31, 2022
Investments	**$ 1,775**	$ 1,927

	Three Months Ended September 30,		Nine Months Ended September 30,	
$ in millions	**2023**	2022	**2023**	2022
Income (loss)	**$ 19**	$ 21	**$ 105**	$ 44

Equity method investments, other than investments in certain fund interests, are summarized above and are included in Other assets in the balance sheet with related income or loss included in Other revenues in the income statement. See "Net Asset Value Measurements—Fund Interests" in Note 4 for the carrying value of certain of the Firm's fund interests, which are composed of general and limited partnership interests, as well as any related carried interest.

Japanese Securities Joint Venture

	Three Months Ended September 30,		Nine Months Ended September 30,	
$ in millions	**2023**	2022	**2023**	2022
Income (loss) from investment in MUMSS	**$ 10**	$ 17	**$ 102**	$ 35

For more information on MUMSS and other relationships with MUFG, see Note 12 to the financial statements in the 2022 Form 10-K.

11. Deposits

Deposits

$ in millions	**At September 30, 2023**	At December 31, 2022
Savings and demand deposits	**$ 280,008**	$ 319,948
Time deposits	**65,450**	36,698
Total	**$ 345,458**	$ 356,646
Deposits subject to FDIC insurance	**$ 272,015**	$ 260,420
Deposits not subject to FDIC insurance	**$ 73,443**	$ 96,226

Time Deposit Maturities

$ in millions	**At September 30, 2023**
2023	**$ 13,058**
2024	**29,378**
2025	**11,302**
2026	**4,716**
2027	**3,372**
Thereafter	**3,624**
Total	**$ 65,450**

12. Borrowings and Other Secured Financings

Borrowings

$ in millions	At September 30, 2023	At December 31, 2022
Original maturities of one year or less	$ 4,350	$ 4,191
Original maturities greater than one year		
Senior	$ 231,047	$ 221,667
Subordinated	11,796	12,200
Total greater than one year	$ 242,843	$ 233,867
Total	$ 247,193	$ 238,058
Weighted average stated maturity, in years[1]	6.5	6.7

1. Only includes borrowings with original maturities greater than one year.

Other Secured Financings

$ in millions	At September 30, 2023	At December 31, 2022
Original maturities:		
One year or less	$ 2,391	$ 944
Greater than one year	7,277	7,214
Total	$ 9,668	$ 8,158
Transfers of assets accounted for as secured financings	$ 3,092	$ 1,119

Other secured financings include the liabilities related to collateralized notes, transfers of financial assets that are accounted for as financings rather than sales and consolidated VIEs where the Firm is deemed to be the primary beneficiary. These liabilities are generally payable from the cash flows of the related assets accounted for as Trading assets. See Note 14 for further information on other secured financings related to VIEs and securitization activities.

For transfers of assets that fail to meet accounting criteria for a sale, the Firm continues to record the assets and recognizes the associated liabilities in the balance sheet.

13. Commitments, Guarantees and Contingencies

Commitments

	Years to Maturity at September 30, 2023				
$ in millions	Less than 1	1-3	3-5	Over 5	Total
Lending:					
Corporate	$ 16,247	$ 36,269	$ 53,156	$ 2,356	$ 108,028
Secured lending facilities	7,773	5,032	3,662	2,140	18,607
Commercial and Residential real estate	309	112	14	352	787
Securities-based lending and Other	16,229	3,360	395	394	20,378
Forward-starting secured financing receivables[1]	73,474	—	—	—	73,474
Central counterparty	300	—	—	14,966	15,266
Underwriting	645	—	—	—	645
Investment activities	1,777	314	110	284	2,485
Letters of credit and other financial guarantees	145	—	—	6	151
Total	$116,899	$ 45,087	$ 57,337	$ 20,498	$ 239,821
Lending commitments participated to third parties					$ 7,408

1. 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 cash funding requirements.

For a further description of these commitments, refer to Note 15 to the financial statements in the 2022 Form 10-K.

Guarantees

	At September 30, 2023				
	Maximum Potential Payout/Notional of Obligations by Years to Maturity				Carrying Amount Asset (Liability)
$ in millions	Less than 1	1-3	3-5	Over 5	
Non-credit derivatives[1]	$1,303,613	$1,337,393	$295,171	$713,579	$ (67,659)
Standby letters of credit and other financial guarantees issued[2]	1,545	1,054	1,100	2,801	(15)
Market value guarantees	1	—	—	—	—
Liquidity facilities	2,035	—	—	—	(9)
Whole loan sales guarantees	—	69	17	23,076	—
Securitization representations and warranties[3]	—	—	—	80,081	(3)
General partner guarantees	381	32	130	33	(87)
Client clearing guarantees	77	—	—	—	—

1. The carrying amounts of derivative contracts that meet the accounting definition of a guarantee are shown on a gross basis. For further information on derivatives contracts, see Note 6.
2. These amounts include certain issued standby letters of credit participated to third parties, totaling $0.8 billion of notional and collateral/recourse, due to the nature of the Firm's obligations under these arrangements. As of September 30, 2023, the carrying amount of standby letters of credit and other financial guarantees issued includes an allowance for credit losses of $76 million.
3. Related to commercial and residential mortgage securitizations.

The Firm has obligations under certain guarantee arrangements, including contracts and indemnification agreements, that contingently require the Firm to make payments to the guaranteed party based on changes in an underlying measure (such as an interest or foreign exchange rate, security or commodity price, an index, or the occurrence or non-occurrence of a specified event) related to an asset, liability or equity security of a guaranteed party. Also included as guarantees are contracts that contingently require the Firm to make payments to the guaranteed party based on another entity's failure to perform under an agreement, as well as indirect guarantees of the indebtedness of others.

For more information on the nature of the obligations and related business activities for our guarantees, see Note 15 to the financial statements in the 2022 Form 10-K.

Other Guarantees and Indemnities

In the normal course of business, the Firm provides guarantees and indemnifications in a variety of transactions. These provisions generally are standard contractual terms. Certain of these guarantees and indemnifications related to indemnities, exchange and clearinghouse member guarantees and merger and acquisition guarantees are described in Note 15 to the financial statements in the 2022 Form 10-K.

In addition, in the ordinary course of business, the Firm guarantees the debt and/or certain trading obligations (including obligations associated with derivatives, foreign exchange contracts and the settlement of physical commodities) of certain subsidiaries. These guarantees generally are entity or product specific and are required by investors or trading counterparties. The activities of the Firm's subsidiaries covered by these guarantees (including any related debt or trading obligations) are included in the financial statements.

Finance Subsidiary

The Parent Company fully and unconditionally guarantees the securities issued by Morgan Stanley Finance LLC, a wholly owned finance subsidiary. No other subsidiary of the Parent Company guarantees these securities.

Contingencies

Legal

In addition to the matters described below, in the normal course of business, the Firm has been 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 global diversified financial services institution. Certain of the actual or threatened legal actions include claims for substantial compensatory and/or punitive damages or claims for indeterminate amounts of damages. In some cases, the entities that would otherwise be the primary defendants in such cases are bankrupt or are in financial distress. These actions have included, but are not limited to, antitrust claims, claims under various false claims act statutes, and matters arising from our sales and trading businesses, and our activities in the capital markets.

The Firm is also involved, from time to time, in other reviews, investigations and proceedings (both formal and informal) by governmental and self-regulatory agencies regarding the Firm's business, and involving, among other matters, sales, trading, financing, prime brokerage, market-making activities, investment banking advisory services, capital market activities, financial products or offerings sponsored, underwritten or sold by the Firm, wealth and investment management services, and accounting and operational matters, certain of which may result in adverse judgments, settlements, fines, penalties, injunctions, limitations on our ability to conduct certain business, or other relief.

While the Firm has identified below any individual proceedings or investigations where the Firm believes a material loss to be reasonably possible and, in some cases, reasonably estimable, there can be no assurance that material losses will not be incurred from claims that have not yet been asserted or those where potential losses have not yet been determined to be probable or possible and reasonably estimable.

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.

The Firm 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 Firm can reasonably estimate the amount of that loss, the Firm accrues the estimated loss by a charge to income.

	Three Months Ended September 30,		Nine Months Ended September 30,	
$ in millions	**2023**	2022	**2023**	2022
Legal expenses	**$ 18**	$ 41	**$ 214**	$ 387

The Firm's legal expenses can, and may in the future, fluctuate from period to period, given the current environment regarding government investigations and private litigation affecting global financial services firms, including the Firm.

For certain other legal proceedings and investigations, the Firm can, in some instances, estimate reasonably possible losses, additional losses, ranges of loss or ranges of additional loss in excess of amounts accrued (if any) but does not believe, based on current knowledge and after consultation with counsel, that such losses could have a material adverse effect on the Firm's financial condition, other than the matter referred to in the following paragraph.

Tax

In matters styled *Case number 15/3637* and *Case number 15/4353*, the Dutch Tax Authority ("Dutch Authority") is challenging in the Dutch courts the prior set-off by the Firm of approximately €124 million (approximately $131 million) plus accrued interest of withholding tax credits against the Firm's corporation tax liabilities for the tax years 2007 to 2012. The Dutch Authority alleges that the Firm was not entitled to receive the withholding tax credits on the basis, inter alia, that a Firm subsidiary did not hold legal title to certain securities subject to withholding tax on the relevant dates. The Dutch Authority has also alleged that the Firm failed to provide certain information to the Dutch Authority and to keep adequate books and records. On April 26, 2018, the District Court in Amsterdam issued a decision dismissing the Dutch Authority's claims with respect to certain of the tax years in dispute. On May 12, 2020, the Court of Appeal in Amsterdam granted the Dutch Authority's appeal in matters re-styled *Case number 18/00318* and *Case number 18/00319*. On June 22, 2020, the Firm filed an appeal against the decision of the Court of Appeal in Amsterdam before the Dutch High Court. On January 29, 2021, the Advocate General of the Dutch High Court issued an advisory opinion on the Firm's appeal, which rejected the Firm's principal grounds of appeal. On February 11, 2021, the Firm and the Dutch Authority each responded to this opinion. On June 22, 2021, Dutch criminal authorities sought various documents in connection with an investigation of the Firm related to the civil claims asserted by the Dutch Authority concerning the accuracy of the Firm subsidiary's tax returns and the maintenance of its books and records for 2007 to 2012. The Dutch criminal authorities have requested additional information, and the Firm is continuing to respond to them in connection with their ongoing investigation.

For certain other legal proceedings and investigations, though the Firm believes a loss is probable, the Firm cannot reasonably estimate such losses, additional losses, ranges of loss or ranges of additional loss in excess of amounts accrued (if any), but does not believe, based on current knowledge and after consultation with counsel, that such losses could have a material adverse effect on the Firm's financial condition, other than the matter referred to in the following paragraph.

Block Trading Matter

The Firm has been responding to requests for information from the Enforcement Division of the SEC and the United States Attorney's Office for the Southern District of New York in connection with their investigations into various aspects of the Firm's blocks business, certain related sales and trading practices, and applicable controls (the "Investigations"). The Investigations are focused on whether the Firm and/or its employees shared and/or used information regarding impending block transactions in violation of federal securities laws and regulations. The Firm continues to cooperate with, and has continued to engage in ongoing discussions regarding potential resolution of, the Investigations. There can be no assurance that these discussions and continuing engagement will lead to resolution of either matter. The Firm also faces potential civil liability arising from claims that have been or may be asserted by, among others, block transaction participants who contend they were harmed or disadvantaged including, among other things, as a result of a share price decline allegedly caused by the activities of the Firm and/or its employees, or as a result of the Firm's and/or its employees' failure to adhere to applicable laws and regulations. In addition, the Firm has responded to demands from shareholders under Section 220 of the Delaware General Corporation Law for books and records concerning the Investigations.

For certain other legal proceedings and investigations including the following matter, the Firm can estimate probable losses but does not believe, based on current knowledge and after consultation with counsel, that additional loss in excess of amounts accrued could have a material adverse effect on the Firm's financial condition.

Antitrust Related Matter

In August of 2017, the Firm was named as a defendant in a purported antitrust class action in the United States District Court for the Southern District of New York styled *Iowa Public Employees' Retirement System et al. v. Bank of America Corporation et al.* Plaintiffs allege, inter alia, that the Firm, together with a number of other financial institution defendants, violated U.S. antitrust laws and New York state law in connection with their alleged efforts to prevent the development of electronic exchange-based platforms for securities lending. The class action complaint was filed on behalf of a purported class of borrowers and lenders who entered into stock loan transactions with the defendants. The class action complaint seeks, among other relief, certification of the class of plaintiffs and treble damages. On September 27, 2018, the court denied the defendants' motion to dismiss the class action complaint. Plaintiffs' motion for class certification was referred by the District Court to a magistrate judge who, on June 30, 2022, issued a report and recommendation that the District Court certify a class. On May 20, 2023, the Firm reached an agreement in principle to settle the litigation. On September 1, 2023, the court granted preliminary approval of the settlement.

14. Variable Interest Entities and Securitization Activities

Consolidated VIE Assets and Liabilities by Type of Activity

	At September 30, 2023		At December 31, 2022	
$ in millions	VIE Assets	VIE Liabilities	VIE Assets	VIE Liabilities
MABS[1]	**$ 526**	**$ 156**	$ 1,153	$ 520
Investment vehicles[2]	**856**	**508**	638	272
MTOB	**406**	**402**	371	322
Other	**508**	**202**	519	199
Total	**$ 2,296**	**$ 1,268**	$ 2,681	$ 1,313

MTOB—Municipal tender option bonds

1. Amounts include transactions backed by residential mortgage loans, commercial mortgage loans and other types of assets, including consumer or commercial assets and may be in loan or security form. The value of assets is determined based on the fair value of the liabilities and the interests owned by the Firm in such VIEs as the fair values for the liabilities and interests owned are more observable.
2. Amounts include investment funds and CLOs.

Consolidated VIE Assets and Liabilities by Balance Sheet Caption

$ in millions	At September 30, 2023	At December 31, 2022
Assets		
Cash and cash equivalents	**$ 220**	$ 142
Trading assets at fair value	**1,542**	2,066
Investment securities	**319**	255
Securities purchased under agreements to resell	**200**	200
Customer and other receivables	**13**	16
Other assets	**2**	2
Total	**$ 2,296**	$ 2,681
Liabilities		
Other secured financings	**$ 1,133**	$ 1,185
Other liabilities and accrued expenses	**131**	124
Borrowings	**4**	4
Total	**$ 1,268**	$ 1,313
Noncontrolling interests	**$ 77**	$ 71

Consolidated VIE assets and liabilities are presented in the previous tables after intercompany eliminations. Generally, most assets owned by consolidated VIEs cannot be removed unilaterally by the Firm and are not available to the Firm while the related liabilities issued by consolidated VIEs are non-recourse to the Firm. However, in certain consolidated VIEs, the Firm either has the unilateral right to remove assets or provides additional recourse through derivatives such as total return swaps, guarantees or other forms of involvement.

In general, the Firm's exposure to loss in consolidated VIEs is limited to losses that would be absorbed on the VIE net assets recognized in its financial statements, net of amounts absorbed by third-party variable interest holders.

Non-consolidated VIEs

	At September 30, 2023				
$ in millions	MABS[1]	CDO	MTOB	OSF	Other[2]
VIE assets (UPB)	**$139,804**	**$2,216**	**$2,931**	**$2,751**	**$47,136**
Maximum exposure to loss[3]					
Debt and equity interests	**$ 20,141**	**$ 81**	**$ —**	**$1,857**	**$ 8,692**
Derivative and other contracts	**—**	**—**	**2,035**	**—**	**4,471**
Commitments, guarantees and other	**2,519**	**—**	**—**	**—**	**74**
Total	**$ 22,660**	**$ 81**	**$2,035**	**$1,857**	**$13,237**
Carrying value of variable interests—Assets					
Debt and equity interests	**$ 20,141**	**$ 81**	**$ —**	**$1,640**	**$ 8,692**
Derivative and other contracts	**—**	**—**	**2**	**—**	**1,641**
Total	**$ 20,141**	**$ 81**	**$ 2**	**$1,640**	**$10,333**
Additional VIE assets owned[4]					**$15,204**
Carrying value of variable interests—Liabilities					
Derivative and other contracts	**$ —**	**$ —**	**$ 11**	**$ —**	**$ 371**

	At December 31, 2022				
$ in millions	MABS[1]	CDO	MTOB	OSF	Other[2]
VIE assets (UPB)	$123,601	$3,162	$4,632	$2,403	$50,178
Maximum exposure to loss[3]					
Debt and equity interests	$ 13,104	$ 274	$ —	$1,694	$11,596
Derivative and other contracts	—	—	3,200	—	5,211
Commitments, guarantees and other	674	—	—	—	1,410
Total	$ 13,778	$ 274	$3,200	$1,694	$18,217
Carrying value of variable interests—Assets					
Debt and equity interests	$ 13,104	$ 274	$ —	$1,577	$11,596
Derivative and other contracts	—	—	3	—	1,564
Total	$ 13,104	$ 274	$ 3	$1,577	$13,160
Additional VIE assets owned[4]					$13,708
Carrying value of variable interests—Liabilities					
Derivative and other contracts	$ —	$ —	$ 3	$ —	$ 281

1. Amounts include transactions backed by residential mortgage loans, commercial mortgage loans and other types of assets, including consumer or commercial assets, and may be in loan or security form.
2. Other primarily includes exposures to commercial real estate property and investment funds.
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 Firm.
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 Firm's maximum exposure to loss generally equals the fair value of the assets owned. These assets are primarily included in Trading assets and Investment securities and are measured at fair value (see Note 4). The Firm does not provide additional support in these transactions through contractual facilities, guarantees or similar derivatives.

The previous tables include VIEs sponsored by unrelated parties, as well as VIEs sponsored by the Firm; examples of the Firm's involvement with these VIEs include its secondary market-making activities and the securities held in its Investment securities portfolio (see Note 7).

The Firm's maximum exposure to loss is dependent on the nature of the Firm's variable interest in the VIE and is limited to the notional amounts of certain liquidity facilities and other credit support, total return swaps and written put options, as well as the fair value of certain other derivatives and investments the Firm has made in the VIE.

The Firm'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 a transaction with the VIE or any party to the VIE directly against a specific exposure to loss.

Liabilities issued by VIEs generally are non-recourse to the Firm.

Detail of Mortgage- and Asset-Backed Securitization Assets

$ in millions	At September 30, 2023 UPB	At September 30, 2023 Debt and Equity Interests	At December 31, 2022 UPB	At December 31, 2022 Debt and Equity Interests
Residential mortgages	**$ 15,852**	**$ 3,231**	$ 20,428	$ 2,570
Commercial mortgages	**75,060**	**8,112**	67,540	4,236
U.S. agency collateralized mortgage obligations	**40,147**	**6,296**	32,567	4,729
Other consumer or commercial loans	**8,745**	**2,502**	3,066	1,569
Total	**$ 139,804**	**$ 20,141**	$ 123,601	$ 13,104

Transferred Assets with Continuing Involvement

$ in millions	At September 30, 2023 RML	CML	U.S. Agency CMO	CLN and Other[1]
SPE assets (UPB)[2,3]	**$ 3,868**	**$ 73,138**	**$ 10,274**	**$ 11,388**
Retained interests				
Investment grade	**$ 148**	**$ 658**	**$ 360**	**$ —**
Non-investment grade	**64**	**769**	**—**	**47**
Total	**$ 212**	**$ 1,427**	**$ 360**	**$ 47**
Interests purchased in the secondary market[3]				
Investment grade	**$ 12**	**$ 24**	**$ 11**	**$ —**
Non-investment grade	**—**	**16**	**—**	**—**
Total	**$ 12**	**$ 40**	**$ 11**	**$ —**
Derivative assets	**$ —**	**$ —**	**$ —**	**$ 1,088**
Derivative liabilities	**—**	**—**	**—**	**347**

$ in millions	At December 31, 2022 RML	CML	U.S. Agency CMO	CLN and Other[1]
SPE assets (UPB)[2,3]	$ 3,732	$ 73,069	$ 6,448	$ 10,928
Retained interests				
Investment grade	$ 137	$ 927	$ 367	$ —
Non-investment grade	26	465	11	44
Total	$ 163	$ 1,392	$ 378	$ 44
Interests purchased in the secondary market[3]				
Investment grade	$ 82	$ 51	$ 10	$ —
Non-investment grade	35	23	—	—
Total	$ 117	$ 74	$ 10	$ —
Derivative assets	$ —	$ —	$ —	$ 1,114
Derivative liabilities	—	—	—	201

$ in millions	Fair Value At September 30, 2023 Level 2	Level 3	Total
Retained interests			
Investment grade	**$ 475**	**$ —**	**$ 475**
Non-investment grade	**5**	**59**	**64**
Total	**$ 480**	**$ 59**	**$ 539**
Interests purchased in the secondary market[3]			
Investment grade	**$ 46**	**$ 1**	**$ 47**
Non-investment grade	**12**	**4**	**16**
Total	**$ 58**	**$ 5**	**$ 63**
Derivative assets	**$ 1,088**	**$ —**	**$ 1,088**
Derivative liabilities	**347**	**—**	**347**

$ in millions	Fair Value at December 31, 2022 Level 2	Level 3	Total
Retained interests			
Investment grade	$ 489	$ —	$ 489
Non-investment grade	25	16	41
Total	$ 514	$ 16	$ 530
Interests purchased in the secondary market[3]			
Investment grade	$ 140	$ 3	$ 143
Non-investment grade	42	16	58
Total	$ 182	$ 19	$ 201
Derivative assets	$ 1,114	$ —	$ 1,114
Derivative liabilities	153	48	201

RML—Residential mortgage loans
CML—Commercial mortgage loans
1. Amounts include CLO transactions managed by unrelated third parties.
2. Amounts include assets transferred by unrelated transferors.
3. Amounts are only included for transactions where the Firm also holds retained interests as part of the transfer.

The previous tables include transactions with SPEs in which the Firm, acting as principal, transferred financial assets with continuing involvement and received sales treatment. The transferred assets are carried at fair value prior to securitization, and any changes in fair value are recognized in the income statement. The Firm may act as underwriter of the beneficial interests issued by these securitization vehicles, for which Investment banking revenues are recognized. The Firm may retain interests in the securitized financial assets as one or more tranches of the securitization. Certain retained interests are carried at fair value in the balance sheet with changes in fair value recognized in the income statement. Fair value for these interests is measured using techniques that are consistent with the valuation techniques applied to the Firm's major categories of assets and liabilities as described in Note 2 in the 2022 Form 10-K and Note 4 herein. Further, as permitted by applicable guidance, certain transfers of assets where the Firm's only continuing involvement is a derivative are only reported in the following Assets Sold with Retained Exposure table.

Proceeds from New Securitization Transactions and Sales of Loans

$ in millions	Three Months Ended September 30, 2023	2022	Nine Months Ended September 30, 2023	2022
New transactions[1]	**$ 9,132**	$ 5,332	**$ 15,257**	$ 19,809
Retained interests	**115**	500	**2,767**	3,553
Sales of corporate loans to CLO SPEs[1, 2]	**—**	37	**—**	53

1. Net gains on new transactions and sales of corporate loans to CLO entities at the time of the sale were not material for all periods presented.
2. Sponsored by non-affiliates.

The Firm has provided, or otherwise agreed to be responsible for, representations and warranties regarding certain assets transferred in securitization transactions sponsored by the Firm (see Note 13).

Assets Sold with Retained Exposure

$ in millions	At September 30, 2023	At December 31, 2022
Gross cash proceeds from sale of assets[1]	$ 49,472	$ 49,059
Fair value		
Assets sold	$ 49,642	$ 47,281
Derivative assets recognized in the balance sheet	529	116
Derivative liabilities recognized in the balance sheet	359	1,893

1. The carrying value of assets derecognized at the time of sale approximates gross cash proceeds.

The Firm enters into transactions in which it sells securities, primarily equities, and contemporaneously enters into bilateral OTC derivatives with the purchasers of the securities, through which it retains exposure to the sold securities.

For a discussion of the Firm's VIEs, the determination and structure of VIEs and securitization activities, see Note 16 to the financial statements in the 2022 Form 10-K.

15. Regulatory Requirements

Regulatory Capital Framework and Requirements

For a discussion of the Firm's regulatory capital framework, see Note 17 to the financial statements in the 2022 Form 10-K.

The Firm 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 RWA 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 Firm's capital buffer requirement. Capital requirements require certain adjustments to, and deductions from, capital for purposes of determining these ratios. At September 30, 2023 and December 31, 2022, the differences between the actual and required ratios were lower under the Standardized Approach.

CECL Deferral. Beginning on January 1, 2020, the Firm elected to defer the effect of the adoption of CECL on its risk-based and leverage-based capital amounts and ratios, as well as 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

	At September 30, 2023 and December 31, 2022	
	Standardized	Advanced
Capital buffers		
Capital conservation buffer	—	2.5%
SCB	5.8%	N/A
G-SIB capital surcharge	3.0%	3.0%
CCyB[1]	0%	0%
Capital buffer requirement	8.8%	5.5%

1. The CCyB can be set up to 2.5%, but is currently set by the Federal Reserve at zero.

The capital buffer requirement represents the amount of Common Equity Tier 1 capital the Firm must maintain above the minimum risk-based capital requirements in order to avoid restrictions on the Firm's ability to make capital distributions, including the payment of dividends and the repurchase of stock, and to pay discretionary bonuses to executive officers. The Firm's capital buffer requirement computed under the standardized approaches for calculating credit risk and market risk RWA ("Standardized Approach") is equal to the sum of the SCB, G-SIB capital surcharge and CCyB, and the 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 2.5% capital conservation buffer, G-SIB capital surcharge and CCyB.

Risk-Based Regulatory Capital Ratio Requirements

	Regulatory Minimum	At September 30, 2023 and December 31, 2022	
		Standardized	Advanced
Required ratios[1]			
Common Equity Tier 1 capital ratio	4.5%	13.3%	10.0%
Tier 1 capital ratio	6.0%	14.8%	11.5%
Total capital ratio	8.0%	16.8%	13.5%

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

The Firm's Regulatory Capital and Capital Ratios

$ in millions	Required Ratio[1]	At September 30, 2023	At December 31, 2022
Risk-based capital			
Common Equity Tier 1 capital		**$ 69,148**	$ 68,670
Tier 1 capital		**77,891**	77,191
Total capital		**88,573**	86,575
Total RWA		**443,816**	447,849
Common Equity Tier 1 capital ratio	**13.3%**	**15.6%**	15.3%
Tier 1 capital ratio	**14.8%**	**17.6%**	17.2%
Total capital ratio	**16.8%**	**20.0%**	19.3%

$ in millions	Required Ratio[1]	At September 30, 2023	At December 31, 2022
Leverage-based capital			
Adjusted average assets[2]		**$ 1,152,379**	$ 1,150,772
Tier 1 leverage ratio	**4.0%**	**6.8%**	6.7%
Supplementary leverage exposure[3]		**$ 1,416,310**	$ 1,399,403
SLR	**5.0%**	**5.5%**	5.5%

1. Required ratios are inclusive of any buffers applicable as of the date presented.
2. 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 disallowed goodwill, intangible assets, investments in covered funds, defined benefit pension plan assets, after-tax gain on sale from assets sold into securitizations, investments in the Firm's own capital instruments, certain defined tax assets and other capital deductions.
3. 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.

U.S. Bank Subsidiaries' Regulatory Capital and Capital Ratios

The OCC establishes capital requirements for the U.S. Bank Subsidiaries, and evaluates their compliance with such capital requirements. Regulatory capital requirements for the U.S. Bank Subsidiaries are calculated in a similar manner to the Firm's regulatory capital requirements, although G-SIB capital surcharge and SCB requirements do not apply to the U.S. Bank Subsidiaries.

The OCC's regulatory capital framework includes Prompt Corrective Action ("PCA") standards, including "well-capitalized" PCA standards that are based on specified regulatory capital ratio minimums. For the Firm to remain an FHC, its U.S. Bank Subsidiaries must remain well-capitalized in accordance with the OCC's PCA standards. In addition, failure by the U.S. Bank Subsidiaries to meet minimum capital requirements may result in certain mandatory and discretionary actions by regulators that, if undertaken, could have a direct material effect on the U.S. Bank Subsidiaries' and the Firm's financial statements.

At September 30, 2023 and December 31, 2022, MSBNA and MSPBNA risk-based capital ratios are based on the Standardized Approach rules. Beginning on January 1, 2020, MSBNA and MSPBNA elected to defer the effect of the adoption of CECL on risk-based capital amounts and ratios, as well as 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.

MSBNA's Regulatory Capital

$ in millions	Well-Capitalized Requirement	Required Ratio[1]	At September 30, 2023 Amount	At September 30, 2023 Ratio	At December 31, 2022 Amount	At December 31, 2022 Ratio
Risk-based capital						
Common Equity Tier 1 capital	**6.5 %**	**7.0 %**	**$ 21,250**	**20.9 %**	$ 20,043	20.5 %
Tier 1 capital	**8.0 %**	**8.5 %**	**21,250**	**20.9 %**	20,043	20.5 %
Total capital	**10.0 %**	**10.5 %**	**22,129**	**21.7 %**	20,694	21.1 %
Leverage-based capital						
Tier 1 leverage	**5.0 %**	**4.0 %**	**$ 21,250**	**10.2 %**	$ 20,043	10.1 %
SLR	**6.0 %**	**3.0 %**	**21,250**	**7.9 %**	20,043	8.1 %

MSPBNA's Regulatory Capital

$ in millions	Well-Capitalized Requirement	Required Ratio[1]	At September 30, 2023 Amount	At September 30, 2023 Ratio	At December 31, 2022 Amount	At December 31, 2022 Ratio
Risk-based capital						
Common Equity Tier 1 capital	**6.5 %**	**7.0 %**	**$ 16,012**	**26.9 %**	$ 15,546	27.5 %
Tier 1 capital	**8.0 %**	**8.5 %**	**16,012**	**26.9 %**	15,546	27.5 %
Total capital	**10.0 %**	**10.5 %**	**16,315**	**27.4 %**	15,695	27.8 %
Leverage-based capital						
Tier 1 leverage	**5.0 %**	**4.0 %**	**$ 16,012**	**8.0 %**	$ 15,546	7.6 %
SLR	**6.0 %**	**3.0 %**	**16,012**	**7.7 %**	15,546	7.4 %

1. Required ratios are inclusive of any buffers applicable as of the date presented. Failure to maintain the buffers would result in restrictions on the ability to make capital distributions, including the payment of dividends.

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

Other Regulatory Capital Requirements

MS&Co. Regulatory Capital

$ in millions	At September 30, 2023	At December 31, 2022
Net capital	**$ 18,947**	$ 17,224
Excess net capital	**14,683**	12,861

MS&Co. is registered as a broker-dealer and a futures commission merchant with the SEC and the CFTC, respectively, and is registered as a swap dealer with the CFTC.

As an Alternative Net Capital broker-dealer, and in accordance with Securities Exchange Act of 1934 ("Exchange Act") Rule 15c3-1, Appendix E, MS&Co. is subject to minimum net capital and tentative net capital requirements and operates with capital in excess of its regulatory capital requirements. As a futures commission merchant and registered swap dealer, MS&Co. is subject to CFTC capital requirements. In addition, MS&Co. must notify the SEC if its tentative net capital falls below certain levels. At September 30, 2023 and December 31, 2022, MS&Co. exceeded its net capital requirement and had tentative net capital in excess of the minimum and notification requirements.

Other Regulated Subsidiaries

Certain subsidiaries are also subject to various regulatory capital requirements. Such subsidiaries include the following, each of which operated with capital in excess of their respective regulatory capital requirements as of September 30, 2023 and December 31, 2022, as applicable:

- MSSB,
- MSIP,
- MSESE,
- MSMS,
- MSCS,
- MSCG, and
- E*TRADE Securities LLC.

MSESE is subject to stand-alone capital requirements beginning on January 1, 2023. Previously, requirements were met at the consolidated level of the MSEHSE Group.

See Note 17 to the financial statements in the 2022 Form 10-K for further information.

16. Total Equity

Preferred Stock

$ in millions, except per share data	Shares Outstanding At September 30, 2023	Liquidation Preference per Share	Carrying Value At September 30, 2023	Carrying Value At December 31, 2022
Series				
A	**44,000**	**$ 25,000**	**$ 1,100**	$ 1,100
C[1]	**519,882**	**1,000**	**408**	408
E	**34,500**	**25,000**	**862**	862
F	**34,000**	**25,000**	**850**	850
I	**40,000**	**25,000**	**1,000**	1,000
K	**40,000**	**25,000**	**1,000**	1,000
L	**20,000**	**25,000**	**500**	500
M	**400,000**	**1,000**	**430**	430
N	**3,000**	**100,000**	**300**	300
O	**52,000**	**25,000**	**1,300**	1,300
P	**40,000**	**25,000**	**1,000**	1,000
Total			**$ 8,750**	$ 8,750
Shares authorized				30,000,000

1. Series C preferred stock is held by MUFG.

For a description of Series A through Series P preferred stock, see Note 18 to the financial statements in the 2022 Form 10-K. The Firm's preferred stock has a preference over its common stock upon liquidation. The Firm's preferred stock qualifies as and is included in Tier 1 capital in accordance with regulatory capital requirements (see Note 15).

Share Repurchases

$ in millions	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022
Repurchases of common stock under the Firm's Share Repurchase Authorization	**$ 1,500**	$ 2,555	**$ 4,000**	$ 8,165

On June 30, 2023, the Firm announced that its Board of Directors reauthorized a multi-year repurchase program of up to $20 billion of outstanding common stock, without a set expiration date, beginning in the third quarter of 2023, which will be exercised from time to time as conditions warrant. For more information on share repurchases, see Note 18 to the financial statements in the 2022 Form 10-K.

Common Shares Outstanding for Basic and Diluted EPS

in millions	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022
Weighted average common shares outstanding, basic	**1,624**	1,674	**1,635**	1,704
Effect of dilutive RSUs and PSUs	**19**	23	**18**	21
Weighted average common shares outstanding and common stock equivalents, diluted	**1,643**	1,697	**1,653**	1,725
Weighted average antidilutive common stock equivalents (excluded from the computation of diluted EPS)	**—**	1	**3**	5

Dividends

$ in millions, except per share data	Three Months Ended September 30, 2023		Three Months Ended September 30, 2022	
	Per Share[1]	Total	Per Share[1]	Total
Preferred stock series				
A	**$ 396**	**$ 17**	$ 261	$ 11
C	**25**	**13**	25	13
E	**445**	**15**	445	15
F	**430**	**15**	430	15
I	**398**	**16**	398	16
K	**366**	**15**	366	15
L	**305**	**6**	305	6
M[2]	**29**	**12**	29	12
N[3]	**2,226**	**7**	2,650	8
O	**266**	**14**	266	14
P	**406**	**16**	330	13
Total Preferred stock		**$ 146**		$ 138
Common stock	**$ 0.850**	**$ 1,404**	$ 0.775	$ 1,329

$ in millions, except per share data	Nine Months Ended September 30, 2023		Nine Months Ended September 30, 2022	
	Per Share[1]	Total	Per Share[1]	Total
Preferred stock series				
A	**$ 1,116**	**$ 49**	$ 756	$ 33
C	**75**	**39**	75	39
E	**1,336**	**46**	1,336	45
F	**1,289**	**44**	1,289	44
I	**1,195**	**48**	1,195	48
K	**1,097**	**44**	1,097	45
L	**914**	**18**	914	18
M[2]	**59**	**24**	59	24
N[3]	**6,928**	**21**	5,300	16
O	**797**	**41**	797	41
P	**1,219**	**49**	330	13
Total Preferred stock		**$ 423**		$ 366
Common stock	**$ 2.40**	**$ 4,001**	$ 2.175	$ 3,802

1. Common and Preferred Stock dividends are payable quarterly unless otherwise noted.
2. Series M is payable semiannually until September 15, 2026 and thereafter will be payable quarterly.
3. Series N was payable semiannually until March 15, 2023 and thereafter is payable quarterly.

Accumulated Other Comprehensive Income (Loss)[1]

$ in millions	CTA	AFS Securities	Pension and Other	DVA	Cash Flow Hedges	Total
June 30, 2023	$(1,199)	$ (3,701)	$ (510)	$ (873)	$ (17)	$(6,300)
OCI during the period	**(120)**	**(366)**	**(1)**	**(412)**	**(3)**	**(902)**
September 30, 2023	**$(1,319)**	**$ (4,067)**	**$ (511)**	**$(1,285)**	**$ (20)**	**$(7,202)**
June 30, 2022	$(1,226)	$ (3,226)	$ (543)	$ (26)	$ —	$(5,021)
OCI during the period	(207)	(1,307)	5	772	—	(737)
September 30, 2022	$(1,433)	$ (4,533)	$ (538)	$ 746	$ —	$(5,758)
December 31, 2022	$(1,204)	$ (4,192)	$ (508)	$ (345)	$ (4)	$(6,253)
OCI during the period	**(115)**	**125**	**(3)**	**(940)**	**(16)**	**(949)**
September 30, 2023	**$(1,319)**	**$ (4,067)**	**$ (511)**	**$(1,285)**	**$ (20)**	**$(7,202)**
December 31, 2021	$(1,002)	$ 245	$ (551)	$(1,794)	$ —	$(3,102)
OCI during the period	(431)	(4,778)	13	2,540	—	(2,656)
September 30, 2022	$(1,433)	$ (4,533)	$ (538)	$ 746	$ —	$(5,758)

1. Amounts are net of tax and noncontrolling interests.

Components of Period Changes in OCI

$ in millions	Three Months Ended September 30, 2023				
	Pre-tax Gain (Loss)	Income Tax Benefit (Provision)	After-tax Gain (Loss)	Non-controlling Interests	Net
CTA					
OCI activity	**$ (38)**	**$ (111)**	**$ (149)**	**$ (29)**	**$ (120)**
Reclassified to earnings	**—**	**—**	**—**	**—**	**—**
Net OCI	**$ (38)**	**$ (111)**	**$ (149)**	**$ (29)**	**$ (120)**
Change in net unrealized gains (losses) on AFS securities					
OCI activity	**$ (464)**	**$ 108**	**$ (356)**	**$ —**	**$ (356)**
Reclassified to earnings	**(14)**	**4**	**(10)**	**—**	**(10)**
Net OCI	**$ (478)**	**$ 112**	**$ (366)**	**$ —**	**$ (366)**
Pension and other					
OCI activity	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**
Reclassified to earnings	**(1)**	**—**	**(1)**	**—**	**(1)**
Net OCI	**$ (1)**	**$ —**	**$ (1)**	**$ —**	**$ (1)**
Change in net DVA					
OCI activity	**$ (549)**	**$ 130**	**$ (419)**	**$ (2)**	**$ (417)**
Reclassified to earnings	**6**	**(1)**	**5**	**—**	**5**
Net OCI	**$ (543)**	**$ 129**	**$ (414)**	**$ (2)**	**$ (412)**
Change in fair value of cash flow hedge derivatives					
OCI activity	**$ (12)**	**$ 3**	**$ (9)**	**$ —**	**$ (9)**
Reclassified to earnings	**6**	**—**	**6**	**—**	**6**
Net OCI	**$ (6)**	**$ 3**	**$ (3)**	**$ —**	**$ (3)**

$ in millions	Three Months Ended September 30, 2022				
	Pre-tax Gain (Loss)	Income Tax Benefit (Provision)	After-tax Gain (Loss)	Non-controlling Interests	Net
CTA					
OCI activity	$ (85)	$ (183)	$ (268)	$ (61)	$ (207)
Reclassified to earnings	—	—	—	—	—
Net OCI	$ (85)	$ (183)	$ (268)	$ (61)	$ (207)
Change in net unrealized gains (losses) on AFS securities					
OCI activity	$(1,698)	$ 398	$(1,300)	$ —	$ (1,300)
Reclassified to earnings	(9)	2	(7)	—	(7)
Net OCI	$(1,707)	$ 400	$(1,307)	$ —	$ (1,307)
Pension and other					
OCI activity	$ 1	$ —	$ 1	$ —	$ 1
Reclassified to earnings	6	(2)	4	—	4
Net OCI	$ 7	$ (2)	$ 5	$ —	$ 5
Change in net DVA					
OCI activity	$ 1,082	$ (266)	$ 816	$ 44	$ 772
Reclassified to earnings	—	—	—	—	—
Net OCI	$ 1,082	$ (266)	$ 816	$ 44	$ 772

$ in millions	Pre-tax Gain (Loss)	Income Tax Benefit (Provision)	After-tax Gain (Loss)	Non-controlling Interests	Net
Nine Months Ended September 30, 2023					
CTA					
OCI activity	**$ (136)**	**$ (104)**	**$ (240)**	**$ (125)**	**$ (115)**
Reclassified to earnings	**—**	**—**	**—**	**—**	**—**
Net OCI	**$ (136)**	**$ (104)**	**$ (240)**	**$ (125)**	**$ (115)**
Change in net unrealized gains (losses) on AFS securities					
OCI activity	**$ 208**	**$ (49)**	**$ 159**	**$ —**	**$ 159**
Reclassified to earnings	**(45)**	**11**	**(34)**	**—**	**(34)**
Net OCI	**$ 163**	**$ (38)**	**$ 125**	**$ —**	**$ 125**
Pension and other					
OCI activity	**$ (1)**	**$ —**	**$ (1)**	**$ —**	**$ (1)**
Reclassified to earnings	**(2)**	**—**	**(2)**	**—**	**(2)**
Net OCI	**$ (3)**	**$ —**	**$ (3)**	**$ —**	**$ (3)**
Change in net DVA					
OCI activity	**$(1,283)**	**$ 311**	**$ (972)**	**$ (20)**	**$ (952)**
Reclassified to earnings	**15**	**(3)**	**12**	**—**	**12**
Net OCI	**$(1,268)**	**$ 308**	**$ (960)**	**$ (20)**	**$ (940)**
Change in fair value of cash flow hedge derivatives					
OCI activity	**$ (30)**	**$ 6**	**$ (24)**	**$ —**	**$ (24)**
Reclassified to earnings	**9**	**(1)**	**8**	**—**	**8**
Net OCI	**$ (21)**	**$ 5**	**$ (16)**	**$ —**	**$ (16)**

$ in millions	Pre-tax Gain (Loss)	Income Tax Benefit (Provision)	After-tax Gain (Loss)	Non-controlling Interests	Net
Nine Months Ended September 30, 2022					
CTA					
OCI activity	$ (279)	$ (441)	$ (720)	$ (230)	$ (490)
Reclassified to earnings	—	59	59	—	59
Net OCI	$ (279)	$ (382)	$ (661)	$ (230)	$ (431)
Change in net unrealized gains (losses) on AFS securities					
OCI activity	$(6,169)	$ 1,445	$(4,724)	$ —	$ (4,724)
Reclassified to earnings	(71)	17	(54)	—	(54)
Net OCI	$(6,240)	$ 1,462	$(4,778)	$ —	$ (4,778)
Pension and other					
OCI activity	$ (1)	$ —	$ (1)	$ —	$ (1)
Reclassified to earnings	17	(3)	14	—	14
Net OCI	$ 16	$ (3)	$ 13	$ —	$ 13
Change in net DVA					
OCI activity	$ 3,474	$ (845)	$ 2,629	$ 88	$ 2,541
Reclassified to earnings	(1)	—	(1)	—	(1)
Net OCI	$ 3,473	$ (845)	$ 2,628	$ 88	$ 2,540

17. Interest Income and Interest Expense

$ in millions	Three Months Ended September 30, 2023	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2023	Nine Months Ended September 30, 2022
Interest income				
Investment securities	**$ 1,019**	$ 743	**$ 2,886**	$ 2,261
Loans	**3,236**	1,910	**9,105**	4,469
Securities purchased under agreements to resell[1]	**1,977**	664	**5,282**	870
Securities borrowed[2]	**1,307**	385	**3,848**	97
Trading assets, net of Trading liabilities	**1,334**	635	**3,171**	1,722
Customer receivables and Other[3]	**4,432**	1,764	**11,931**	2,944
Total interest income	**$ 13,305**	$ 6,101	**$ 36,223**	$ 12,363
Interest expense				
Deposits	**$ 2,271**	$ 476	**$ 5,793**	$ 684
Borrowings	**2,992**	1,370	**8,267**	2,990
Securities sold under agreements to repurchase[4]	**1,897**	501	**4,567**	725
Securities loaned[5]	**208**	135	**575**	340
Customer payables and Other[6]	**3,960**	1,109	**10,688**	616
Total interest expense	**$ 11,328**	$ 3,591	**$ 29,890**	$ 5,355
Net interest	**$ 1,977**	$ 2,510	**$ 6,333**	$ 7,008

1. Includes interest paid on Securities purchased under agreements to resell.
2. Includes fees paid on Securities borrowed.
3. Includes interest from Cash and cash equivalents.
4. Includes interest received on Securities sold under agreements to repurchase.
5. Includes fees received on Securities loaned.
6. Includes fees received from Equity Financing customers related to their short transactions, which can be under either margin or securities lending arrangements.

Interest income and Interest expense are classified in the income statement based on the nature of the instrument and related market conventions. When included as a component of the instrument's fair value, interest is included within Trading revenues or Investments revenues. Otherwise, it is included within Interest income or Interest expense.

Accrued Interest

$ in millions	At September 30, 2023	At December 31, 2022
Customer and other receivables	**$ 4,705**	$ 4,139
Customer and other payables	**4,718**	4,273

18. Income Taxes

The Firm is routinely under examination by the IRS and other tax authorities in certain countries, such as Japan and the U.K., and in states and localities in which it has significant business operations, such as New York.

The Firm 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 Firm's effective tax rate over the next 12 months.

19. Segment, Geographic and Revenue Information

Selected Financial Information by Business Segment

$ in millions	Three Months Ended September 30, 2023				
	IS	WM	IM	I/E	Total
Investment banking	$ 938	$ 126	$ —	$ (16)	$ 1,048
Trading	3,660	(10)	24	5	3,679
Investments	100	22	22	—	144
Commissions and fees[1]	606	562	—	(70)	1,098
Asset management[1,2]	150	3,629	1,312	(60)	5,031
Other	164	123	10	(1)	296
Total non-interest revenues	5,618	4,452	1,368	(142)	11,296
Interest income	9,790	3,797	37	(319)	13,305
Interest expense	9,739	1,845	69	(325)	11,328
Net interest	51	1,952	(32)	6	1,977
Net revenues	**$ 5,669**	**$ 6,404**	**$1,336**	**$ (136)**	**$13,273**
Provision for credit losses	$ 93	$ 41	$ —	$ —	$ 134
Compensation and benefits	2,057	3,352	526	—	5,935
Non-compensation expenses	2,320	1,302	569	(132)	4,059
Total non-interest expenses	**$ 4,377**	**$ 4,654**	**$1,095**	**$ (132)**	**$ 9,994**
Income before provision for income taxes	$ 1,199	$ 1,709	$ 241	$ (4)	$ 3,145
Provision for income taxes	263	389	59	(1)	710
Net income	936	1,320	182	(3)	2,435
Net income applicable to noncontrolling interests	24	—	3	—	27
Net income applicable to Morgan Stanley	**$ 912**	**$ 1,320**	**$ 179**	**$ (3)**	**$ 2,408**

$ in millions	Three Months Ended September 30, 2022				
	IS	WM	IM	I/E	Total
Investment banking	$ 1,277	$ 114	$ —	$ (18)	$ 1,373
Trading	3,330	(41)	32	10	3,331
Investments	(73)	18	(113)	—	(168)
Commissions and fees[1]	648	543	—	(58)	1,133
Asset management[1,2]	140	3,389	1,269	(54)	4,744
Other	(25)	93	(1)	(4)	63
Total non-interest revenues	5,297	4,116	1,187	(124)	10,476
Interest income	3,889	2,626	18	(432)	6,101
Interest expense	3,369	622	37	(437)	3,591
Net interest	520	2,004	(19)	5	2,510
Net revenues	$ 5,817	$ 6,120	$1,168	$ (119)	$12,986
Provision for credit losses	$ 24	$ 11	$ —	$ —	$ 35
Compensation and benefits	1,948	3,171	495	—	5,614
Non-compensation expenses	2,219	1,289	557	(116)	3,949
Total non-interest expenses	$ 4,167	$ 4,460	$1,052	$ (116)	$ 9,563
Income before provision for income taxes	$ 1,626	$ 1,649	$ 116	$ (3)	$ 3,388
Provision for income taxes	305	396	26	(1)	726
Net income	1,321	1,253	90	(2)	2,662
Net income applicable to noncontrolling interests	47	—	(17)	—	30
Net income applicable to Morgan Stanley	$ 1,274	$ 1,253	$ 107	$ (2)	$ 2,632

$ in millions	Nine Months Ended September 30, 2023				
	IS	WM	IM	I/E	Total
Investment banking	$ 3,260	$ 339	$ —	$ (66)	$ 3,533
Trading	11,511	425	(2)	24	11,958
Investments	151	60	173	—	384
Commissions and fees[1]	1,925	1,704	—	(202)	3,427
Asset management[1,2]	448	10,463	3,828	(163)	14,576
Other	669	366	9	(8)	1,036
Total non-interest revenues	17,964	13,357	4,008	(415)	34,914
Interest income	26,364	11,124	95	(1,360)	36,223
Interest expense	26,208	4,858	197	(1,373)	29,890
Net interest	156	6,266	(102)	13	6,333
Net revenues	**$18,120**	**$19,623**	**$3,906**	**$ (402)**	**$41,247**
Provision for credit losses	$ 379	$ 150	$ —	$ —	$ 529
Compensation and benefits	6,637	10,332	1,638	—	18,607
Non-compensation expenses	7,036	4,039	1,691	(372)	12,394
Total non-interest expenses	**$13,673**	**$14,371**	**$3,329**	**$ (372)**	**$31,001**
Income before provision for income taxes	$ 4,068	$ 5,102	$ 577	$ (30)	$ 9,717
Provision for income taxes	802	1,098	135	(7)	2,028
Net income	3,266	4,004	442	(23)	7,689
Net income applicable to noncontrolling interests	117	—	2	—	119
Net income applicable to Morgan Stanley	**$ 3,149**	**$ 4,004**	**$ 440**	**$ (23)**	**$ 7,570**

$ in millions	Nine Months Ended September 30, 2022				
	IS	WM	IM	I/E	Total
Investment banking	$ 3,983	$ 354	$ —	$ (56)	$ 4,281
Trading	11,511	(681)	38	43	10,911
Investments	(69)	45	(46)	—	(70)
Commissions and fees[1]	2,110	1,869	—	(210)	3,769
Asset management[1,2]	442	10,525	3,961	(153)	14,775
Other	(131)	388	(2)	(10)	245
Total non-interest revenues	17,846	12,500	3,951	(386)	33,911
Interest income	6,797	6,208	34	(676)	12,363
Interest expense	5,050	917	71	(683)	5,355
Net interest	1,747	5,291	(37)	7	7,008
Net revenues	$19,593	$17,791	$3,914	$ (379)	$40,919
Provision for credit losses	$ 150	$ 43	$ —	$ —	$ 193
Compensation and benefits	6,602	9,191	1,645	—	17,438
Non-compensation expenses	6,874	3,814	1,676	(371)	11,993
Total non-interest expenses	$13,476	$13,005	$3,321	$ (371)	$29,431
Income before provision for income taxes	$ 5,967	$ 4,743	$ 593	$ (8)	$11,295
Provision for income taxes	1,235	1,028	121	(2)	2,382
Net income	4,732	3,715	472	(6)	8,913
Net income applicable to noncontrolling interests	146	—	(26)	—	120
Net income applicable to Morgan Stanley	$ 4,586	$ 3,715	$ 498	$ (6)	$ 8,793

1. Substantially all revenues are from contracts with customers.
2. Includes certain fees that may relate to services performed in prior periods.

For a discussion about the Firm's business segments, see Note 23 to the financial statements in the 2022 Form 10-K.

Detail of Investment Banking Revenues

	Three Months Ended September 30,		Nine Months Ended September 30,	
$ in millions	**2023**	2022	**2023**	2022
Institutional Securities Advisory	**$ 449**	$ 693	**$ 1,542**	$ 2,235
Institutional Securities Underwriting	**489**	584	**1,718**	1,748
Firm Investment banking revenues from contracts with customers	**94 %**	89 %	**91 %**	89 %

Trading Revenues by Product Type

	Three Months Ended September 30,		Nine Months Ended September 30,	
$ in millions	**2023**	2022	**2023**	2022
Interest rate	**$ 1,124**	$ 1,070	**$ 3,701**	$ 1,930
Foreign exchange	**284**	31	**672**	1,154
Equity[1]	**2,167**	1,872	**6,782**	5,869
Commodity and other	**447**	279	**1,321**	1,288
Credit	**(343)**	79	**(518)**	670
Total	**$ 3,679**	$ 3,331	**$ 11,958**	$ 10,911

1. Dividend income is included within equity contracts.

The previous table summarizes realized and unrealized gains and losses primarily related to the Firm's Trading assets and liabilities, from derivative and non-derivative financial instruments, included in Trading revenues in the income statement. The Firm generally utilizes financial instruments across a variety of product types in connection with its market-making and related risk management strategies. The trading revenues presented in the table are not representative of the manner in which the Firm manages its business activities and are prepared in a manner similar to the presentation of trading revenues for regulatory reporting purposes.

Investment Management Investments Revenues—Net Cumulative Unrealized Carried Interest

$ in millions	**At September 30, 2023**	At December 31, 2022
Net cumulative unrealized performance-based fees at risk of reversing	**$ 782**	$ 819

The Firm's portion of net cumulative performance-based fees in the form of unrealized carried interest, for which the Firm is not obligated to pay compensation, is at risk of reversing when the return in certain funds fall below specified performance targets. See Note 13 for information regarding general partner guarantees, which include potential obligations to return performance fee distributions previously received.

Investment Management Asset Management Revenues—Reduction of Fees Due to Fee Waivers

	Three Months Ended September 30,		Nine Months Ended September 30,	
$ in millions	**2023**	2022	**2023**	2022
Fee waivers	**$ 27**	$ 28	**$ 73**	$ 193

The Firm waives a portion of its fees in the Investment Management business segment from certain registered money market funds that comply with the requirements of Rule 2a-7 of the Investment Company Act of 1940.

Certain Other Fee Waivers

Separately, the Firm's employees, including its senior officers, may participate on the same terms and conditions as other investors in certain funds that the Firm sponsors primarily for client investment, and the Firm may waive or lower applicable fees and charges for its employees.

Other Expenses—Transaction Taxes

	Three Months Ended September 30,		Nine Months Ended September 30,	
$ in millions	**2023**	2022	**2023**	2022
Transaction taxes	**$ 222**	$ 215	**$ 683**	$ 701

Transaction taxes are composed of securities transaction taxes and stamp duties, which are levied on the sale or purchase of securities listed on recognized stock exchanges in certain markets. These taxes are imposed mainly on trades of equity securities in Asia and EMEA. Similar transaction taxes are levied on trades of listed derivative instruments in certain countries.

Net Revenues by Region

	Three Months Ended September 30,		Nine Months Ended September 30,	
$ in millions	**2023**	2022	**2023**	2022
Americas	**$ 10,268**	$ 10,094	**$ 31,453**	$ 30,220
EMEA	**1,479**	1,392	**4,716**	5,381
Asia	**1,526**	1,500	**5,078**	5,318
Total	**$ 13,273**	$ 12,986	**$ 41,247**	$ 40,919

For a discussion about the Firm's geographic net revenues, see Note 23 to the financial statements in the 2022 Form 10-K.

Revenues Recognized from Prior Services

	Three Months Ended September 30,		Nine Months Ended September 30,	
$ in millions	**2023**	2022	**2023**	2022
Non-interest revenues	**$ 468**	$ 788	**$ 1,350**	$ 2,036

The previous table includes revenues from contracts with customers recognized where some or all services were performed in prior periods. These revenues primarily include investment banking advisory fees.

Receivables from Contracts with Customers

$ in millions	**At September 30, 2023**	At December 31, 2022
Customer and other receivables	**$ 2,334**	$ 2,577

Receivables from contracts with customers, which are included within Customer and other receivables in the balance sheet, arise when the Firm has both recorded revenues and the right per the contract to bill the customer.

Assets by Business Segment

$ in millions	At September 30, 2023	At December 31, 2022
Institutional Securities	**$ 790,180**	$ 789,837
Wealth Management	**361,490**	373,305
Investment Management	**17,343**	17,089
Total[1]	**$ 1,169,013**	$ 1,180,231

1. Parent assets have been fully allocated to the business segments.

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