THREE-YEAR SUMMARY OF CONSOLIDATED FINANCIAL HIGHLIGHTS (unaudited)

As of or for the year ended December 31, (in millions, except per share, ratio, employee data and where otherwise noted)	2024	2023	2022
Selected income statement data			
Total net revenue	$ 177,556 [e]	$ 158,104	$ 128,695
Total noninterest expense	91,797 [e]	87,172	76,140
Pre-provision profit[a]	85,759	70,932	52,555
Provision for credit losses	10,678	9,320	6,389
Income before income tax expense	75,081	61,612	46,166
Income tax expense	16,610	12,060	8,490
Net income	$ 58,471	$ 49,552	$ 37,676
Earnings per share data			
Net income: Basic	$ 19.79	$ 16.25	$ 12.10
Diluted	19.75	16.23	12.09
Average shares: Basic	2,873.9	2,938.6	2,965.8
Diluted	2,879.0	2,943.1	2,970.0
Market and per common share data			
Market capitalization	670,618	489,320	393,484
Common shares at period-end	2,797.6	2,876.6	2,934.2
Book value per share	116.07	104.45	90.29
Tangible book value per share (“TBVPS”)[a]	97.30	86.08	73.12
Cash dividends declared per share	4.80	4.10	4.00
Selected ratios and metrics			
Return on common equity (“ROE”)	18 %	17 %	14 %
Return on tangible common equity (“ROTCE”)[a]	22	21	18
Return on assets (“ROA”)	1.43	1.30	0.98
Overhead ratio	52	55	59
Loans-to-deposits ratio	56	55	49
Firm Liquidity coverage ratio (“LCR”) (average)[b]	113	113	112
JPMorgan Chase Bank, N.A. LCR (average)[b]	124	129	151
Common equity Tier 1 (“CET1”) capital ratio[c][d]	15.7	15.0	13.2
Tier 1 capital ratio[c][d]	16.8	16.6	14.9
Total capital ratio[c][d]	18.5	18.5	16.8
Tier 1 leverage ratio[b][c]	7.2	7.2	6.6
Supplementary leverage ratio (“SLR”)[b][c]	6.1	6.1	5.6
Selected balance sheet data (period-end)			
Trading assets	$ 637,784	$ 540,607	$ 453,799
Investment securities, net of allowance for credit losses	681,320	571,552	631,162
Loans	1,347,988	1,323,706	1,135,647
Total assets	4,002,814	3,875,393	3,665,743
Deposits	2,406,032	2,400,688	2,340,179
Long-term debt	401,418	391,825	295,865
Common stockholders’ equity	324,708	300,474	264,928
Total stockholders’ equity	344,758	327,878	292,332
Employees	317,233	309,926	293,723
Credit quality metrics			
Allowances for credit losses	$ 26,866	$ 24,765	$ 22,204
Allowance for loan losses to total retained loans	1.87 %	1.75 %	1.81 %
Nonperforming assets	$ 9,300	$ 7,597	$ 7,247
Net charge-offs	8,638	6,209	2,853
Net charge-off rate	0.68 %	0.52 %	0.27 %

(a) Pre-provision profit, TBVPS and ROTCE are each non-GAAP financial measures. Tangible common equity (“TCE”) is also a non-GAAP financial measure. Refer to Explanation and Reconciliation of the Firm’s Use of Non-GAAP Financial Measures on pages 67–69 for a discussion of these measures.
(b) For the years ended December 31, 2024, 2023 and 2022, the percentage represents average ratios for the three months ended December 31, 2024, 2023 and 2022.
(c) The ratios reflect the Current Expected Credit Losses (“CECL”) capital transition provisions. Refer to Note 27 for additional information.
(d) Reflects the Firm’s ratios under the Basel III Standardized approach. Refer to Capital Risk Management on pages 97–107 for additional information.
(e) Total net revenue included a $7.9 billion net gain related to Visa shares, and total noninterest expense included a $1.0 billion contribution of Visa shares to the JPMorgan Chase Foundation, both recorded in the second quarter of 2024. Refer to Executive Overview on pages 54–58, and Notes 2 and 6 for additional information on the exchange offer for Visa Class B-1 common stock.

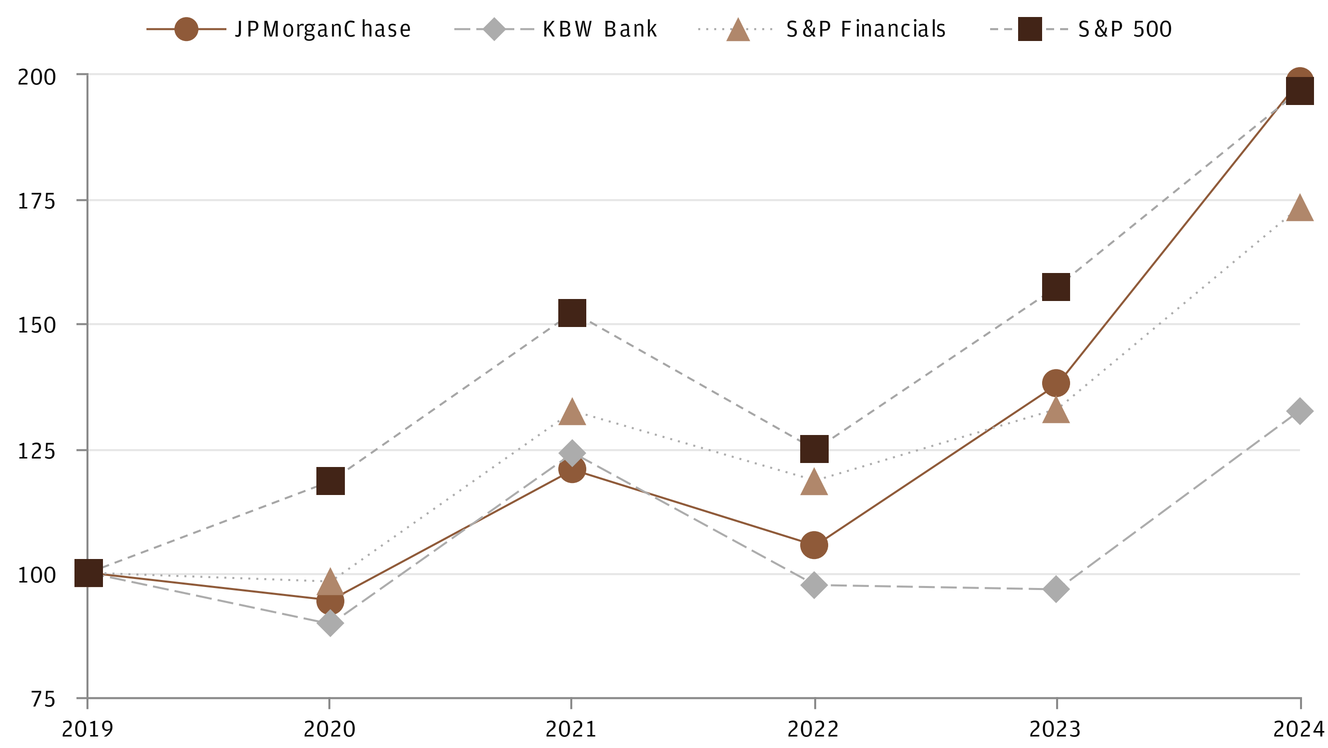
FIVE-YEAR STOCK PERFORMANCE

The following table and graph compare the five-year cumulative total return for JPMorgan Chase & Co. ("JPMorganChase" or the "Firm") common stock with the cumulative return of the S&P 500 Index, the KBW Bank Index and the S&P Financials Index. The S&P 500 Index is a commonly referenced equity benchmark in the United States of America ("U.S."), consisting of leading companies from different economic sectors. The KBW Bank Index seeks to reflect the performance of banks and thrifts that are publicly traded in the U.S. and is composed of leading national money center and regional banks and thrifts. The S&P Financials Index is an index of financial companies, all of which are components of the S&P 500. The Firm is a component of all three industry indices.

The following table and graph assume simultaneous investments of $100 on December 31, 2019, in JPMorganChase common stock and in each of the above indices. The comparison assumes that all dividends were reinvested.

December 31, (in dollars)	2019	2020	2021	2022	2023	**2024**
JPMorganChase	$ 100.00	$ 94.48	$ 120.68	$ 105.48	$ 137.91	**$ 198.96**
KBW Bank Index	100.00	89.69	124.08	97.53	96.66	**132.62**
S&P Financials Index	100.00	98.24	132.50	118.54	132.94	**173.57**
S&P 500 Index	100.00	118.39	152.34	124.75	157.54	**196.96**

December 31,
(in dollars)



The following is Management's discussion and analysis of the financial condition and results of operations ("MD&A") of JPMorganChase for the year ended December 31, 2024. The MD&A is included in both JPMorganChase's Annual Report for the year ended December 31, 2024 ("Annual Report") and its Annual Report on Form 10-K for the year ended December 31, 2024 ("2024 Form 10-K" or "Form 10-K") filed with the Securities and Exchange Commission ("SEC"). Refer to the Glossary of terms and acronyms on pages 327–333 for definitions of terms and acronyms used throughout the Annual Report and the 2024 Form 10-K.

This Form 10-K contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on the current beliefs and expectations of JPMorganChase's management, speak only as of the date of this Form 10-K and are subject to significant risks and uncertainties. Refer to Forward-looking Statements on page 167 and Part 1, Item 1A: Risk Factors in this Form 10-K on pages 10-37 for a discussion of certain of those risks and uncertainties and the factors that could cause JPMorganChase's actual results to differ materially because of those risks and uncertainties. There is no assurance that actual results will be in line with any outlook information set forth herein, and the Firm does not undertake to update any forward-looking statements.

INTRODUCTION

JPMorgan Chase & Co. (NYSE: JPM), a financial holding company incorporated under Delaware law in 1968, is a leading financial services firm based in the United States of America ("U.S."), with operations worldwide. JPMorganChase had $4.0 trillion in assets and $344.8 billion in stockholders' equity as of December 31, 2024. The Firm is a leader in investment banking, financial services for consumers and small businesses, commercial banking, financial transaction processing and asset management. Under the J.P. Morgan and Chase brands, the Firm serves millions of customers, predominantly in the U.S., and many of the world's most prominent corporate, institutional and government clients globally.

JPMorganChase's principal bank subsidiary is JPMorgan Chase Bank, National Association ("JPMorgan Chase Bank, N.A."), a national banking association with U.S. branches in 48 states and Washington, D.C. JPMorganChase's principal non-bank subsidiary is J.P. Morgan Securities LLC ("J.P. Morgan Securities"), a U.S. broker-dealer. The bank and non-bank subsidiaries of JPMorganChase operate nationally as well as through overseas branches and subsidiaries, representative offices and subsidiary foreign banks. The Firm's principal operating subsidiaries outside the U.S. are J.P. Morgan Securities plc and J.P. Morgan SE ("JPMSE"), which are subsidiaries of JPMorgan Chase Bank, N.A. and are based in the United Kingdom ("U.K.") and Germany, respectively.

Business segments & Corporate: Effective in the second quarter of 2024, the Firm reorganized its reportable business segments by combining the former Corporate & Investment Bank and Commercial Banking business segments to form one reportable segment, the Commercial & Investment Bank. As a result of the reorganization, the Firm has three reportable business segments – Consumer & Community Banking ("CCB"), Commercial & Investment Bank ("CIB") and Asset & Wealth Management ("AWM") – with the remaining activities in Corporate. The Firm's consumer business segment is CCB, and the Firm's wholesale business segments are CIB and AWM.

A description of each of the Firm's reportable business segments, and the products and services that they provide to their respective client bases, as well as a description of Corporate activities, is provided in the Management's discussion and analysis of financial condition and results of operations section of this Form 10-K ("Management's discussion and analysis" or "MD&A") under the heading "Business Segment & Corporate Results," which begins on page 70, and in Note 32.

First Republic: On May 1, 2023, JPMorganChase acquired certain assets and assumed certain liabilities of First Republic Bank (the "First Republic acquisition") from the Federal Deposit Insurance Corporation ("FDIC"). References in this Form 10-K to "associated with First Republic," "impact of First Republic" or similar expressions refer to the relevant effects of the First Republic acquisition, as well as subsequent related business and activities, as applicable. Refer to Note 34 for additional information.

The Firm's website is www.jpmorganchase.com. JPMorganChase makes available on its website, free of charge, annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as soon as reasonably practicable after it electronically files or furnishes such material to the U.S. Securities and Exchange Commission (the "SEC") at www.sec.gov. JPMorganChase makes new and important information about the Firm available on its website at https://www.jpmorganchase.com, including on the Investor Relations section of its website at https://www.jpmorganchase.com/ir. Information on the Firm's website, including documents on the website that are referenced in this Form 10-K, is not incorporated by reference into this 2024 Form 10-K or the Firm's other filings with the SEC.

This executive overview of the MD&A highlights selected information and does not contain all of the information that is important to readers of the Firm's 2024 Form 10-K. For a complete description of the trends and uncertainties, as well as the risks and critical accounting estimates affecting the Firm, the 2024 Form 10-K should be read in its entirety.

Financial performance of JPMorganChase

Year ended December 31, (in millions, except per share data and ratios)	2024	2023	Change
Selected income statement data			
Noninterest revenue	**$ 84,973**	$ 68,837	23%
Net interest income	**92,583**	89,267	4
Total net revenue	**177,556**	158,104	12
Total noninterest expense	**91,797**	87,172	5
Pre-provision profit	**85,759**	70,932	21
Provision for credit losses	**10,678**	9,320	15
Net income	**58,471**	49,552	18
Diluted earnings per share	**19.75**	16.23	22
Selected ratios and metrics			
Return on common equity	**18 %**	17 %	
Return on tangible common equity	**22**	21	
Book value per share	**$ 116.07**	$ 104.45	11
Tangible book value per share	**97.3**	86.08	13
Capital ratios[(a)(b)]			
CET1 capital	**15.7 %**	15.0 %	
Tier 1 capital	**16.8**	16.6	
Total capital	**18.5**	18.5	
Memo:			
NII excluding Markets[(c)]	**$ 92,419**	$ 90,041	3
NIR excluding Markets[(c)]	**58,167**	44,361	31
Markets[(c)]	**30,007**	27,964	7
Total net revenue - managed basis	**$ 180,593**	$ 162,366	11

(a) The ratios reflect the CECL capital transition provisions. Refer to Note 27 for additional information.
(b) Reflects the Firm's ratios under the Basel III Standardized approach. Refer to Capital Risk Management on pages 97–107 for additional information.
(c) NII and NIR refer to net interest income and noninterest revenue, respectively. Markets consists of CIB's Fixed Income Markets and Equity Markets businesses.

Visa shares: On April 8, 2024, Visa Inc. commenced an initial exchange offer for its Class B-1 common shares. On May 6, 2024, the Firm announced that Visa had accepted the Firm's tender of its 37.2 million Visa Class B-1 common shares in exchange for a combination of Visa Class B-2 common shares and Visa Class C common shares ("Visa C shares"), resulting in a $7.9 billion net gain related to Visa shares recorded in the second quarter of 2024. As of September 30, 2024, the Firm had disposed of all of its Visa C shares through sales and through a contribution to the Firm's Foundation. Refer to Market Risk Management on pages 141–149, and Notes 2 and 6 for additional information.

First Republic: JPMorganChase acquired certain assets and assumed certain liabilities of First Republic Bank from the FDIC on May 1, 2023. As a result, the year-to-date results include the twelve-month impact of First Republic compared with eight months in the prior-year period. Where meaningful to the results, this is referred to in this Form 10-K as the "timing impact" of First Republic. Refer to Notes 6 and 34 for additional information.

Comparisons noted in the sections below are for the full year of 2024 versus the full year of 2023, unless otherwise specified.

Firmwide overview

JPMorganChase reported net income of $58.5 billion for 2024, up 18%, earnings per share of $19.75, ROE of 18% and ROTCE of 22%.

- **Total net revenue** was $177.6 billion, up 12%, reflecting:
  - **Net interest income** ("NII") of $92.6 billion, up 4%, driven by the impact of balance sheet actions, primarily reinvestments in the investment securities portfolio, higher revolving balances in Card Services, the timing impact of First Republic, higher wholesale deposit balances, and higher Markets net interest income, largely offset by deposit margin compression across the lines of business and lower average deposit balances in CCB. NII excluding Markets was $92.4 billion, up 3%.
  - **Noninterest revenue** ("NIR") was $85.0 billion, up 23%, predominantly driven by a $7.9 billion net gain related to Visa shares recorded in the second quarter of 2024, higher asset management fees in AWM and CCB, higher investment banking fees, and lower net investment securities losses in Treasury and CIO.

    The prior year included the estimated bargain purchase gain of $2.8 billion associated with First Republic.

- **Noninterest expense** was $91.8 billion, up 5%, driven by higher compensation expense, including higher revenue-related compensation and growth in the number of employees, as well as a $1.0 billion contribution of Visa shares to the JPMorgan Chase Foundation recorded in the second quarter of 2024, partially offset by lower FDIC-related expense, reflecting a $2.9 billion special assessment recognized in the fourth quarter of 2023, compared with a $725 million increase to the FDIC special assessment recognized in the first quarter of 2024.
- The **provision for credit losses** was $10.7 billion, reflecting $8.6 billion of net charge-offs and a net addition to the allowance for credit losses of $2.0 billion. Net charge-offs increased by $2.4 billion, driven by Card Services, reflecting the seasoning of vintages originated in recent years, credit normalization, and balance growth. The net addition to the allowance for credit losses included a net addition of $2.1 billion in **consumer**, driven by Card Services, and a net reduction of $19 million in **wholesale**.

  The provision in the prior year was $9.3 billion, reflecting $6.2 billion of net charge-offs and a $3.1 billion net addition to the allowance for credit losses.
- The total **allowance for credit losses** was $26.9 billion at December 31, 2024. The Firm had an allowance for loan losses to retained loans coverage ratio of 1.87%, compared with 1.75% in the prior year.
- The Firm's **nonperforming assets** totaled $9.3 billion at December 31, 2024, up 22%, driven by higher wholesale nonaccrual loans, which reflected downgrades in Real Estate, concentrated in Office, partially offset by lower consumer nonaccrual loans, which included loan sales. Refer to Wholesale Credit Portfolio and Consumer Credit Portfolio on pages 126–136 and pages 120–125, respectively, for additional information.
- Firmwide **average loans** of $1.3 trillion were up 6%, driven by higher loans across the lines of business.
- Firmwide **average deposits** of $2.4 trillion were up 1%, reflecting:
  - net inflows in Payments and net issuances of structured notes in Markets,
  - the timing impact of First Republic, and
  - growth in balances in new and existing client accounts in AWM,

  predominantly offset by
  - a decline in CCB primarily driven by a decrease in balances in existing accounts due to increased customer spending.

  Refer to Liquidity Risk Management on pages 108–115 for additional information.

Selected capital and other metrics

- **CET1 capital** was $275.5 billion, and the Standardized and Advanced CET1 ratios were 15.7% and 15.8%, respectively.
- **SLR** was 6.1%.
- **TBVPS** grew 13.0%, ending 2024 at $97.30.
- As of December 31, 2024, the Firm had eligible end-of-period **High Quality Liquid Assets** ("HQLA") of approximately $834 billion and **unencumbered marketable securities** with a fair value of approximately $594 billion, resulting in approximately $1.4 trillion of liquidity sources. Refer to Liquidity Risk Management on pages 108–115 for additional information.

Refer to Consolidated Results of Operations and Consolidated Balance Sheets Analysis on pages 59–62 and pages 63–65, respectively, for a further discussion of the Firm's results, including the provision for credit losses, and Note 34 for additional information on the First Republic acquisition.

Pre-provision profit, ROTCE, TCE, TBVPS, NII and NIR excluding Markets, and total net revenue on a managed basis are non-GAAP financial measures. Refer to Explanation and Reconciliation of the Firm's Use of Non-GAAP Financial Measures on pages 67–69 for a further discussion of each of these measures.

Business segment highlights

Selected business metrics for each of the Firm's lines of business ("LOB") are presented below for the full year of 2024.

CCB ROE 32%	• Average deposits down 6%; client investment assets up 14% • Average loans up 9%; Card Services net charge-off rate of 3.34% • Debit and credit card sales volume[(a)] up 8% • Active mobile customers[(b)] up 7%
CIB[(c)] ROE 18%	• Investment Banking fees up 37%; #1 ranking for Global Investment Banking fees with 9.3% wallet share for the year • Markets revenue up 7%, with Fixed Income Markets up 5% and Equity Markets up 13% • Average Banking & Payments loans up 2%; average client deposits[(d)] up 5%
AWM ROE 34%	• Assets under management ("AUM") of $4.0 trillion, up 18% • Average loans up 3%; average deposits up 9% including the transfer of First Republic deposits to AWM in 4Q23[(e)]

(a) Excludes Commercial Card.
(b) Users of all mobile platforms who have logged in within the past 90 days.
(c) Reflects the reorganization of the Firm's business segments. Refer to Business Segment & Corporate Results on pages 70–90 for additional information.
(d) Represents client deposits and other third-party liabilities pertaining to the Payments and Securities Services businesses.
(e) In the fourth quarter of 2023, CCB transferred certain deposits associated with First Republic to AWM and CIB.

Refer to the Business Segment & Corporate Results on pages 70–90 for a detailed discussion of results by business segment.

Credit provided and capital raised

JPMorganChase continues to support consumers, businesses and communities around the globe. The Firm provided new and renewed credit and raised capital for wholesale and consumer clients during 2024, consisting of approximately:

$2.8 trillion	Total credit provided and capital raised (including loans and commitments)
$250 billion	Credit for consumers
$40 billion	Credit for U.S. small businesses
$2.4 trillion	Credit and capital for corporations and non-U.S. government entities[(a)]
$65 billion	Credit and capital for nonprofit and U.S. government entities[(b)]

(a) Includes Individuals and Individual Entities primarily consisting of Global Private Bank clients within AWM.
(b) Includes states, municipalities, hospitals and universities.

Recent events

- On January 14, 2025, JPMorganChase announced new responsibilities for several of its senior executives:
  - Daniel Pinto, President and Chief Operating Officer ("COO"), will retire at the end of 2026. Mr. Pinto will relinquish his responsibilities as President and COO as of June 30, 2025. He will continue to serve the Firm as Vice Chairman through the end of 2026.
  - Jennifer Piepszak, Co-Chief Executive Officer of the Commercial & Investment Bank ("CIB"), was named a COO of the Firm, effective January 14, 2025.
  - Doug Petno, Co-head of Global Banking, succeeded Ms. Piepszak as Co-Chief Executive Officer of CIB.
- On December 12, 2024, the Firm announced that Michele G. Buck, 63, had been elected as a director of the Firm, effective March 17, 2025. Ms. Buck is Chairman of the Board, President and CEO of The Hershey Company.

Outlook

These current expectations are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements are based on the current beliefs and expectations of JPMorganChase's management, speak only as of the date of this Form 10-K, and are subject to significant risks and uncertainties. Refer to Forward-Looking Statements on page 167 and Part I, Item 1A: Risk Factors on pages 10-37 of this Form 10-K for a further discussion of certain of those risks and uncertainties and the other factors that could cause JPMorganChase's actual results to differ materially because of those risks and uncertainties. There is no assurance that actual results in 2025 will be in line with the outlook information set forth below, and the Firm does not undertake to update any forward-looking statements.

JPMorganChase's current outlook for full-year 2025 should be viewed against the backdrop of the global and U.S. economies, financial markets activity, the geopolitical environment, the competitive environment, client and customer activity levels, and regulatory and legislative developments in the U.S. and other countries where the Firm does business. Each of these factors will affect the performance of the Firm. The Firm will continue to make appropriate adjustments to its businesses and operations in response to ongoing developments in the business, economic, regulatory and legal environments in which it operates.

Full-year 2025

- Management expects net interest income to be approximately $94.0 billion and net interest income excluding Markets to be approximately $90.0 billion, market dependent.
- Management expects adjusted expense to be approximately $95.0 billion, market dependent.
- Management expects the net charge-off rate in Card Services to be approximately 3.60%.

Net interest income excluding Markets and adjusted expense are non-GAAP financial measures. Refer to Explanation and Reconciliation of the Firm's Use of Non-GAAP Financial Measures on pages 67–69.

Business Developments

First Republic acquisition

On May 1, 2023, JPMorganChase acquired certain assets and assumed certain liabilities of First Republic Bank (the "First Republic acquisition") from the Federal Deposit Insurance Corporation ("FDIC"), as receiver.

As of December 31, 2024, the Firm had substantially completed the conversion of operations, and the integration of clients, products and services, associated with the First Republic acquisition to align with the Firm's businesses and operations.

Refer to Note 34 for additional information on First Republic.

CONSOLIDATED RESULTS OF OPERATIONS

This section provides a comparative discussion of JPMorganChase's Consolidated Results of Operations on a reported basis for the two-year period ended December 31, 2024, unless otherwise specified. Refer to Consolidated Results of Operations on pages 54-57 of the Firm's Annual Report on Form 10-K for the year ended December 31, 2023 (the "2023 Form 10-K") for a discussion of the 2023 versus 2022 results. Factors that relate primarily to a single business segment or Corporate are discussed in more detail in the results of that segment or Corporate. Refer to pages 161–164 for a discussion of the Critical Accounting Estimates Used by the Firm that affect the Consolidated Results of Operations.

Revenue

Year ended December 31, (in millions)	2024	2023	2022
Investment banking fees	**$ 8,910**	$ 6,519	$ 6,686
Principal transactions	**24,787**	24,460	19,912
Lending- and deposit-related fees	**7,606**	7,413	7,098
Asset management fees	**17,801**	15,220	14,096
Commissions and other fees	**7,530**	6,836	6,581
Investment securities losses	**(1,021)**	(3,180)	(2,380)
Mortgage fees and related income	**1,401**	1,176	1,250
Card income	**5,497**	4,784	4,420
Other income(a)(b)	**12,462** (c)	5,609 (d)	4,322
Noninterest revenue	**84,973**	68,837	61,985
Net interest income	**92,583**	89,267	66,710
Total net revenue	**$177,556**	$ 158,104	$ 128,695

(a) Included operating lease income of $2.8 billion, $2.8 billion and $3.7 billion for the years ended December 31, 2024, 2023 and 2022, respectively. Refer to Note 6 for additional information.

(b) Effective January 1, 2024, as a result of adopting updates to the Accounting for Investments in Tax Credit Structures guidance, the amortization of certain of the Firm's alternative energy tax-oriented investments that was previously recognized in other income is now recognized in income tax expense. Refer to Notes 1, 6, 14 and 25 for additional information.

(c) Included the net gain related to Visa shares of $7.9 billion recorded in the second quarter of 2024. Refer to Notes 2 and 6 for additional information.

(d) Included the estimated bargain purchase gain of $2.8 billion for the year ended December 31, 2023 associated with the First Republic acquisition. Refer to Notes 6 and 34 for additional information.

2024 compared with 2023

Investment banking fees increased, reflecting in CIB the benefit of favorable market conditions, which resulted in:

- higher debt underwriting fees predominantly driven by higher industry-wide issuances in leveraged loans, and in high-grade and high-yield bonds,
- higher equity underwriting fees driven by higher industry-wide fees and wallet share gains in IPOs, and in follow-on and convertible securities offerings, and
- higher advisory fees driven by higher industry-wide mergers and acquisitions ("M&A") activity and wallet share gains.

Refer to CIB segment results on pages 77–83 and Note 6 for additional information.

Principal transactions revenue increased driven by CIB, reflecting:

- higher Equity Markets revenue in Prime Finance and Equity Derivatives,

predominantly offset by

- lower Fixed Income Markets revenue, reflecting the net impact of declines in revenue across macro businesses and higher revenue in Securitized Products.

Principal transactions revenue in CIB generally has offsets across other revenue lines, including net interest income. The Firm assesses the performance of its Markets business on a total net revenue basis.

The increase in CIB was partially offset by a net decrease in Corporate, reflecting lower revenue in Treasury and CIO, and gains compared with a net loss on certain legacy private equity investments in the prior year.

Refer to CIB segment and Corporate results on pages 77–83 and pages 88–90, respectively, and Note 6 for additional information.

Lending- and deposit-related fees increased, reflecting, in CIB, higher deposit-related fees, including cash management fees in Payments, on higher volume; and higher lending-related fees, including loan commitment fees. These factors were largely offset by a decline in the amortization of the fair value discount on certain acquired lending-related commitments associated with First Republic, primarily in AWM, as certain of the commitments have expired.

Refer to CIB and AWM segment results on pages 77–83 and pages 84–87, respectively, and Note 6 for additional information.

Asset management fees increased, reflecting, in AWM and CCB, higher average market levels and net inflows, as well as higher performance fees in AWM; and in CCB, the timing impact of First Republic. Refer to CCB and AWM segment results on pages 73–76 and pages 84–87, respectively, and Note 6 for additional information.

Commissions and other fees increased, predominantly due to higher brokerage commissions and fees on higher volume, and higher custody fees, in both CIB and AWM, as well as higher annuity sales commissions in CCB. Refer to CCB, CIB and AWM segment results on pages 73–76, pages 77–83 and pages 84–87, respectively, and Note 6 for additional information.

Investment securities losses decreased, reflecting lower losses on sales of securities, primarily U.S. Treasuries and U.S. GSE and government agency MBS, associated with repositioning the investment securities portfolio in Treasury and CIO. Refer to Corporate results on pages 88–90 and Note 10 for additional information.

Mortgage fees and related income increased in Home Lending, reflecting higher production revenue, which included the timing impact of First Republic. Refer to CCB segment results on pages 73–76, and Note 6 and 15 for additional information.

Card income increased, reflecting higher net interchange on increased debit and credit card sales volume, as well as higher annual fees in CCB, partially offset by an increase in amortization related to new account origination costs. Refer to CCB segment results on pages 73–76 and Note 6 for additional information.

Other income increased, reflecting:

- in Corporate:
  - the $7.9 billion net gain related to Visa shares recorded in the second quarter of 2024,

  partially offset by

  - the absence of the prior-year $2.8 billion estimated bargain purchase gain associated with the First Republic acquisition, and
- in CIB:
  - the impact of the adoption of updates to the Accounting for Investments in Tax Credit Structures guidance effective January 1, 2024, resulting in the amortization of certain of the Firm's alternative energy tax-oriented investments previously recognized in other income which is now recognized in income tax expense.

  Both periods included impairment losses related to certain equity investments.

The prior year included a gain of $339 million on the original minority interest in China International Fund Management ("CIFM"), partially offset by net investment valuation losses, both in AWM. Refer to AWM segment results on pages 84–87 for additional information on CIFM; Notes 1, 6, 14 and 25 for additional information on the adoption of updates to the Accounting for Investments in Tax Credit Structures guidance; Notes 2 and 6 for additional information on Visa shares; and Notes 6 and 34 for additional information on the First Republic acquisition.

Net interest income increased driven by the impact of balance sheet actions, primarily reinvestments in the investment securities portfolio, higher revolving balances in Card Services, the timing impact of First Republic, higher wholesale deposit balances and higher Markets net interest income. These factors were largely offset by deposit margin compression across the lines of business and lower average deposit balances in CCB.

The Firm's average interest-earning assets were $3.5 trillion, up $212 billion, and the yield was 5.50%, up 36 bps. The net yield on these assets, on an FTE basis, was 2.63%, a decrease of 7 bps. The net yield excluding Markets was 3.84%, relatively flat when compared to the prior year.

Refer to the Consolidated average balance sheets, interest and rates schedule on pages 322–326 for additional information. Net yield excluding Markets is a non-GAAP financial measure. Refer to Explanation and Reconciliation of the Firm's Use of Non-GAAP Financial Measures on pages 67–69 for an additional discussion of net yield excluding Markets.

Provision for credit losses

Year ended December 31, (in millions)	2024	2023	2022
Consumer, excluding credit card	**$ 631**	$ 935	$ 506
Credit card	**9,292**	6,048	3,353
Total consumer	**9,923**	6,983	3,859
Wholesale	**731**	2,299	2,476
Investment securities	**24**	38	54
Total provision for credit losses	**$10,678**	$ 9,320	$ 6,389

2024 compared with 2023

The **provision for credit losses** was $10.7 billion, reflecting $8.6 billion of net charge-offs and a $2.0 billion net addition to the allowance for credit losses.

Net charge-offs included $7.8 billion in **consumer**, predominantly driven by Card Services, reflecting the seasoning of vintages originated in recent years, credit normalization and balance growth, and $0.8 billion in **wholesale**, primarily in Real Estate, largely concentrated in Office.

The net addition to the allowance for credit losses consisted of:

- $2.1 billion in **consumer**, reflecting:
  - a $2.2 billion net addition in Card Services, predominantly driven by loan growth, reflecting higher revolving balances, including the seasoning of vintages originated in recent years,

  partially offset by

  - a $125 million net reduction in Home Lending in the first quarter of 2024, and
- a net reduction of $19 million in **wholesale**, reflecting:
  - changes in certain macroeconomic variables, an update to loss assumptions on certain loans in Markets, and a reduction due to charge-offs largely from collateral-dependent loans,

  predominantly offset by

  - net downgrade activity, primarily in Real Estate, and the impact of incorporating the First Republic portfolio into the Firm's modeled credit loss estimates in the second quarter of 2024.

The provision in the prior year was $9.3 billion, reflecting net charge-offs of $6.2 billion and a $3.1 billion net addition to the allowance for credit losses, which included $1.2 billion to establish the allowance for the First Republic loans and lending-related commitments in the second quarter of 2023.

Refer to CCB, CIB and AWM segment and Corporate results on pages 73–76, pages 77–83, pages 84–87, and pages 88–90, respectively; Allowance for Credit Losses on pages 137–139; Critical Accounting Estimates Used by the Firm on pages 161–164; and Notes 12 and 13 for additional information on the credit portfolio and the allowance for credit losses.

Noninterest expense

Year ended December 31, (in millions)	2024		2023	2022
Compensation expense	**$ 51,357**		$46,465	$ 41,636
Noncompensation expense:				
Occupancy	**5,026**		4,590	4,696
Technology, communications and equipment[(a)]	**9,831**		9,246	9,358
Professional and outside services	**11,057**		10,235	10,174
Marketing	**4,974**		4,591	3,911
Other expense	**9,552**	(c)	12,045	6,365
Total noncompensation expense	**40,440**		40,707	34,504
Total noninterest expense	**$ 91,797**		$ 87,172	$ 76,140
Certain components of other expense[(b)]				
Legal expense	**$ 740**		$ 1,436	$ 266
FDIC-related expense	**1,893**		4,203	860
Operating losses	**1,417**		1,228	1,101

(a) Includes depreciation expense associated with auto operating lease assets. Refer to Note 18 for additional information.
(b) Refer to Note 6 for additional information.
(c) Included a $1.0 billion contribution of Visa shares to the JPMorgan Chase Foundation recorded in the second quarter of 2024. Refer to Notes 2 and 6 for additional information.

2024 compared with 2023

Compensation expense increased driven by:

- higher revenue-related compensation across the LOBs,
- growth in the number of employees across the LOBs and Corporate, primarily in front office and technology, and
- the impact of First Republic, predominantly in CCB, reflecting timing and the classification of the prior-year expense, which was recognized in other expense in Corporate in the second quarter of 2023 as the individuals associated with First Republic were not employees of the Firm until July 2023.

Noncompensation expense decreased as a result of:

- lower FDIC-related expense recognized in Corporate, which included the impact of a $2.9 billion special assessment recognized in the fourth quarter of 2023, compared with a $725 million increase to the FDIC special assessment recognized in the first quarter of 2024, and
- lower legal expense, reflecting the net impact of declines in CCB, CIB and Corporate, and an increase in AWM,

predominantly offset by

- a $1.0 billion contribution of Visa shares to the JPMorgan Chase Foundation recorded in the second quarter of 2024 in Corporate,
- higher investments in technology in the businesses, as well as marketing, predominantly in CCB,
- higher occupancy expense, which included the impact of net additions to the Firm's properties,
- higher distribution fees in AWM and brokerage expense in CIB, and
- the timing impact associated with First Republic, offset by the alignment of expense to compensation expense, as noted above.

Refer to Notes 2 and 6 for additional information on Visa shares; Note 6 for additional information on other expense; and Note 34 for additional information on the First Republic acquisition.

Income tax expense

Year ended December 31, (in millions, except rate)	2024		2023	2022
Income before income tax expense	**$ 75,081**		$ 61,612	$ 46,166
Income tax expense	**16,610**	(a)	12,060	8,490
Effective tax rate	**22.1 %**		19.6 %	18.4 %

(a) Effective January 1, 2024, as a result of adopting updates to the Accounting for Investments in Tax Credit Structures guidance, the amortization of certain of the Firm's alternative energy tax-oriented investments is now recognized in income tax expense. Refer to Notes 1, 6, 14 and 25 for additional information.

2024 compared with 2023

The **effective tax rate** increased predominantly driven by:

- the adoption of updates to the Accounting for Investments in Tax Credit Structures guidance on January 1, 2024, and
- a higher level of pretax income and changes in the mix of income and expenses subject to U.S. federal, state and local taxes, including the impact of the net gain on Visa shares and the contribution of Visa shares to the JPMorgan Chase Foundation recorded in the second quarter of 2024.

The prior year included the impact to income tax expense associated with the First Republic acquisition that was reflected in the estimated bargain purchase gain, and an income tax benefit related to the finalization of certain income tax regulations, both of which resulted in a reduction in the Firm's effective tax rate.

Refer to Note 25 for additional information.

Consolidated balance sheets analysis

The following is a discussion of the significant changes between December 31, 2024 and 2023. Refer to pages 161–164 for a discussion of the Critical Accounting Estimates Used by the Firm that affect the Consolidated Balance Sheets.

Selected Consolidated balance sheets data

December 31, (in millions)	2024	2023	Change
Assets			
Cash and due from banks	**$ 23,372**	$ 29,066	(20)%
Deposits with banks	**445,945**	595,085	(25)
Federal funds sold and securities purchased under resale agreements	**295,001**	276,152	7
Securities borrowed	**219,546**	200,436	10
Trading assets	**637,784**	540,607	18
Available-for-sale securities	**406,852**	201,704	102
Held-to-maturity securities	**274,468**	369,848	(26)
Investment securities, net of allowance for credit losses	**681,320**	571,552	19
Loans	**1,347,988**	1,323,706	2
Allowance for loan losses	**(24,345)**	(22,420)	9
Loans, net of allowance for loan losses	**1,323,643**	1,301,286	2
Accrued interest and accounts receivable	**101,223**	107,363	(6)
Premises and equipment	**32,223**	30,157	7
Goodwill, MSRs and other intangible assets	**64,560**	64,381	—
Other assets	**178,197**	159,308	12
Total assets	**$ 4,002,814**	$ 3,875,393	3 %

Cash and due from banks and deposits with banks decreased driven by higher investment securities in Treasury and CIO, and Markets activities in CIB.

Federal funds sold and securities purchased under resale agreements increased driven by Markets, reflecting higher client-driven market-making activities.

Securities borrowed increased driven by Markets, reflecting a higher demand for securities to cover short positions.

Refer to Note 11 for additional information on securities purchased under resale agreements and securities borrowed.

Trading assets increased predominantly due to higher levels of debt and equity instruments in Markets related to client-driven market-making activities. Refer to Notes 2 and 5 for additional information.

Investment securities increased due to:

- higher available-for-sale ("AFS") securities, reflecting net purchases, primarily U.S. Treasuries and non-U.S. government debt securities, partially offset by maturities and paydowns, and
- lower held to-maturity (“HTM”) securities driven by maturities and paydowns.

Refer to Corporate results on pages 88–90, Investment Portfolio Risk Management on page 140, and Notes 2 and 10 for additional information.

Loans increased, reflecting:

- higher outstanding balances in Card Services driven by growth in new accounts and normalization of revolving balances,
- higher wholesale loans in CIB, and
- higher securities-based lending in AWM due to higher client demand,

partially offset by

- a decline in Home Lending as paydowns and loan sales outpaced originations.

The **allowance for loan losses** increased, reflecting a net addition to the allowance for loan losses of $1.9 billion, consisting of:

- $2.1 billion net addition in **consumer**, primarily in Card Services, predominantly driven by loan growth, reflecting higher revolving balances, including the seasoning of vintages originated in recent years, partially offset by a net reduction in Home Lending in the first quarter of 2024, and
- a net reduction of $176 million in **wholesale**, reflecting:
  - changes in certain macroeconomic variables, an update to loss assumptions on certain loans in

- Markets, and a reduction due to charge-offs largely from collateral-dependent loans,

predominantly offset by

- net downgrade activity, primarily in Real Estate, and the impact of incorporating the First Republic portfolio into the Firm's modeled credit loss estimates in the second quarter of 2024.

There was also a $128 million net addition to the allowance for lending-related commitments recognized in other liabilities on the Consolidated balance sheets.

Refer to Consolidated Results of Operations and Credit and Investment Risk Management on pages 59–62 and pages 117–140, respectively, Critical Accounting Estimates Used by the Firm on pages 161–164, and Notes 2, 3, 12 and 13 for additional information on loans and the total allowance for credit losses.

Accrued interest and accounts receivable decreased primarily driven by lower receivables in Payments related to the timing of processing payment activities, due to December 31, 2023 falling on a weekend, as well as lower client receivables related to client-driven activities in Markets.

Premises and equipment increased primarily as a result of the construction-in-process associated with the Firm's headquarters, and purchases of properties. Refer to Notes 16 and 18 for additional information.

Goodwill, MSRs and other intangibles: Refer to Note 15 for additional information.

Other assets increased primarily due to higher cash collateral placed with central counterparties ("CCP") in Markets, the impact of the adoption of updates to the Accounting for Investments in Tax Credit Structures guidance effective January 1, 2024, and higher auto operating lease assets in CCB. Refer to Notes 1, 6, 14 and 25 for additional information on updates to the accounting guidance.

Selected Consolidated balance sheets data (continued)

December 31, (in millions)	**2024**	2023	Change
Liabilities			
Deposits	**$ 2,406,032**	$ 2,400,688	—
Federal funds purchased and securities loaned or sold under repurchase agreements	**296,835**	216,535	37
Short-term borrowings	**52,893**	44,712	18
Trading liabilities	**192,883**	180,428	7
Accounts payable and other liabilities	**280,672**	290,307	(3)
Beneficial interests issued by consolidated variable interest entities ("VIEs")	**27,323**	23,020	19
Long-term debt	**401,418**	391,825	2
Total liabilities	**3,658,056**	3,547,515	3
Stockholders' equity	**344,758**	327,878	5
Total liabilities and stockholders' equity	**$ 4,002,814**	$ 3,875,393	3 %

Deposits increased, reflecting:

- an increase in CIB due to net inflows predominantly in Payments, largely offset by net maturities of structured notes in Markets,
- an increase in AWM as a result of growth in balances in new and existing client accounts, reflecting the impact of higher-yielding product offerings, largely offset by continued migration into other investments, and
- a decline in CCB primarily driven by a decrease in balances in existing accounts due to increased customer spending and migration into higher-yielding investments, predominantly offset by new accounts.

Federal funds purchased and securities loaned or sold under repurchase agreements increased driven by Markets, reflecting higher client-driven market-making activities and higher secured financing of trading assets.

Short-term borrowings increased driven by Markets, reflecting net issuance of structured notes due to client demand, and higher financing requirements.

Refer to Liquidity Risk Management on pages 108–115 for additional information on deposits, federal funds purchased and securities loaned or sold under repurchase agreements, and short-term borrowings; Notes 2 and 17 for deposits; and Note 11 for federal funds purchased and securities loaned or sold under repurchase agreements.

Trading liabilities increased due to client-driven market-making activities primarily in Fixed Income Markets, which resulted in higher levels of short positions in debt instruments. Refer to Notes 2 and 5 for additional information.

Accounts payable and other liabilities decreased primarily driven by lower payables in Payments related to the timing of processing payment activities, due to December 31, 2023 falling on a weekend, as well as lower client payables related to client-driven activities in Markets, partially offset by the impact of the adoption of updates to the Accounting for Investments in Tax Credit Structures guidance effective January 1, 2024. Refer to Note 19 for additional information on accounts payable; and Notes 1, 6, 14 and 25 for additional information on updates to the accounting guidance.

Beneficial interests issued by consolidated VIEs increased driven by the issuance of credit card securitizations in Treasury and CIO, and activity in municipal bond vehicles in CIB.

Refer to Liquidity Risk Management on pages 108–115; and Notes 14 and 28 for additional information on Firm-sponsored VIEs and loan securitization trusts.

Long-term debt increased, primarily driven by:

- net issuances of structured notes in Markets due to client demand,

partially offset by

- a decline in Treasury and CIO, reflecting the net impact of lower FHLB advances and higher long-term debt from net issuances.

Refer to Liquidity Risk Management on pages 108–115 and Note 34 for additional information on the First Republic acquisition.

Stockholders' equity increased, reflecting:

- net income,

largely offset by

- the impact of capital actions, including repurchases of common shares, the declaration of common and preferred stock dividends, and net redemption of preferred stock, and
- net unrealized losses in AOCI, including the impact of higher interest rates on cash flow hedges in Treasury and CIO.

Refer to Consolidated Statements of changes in stockholders' equity on page 175, Capital Actions on page 105, and Note 24 for additional information.

Consolidated cash flows analysis

The following is a discussion of cash flow activities during the years ended December 31, 2024 and 2023. Refer to Consolidated cash flows analysis on page 61 of the Firm's 2023 Form 10-K for a discussion of the 2022 activities.

	Year ended December 31,		
(in millions)	**2024**	2023	2022
Net cash provided by/ (used in)			
Operating activities	**$ (42,012)**	$ 12,974	$ 107,119
Investing activities	**(163,403)**	67,643	(137,819)
Financing activities	**63,447**	(25,571)	(126,257)
Effect of exchange rate changes on cash	**(12,866)**	1,871	(16,643)
Net increase/(decrease) in cash and due from banks and deposits with banks	**$(154,834)**	$ 56,917	$(173,600)

Operating activities

JPMorganChase's operating assets and liabilities primarily support the Firm's lending and capital markets activities. These assets and liabilities can vary significantly in the normal course of business due to the amount and timing of cash flows, which are affected by client-driven and risk management activities and market conditions. The Firm believes that cash flows from operations, available cash and other liquidity sources, and its capacity to generate cash through secured and unsecured sources, are sufficient to meet its operating liquidity needs.

- In 2024, cash used resulted from higher trading assets and higher securities borrowed, largely offset by net income.
- In 2023, cash provided primarily reflected net income, lower other assets, and accrued interest and accounts receivable, predominantly offset by higher trading assets, lower accounts payable and other liabilities, and higher securities borrowed.

Investing activities

The Firm's investing activities predominantly include originating held-for-investment loans, investing in the investment securities portfolio and other short-term instruments.

- In 2024, cash used resulted from net purchases of investment securities, net loan originations and higher securities purchased under resale agreements, partially offset by proceeds from sales and securitizations of loans held-for-investment.
- In 2023, cash provided resulted from net proceeds from investment securities, proceeds from sales and securitizations of loans held-for-investment, and lower securities purchased under resale agreements, largely offset by net originations of loans and net cash used in the First Republic Bank acquisition.

Financing activities

The Firm's financing activities include acquiring customer deposits and issuing long-term debt and preferred stock.

- In 2024, cash provided primarily reflected higher securities loaned or sold under repurchase agreements and net proceeds from long- and short-term borrowings, partially offset by net redemption of preferred stock.
- In 2023, cash used reflected lower deposits, which included the impact of the repayment of the deposits provided to First Republic Bank by the consortium of large U.S. banks that the Firm assumed as part of the First Republic acquisition, partially offset by higher securities loaned under repurchase agreements and net proceeds from long- and short-term borrowings.
- For both periods, cash was used for repurchases of common stock and cash dividends on common and preferred stock.

* * *

Refer to Consolidated Balance Sheets Analysis on pages 63–65, Capital Risk Management on pages 97–107, and Liquidity Risk Management on pages 108–115, and the Consolidated Statements of Cash Flows on page 176 for a further discussion of the activities affecting the Firm's cash flows.

Non-GAAP financial measures

The Firm prepares its Consolidated Financial Statements in accordance with U.S. GAAP; these financial statements appear on pages 172–176. That presentation, which is referred to as "reported" basis, provides the reader with an understanding of the Firm's results that can be tracked consistently from year-to-year and enables a comparison of the Firm's performance with the U.S. GAAP financial statements of other companies.

In addition to analyzing the Firm's results on a reported basis, management reviews Firmwide results, including the overhead ratio, on a "managed" basis; these Firmwide managed basis results are non-GAAP financial measures. The Firm also reviews the results of the lines of business on a managed basis. The Firm's definition of managed basis starts, in each case, with the reported U.S. GAAP results and includes certain reclassifications to present total net revenue for the Firm as a whole, and for each of the reportable business segments and Corporate, on an FTE basis. Accordingly, revenue from investments that receive tax credits and tax-exempt securities is presented in the managed results on a basis comparable to taxable investments and securities. These financial measures allow management to assess the comparability of revenue from year-to-year arising from both taxable and tax-exempt sources. The corresponding income tax impact related to tax-exempt items is recorded within income tax expense. These adjustments have no impact on net income as reported by the Firm as a whole or by each of the lines of business and Corporate.

Management also uses certain non-GAAP financial measures at the Firm and business-segment levels because these other non-GAAP financial measures provide information to investors about the underlying operational performance and trends of the Firm or of the particular business segment, as the case may be, and therefore facilitate a comparison of the Firm or the business segment with the performance of its relevant competitors. Refer to Business Segment & Corporate Results on pages 70–90 for additional information on these non-GAAP measures. Non-GAAP financial measures used by the Firm may not be comparable to similarly named non-GAAP financial measures used by other companies.

The following summary table provides a reconciliation from the Firm's reported U.S. GAAP results to managed basis.

	2024			2023			2022		
Year ended December 31, (in millions, except ratios)	Reported	Fully taxable-equivalent adjustments(b)	Managed basis	Reported	Fully taxable-equivalent adjustments(b)	Managed basis	Reported	Fully taxable-equivalent adjustments(b)	Managed basis
Other income	**$12,462** (a)	**$ 2,560** (a)	**$15,022**	$ 5,609	$ 3,782	$ 9,391	$ 4,322	$ 3,148	$ 7,470
Total noninterest revenue	**84,973**	**2,560**	**87,533**	68,837	3,782	72,619	61,985	3,148	65,133
Net interest income	**92,583**	**477**	**93,060**	89,267	480	89,747	66,710	434	67,144
Total net revenue	**177,556**	**3,037**	**180,593**	158,104	4,262	162,366	128,695	3,582	132,277
Total noninterest expense	**91,797**	**NA**	**91,797**	87,172	NA	87,172	76,140	NA	76,140
Pre-provision profit	**85,759**	**3,037**	**88,796**	70,932	4,262	75,194	52,555	3,582	56,137
Provision for credit losses	**10,678**	**NA**	**10,678**	9,320	NA	9,320	6,389	NA	6,389
Income before income tax expense	**75,081**	**3,037**	**78,118**	61,612	4,262	65,874	46,166	3,582	49,748
Income tax expense	**16,610** (a)	**3,037** (a)	**19,647**	12,060	4,262	16,322	8,490	3,582	12,072
Net income	**$58,471**	**NA**	**$58,471**	$49,552	NA	$49,552	$37,676	NA	$37,676
Overhead ratio	**52 %**	**NM**	**51 %**	55 %	NM	54 %	59 %	NM	58 %

(a) Effective January 1, 2024, the Firm adopted updates to the Accounting for Investments in Tax Credit Structures guidance, under the modified retrospective method. Refer to Notes 1, 6, 14 and 25 for additional information.

(b) Predominantly recognized in CIB and Corporate.

Net interest income, net yield, and noninterest revenue excluding Markets

In addition to reviewing net interest income, net yield, and noninterest revenue on a managed basis, management also reviews these metrics excluding Markets, as shown below. Markets consists of CIB's Fixed Income Markets and Equity Markets. These metrics, which exclude Markets, are non-GAAP financial measures. Management reviews these metrics to assess the performance of the Firm's lending, investing (including asset-liability management) and deposit-raising activities, apart from any volatility associated with Markets activities. In addition, management also assesses Markets business performance on a total revenue basis as offsets may occur across revenue lines. Management believes that these measures provide investors and analysts with alternative measures to analyze the revenue trends of the Firm.

Year ended December 31, (in millions, except rates)	2024	2023	2022
Net interest income – reported[a]	**$ 92,583**	$ 89,267	$ 66,710
Fully taxable-equivalent adjustments	**477**	480	434
Net interest income – managed basis	**$ 93,060**	$ 89,747	$ 67,144
Less: Markets net interest income[b]	**641**	(294)	4,789
Net interest income excluding Markets	**$ 92,419**	$ 90,041	$ 62,355
Average interest-earning assets[a]	**$3,537,567**	$3,325,708	$3,349,079
Less: Average Markets interest-earning assets[b]	**1,128,153**	985,777	953,195
Average interest-earning assets excluding Markets	**$2,409,414**	$2,339,931	$2,395,884
Net yield on average interest-earning assets – managed basis	**2.63 %**	2.70 %	2.00 %
Net yield on average Markets interest-earning assets[b]	**0.06**	(0.03)	0.50
Net yield on average interest-earning assets excluding Markets	**3.84 %**	3.85 %	2.60 %
Noninterest revenue – reported[c]	**$ 84,973**	$ 68,837	$ 61,985
Fully taxable-equivalent adjustments[c]	**2,560**	3,782	3,148
Noninterest revenue – managed basis	**$ 87,533**	$ 72,619	$ 65,133
Less: Markets noninterest revenue[b][d]	**29,366**	28,258	24,373
Noninterest revenue excluding Markets	**$ 58,167**	$ 44,361	$ 40,760
Memo: Total Markets net revenue[b]	**$ 30,007**	$ 27,964	$ 29,162

(a) Includes the effect of derivatives that qualify for hedge accounting. Taxable-equivalent amounts are used, also where applicable. Refer to Note 5 for additional information on hedge accounting.
(b) Refer to pages 81–82 for further information on Markets.
(c) Effective January 1, 2024, the Firm adopted updates to the Accounting for Investment in Tax Credit Stricture guidance, under the modified retrospective method. Refer to Notes 1, 6, 14 and 25 for additional information.
(d) Includes the market-related revenues of the former Commercial Banking business segment. Prior-period amounts have been revised to conform with the current presentation.

Calculation of certain U.S. GAAP and non-GAAP financial measures

Certain U.S. GAAP and non-GAAP financial measures are calculated as follows:

Book value per share ("BVPS")
Common stockholders' equity at period-end / Common shares at period-end

Overhead ratio
Total noninterest expense / Total net revenue

ROA
Reported net income / Total average assets

ROE
Net income* / Average common stockholders' equity

ROTCE
Net income* / Average tangible common equity

TBVPS
Tangible common equity at period-end / Common shares at period-end

* Represents net income applicable to common equity

In addition, the Firm reviews other non-GAAP measures such as:

- Adjusted expense, which represents noninterest expense excluding Firmwide legal expense, and
- Pre-provision profit, which represents total net revenue less total noninterest expense.

Management believes that these measures help investors to understand the effect of these items on reported results and provide an alternative presentation of the Firm's performance.

TCE, ROTCE and TBVPS

TCE, ROTCE and TBVPS are each non-GAAP financial measures. TCE represents the Firm's common stockholders' equity (i.e., total stockholders' equity less preferred stock) less goodwill and identifiable intangible assets (other than MSRs), net of related deferred tax liabilities. ROTCE measures the Firm's net income applicable to common equity as a percentage of average TCE. TBVPS represents the Firm's TCE at period-end divided by common shares at period-end. TCE, ROTCE and TBVPS are utilized by the Firm, as well as investors and analysts, in assessing the Firm's use of equity.

The following summary table provides a reconciliation from the Firm's common stockholders' equity to TCE.

	Period-end		Average		
			Year ended December 31,		
(in millions, except per share and ratio data)	**Dec 31, 2024**	Dec 31, 2023	**2024**	2023	2022
Common stockholders' equity	**$ 324,708**	$ 300,474	**$ 312,370**	$ 282,056	$ 253,068
Less: Goodwill	**52,565**	52,634	**52,627**	52,258	50,952
Less: Other intangible assets	**2,874**	3,225	**3,042**	2,572	1,112
Add: Certain deferred tax liabilities[a]	**2,943**	2,996	**2,970**	2,883	2,505
Tangible common equity	**$ 272,212**	$ 247,611	**$ 259,671**	$ 230,109	$ 203,509
Return on tangible common equity	**NA**	NA	**22 %**	21 %	18 %
Tangible book value per share	**$ 97.30**	$ 86.08	**NA**	NA	NA

(a) Represents deferred tax liabilities related to tax-deductible goodwill and to identifiable intangibles created in nontaxable transactions, which are netted against goodwill and other intangibles when calculating TCE.

BUSINESS SEGMENT & CORPORATE RESULTS

The Firm is managed on an LOB basis. Effective in the second quarter of 2024, the Firm reorganized its reportable business segments by combining the former Corporate & Investment Bank and Commercial Banking business segments to form one reportable segment, the Commercial & Investment Bank ("CIB"). As a result of the reorganization, the Firm has three reportable business segments – Consumer & Community Banking, Commercial & Investment Bank, and Asset & Wealth Management – with the remaining activities in Corporate.

The business segments are determined based on the products and services provided, or the type of customer served, and they reflect the manner in which financial information is evaluated by the Firm's Operating Committee, whose members act collectively as the Firm's chief operating decision maker. Segment results are presented on a managed basis. Refer to Explanation and Reconciliation of the Firm's use of Non-GAAP Financial Measures, on pages 67–69 for a definition of managed basis.

The following table depicts the Firm's reportable business segments.

<table>
<tr><th colspan="6">JPMorganChase</th></tr>
<tr><td colspan="3">Consumer Business Segment</td><td colspan="3">Wholesale Business Segments</td></tr>
<tr><td colspan="3">Consumer & Community Banking</td><td colspan="2">Commercial & Investment Bank</td><td rowspan="2">Asset & Wealth Management</td></tr>
<tr><td>Banking & Wealth Management</td><td>Home Lending</td><td>Card Services & Auto</td><td>Banking & Payments</td><td>Markets & Securities Services</td></tr>
<tr><td>• Consumer Banking
• Business Banking
• J.P. Morgan Wealth Management</td><td>• Home Lending Production
• Home Lending Servicing
• Real Estate Portfolios</td><td>• Card Services
• Auto</td><td>• Investment Banking
• Payments
• Lending
• Other</td><td>• Fixed Income Markets
• Equity Markets
• Securities Services
• Credit Adjustments & Other</td><td>• Asset Management
• Global Private Bank</td></tr>
</table>

Description of business segment reporting methodology

Results of the reportable business segments are intended to present each segment as if it were a stand-alone business. The management reporting process that derives business segment results includes the allocation of certain income and expense items. The Firm periodically assesses the assumptions, methodologies and reporting classifications used for segment reporting, and therefore further refinements may be implemented in future periods. The Firm also assesses the level of capital required for each LOB on at least an annual basis. The Firm's LOBs also provide various business metrics which are utilized by the Firm and its investors and analysts in assessing performance.

Revenue sharing

When business segments or businesses within each segment join efforts to sell products and services to the Firm's clients and customers, the participating businesses may agree to share revenue from those transactions. Revenue is generally recognized in the segment responsible for the related product or service, with allocations to the other segments or businesses involved in the transaction. The segment and business results reflect these revenue-sharing agreements.

Expense allocation
Where business segments use services provided by Corporate support units, or another business segment, the costs of those services are allocated to the respective business segments. The expense is generally allocated based on the actual cost and use of services provided. In contrast, certain costs and investments related to Corporate that are not currently utilized by any LOB are not allocated to the business segments and are retained in Corporate. Expense retained in Corporate generally includes costs that would not be incurred if the segments were stand-alone businesses, and other items not solely aligned with a particular reportable business segment.

Funds transfer pricing
Funds transfer pricing ("FTP") is the process by which the Firm allocates interest income and expense to the LOBs and Other Corporate and transfers the primary interest rate risk and liquidity risk to Treasury and CIO.

The funds transfer pricing process considers the interest rate and liquidity risk characteristics of assets and liabilities and off-balance sheet products. Periodically, the methodology and assumptions utilized in the FTP process are adjusted to reflect economic conditions and other factors, which may impact the allocation of net interest income to the segments. Effective in the fourth quarter of 2024, the Firm updated its FTP with respect to consumer deposits, which resulted in an increase in the funding benefit reflected within CCB's net interest income that is fully offset in Corporate, with no effect on the Firm's net interest income.

As a result of higher average interest rates, the cost of funds for assets and the FTP benefit earned for liabilities have generally increased in the current year, impacting the net interest income of the business segments. During the period ended December 31, 2024, this has resulted in a higher cost of funds for loans and Markets activities. In addition, rates paid to deposit holders increased more than the FTP benefit increase during the year, resulting in deposit margin compression.

Foreign exchange risk
Foreign exchange risk is transferred from the LOBs and Other Corporate to Treasury and CIO for certain revenues and expenses. Treasury and CIO manages these risks centrally and reports the impact of foreign exchange rate movements related to the transferred risk in its results. Refer to Market Risk Management on page 149 for additional information.

Debt expense and preferred stock dividend allocation
As part of the FTP process, almost all of the cost of the credit spread component of outstanding unsecured long-term debt and preferred stock dividends is allocated to the reportable business segments, while the balance of the cost is retained in Corporate. The methodology to allocate the cost of unsecured long-term debt and preferred stock dividends to the business segments is aligned with the relevant regulatory capital requirements and funding needs of the LOBs, as applicable. The allocated cost of unsecured long-term debt is included in a business segment's net interest income, and net income is reduced by preferred stock dividends, to arrive at a business segment's net income applicable to common equity. Refer to Capital Risk Management on pages 97–107 for additional information.

Capital allocation
The amount of capital assigned to each LOB and Corporate is referred to as equity. The Firm's current equity allocation methodology incorporates Basel III Standardized risk-weighted assets ("RWA") and the global systemically important banks ("GSIB") surcharge, both under rules currently in effect, as well as a simulation of capital depletion in a severe stress environment. At least annually, the assumptions, judgments and methodologies used to allocate capital are reassessed and, as a result, the capital allocated to the LOBs and Corporate may change. Refer to Line of business and Corporate equity on page 104 for additional information on capital allocation.

Segment & Corporate Results – Managed Basis

The following tables summarize the Firm's results by business segments and Corporate for the periods indicated.

Year ended December 31,	Consumer & Community Banking				Commercial & Investment Bank				Asset & Wealth Management		
(in millions, except ratios)	**2024**	2023	2022		**2024**	2023	2022		**2024**	2023	2022
Total net revenue	**$ 71,507**	$ 70,148	$ 54,814	(a)	**$ 70,114**	$ 64,353	$ 59,635	(a)	**$ 21,578**	$ 19,827	$ 17,748
Total noninterest expense	**38,036**	34,819	31,208	(a)	**35,353**	33,972	32,069	(a)	**14,414**	12,780	11,829
Pre-provision profit/(loss)	**33,471**	35,329	23,606		**34,761**	30,381	27,566		**7,164**	7,047	5,919
Provision for credit losses	**9,974**	6,899	3,813		**762**	2,091	2,426		**(68)**	159	128
Net income/(loss)	**17,603**	21,232	14,916	(a)	**24,846**	20,272	19,138	(a)	**5,421**	5,227	4,365
Return on equity ("ROE")	**32 %**	38 %	29 %		**18 %**	14 %	14 %		**34 %**	31 %	25 %

Year ended December 31,	Corporate				Total			
(in millions, except ratios)	**2024**		2023	2022	**2024**		2023	2022
Total net revenue	**$ 17,394**	(b)	$ 8,038	$ 80	**$180,593**	(b)	$162,366	$ 132,277
Total noninterest expense	**3,994**	(c)	5,601	1,034	**91,797**	(c)	87,172	76,140
Pre-provision profit/(loss)	**13,400**		2,437	(954)	**88,796**		75,194	56,137
Provision for credit losses	**10**		171	22	**10,678**		9,320	6,389
Net income/(loss)	**10,601**		2,821	(743)	**58,471**		49,552	37,676
Return on equity ("ROE")	**NM**		NM	NM	**18 %**		17 %	14 %

(a) In the first quarter of 2023, the allocations of revenue and expense to CCB associated with a Merchant Services revenue sharing agreement were discontinued and are now retained in Payments in CIB. Prior-period amounts have been revised to conform with the current presentation.
(b) Included a $7.9 billion net gain related to Visa shares recorded in the second quarter of 2024. Refer to Notes 2 and 6 for additional information.
(c) Included a $1.0 billion contribution of Visa shares to the JPMorgan Chase Foundation recorded in the second quarter of 2024. Refer to Notes 2 and 6 for additional information.

Refer to Note 32 for further details on total net revenue and total noninterest expense.

The following sections provide a comparative discussion of the Firm's results by business segments and Corporate as of or for the years ended December 31, 2024 and 2023, unless otherwise specified.

Consumer & Community Banking offers products and services to consumers and small businesses through bank branches, ATMs, digital (including mobile and online) and telephone banking. CCB is organized into Banking & Wealth Management (including Consumer Banking, Business Banking and J.P. Morgan Wealth Management), Home Lending (including Home Lending Production, Home Lending Servicing and Real Estate Portfolios) and Card Services & Auto. Banking & Wealth Management offers deposit, investment and lending products, cash management, payments and services. Home Lending includes mortgage origination and servicing activities, as well as portfolios consisting of residential mortgages and home equity loans. Card Services issues credit cards and offers travel services. Auto originates and services auto loans and leases.

Selected income statement data

Year ended December 31, (in millions, except ratios)	2024	2023	2022
Revenue			
Lending- and deposit-related fees	**$ 3,387**	$ 3,356	$ 3,316
Asset management fees	**4,014**	3,282	2,734
Mortgage fees and related income	**1,378**	1,175	1,236
Card income	**3,139**	2,532	2,469
All other income[(a)]	**4,731**	4,773	5,131
Noninterest revenue	**16,649**	15,118	14,886
Net interest income	**54,858**	55,030	39,928
Total net revenue	**71,507**	70,148	54,814
Provision for credit losses	**9,974**	6,899	3,813
Noninterest expense			
Compensation expense	**17,045**	15,171	13,092
Noncompensation expense[(b)]	**20,991**	19,648	18,116
Total noninterest expense	**38,036**	34,819 [(d)]	31,208
Income before income tax expense	**23,497**	28,430	19,793
Income tax expense	**5,894**	7,198	4,877
Net income	**$17,603**	$ 21,232	$ 14,916
Revenue by business			
Banking & Wealth Management	**$40,943**	$ 43,199	$ 30,059
Home Lending	**5,097**	4,140	3,674
Card Services & Auto	**25,467**	22,809	21,081
Mortgage fees and related income details:			
Production revenue	**627**	421	497
Net mortgage servicing revenue[(c)]	**751**	754	739
Mortgage fees and related income	**$ 1,378**	$ 1,175	$ 1,236
Financial ratios			
Return on equity	**32 %**	38 %	29 %
Overhead ratio	**53**	50	57

(a) Primarily includes operating lease income and commissions and other fees. Operating lease income was $2.8 billion, $2.8 billion and $3.6 billion for the years ended December 31, 2024, 2023 and 2022, respectively.
(b) Included depreciation expense on leased assets of $1.7 billion, $1.7 billion and $2.4 billion for the years ended December 31, 2024, 2023 and 2022, respectively.
(c) Included MSR risk management results of $159 million, $131 million and $93 million for the years ended December 31, 2024, 2023 and 2022, respectively.
(d) In the second quarter of 2023, substantially all of the expense associated with First Republic was reported in Corporate. Commencing in the third quarter of 2023, the expense was aligned to the appropriate LOB.

2024 compared with 2023

Net income was $17.6 billion, down 17%.

Net revenue was $71.5 billion, up 2%.

Net interest income was $54.9 billion, flat when compared with the prior year, reflecting:

- lower NII in Banking & Wealth Management ("BWM"), predominantly driven by deposit margin compression and lower average deposits,

offset by

- higher Card Services NII, predominantly driven by higher revolving balances, and
- the timing impact of First Republic in Home Lending.

Noninterest revenue was $16.6 billion, up 10%, predominantly driven by:

- higher asset management fees reflecting higher average market levels, including the timing impact of First Republic and, to a lesser extent, net inflows, as well as higher commissions from annuity sales in BWM,
- higher card income, driven by higher net interchange reflecting increased debit and credit card sales volume, and higher annual fees, partially offset by an increase in amortization related to new account origination costs, as well as
- higher production revenue in Home Lending, including the timing impact of First Republic.

Refer to Note 6 for additional information on card income, asset management fees, and commissions and other fees; and Critical Accounting Estimates on pages 161–164 for additional information on the credit card rewards liability.

Refer to Executive Overview on page 54 and Note 34 for additional information on First Republic.

Noninterest expense was $38.0 billion, up 9%, reflecting First Republic-related expense that was aligned to CCB from Corporate starting in the third quarter of 2023, impacting both compensation and noncompensation expense.

The increase in expense also reflected:

- higher compensation expense, largely driven by higher revenue-related compensation predominantly for advisors and bankers, and an increase in the number of employees, including in technology, and
- higher noncompensation expense, largely driven by continued investments in technology and marketing, as well as higher operating losses, partially offset by lower legal expense.

The provision for credit losses was $10.0 billion, reflecting:

- net charge-offs of $7.9 billion, up $2.6 billion, including $2.4 billion in Card Services, reflecting the seasoning of vintages originated in recent years, credit normalization and balance growth, and
- a $2.0 billion net addition to the allowance for credit losses, consisting of:
  - $2.2 billion in Card Services, predominantly driven by loan growth, reflecting higher revolving balances, including the seasoning of vintages originated in recent years,

  partially offset by

  - a $125 million net reduction in Home Lending, primarily due to improvements in the outlook for home prices in the first quarter of 2024.

The provision in the prior year was $6.9 billion, reflecting net charge-offs of $5.3 billion, a $1.2 billion net addition to the allowance for credit losses, predominantly driven by Card Services, and a $408 million net addition to the allowance for credit losses to establish the allowance for the First Republic loans and lending-related commitments in the second quarter of 2023.

Refer to Credit and Investment Risk Management on pages 117–140 and Allowance for Credit Losses on pages 137–139 for a further discussion of the credit portfolios and the allowance for credit losses.

Selected metrics

As of or for the year ended December 31, (in millions, except employees)	2024	2023	2022
Selected balance sheet data (period-end)			
Total assets	**$650,268**	$ 642,951	$ 514,085
Loans:			
Banking & Wealth Management	**33,221**	31,142	29,008
Home Lending[(a)]	**246,498**	259,181	172,554
Card Services	**233,016**	211,175	185,175
Auto	**73,619**	77,705	68,191
Total loans	**586,354**	579,203	454,928
Deposits[(b)]	**1,056,652**	1,094,738	1,131,611
Equity	**54,500**	55,500	50,000
Selected balance sheet data (average)			
Total assets	**$ 631,648**	$ 584,367	$ 497,263
Loans:			
Banking & Wealth Management	**31,544**	30,142	31,545
Home Lending[(c)]	**252,542**	232,115	176,285
Card Services	**214,139**	191,424	163,335
Auto	**75,009**	72,674	68,098
Total loans	**573,234**	526,355	439,263
Deposits[(b)]	**1,064,215**	1,126,552	1,162,680
Equity	**54,500**	54,349	50,000
Employees	**144,989**	141,640	135,347

(a) At December 31, 2024, 2023 and 2022, Home Lending loans held-for-sale and loans at fair value were $8.1 billion, $3.4 billion and $3.0 billion, respectively.
(b) In the fourth quarter of 2023, CCB transferred approximately $18.8 billion of deposits associated with First Republic to AWM and CIB.
(c) Average Home Lending loans held-for-sale and loans at fair value were $7.1 billion, $4.8 billion and $7.3 billion for the years ended December 31, 2024, 2023 and 2022, respectively.

Selected metrics

As of or for the year ended December 31, (in millions, except ratio data)	2024	2023	2022
Credit data and quality statistics			
Nonaccrual loans[(a)]	**$ 3,366**	$3,740	$ 3,899
Net charge-offs/(recoveries)			
Banking & Wealth Management	**442**	340	370
Home Lending	**(106)**	(56)	(229)
Card Services	**7,148**	4,699	2,403
Auto	**444**	357	144
Total net charge-offs/ (recoveries)	**$ 7,928**	$5,340	$ 2,688
Net charge-off/(recovery) rate			
Banking & Wealth Management	**1.40 %**	1.13 %	1.17 %
Home Lending	**(0.04)**	(0.02)	(0.14)
Card Services	**3.34**	2.45	1.47
Auto	**0.59**	0.49	0.21
Total net charge-off/ (recovery) rate	**1.40 %**	1.02 %	0.62 %
30+ day delinquency rate			
Home Lending[(b)]	**0.78 %**	0.66 %	0.83 %
Card Services	**2.17**	2.14	1.45
Auto	**1.43**	1.19	1.01
90+ day delinquency rate - Card Services	**1.14 %**	1.05 %	0.68 %
Allowance for loan losses			
Banking & Wealth Management	**$ 764**	$ 685	$ 722
Home Lending	**447**	578	867
Card Services	**14,608**	12,453	11,200
Auto	**692**	742	715
Total allowance for loan losses	**$ 16,511**	$14,458	$13,504

(a) Excludes mortgage loans past due and insured by U.S. government agencies, which are primarily 90 or more days past due. These loans have been excluded based upon the government guarantee. At December 31, 2024, 2023 and 2022, mortgage loans 90 or more days past due and insured by U.S. government agencies were $84 million, $123 million and $187 million, respectively. In addition, the Firm's policy is generally to exempt credit card loans from being placed on nonaccrual status as permitted by regulatory guidance
(b) At December 31, 2024, 2023 and 2022, excluded mortgage loans insured by U.S. government agencies of $122 million, $176 million and $258 million, respectively, that are 30 or more days past due. These amounts have been excluded based upon the government guarantee.

Selected metrics

As of or for the year ended December 31, (in billions, except ratios and where otherwise noted)	2024	2023	2022
Business Metrics			
CCB Consumer customers (in millions)	**84.4**	82.1	79.2
CCB Small business customers (in millions)	**7.0**	6.4	5.7
Number of branches	**4,966**	4,897	4,787
Active digital customers (in thousands)[(a)]	**70,813**	66,983	63,136
Active mobile customers (in thousands)[(b)]	**57,821**	53,828	49,710
Debit and credit card sales volume	**$1,805.4**	$1,678.6	$1,555.4
Total payments transaction volume (in trillions)[(c)]	**6.4**	5.9	5.6
Banking & Wealth Management			
Average deposits	**$1,049.3**	$ 1,111.7	$ 1,145.7
Deposit margin	**2.66 %**	2.84 %	1.71 %
Business Banking average loans	**$ 19.5**	$ 19.6	$ 22.3
Business Banking origination volume	**4.5**	4.8	4.3
Client investment assets[(d)]	**1,087.6**	951.1	647.1
Number of client advisors	**5,755**	5,456	5,029
Home Lending			
Mortgage origination volume by channel			
Retail	**$ 25.5**	$ 22.4	$ 38.5
Correspondent	**15.3**	12.7	26.9
Total mortgage origination volume[(e)]	**$ 40.8**	$ 35.1	$ 65.4
Third-party mortgage loans serviced (period-end)	**$ 648.0**	$ 631.2	$ 584.3
MSR carrying value (period-end)	**9.1**	8.5	8.0
Card Services			
Sales volume, excluding commercial card	**$1,259.3**	$ 1,163.6	$1,064.7
Net revenue rate	**10.03 %**	9.72 %	9.87 %
Net yield on average loans	**9.73**	9.61	9.77
New credit card accounts opened (in millions)	**10.0**	10.0	9.6
Auto			
Loan and lease origination volume	**$ 40.3**	$ 41.3	$ 30.4
Average auto operating lease assets	**11.1**	10.9	14.3

(a) Users of all web and/or mobile platforms who have logged in within the past 90 days.
(b) Users of all mobile platforms who have logged in within the past 90 days.
(c) Total payments transaction volume includes debit and credit card sales volume and gross outflows of ACH, ATM, teller, wires, BillPay, PayChase, Zelle, person-to-person and checks.
(d) Includes assets invested in managed accounts and J.P. Morgan mutual funds where AWM is the investment manager. Refer to AWM segment results on pages 84–87 for additional information.
(e) Firmwide mortgage origination volume was $47.4 billion, $41.4 billion and $81.8 billion for the years ended December 31, 2024, 2023 and 2022, respectively.

The Commercial & Investment Bank is comprised of the Banking & Payments and Markets & Securities Services businesses. These businesses offer investment banking, lending, payments, market-making, financing, custody and securities products and services to a global base of corporate and institutional clients. Banking & Payments offers products and services in all major capital markets, including advising on corporate strategy and structure, capital-raising in equity and debt markets, and loan origination and syndication. Banking & Payments also provides services that enable clients to manage payments globally across liquidity and account solutions, commerce solutions, clearing, trade, and working capital. Markets & Securities Services includes Markets, which is a global market-maker across products, including cash and derivative instruments, and also offers sophisticated risk management solutions, lending, prime brokerage, clearing and research. Markets & Securities Services also includes Securities Services, a leading global custodian that provides custody, fund services, liquidity and trading services, and data solutions products.

(a) Reflects the reorganization of the Firm's business segments in the second quarter of 2024. Refer to Business Segment & Corporate Results on pages 70–90 for additional information.

Selected income statement data

Year ended December 31, (in millions)	2024	2023	2022
Revenue			
Investment banking fees	**$ 9,116**	$ 6,631	$ 6,977
Principal transactions	**24,382**	23,794	19,792
Lending- and deposit-related fees	**3,914**	3,423	3,662
Commissions and other fees	**5,278**	4,879	5,113
Card income	**2,310**	2,213	1,934
All other income	**3,253**	2,869	2,060
Noninterest revenue	**48,253**	43,809	39,538
Net interest income	**21,861**	20,544	20,097
Total net revenue[a]	**70,114**	64,353	59,635
Provision for credit losses	**762**	2,091	2,426
Noninterest expense			
Compensation expense	**18,191**	17,105	16,214
Noncompensation expense	**17,162**	16,867	15,855
Total noninterest expense	**35,353**	33,972	32,069
Income before income tax expense	**33,999**	28,290	25,140
Income tax expense	**9,153**	8,018	6,002
Net income	**$24,846**	$20,272	$ 19,138

(a) Included tax equivalent adjustments primarily from income tax credits from investments in alternative energy, affordable housing and new markets, income from tax-exempt securities and loans, and the related amortization and other tax benefits of the investments in alternative energy and affordable housing of $2.8 billion, $4.0 billion and $3.3 billion for the years ended December 31, 2024, 2023 and 2022, respectively. Effective January 1, 2024, the Firm adopted updates to the Accounting for Investments in Tax Credit Structures Using the Proportional Amortization Method guidance, under the modified retrospective method. Refer to Notes 1, 6, 14 and 25 for additional information.

Selected income statement data

Year ended December 31, (in millions, except ratios)	2024	2023	2022
Financial ratios			
Return on equity	**18 %**	14 %	14 %
Overhead ratio	**50**	53	54
Compensation expense as percentage of total net revenue	**26**	27	27
Revenue by business			
Investment Banking	**$ 9,636**	$ 7,076	$ 7,205
Payments	**18,085**	17,818	13,490
Lending	**7,470**	6,896	5,882
Other	**76**	107	244
Total Banking & Payments	**35,267**	31,897	26,821
Fixed Income Markets[a]	**20,066**	19,180	19,074
Equity Markets[a]	**9,941**	8,784	10,088
Securities Services	**5,084**	4,772	4,488
Credit Adjustments & Other[b]	**(244)**	(280)	(836)
Total Markets & Securities Services	**34,847**	32,456	32,814
Total net revenue	**$70,114**	$64,353	$59,635

(a) In the fourth quarter of 2024, certain net funding costs that were previously allocated to Fixed Income Markets were reclassified to Equity Markets. Prior-period amounts have been revised to conform with the current presentation.
(b) Consists primarily of centrally-managed credit valuation adjustments ("CVA"), funding valuation adjustments ("FVA") on derivatives, other valuation adjustments, and certain components of fair value option elected liabilities, which are primarily reported in principal transactions revenue. Results are presented net of associated hedging activities and net of CVA and FVA amounts allocated to Fixed Income Markets and Equity Markets. Refer to Notes 2, 3 and 24 for additional information.

Banking & Payments Revenue by Client Coverage Segment: [(a)]

Global Corporate Banking & Global Investment Banking provides banking products and services generally to large corporations, financial institutions and merchants.

Commercial Banking provides banking products and services generally to middle market clients, including start-ups, small and mid-sized companies, local governments, municipalities, and nonprofits, as well as to commercial real estate clients.

Other includes amounts related to credit protection purchased against certain retained loans and lending-related commitments in Lending, the impact of equity investments in Payments and revenues not aligned with a primary client coverage segment.

(a) Global Banking is a client coverage view within the Banking & Payments business and is comprised of the Global Corporate Banking, Global Investment Banking and Commercial Banking client coverage segments.

Selected income statement data

Year ended December 31, (in millions)	2024	2023	2022
Banking & Payments revenue by client coverage segment			
Global Corporate Banking & Global Investment Banking	**$ 24,549**	$ 21,700	$ 19,325
Commercial Banking	**11,487**	11,050	7,906
Middle Market Banking	**7,759**	7,740	5,443
Commercial Real Estate Banking	**3,728**	3,310	2,463
Other	**(769)**	(853)	(410)
Total Banking & Payments revenue	**$ 35,267**	$ 31,897	$ 26,821

2024 compared with 2023

Net income was $24.8 billion, up 23%.

Net revenue was $70.1 billion, up 9%.

Banking & Payments revenue was $35.3 billion, up 11%.

- Investment Banking revenue was $9.6 billion, up 36%. Investment Banking fees were up 37%, driven by higher fees across products. The Firm ranked #1 for Global Investment Banking fees, according to Dealogic.
  - Debt underwriting fees were $4.1 billion, up 55%, predominantly driven by higher industry-wide issuances in leveraged loans, and in high-grade and high-yield bonds.
  - Equity underwriting fees were $1.7 billion, up 47%, driven by increased industry-wide fees and wallet share gains in IPOs, and in follow-on and convertible securities offerings.
  - Advisory fees were $3.3 billion, up 17%, driven by increased industry-wide M&A activity and wallet share gains.
- Payments revenue was $18.1 billion, up 1%, driven by fee growth on higher volumes as well as higher average deposits, predominantly offset by deposit margin compression, reflecting higher rates paid, and higher deposit-related client credits.
- Lending revenue was $7.5 billion, up 8%, predominantly driven by the impacts of higher rates and the First Republic acquisition.

Markets & Securities Services revenue was $34.8 billion, up 7%. Markets revenue was $30.0 billion, up 7%.

- Equity Markets revenue was $9.9 billion, up 13%, driven by higher revenue in Equity Derivatives and Prime Finance.
- Fixed Income Markets revenue was $20.1 billion, up 5%, driven by higher revenue in the Securitized Products Group, Currencies & Emerging Markets, and Credit, largely offset by lower revenue in Rates and Commodities.
- Securities Services revenue was $5.1 billion, up 7%, predominantly driven by fee growth on higher client activity and market levels.
- Credit Adjustments & Other was a loss of $244 million, compared with a loss of $280 million in the prior year.

Noninterest expense was $35.4 billion, up 4%, driven by higher compensation expense, including revenue-related compensation and an increase in the number of employees, as well as higher technology and brokerage expense partially offset by lower legal expense.

The provision for credit losses was $762 million, reflecting:

- net charge-offs of $617 million, primarily in Real Estate, largely concentrated in Office, and
- a $145 million net addition to the allowance for credit losses, driven by
  - net downgrade activity, primarily in Real Estate, and the impact of incorporating the First Republic portfolio into the Firm's modeled credit loss estimates in the second quarter of 2024,

  predominantly offset by

  - changes in certain macroeconomic variables, an update to loss assumptions on certain loans in Markets, and a reduction due to charge-offs predominantly from collateral-dependent loans.

The provision in the prior year was $2.1 billion, reflecting a $1.5 billion net addition to the allowance for credit losses, which included $608 million to establish the allowance for the First Republic loans and lending-related commitments in the second quarter of 2023, and net charge-offs of $588 million.

Selected metrics

As of or for the year ended December 31, (in millions, except employees)	2024	2023	2022
Selected balance sheet data (period-end)			
Total assets	**$1,773,194**	$1,638,493	$1,591,402
Loans:			
Loans retained	**483,043**	475,186	421,521
Loans held-for-sale and loans at fair value[(a)]	**40,324**	39,464	43,011
Total loans	**523,367**	514,650	464,532
Equity	**132,000**	138,000	128,000
Banking & Payments loans by client coverage segment (period-end)[(b)]			
Global Corporate Banking & Global Investment Banking	**$ 125,083**	$ 128,097	$ 128,165
Commercial Banking	**217,674**	221,550	180,624
Middle Market Banking	**72,814**	78,043	72,625
Commercial Real Estate Banking	**144,860**	143,507	107,999
Other	**187**	526	122
Total Banking & Payments loans	**342,944**	350,173	308,911
Selected balance sheet data (average)			
Total assets	**$1,912,466**	$ 1,716,755	$1,649,358
Trading assets-debt and equity instruments	**624,032**	508,792	405,948
Trading assets-derivative receivables	**57,028**	63,862	77,822
Loans:			
Loans retained	**$ 475,426**	$ 457,886	$ 395,015
Loans held-for-sale and loans at fair value[(a)]	**43,621**	40,891	48,196
Total loans	**$ 519,047**	$ 498,777	$ 443,211
Deposits[(c)]	**1,061,488**	996,295	1,033,880
Equity	**132,000**	137,507	128,000
Banking & Payments loans by client coverage segment (average)[(b)]			
Global Corporate Banking & Global Investment Banking	**$ 128,142**	$ 131,230	$ 122,174
Commercial Banking	**220,285**	209,244	173,289
Middle Market Banking	**75,605**	77,130	67,830
Commercial Real Estate Banking	**144,680**	132,114	105,459
Other	**354**	331	168
Total Banking & Payments loans	**$ 348,781**	$ 340,805	$ 295,631
Employees	**93,231**	92,271	88,139

(a) Loans held-for-sale and loans at fair value primarily reflect lending-related positions originated and purchased in Markets, including loans held for securitization.
(b) Refer to page 78 for a description of each of the client coverage segments.
(c) In the fourth quarter of 2023, certain deposits associated with First Republic were transferred to CIB from CCB.

Selected metrics

As of or for the year ended December 31, (in millions, except ratios)	2024	2023	2022
Credit data and quality statistics			
Net charge-offs/(recoveries)	**$ 689** [(d)]	$ 588	$ 166
Nonperforming assets:			
Nonaccrual loans:			
Nonaccrual loans retained[(a)]	**$3,258**	$ 1,675	$ 1,484
Nonaccrual loans held-for-sale and loans at fair value[(b)]	**1,502**	828	848
Total nonaccrual loans	**4,760**	2,503	2,332
Derivative receivables	**145**	364	296
Assets acquired in loan satisfactions	**213**	169	87
Total nonperforming assets	**$ 5,118**	$ 3,036	$ 2,715
Allowance for credit losses:			
Allowance for loan losses	**$7,294**	$ 7,326	$ 5,616
Allowance for lending-related commitments	**1,976**	1,849	2,278
Total allowance for credit losses	**$9,270**	$ 9,175	$ 7,894
Net charge-off/(recovery) rate[(c)]	**0.14 %**	0.13 %	0.04 %
Allowance for loan losses to period-end loans retained	**1.51**	1.54	1.33
Allowance for loan losses to nonaccrual loans retained[(a)]	**224**	437	378
Nonaccrual loans to total period-end loans	**0.91**	0.49	0.50

(a) Allowance for loan losses of $435 million, $251 million and $257 million were held against these nonaccrual loans at December 31, 2024, 2023 and 2022, respectively.
(b) Excludes mortgage loans past due and insured by U.S. government agencies, which are primarily 90 or more days past due. These loans have been excluded based upon the government guarantee. At December 31, 2024, 2023 and 2022, mortgage loans 90 or more days past due and insured by U.S. government agencies were $37 million, $59 million and $115 million, respectively.
(c) Loans held-for-sale and loans at fair value were excluded when calculating the net charge-off/(recovery) rate.
(d) Includes $72 million related to a purchased credit deteriorated ("PCD") loan that was charged off in the fourth quarter of 2024.

Investment banking fees

Year ended December 31, (in millions)		2024		2023		2022
Advisory	$	**3,290**	$	2,814	$	3,051
Equity underwriting		**1,692**		1,151		1,034
Debt underwriting[(a)]		**4,134**		2,666		2,892
Total investment banking fees	**$**	**9,116**	$	6,631	$	6,977

(a) Represents long-term debt and loan syndications.

League table results – wallet share

		2024			2023			2022	
Year ended December 31,		Rank	Share		Rank	Share		Rank	Share
Based on fees[(a)]									
M&A[(b)]									
Global	#	**1**	**9.6 %**	#	2	9.0 %	#	2	7.9 %
U.S.		**1**	**11.4**		2	10.9		2	8.9
Equity and equity-related[(c)]									
Global		**1**	**11.0**		1	7.7		2	5.7
U.S.		**1**	**14.7**		1	14.4		1	14.0
Long-term debt[(d)]									
Global		**1**	**7.6**		1	7.0		1	6.9
U.S.		**1**	**11.4**		1	10.9		1	12.1
Loan syndications									
Global		**1**	**10.2**		1	11.9		1	11.0
U.S.		**1**	**11.8**		1	15.1		1	12.9
Global investment banking fees[(e)]	#	**1**	**9.3 %**	#	1	8.6 %	#	1	7.8 %

(a) Source: Dealogic as of January 2, 2025. Reflects the ranking of revenue wallet and market share.
(b) Global M&A excludes any withdrawn transactions. U.S. M&A revenue wallet represents wallet from client parents based in the U.S.
(c) Global equity and equity-related ranking includes rights offerings and Chinese A-Shares.
(d) Long-term debt rankings include investment-grade, high-yield, supranationals, sovereigns, agencies, covered bonds, asset-backed securities ("ABS") and mortgage-backed securities ("MBS"); and exclude money market, short-term debt and U.S. municipal securities.
(e) Global investment banking fees exclude money market, short-term debt and shelf securities.

Markets revenue

The following table summarizes selected income statement data for the Markets businesses. Markets includes both Fixed Income Markets and Equity Markets. Markets revenue consists of principal transactions, fees, commissions and other income, as well as net interest income. The Firm assesses its Markets business performance on a total revenue basis, as offsets generally occur across revenue line items. For example, securities that generate net interest income may be risk-managed by derivatives that are reflected at fair value in principal transactions revenue. Refer to Notes 6 and 7 for a description of the composition of these income statement line items.

Principal transactions reflects revenue on financial instruments and commodities transactions that arise from client-driven market-making activity. Principal transactions revenue includes amounts recognized upon executing new transactions with market participants, as well as "inventory-related revenue," which is revenue recognized from gains and losses on derivatives and other instruments that the Firm has been holding in anticipation of, or in response to, client demand, and changes in the fair value of instruments used by the Firm to actively manage the risk exposure arising from such inventory. Principal transactions revenue recognized upon executing new transactions with market participants is affected by many factors including the level of client activity, the bid-offer spread (which is the difference between the price at which a market participant is willing and able to sell an instrument to the Firm and the price at which another market participant is willing and able to buy it from the Firm, and vice versa), market liquidity and volatility. These factors are interrelated and sensitive to the same factors that drive inventory-related revenue, which include general market conditions, such as interest rates, foreign exchange rates, credit spreads, and equity and commodity prices, as well as other macroeconomic conditions.

For the periods presented below, the primary source of principal transactions revenue was the amount recognized upon executing new transactions.

Year ended December 31, (in millions, except where otherwise noted)	**2024**			2023			2022		
	Fixed Income Markets	**Equity Markets**	**Total Markets**	Fixed Income Markets[c]	Equity Markets[c]	Total Markets	Fixed Income Markets[c]	Equity Markets[c]	Total Markets
Principal transactions	**$ 10,603**	**$ 13,526**	**$ 24,129**	$ 13,198	$ 10,380	$ 23,578	$ 12,244	$ 8,284	$ 20,528
Lending- and deposit-related fees	**391**	**100**	**491**	307	40	347	303	22	325
Commissions and other fees	**605**	**2,086**	**2,691**	596	1,908	2,504	550	1,975	2,525
All other income	**2,120**	**(65)**	**2,055**	1,908	(79)	1,829	1,083	(88)	995
Noninterest revenue	**13,719**	**15,647**	**29,366**	16,009	12,249	28,258	14,180	10,193	24,373
Net interest income[a]	**6,347**	**(5,706)**	**641**	3,171	(3,465)	(294)	4,894	(105)	4,789
Total net revenue	**$ 20,066**	**$ 9,941**	**$ 30,007**	$ 19,180	$ 8,784	$ 27,964	$ 19,074	$ 10,088	$ 29,162
Loss days[b]			**1**			2			7

(a) The decline in Equity Markets net interest income was driven by higher funding costs.
(b) Markets consists of Fixed Income Markets and Equity Markets. Loss days represent the number of days for which Markets recorded losses in total net revenue, which includes revenue related to both trading and non-trading positions. The loss days determined under this measure differ from the measure used to determine backtesting gains and losses. Daily backtesting gains and losses include positions in the Firm's Risk Management value-at-risk ("VaR") measure and exclude certain components of total net revenue, which may more than offset backtesting gains or losses on a particular day. For more information on daily backtesting gains and losses, refer to the VaR discussion on pages 143–145.
(c) In the fourth quarter of 2024, certain net funding costs that were previously allocated to Fixed Income Markets were reclassified to Equity Markets. Prior-period amounts have been revised to conform with the current presentation.

Selected metrics

As of or for the year ended December 31, (in millions, except where otherwise noted)	**2024**	2023	2022
Assets under custody ("AUC") by asset class (period-end) (in billions):			
Fixed Income	**$ 16,409**	$ 15,543	$ 14,361
Equity	**14,848**	12,927	10,748
Other[a]	**4,023**	3,922	3,526
Total AUC	**$ 35,280**	$ 32,392	$ 28,635
Client deposits and other third-party liabilities (average)[b]	**$ 961,646**	$ 912,859	$ 981,653

(a) Consists of mutual funds, unit investment trusts, currencies, annuities, insurance contracts, options and other contracts.
(b) Client deposits and other third-party liabilities pertain to the Payments and Securities Services businesses.

International metrics

As of or for the year ended December 31, (in millions, except where otherwise noted)	2024	2023	2022
Total net revenue[a]			
Europe/Middle East/Africa	**$ 15,191**	$ 14,418	$ 15,716
Asia-Pacific	**8,867**	7,891	8,043
Latin America/Caribbean	**2,427**	2,161	2,288
Total international net revenue	**26,485**	24,470	26,047
North America	**43,629**	39,883	33,588
Total net revenue	**$ 70,114**	$ 64,353	$ 59,635
Loans retained (period-end)[a]			
Europe/Middle East/Africa	**$ 44,374**	$ 44,793	$ 40,715
Asia-Pacific	**16,107**	15,506	16,764
Latin America/Caribbean	**10,331**	8,610	8,866
Total international loans	**70,812**	68,909	66,345
North America	**412,231**	406,277	355,176
Total loans retained	**$ 483,043**	$ 475,186	$ 421,521
Client deposits and other third-party liabilities (average)[b]			
Europe/Middle East/Africa	**$ 264,227**	$ 247,804	$ 265,061
Asia-Pacific	**141,042**	135,388	136,539
Latin America/Caribbean	**42,716**	39,861	40,531
Total international	**$ 447,985**	$ 423,053	$ 442,131
North America	**513,661**	489,806	539,522
Total client deposits and other third-party liabilities	**$ 961,646**	$ 912,859	$ 981,653
AUC (period-end)[b] **(in billions)**			
North America	**$ 23,845**	$ 21,792	$ 19,219
All other regions	**11,435**	10,600	9,416
Total AUC	**$ 35,280**	$ 32,392	$ 28,635

(a) Total net revenue and loans retained (excluding loans held-for-sale and loans at fair value) are based on the location of the trading desk, booking location, or domicile of the client, as applicable.
(b) Client deposits and other third-party liabilities pertaining to the Payments and Securities Services businesses, and AUC, are based on the domicile of the client or booking location, as applicable.

Asset & Wealth Management, with client assets of $5.9 trillion, is a global leader in investment and wealth management.

Asset Management
Offers multi-asset investment management solutions across equities, fixed income, alternatives and money market funds to institutional and retail investors providing for a broad range of clients' investment needs.

Global Private Bank
Provides retirement products and services, brokerage, custody, estate planning, lending, deposits and investment management to high net worth clients.

The majority of AWM's client assets are in actively managed portfolios.

Selected income statement data

Year ended December 31, (in millions, except ratios)	2024	2023	2022
Revenue			
Asset management fees	**$13,693**	$11,826	$11,510
Commissions and other fees	**874**	697	$ 662
All other income	**456**	(a) 1,037	(a)(b) 335
Noninterest revenue	**15,023**	13,560	12,507
Net interest income	**6,555**	6,267	5,241
Total net revenue	**21,578**	19,827	17,748
Provision for credit losses	**(68)**	159	128
Noninterest expense			
Compensation expense	**7,984**	7,115	6,336
Noncompensation expense	**6,430**	5,665	5,493
Total noninterest expense	**14,414**	12,780	11,829
Income before income tax expense	**7,232**	6,888	5,791
Income tax expense	**1,811**	1,661	1,426
Net income	**$ 5,421**	$ 5,227	$ 4,365
Revenue by line of business			
Asset Management	**$10,175**	$ 9,129	$ 8,818
Global Private Bank	**11,403**	10,698	8,930
Total net revenue	**$21,578**	$19,827	$17,748
Financial ratios			
Return on equity	**34 %**	31 %	25 %
Overhead ratio	**67**	64	67
Pre-tax margin ratio:			
Asset Management	**31**	31	30
Global Private Bank	**35**	38	35
Asset & Wealth Management	**34**	35	33

(a) Includes the amortization of the fair value discount on certain acquired lending-related commitments associated with First Republic. The discount is deferred in other liabilities and recognized on a straight-line basis over the commitment period and was largely recognized in 2023 as the commitments were generally short term. Refer to Note 34 for additional information.
(b) Includes the gain on the original minority interest in CIFM upon the Firm's acquisition of the remaining 51% interest in the entity.

2024 compared with 2023

Net income was $5.4 billion, up 4%.

Net revenue was $21.6 billion, up 9%. Net interest income was $6.6 billion, up 5%. Noninterest revenue was $15.0 billion, up 11%.

Revenue from Asset Management was $10.2 billion, up 11%, driven by:

- higher asset management fees, reflecting higher average market levels and strong net inflows, as well as
- higher performance fees.

The prior year included a gain of $339 million on the original minority interest in CIFM upon the Firm's acquisition of the remaining 51% interest in the entity.

Revenue from Global Private Bank was $11.4 billion, up 7%, driven by:

- higher noninterest revenue, reflecting:
  - higher management fees on strong net inflows and higher average market levels, as well as higher brokerage fees,

  partially offset by
  - a decline in the amortization of the fair value discount on certain acquired lending-related commitments associated with First Republic that have expired, and
- higher net interest income driven by:
  - higher average deposits associated with First Republic, which were transferred to AWM from CCB in the fourth quarter of 2023, as well as wider spreads on loans and higher average loans,

  largely offset by
  - deposit margin compression reflecting higher rates paid.

The prior year included net investment valuation losses.

Noninterest expense was $14.4 billion, up 13%, predominantly driven by:

- higher compensation, including revenue-related compensation, and continued growth in private banking advisor teams, and
- higher distribution fees and legal expense,

The provision for credit losses was a net benefit of $68 million.

The provision in the prior year was $159 million, reflecting a $146 million addition to the allowance for credit losses to establish the allowance for the First Republic loans and lending-related commitments in the second quarter of 2023.

Asset Management has two high-level measures of its overall fund performance.

- **Percentage of active mutual fund and active ETF assets under management in funds rated 4- or 5-star:** Mutual fund rating services rank funds based on their risk adjusted performance over various periods. A 5-star rating is the best rating and represents the top 10% of industry-wide ranked funds. A 4-star rating represents the next 22.5% of industry-wide ranked funds. A 3-star rating represents the next 35% of industry-wide ranked funds. A 2-star rating represents the next 22.5% of industry-wide ranked funds. A 1-star rating is the worst rating and represents the bottom 10% of industry-wide ranked funds. An overall Morningstar rating is derived from a weighted average of the performance associated with a fund's three-, five and ten-year (if applicable) Morningstar Rating metrics. For U.S.-domiciled funds, separate star ratings are provided at the individual share class level. The Nomura "star rating" is based on three-year risk-adjusted performance only. Funds with fewer than three years of history are not rated and hence excluded from these rankings. All ratings, the assigned peer categories and the asset values used to derive these rankings are sourced from the applicable fund rating provider. Where applicable, the fund rating providers redenominate asset values into U.S. dollars. The percentage of AUM is based on star ratings at the share class level for U.S.-domiciled funds, and at a "primary share class" level to represent the star rating of all other funds, except for Japan, for which Nomura provides ratings at the fund level. The performance data may have been different if all share classes had been included. Past performance is not indicative of future results.
- **Percentage of active mutual fund and active ETF assets under management in funds ranked in the 1st or 2nd quartile (one, three and five years)**:All quartile rankings, the assigned peer categories and the asset values used to derive these rankings are sourced from the fund rating providers. Quartile rankings are based on the net-of-fee absolute return of each fund. Where applicable, the fund rating providers redenominate asset values into U.S. dollars. The percentage of AUM is based on fund performance and associated peer rankings at the share class level for U.S.-domiciled funds, at a "primary share class" level to represent the quartile ranking for U.K., Luxembourg and Hong Kong SAR funds and at the fund level for all other funds. The performance data may have been different if all share classes had been included. Past performance is not indicative of future results.

"**Primary share class**" means the C share class for European funds and Acc share class for Hong Kong SAR and Taiwan funds. If these share classes are not available, the oldest share class is used as the primary share class.

Selected metrics

As of or for the year ended December 31, (in millions, except ranking data, ratios and employees)	2024	2023	2022
% of JPM mutual fund assets and ETFs rated as 4- or 5-star[(a)]	**69 %**	69 %	73 %
% of JPM mutual fund assets and ETFs ranked in 1st or 2nd quartile:[(b)]			
1 year	**73**	40	68
3 years	**75**	67	76
5 years	**77**	71	81
Selected balance sheet data (period-end)[(c)]			
Total assets	**$255,385**	$245,512	$232,037
Loans	**236,303**	227,929	214,006
Deposits	**248,287**	233,232 [(d)]	233,130
Equity	**15,500**	17,000	17,000
Selected balance sheet data (average)[(c)]			
Total assets	**$246,254**	$240,222	$232,438
Loans	**227,676**	220,487	215,582
Deposits	**235,146**	216,178 [(d)]	261,489
Equity	**15,500**	16,671	17,000
Employees	**29,403**	28,485	26,041
Number of Global Private Bank client advisors	**3,775**	3,515	3,137
Credit data and quality statistics[(c)]			
Net charge-offs/(recoveries)	**$ 21**	$ 13	$ (7)
Nonaccrual loans	**700**	650	459
Allowance for credit losses:			
Allowance for loan losses	**$ 539**	$ 633	$ 494
Allowance for lending-related commitments	**35**	28	20
Total allowance for credit losses	**$ 574**	$ 661	$ 514
Net charge-off/(recovery) rate	**0.01 %**	0.01 %	— %
Allowance for loan losses to period-end loans	**0.23**	0.28	0.23
Allowance for loan losses to nonaccrual loans	**77**	97	108
Nonaccrual loans to period-end loans	**0.30**	0.29	0.21

(a) Represents the Morningstar Rating for all domiciled funds except for Japan domiciled funds which use Nomura. Includes only Asset Management retail active open-ended mutual funds and active ETFs that have a rating. Excludes money market funds, Undiscovered Managers Fund, and Brazil domiciled funds.

(b) Quartile ranking sourced from Morningstar, Lipper and Nomura based on country of domicile. Includes only Asset Management retail active open-ended mutual funds and active ETFs that are ranked by the aforementioned sources. Excludes money market funds, Undiscovered Managers Fund, and Brazil domiciled funds.
(c) Loans, deposits and related credit data and quality statistics relate to the Global Private Bank business.
(d) In the fourth quarter of 2023, certain deposits associated with First Republic were transferred to AWM from CCB.

Client assets

2024 compared with 2023

Assets under management were $4.0 trillion and client assets were $5.9 trillion, each up 18%, driven by continued net inflows and higher market levels.

Client assets

December 31, (in billions)	2024	2023	2022
Assets by asset class			
Liquidity	**$ 1,083**	$ 926	$ 654
Fixed income	**851**	751	638
Equity	**1,128**	868	670
Multi-asset	**764**	680	603
Alternatives	**219**	197	201
Total assets under management	**4,045**	3,422	2,766
Custody/brokerage/administration/deposits	**1,887**	1,590	1,282
Total client assets[(a)]	**$ 5,932**	$ 5,012	$ 4,048
Assets by client segment			
Private Banking	**$ 1,234**	$ 974	$ 751
Global Institutional	**1,692**	1,488	1,252
Global Funds	**1,119**	960	763
Total assets under management	**$ 4,045**	$ 3,422	$ 2,766
Private Banking	**$ 2,974**	$ 2,452	$ 1,964
Global Institutional	**1,820**	1,594	1,314
Global Funds	**1,138**	966	770
Total client assets[(a)]	**$ 5,932**	$ 5,012	$ 4,048

(a) Includes CCB client investment assets invested in managed accounts and J.P. Morgan mutual funds where AWM is the investment manager.

Client assets (continued)

Year ended December 31, (in billions)	2024	2023	2022
Assets under management rollforward			
Beginning balance	**$ 3,422**	$ 2,766	$ 3,113
Net asset flows:			
Liquidity	**140**	242	(55)
Fixed income	**91**	70	13
Equity	**114**	70	35
Multi-asset	**19**	1	(9)
Alternatives	**10**	(1)	8
Market/performance/other impacts	**249**	274	(339)
Ending balance, December 31	**$ 4,045**	$ 3,422	$ 2,766
Client assets rollforward			
Beginning balance	**$ 5,012**	$ 4,048	$ 4,295
Net asset flows	**486**	490	49
Market/performance/other impacts	**434**	474	(296)
Ending balance, December 31	**$ 5,932**	$ 5,012	$ 4,048

Selected Metrics

	As of December 31,		
	2024	2023	Change
Firmwide Wealth Management			
Client assets (in billions)[(a)]	**$ 3,756**	$ 3,177	18 %
Number of client advisors	**9,530**	8,971	6
Stock Plan Administration[(b)]			
Number of stock plan participants (in thousands)	**1,327**	974	36
Client assets (in billions)	**$ 270**	$ 230	17 %

(a) Consists of Global Private Bank in AWM and client investment assets in J.P. Morgan Wealth Management in CCB.
(b) Relates to an equity plan administration business which was acquired in 2022 with the Firm's purchase of Global Shares. The increase in 2024 includes the impact of onboarding participants in the Firm's employee stock plans during the fourth quarter of 2024.

International metrics

Year ended December 31, (in billions, except where otherwise noted)	**2024**	2023	2022
Total net revenue (in millions)[(a)]			
Europe/Middle East/Africa	**$ 3,563**	$ 3,377	$ 3,240
Asia-Pacific	**2,023**	1,876	1,836
Latin America/Caribbean	**1,065**	985	967
Total international net revenue	**6,651**	6,238	6,043
North America	**14,927**	13,589	11,705
Total net revenue	**$ 21,578**	$ 19,827	$ 17,748
Assets under management			
Europe/Middle East/Africa	**$ 604**	$ 539	$ 487
Asia-Pacific	**302**	263	218
Latin America/Caribbean	**106**	86	69
Total international assets under management	**1,012**	888	774
North America	**3,033**	2,534	1,992
Total assets under management	**$ 4,045**	$ 3,422	$ 2,766
Client assets			
Europe/Middle East/Africa	**$ 841**	$ 740	$ 610
Asia-Pacific	**482**	406	331
Latin America/Caribbean	**254**	232	189
Total international client assets	**1,577**	1,378	1,130
North America	**4,355**	3,634	2,918
Total client assets	**$ 5,932**	$ 5,012	$ 4,048

(a) Regional revenue is based on the domicile of the client.

Corporate consists of Treasury and Chief Investment Office ("CIO") and Other Corporate. Treasury and CIO is predominantly responsible for measuring, monitoring, reporting and managing the Firm's liquidity, funding, capital, structural interest rate and foreign exchange risks.

Other Corporate includes staff functions and expense that is centrally managed as well as certain Firm initiatives and activities not solely aligned to a specific LOB. The major Other Corporate functions include Real Estate, Technology, Legal, Corporate Finance, Human Resources, Internal Audit, Risk Management, Compliance, Control Management, Corporate Responsibility and various Other Corporate groups.

Selected income statement and balance sheet data

Year ended December 31, (in millions, except employees)	2024	2023	2022
Revenue			
Principal transactions	$ 152	$ 302	$ (227)
Investment securities losses	(1,020)	(3,180)	(2,380)
All other income	8,476 (c)	3,010 (f)	809
Noninterest revenue	7,608	132	(1,798)
Net interest income	9,786	7,906	1,878
Total net revenue(a)	17,394	8,038	80
Provision for credit losses	10	171	22
Noninterest expense	3,994 (d)(e)	5,601 (e)(g)	1,034
Income/(loss) before income tax expense/(benefit)	13,390	2,266	(976)
Income tax expense/(benefit)	2,789	(555) (h)	(233)
Net income/(loss)	$ 10,601	$ 2,821	$ (743)
Total net revenue			
Treasury and CIO	9,638	6,072	(439)
Other Corporate	7,756	1,966	519
Total net revenue	$ 17,394	$ 8,038	$ 80
Net income/(loss)			
Treasury and CIO	7,013	4,206	(197)
Other Corporate	3,588 (e)	(1,385) (e)	(546)
Total net income/(loss)	$ 10,601	$ 2,821	$ (743)
Total assets (period-end)	$1,323,967	$1,348,437	$1,328,219
Loans (period-end)	1,964	1,924	2,181
Deposits(b)	27,581	21,826	14,203
Employees	49,610	47,530	44,196

(a) Included tax-equivalent adjustments, predominantly driven by tax-exempt income from municipal bonds, of $182 million, $211 million and $235 million for the years ended December 31, 2024, 2023 and 2022, respectively.
(b) Predominantly relates to the Firm's international consumer initiatives.
(c) Included the net gain related to Visa shares of $7.9 billion recorded in the second quarter of 2024. Refer to Notes 2 and 6 for additional information.
(d) Included a $1.0 billion contribution of Visa shares to the JPMorgan Chase Foundation recorded in the second quarter of 2024. Refer to Notes 2 and 6 for additional information.
(e) The first quarter of 2024 included an increase of $725 million to the FDIC special assessment reflecting the FDIC's revised estimate of Deposit Insurance Fund losses. The fourth quarter of 2023 included the $2.9 billion FDIC special assessment.
(f) Included the estimated bargain purchase gain of $2.8 billion for the year ended December 31, 2023 associated with the First Republic acquisition. Refer to Notes 6 and 34 for additional information.
(g) In the second quarter of 2023, substantially all of the expense associated with First Republic was reported in Corporate. Commencing in the third quarter of 2023, the expense was aligned to the appropriate LOBs.
(h) Income taxes associated with the First Republic acquisition were reflected in the estimated bargain purchase gain.

2024 compared with 2023

Net income was $10.6 billion, compared with $2.8 billion in the prior year.

Net revenue was $17.4 billion, compared with $8.0 billion in the prior year.

Net interest income was $9.8 billion, up 24%, driven by the impact of balance sheet actions, primarily reinvestments in the investment securities portfolio, partially offset by the net impact of rates.

Noninterest revenue was $7.6 billion, compared with $132 million in the prior year. Excluding the $7.9 billion net gain related to Visa shares recorded in the second quarter of 2024 and the prior-year $2.8 billion estimated bargain purchase gain associated with the First Republic acquisition, revenue was up $2.4 billion, predominantly driven by lower investment securities losses, primarily on sales of U.S. Treasuries and U.S. GSE and government agency MBS, associated with repositioning the investment securities portfolio in Treasury and CIO.

Noninterest expense was $4.0 billion, down 29%, driven by:

- a lower FDIC special assessment,
- lower expense associated with the First Republic acquisition as the prior year expense in Corporate included individuals associated with First Republic who were not employees of the Firm until July 2023, and this expense was subsequently aligned to the appropriate LOBs starting in the third quarter of 2023, and
- lower legal expense,

partially offset by

- a $1.0 billion contribution of Visa shares to the JPMorgan Chase Foundation recorded in the second quarter of 2024, and
- higher costs associated with the Firm's international consumer initiatives.

The provision for credit losses was $10 million.

The provision in the prior year was $171 million, reflecting a net addition to the allowance for credit losses related to a single name exposure, which was subsequently charged off upon the restructuring of a loan.

Refer to Note 10 and Note 13 for additional information on the investment securities portfolio and the allowance for credit losses.

The current period income tax expense was driven by changes in the level and mix of income and expenses subject to U.S. federal and state and local taxes, including the impact of the net gain on Visa shares and the contribution of Visa shares to the JPMorgan Chase Foundation recorded in the second quarter of 2024, partially offset by benefits related to tax audit settlements.

Other Corporate includes the Firm's international consumer initiatives, which primarily consists of Chase U.K., Nutmeg, and an ownership stake in C6 Bank.

The deposits within Corporate relate to the Firm's international consumer initiatives and have increased as a result of growth in client accounts, reflecting the impact of additional product offerings.

Treasury and CIO overview

Treasury and CIO is predominantly responsible for measuring, monitoring, reporting and managing the Firm's liquidity, funding, capital, structural interest rate and foreign exchange risks. The risks managed by Treasury and CIO arise from the activities undertaken by the Firm's three reportable business segments to serve their respective client bases, which generate both on- and off-balance sheet assets and liabilities.

Treasury and CIO seeks to achieve the Firm's asset-liability management objectives generally by investing in high quality securities that are managed for the longer-term as part of the Firm's investment securities portfolio. Treasury and CIO also uses derivatives to meet the Firm's asset-liability management objectives. Refer to Note 5 for further information on derivatives. In addition, Treasury and CIO manages the Firm's cash position primarily through deposits at central banks and investments in short-term instruments. Refer to Liquidity Risk Management on pages 108–115 for further information on liquidity and funding risk. Refer to Market Risk Management on pages 141–149 for information on interest rate and foreign exchange risks.

The investment securities portfolio predominantly consists of U.S. and non-U.S. government securities, U.S. GSE and government agency and nonagency mortgage-backed securities, collateralized loan obligations, obligations of U.S. states and municipalities and other ABS. At December 31, 2024, the Treasury and CIO investment securities portfolio, net of the allowance for credit losses, was $678.3 billion, and the average credit rating of the securities comprising the portfolio was AA+ (based upon external ratings where available and, where not available, based primarily upon internal risk ratings). Refer to Note 10 for further information on the Firm's investment securities portfolio and internal risk ratings.

Selected income statement and balance sheet data

As of or for the year ended December 31, (in millions)	**2024**	2023	2022
Investment securities losses	**$ (1,020)**	$ (3,180)	$ (2,380)
Available-for-sale securities (average)	**$287,260**	$200,708	$239,924
Held-to-maturity securities (average)[(a)]	**321,384**	402,010	412,180
Investment securities portfolio (average)	**$608,644**	$ 602,718	$ 652,104
Available-for-sale securities (period-end)	**$403,796**	$ 199,354	$ 203,981
Held-to-maturity securities (period–end)[(a)]	**274,468**	369,848	425,305
Investment securities portfolio, net of allowance for credit losses (period–end)[(b)]	**$678,264**	$569,202	$629,286

(a) Effective January 1, 2023, the Firm adopted the portfolio layer method hedge accounting guidance. As permitted by the guidance, the Firm elected to transfer $7.1 billion of investment securities from HTM to AFS. During 2022, the Firm transferred $78.3 billion of investment securities from AFS to HTM for capital management purposes. Refer to Note 1 and Note 10 for additional information on the portfolio layer method hedge accounting guidance.

(b) As of December 31, 2024, 2023 and 2022, the allowance for credit losses on investment securities was $105 million, $94 million and $67 million, respectively.

Risk is an inherent part of JPMorganChase's business activities. When the Firm extends a consumer or wholesale loan, advises customers and clients on their investment decisions, makes markets in securities, or offers other products or services, the Firm takes on some degree of risk. The Firm's overall objective is to manage its business, and the associated risks, in a manner that balances serving the interests of its clients, customers and investors, and protecting the safety and soundness of the Firm.

The Firm believes that effective risk management requires, among other things:

- Acceptance of responsibility, including identification and escalation of risks by all individuals within the Firm;
- Ownership of risk identification, assessment, data and management within each of the LOBs and Corporate; and
- A Firmwide risk governance and oversight structure.

The Firm follows a disciplined and balanced compensation framework with strong internal governance and independent oversight by the Board of Directors (the "Board"). The impact of risk and control issues is carefully considered in the Firm's performance evaluation and incentive compensation processes.

Risk governance framework

The Firm's risk governance framework involves understanding drivers of risks, types of risks and impacts of risks.

Drivers of risks are factors that cause a risk to exist. Drivers of risks include the economic environment, regulatory or government policy, competitor or market evolution, business decisions, process or judgment error, deliberate wrongdoing, dysfunctional markets and natural disasters.

Types of risks are categories by which risks manifest themselves. The Firm's risks are generally categorized in the following four risk types:

- Strategic risk is the risk to earnings, capital, liquidity or reputation associated with poorly-designed or failed business plans or an inadequate response to changes in the operating environment.
- Credit and investment risk is the risk associated with the default or change in credit profile of a client, counterparty or customer; or loss of principal or a reduction in expected returns on investments, including consumer credit risk, wholesale credit risk and investment portfolio risk.
- Market risk is the risk associated with the effect of changes in market factors, such as interest and foreign exchange rates, equity and commodity prices, credit spreads or implied volatilities, on the value of assets and liabilities held for both the short and long term.
- Operational risk is the risk of an adverse outcome resulting from inadequate or failed internal processes or systems; human factors; or external events impacting the Firm's processes or systems. Operational risk includes cybersecurity, compliance, conduct, legal, and estimations and model risk.

Impacts of risks are consequences of risks, both quantitative and qualitative. There may be many consequences when risks manifest themselves, including quantitative impacts such as a reduction in earnings and capital, liquidity outflows, and fines or penalties, or qualitative impacts such as damage to the Firm's reputation, loss of clients and customers, and regulatory and enforcement actions.

The Firm's risk governance framework is managed on a Firmwide basis. The Firm has an Independent Risk Management ("IRM") function, which is comprised of Risk Management and Compliance. The Firm's Chief Executive Officer ("CEO") appoints, subject to approval by the Risk Committee of the Board of Directors (the "Board Risk Committee"), the Firm's Chief Risk Officer ("CRO") to lead the IRM function and maintain the risk governance framework of the Firm. The framework is subject to approval by the Board Risk Committee through its review and approval of the Risk Governance and Oversight Policy.

The Firm's CRO oversees and delegates authority to the Firmwide Risk Executives ("FREs"), the Chief Risk Officers of the LOBs and Corporate ("LOB CROs"), and the Firm's Chief Compliance Officer ("CCO"), who, in turn, establish Risk Management and Compliance organizations, develop the Firm's risk governance policies and standards, and define and oversee the implementation of the Firm's risk governance framework. The LOB CROs oversee risks that arise in their LOBs and Corporate, while FREs oversee risks that span across the LOBs and Corporate, as well as functions and regions. Each area of the Firm that gives rise to risk is expected to operate within the parameters identified by the IRM function, and within the risk and control standards established by its own management.

Three lines of defense

The Firm's "three lines of defense" are as follows:

The first line of defense consists of each LOB, Treasury and CIO, and certain Other Corporate initiatives, including their aligned Operations, Technology and Control Management. The first line of defense owns the risks, and identification of risks, associated with their respective activities and the design and execution of controls to manage those risks. Responsibilities also include adherence to applicable laws, rules and regulations and implementation of the risk governance framework established by IRM, which may include policies, standards, limits, thresholds and controls.

The second line of defense is the IRM function, which is separate from the first line of defense and is responsible for independently measuring risk, as well as assessing and challenging the risk management activities of the first line of defense. IRM is also responsible for the identification of risks within its organization, its own adherence to applicable laws, rules and regulations and for the development and implementation of policies and standards with respect to its own processes.

The third line of defense is Internal Audit, an independent function that provides objective assessment of the adequacy and effectiveness of Firmwide processes, controls, governance and risk management. The Internal Audit function is led by the General Auditor, who reports to the Audit Committee and administratively to the CEO.

In addition, there are other functions that contribute to the Firmwide control environment but are not considered part of a particular line of defense, including Corporate Finance, Human Resources and Legal. These other functions are responsible for the identification of risks within their respective organizations, adherence to applicable laws, rules and regulations and implementation of the risk governance framework established by IRM.

Risk identification and ownership

The LOBs and Corporate are responsible for the identification of risks within their respective organizations, as well as the design and execution of controls, including IRM-specified controls, to manage those risks. To support this activity, the Firm has a risk identification framework designed to facilitate the responsibility of each LOB and Corporate to identify material risks inherent to the Firm's businesses and operational activities, catalog them in a central repository and review material risks on a regular basis. The IRM function reviews and challenges the risks identified by each LOB and Corporate, maintains the central repository and provides the consolidated Firmwide results to the Firmwide Risk Committee ("FRC") and the Board Risk Committee.

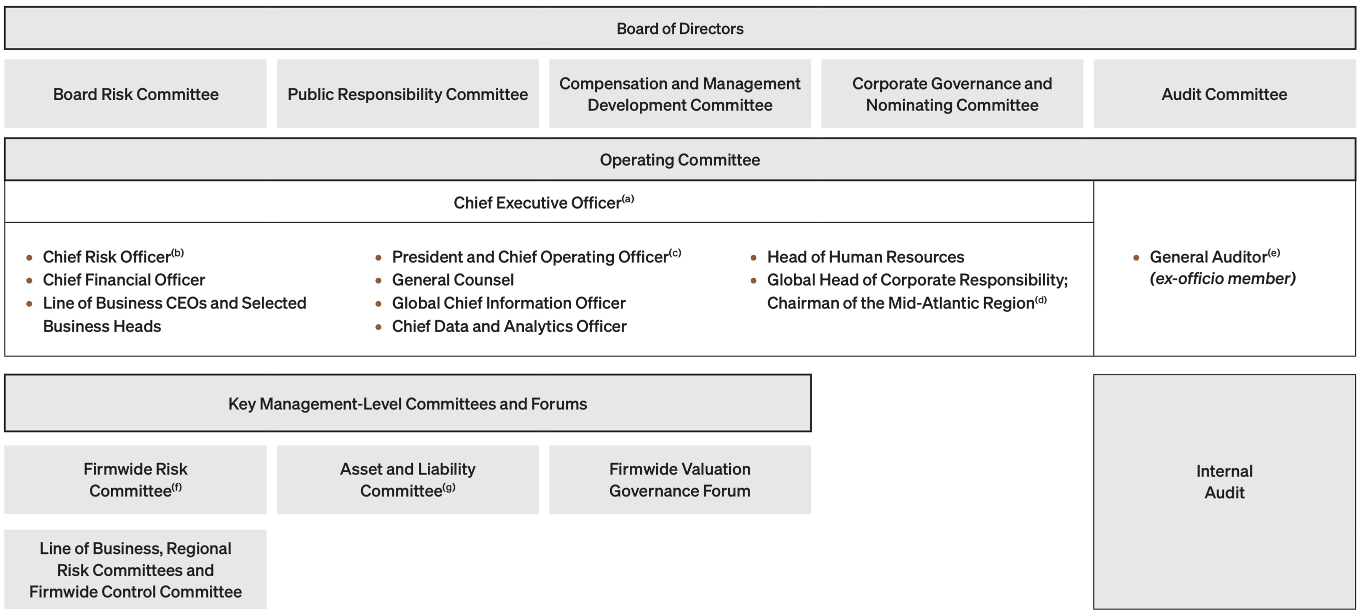
Risk appetite

The Firm's overall appetite for risk is governed by Risk Appetite frameworks for quantitative and qualitative risks. The Firm's risk appetite is periodically set and approved by senior management (including the CEO and CRO) and approved by the Board Risk Committee. Quantitative and qualitative risks are assessed to monitor and measure the Firm's capacity to take risk consistent with its stated risk appetite. Risk appetite results are reported to the Board Risk Committee.

Risk governance and oversight structure

The independent status of the IRM function is supported by a risk governance and oversight structure that provides channels for the escalation of risks and issues to senior management, the FRC and the Board of Directors, as appropriate.

The chart below illustrates the principal standing committees of the Board of Directors and key senior management-level committees in the Firm's risk governance and oversight structure. In addition, there are other committees, forums and channels of escalation that support the oversight of risk that are not shown in the chart below or described in this Form 10-K.



(a) The Firm's CEO is also the Chairman of the Board of Directors.
(b) The Firm's CRO reports to the Firm's CEO and the Board Risk Committee. The Firm's CRO may escalate directly to the Board of Directors (including its committees), as appropriate.
(c) Effective January 14, 2025, the co-CEO of the Commercial & Investment Bank became a Chief Operating Officer of the Firm. Refer to Recent events on page 57 for further information.
(d) Effective February 12, 2024, the Global Head of Corporate Responsibility and Chairman of the Mid-Atlantic Region became a member of the Operating Committee.
(e) The Firm's General Auditor reports to the Audit Committee and administratively to the Firm's CEO.
(f) The Firmwide Risk Committee escalates to the Board Risk Committee, as appropriate.
(g) The Asset and Liability Committee escalates to the Firm's CEO or the Board of Directors (including its committees), as appropriate.

The Firm's Operating Committee, which consists of the Firm's CEO, CRO, Chief Financial Officer ("CFO"), General Counsel, CEOs of the LOBs and other senior executives, is accountable to and may refer matters to the Firm's Board of Directors. The Operating Committee and certain other members of senior management are responsible for escalating to the Board the information necessary to facilitate the Board's exercise of its duties.

Board oversight

The Firm's Board of Directors actively oversees the business and affairs of the Firm. This includes monitoring the Firm's financial performance and condition and reviewing the strategic objectives and plans of the Firm. The Board carries out a significant portion of its oversight responsibilities through its principal standing committees, each of which consists solely of independent members of the Board. The Board Risk Committee is the principal committee that oversees risk matters. The Audit Committee oversees the control environment, and the Compensation & Management Development Committee oversees compensation and other management-related matters. Each committee of the Board oversees reputation risks, conduct risks, and environmental, social and governance ("ESG") matters within its scope of responsibility.

The JPMorgan Chase Bank, N.A. Board of Directors is responsible for the oversight of management of the bank, which it discharges both acting directly and through the principal standing committees of the Firm's Board of Directors. Risk and control oversight on behalf of JPMorgan Chase Bank N.A. is primarily the responsibility of the Board Risk Committee and the Audit Committee, respectively, and, with respect to compensation and other management-related matters, the Compensation & Management Development Committee.

The Board Risk Committee assists the Board in its oversight of management's responsibility to implement a global risk management framework reasonably designed to identify, assess and manage the Firm's risks. The Board Risk Committee's responsibilities include approval of applicable primary risk policies and review of certain associated frameworks, analysis and reporting established by management. Breaches in risk appetite and parameters, issues that may have a material adverse impact on the Firm, including capital and liquidity issues, and other significant risk-related matters are escalated to the Board Risk Committee, as appropriate.

The Audit Committee assists the Board in its oversight of management's responsibilities to ensure that there is an effective system of controls reasonably designed to safeguard the Firm's assets and income, ensure the integrity of the Firm's financial statements, and maintain compliance with the Firm's ethical standards, policies, plans and procedures, and with laws and regulations. It also assists the Board in its oversight of the qualifications, independence and performance of the Firm's independent registered public accounting firm, and of the performance of the Firm's Internal Audit function.

The Compensation & Management Development Committee ("CMDC") assists the Board in its oversight of the Firm's compensation principles and practices. The CMDC reviews and approves the Firm's compensation and qualified benefits programs. The Committee reviews the performance of Operating Committee members against their goals, and approves their compensation awards. In addition, the CEO's compensation award is subject to ratification by the independent directors of the Board. The CMDC also reviews the development of and succession for key executives. As part of the Board's role of reinforcing, demonstrating and communicating the "tone at the top," the CMDC oversees the Firm's culture, including reviewing updates from management regarding significant conduct issues and any related actions with respect to employees, including compensation actions.

The Public Responsibility Committee oversees and reviews the Firm's positions and practices on public responsibility matters such as community investment, fair lending, sustainability, consumer practices and other public policy issues that reflect the Firm's values and character and could impact the Firm's reputation among its stakeholders. The Committee also provides guidance on these matters to management and the Board, as appropriate.

The Corporate Governance & Nominating Committee exercises general oversight with respect to the governance of the Board of Directors. It reviews the qualifications of and recommends to the Board proposed nominees for election to the Board. The Committee evaluates and recommends to the Board corporate governance practices applicable to the Firm. It also reviews the framework for assessing the Board's performance and self-evaluation.

Management oversight

The Firm's senior management-level committees that are primarily responsible for key risk-related functions include:

The Firmwide Risk Committee ("FRC") is the Firm's highest management-level risk committee. It oversees the risks inherent in the Firm's business and provides a forum for discussion of risk-related and other topics and issues that are raised or escalated by its members and other committees.

The Firmwide Control Committee ("FCC") is an escalation committee for senior management to review and discuss the Firmwide compliance and operational risk environment, including identified issues, compliance and operational risk metrics and significant events that have been escalated.

Line of Business and Regional Risk Committees are responsible for overseeing the governance, limits and controls that have been established within the scope of their respective activities. These committees review the ways in which the particular LOB or the businesses operating in a particular region could be exposed to adverse outcomes, with a focus on identifying, accepting, escalating and/or requiring remediation of matters brought to these committees.

Line of Business and Corporate Function Control Committees oversee the risk and control environment of their respective business or function, inclusive of Operational Risk, Compliance and Conduct Risks. As part of that mandate, they are responsible for reviewing indicators of elevated or emerging risks and other data that may impact the level of compliance and operational risk in a business or function, addressing key compliance and operational risk issues, with an emphasis on processes with control concerns, and overseeing control remediation.

The Asset and Liability Committee ("ALCO") is responsible for overseeing the Firm's asset and liability management ("ALM"), including the activities and frameworks supporting management of the balance sheet, liquidity risk, interest rate risk and capital risk.

The Firmwide Valuation Governance Forum ("VGF") is composed of senior finance and risk executives and is responsible for overseeing the management of risks arising from valuation activities conducted across the Firm.

Risk governance and oversight functions

The Firm monitors and measures its risk through risk governance and oversight functions. The scope of a particular function or business activity may include one or more drivers, types and/or impacts of risk. For example, Country Risk Management oversees country risk which may be a driver of risk or an aggregation of exposures that could give rise to multiple risk types such as credit or market risk.

The following sections discuss the risk governance and oversight functions that have been established to oversee the risks inherent in the Firm's business activities.

STRATEGIC RISK MANAGEMENT

Strategic risk is the risk to earnings, capital, liquidity or reputation associated with poorly-designed or failed business plans or an inadequate response to changes in the operating environment.

Management and oversight

The Operating Committee, together with the senior leadership of each LOB and Corporate, are responsible for managing the Firm's most significant strategic risks. IRM engages regularly in strategic business discussions and decision-making, including participation in relevant business reviews and senior management meetings, risk and control committees and other relevant governance forums, and review of acquisitions and new business initiatives. The Board of Directors oversees management's strategic decisions, and the Board Risk Committee oversees IRM and the Firm's risk governance framework.

In the process of developing business plans and strategic initiatives, LOB and Corporate senior management identify the associated risks that are incorporated into the Firmwide Risk Identification framework and their impact on risk appetite.

In addition, IRM conducts a qualitative assessment of the LOB and Corporate strategic initiatives to assess their impact on the risk profile of the Firm.

The Firm's strategic planning process, which includes the development of the Firm's strategic plan and other strategic initiatives, is one component of managing the Firm's strategic risk. The strategic plan outlines the Firm's strategic framework and initiatives, and includes components such as budget, risk appetite, capital, earnings and asset-liability management objectives. Guided by the Firm's Business Principles, the Operating Committee and senior management teams in each LOB and Corporate review and update the strategic plan periodically, including evaluating the strategic framework and performance of strategic initiatives, assessing the operating environment, refining existing strategies and developing new strategies.

The Firm's strategic plan, together with IRM's assessment, are provided to the Board as part of its review and approval of the Firm's strategic plan, and the plan is also reflected in the Firm's budget.

The Firm's balance sheet strategy, which focuses on risk-adjusted returns, strong capital and robust liquidity, is also a component in the management of strategic risk. Refer to Capital Risk Management on pages 97–107 for further information on capital risk. Refer to Liquidity Risk Management on pages 108–115 for further information on liquidity risk. Refer to Reputation Risk Management on page 116 for further information on reputation risk.

Capital risk is the risk that the Firm has an insufficient level or composition of capital to support the Firm's business activities and associated risks during normal economic environments and under stressed conditions.

A strong capital position is essential to the Firm's business strategy and competitive position. Maintaining a strong balance sheet to manage through economic volatility is a strategic imperative of the Firm's Board of Directors, CEO and Operating Committee. The Firm's "fortress balance sheet" philosophy focuses on risk-adjusted returns, strong capital and robust liquidity. The Firm's capital risk management strategy focuses on maintaining long-term stability to enable the Firm to build and invest in market-leading businesses, including in highly stressed environments. Senior management considers the implications on the Firm's capital prior to making significant decisions that could impact future business activities. In addition to considering the Firm's earnings outlook, senior management evaluates all sources and uses of capital with a view to ensuring the Firm's capital strength.

Capital risk management

The Firm has a Capital Risk Management function whose primary objective is to provide independent oversight of capital risk across the Firm.

Capital Risk Management's responsibilities include:

- Defining, monitoring and reporting capital risk metrics;
- Establishing, calibrating and monitoring capital risk limits and indicators, including capital risk appetite;
- Developing processes to classify, monitor and report capital limit breaches;
- Performing assessments of the Firm's capital management activities, including changes made to the Contingency Capital Plan described below; and
- Conducting assessments of the Firm's regulatory capital framework intended to ensure compliance with applicable regulatory capital rules.

Capital management

Treasury and CIO is responsible for capital management.

The primary objectives of the Firm's capital management are to:

- Maintain sufficient capital in order to continue to build and invest in the Firm's businesses through normal economic cycles and in stressed environments;
- Retain flexibility to take advantage of future investment opportunities;
- Promote the Parent Company's ability to serve as a source of strength to its subsidiaries;
- Ensure the Firm operates above the minimum regulatory capital ratios as well as maintain "well-capitalized" status for the Firm and its principal insured depository institution ("IDI") subsidiary, JPMorgan Chase Bank, N.A., at all times under applicable regulatory capital requirements;
- Meet capital distribution objectives; and
- Maintain sufficient capital resources to operate throughout a resolution period in accordance with the Firm's preferred resolution strategy.

The Firm addresses these objectives through:

- Establishing internal minimum capital requirements and maintaining a strong capital governance framework. The internal minimum capital levels consider the Firm's regulatory capital requirements as well as an internal assessment of capital adequacy, in normal economic cycles and in stress events;
- Retaining flexibility in order to react to a range of potential events; and
- Regularly monitoring the Firm's capital position and following prescribed escalation protocols, both at the Firm and material legal entity levels.

Governance

Committees responsible for overseeing the Firm's capital management include the Capital Governance Committee, the Firmwide ALCO as well as regional ALCOs, and the CIO, Treasury and Corporate ("CTC") Risk Committee. In addition, the Board Risk Committee periodically reviews the Firm's capital risk tolerance. Refer to Firmwide Risk Management on pages 91–95 for additional discussion of the Firmwide ALCO and other risk-related committees.

Capital planning and stress testing

Comprehensive Capital Analysis and Review

The Federal Reserve requires the Firm, as a large Bank Holding Company ("BHC"), to submit at least annually a capital plan that has been reviewed and approved by the Board of Directors. The Federal Reserve uses Comprehensive Capital Analysis and Review ("CCAR") and other stress testing processes to assess whether large BHCs, such as the Firm, have sufficient capital during periods of economic and financial stress, and have robust, forward-looking capital assessment and planning processes in place that address each BHC's unique risks to enable it to absorb losses under certain stress scenarios. Through CCAR, the Federal Reserve evaluates each BHC's capital adequacy and internal capital adequacy assessment processes ("ICAAP"), as well as its plans to make capital distributions, such as dividend payments or stock repurchases. The Federal

Reserve uses results under the severely adverse scenario from its supervisory stress test to determine each firm's Stress Capital Buffer ("SCB") requirement for the coming year.

The Firm's current SCB requirement is 3.3% and will remain in effect until September 30, 2025. The Firm's Standardized CET1 capital ratio requirement, including regulatory buffers, was 12.3% as of December 31, 2024.

Refer to Capital actions on page 105 for information on actions taken by the Firm's Board of Directors.

Internal Capital Adequacy Assessment Process
Annually, the Firm prepares the ICAAP, which informs the Board of Directors of the ongoing assessment of the Firm's processes for managing the sources and uses of capital as well as compliance with supervisory expectations for capital planning and capital adequacy. The Firm's ICAAP integrates stress testing protocols with capital planning. The Firm's Audit Committee is responsible for reviewing and approving the capital planning framework.

Stress testing assesses the potential impact of alternative economic and business scenarios on the Firm's earnings and capital. Economic scenarios, and the parameters underlying those scenarios, are defined centrally and applied uniformly across the businesses. These scenarios are articulated in terms of macroeconomic factors, which are key drivers of business results; global market shocks, which generate short-term but severe trading losses; and idiosyncratic operational risk events. The scenarios are intended to capture and stress key vulnerabilities and idiosyncratic risks facing the Firm. In addition to CCAR and other periodic stress testing, management also considers tailored stress scenarios and sensitivity analyses, as necessary.

Contingency Capital Plan

The Firm's Contingency Capital Plan establishes the capital management framework for the Firm and specifies the principles underlying the Firm's approach towards capital management in normal economic conditions and in stressed environments. The Contingency Capital Plan defines how the Firm calibrates its targeted capital levels and meets minimum capital requirements, monitors the ongoing appropriateness of planned capital distributions, and sets out the capital contingency actions that are expected to be taken or considered at various levels of capital depletion during a period of stress.

Regulatory capital

The Federal Reserve establishes capital requirements, including well-capitalized standards, for the Firm as a consolidated financial holding company. The Office of the Comptroller of the Currency ("OCC") establishes similar minimum capital requirements and standards for the Firm's principal IDI subsidiary, JPMorgan Chase Bank, N.A. The U.S. capital requirements generally follow the Capital Accord of the Basel Committee, as amended from time to time.

Basel III Overview
The capital rules under Basel III establish minimum capital ratios and overall capital adequacy standards for large and internationally active U.S. BHCs and banks, including the Firm and JPMorgan Chase Bank, N.A. The minimum amount of regulatory capital that must be held by BHCs and banks is determined by calculating RWA, which are on-balance sheet assets and off-balance sheet exposures, weighted according to risk. Under the rules currently in effect, two comprehensive approaches are prescribed for calculating RWA: a standardized approach ("Basel III Standardized"), and an advanced approach ("Basel III Advanced").

For each of these risk-based capital ratios, the capital adequacy of the Firm is evaluated against the lower of the Standardized or Advanced approaches compared to their respective regulatory capital ratio requirements.

The current Basel III rules establish capital requirements for calculating credit risk RWA and market risk RWA, and in the case of Basel III Advanced, operational risk RWA. Key differences in the calculation of credit risk RWA between the Standardized and Advanced approaches are that for Basel III Advanced, credit risk RWA is based on risk-sensitive approaches which largely rely on the use of internal credit models and parameters, whereas for Basel III Standardized, credit risk RWA is generally based on supervisory risk-weightings which vary primarily by counterparty type and asset class. Market risk RWA is generally calculated consistently between Basel III Standardized and Basel III Advanced. In addition to the RWA calculated under these approaches, the Firm may supplement such amounts to incorporate management judgment and feedback from its regulators.

As of December 31, 2024, the Firm's Basel III Standardized ratios risk-based ratios were more binding than the Basel III Advanced risk-based ratios.

Additionally, Basel III requires that Advanced Approaches banking organizations, including the Firm, calculate their SLRs.

Refer to page 104 for additional information on SLR.

Key Regulatory Developments

U.S. Basel III Finalization

In July 2023, the Federal Reserve, the OCC and the FDIC released a proposal to amend the risk-based capital framework, entitled "Regulatory capital rule: Amendments applicable to large banking organizations and to banking organizations with significant trading activity", which is referred to in this Form 10-K as the "U.S. Basel III proposal". Under this proposal, changes to the framework would include replacement of the Advanced approach with an expanded risk-based approach for the calculation of RWA. In addition, the stress capital buffer requirement would be applicable to both the expanded risk-based approach and the Standardized approach.

GSIB Surcharge and TLAC and Eligible LTD Requirements

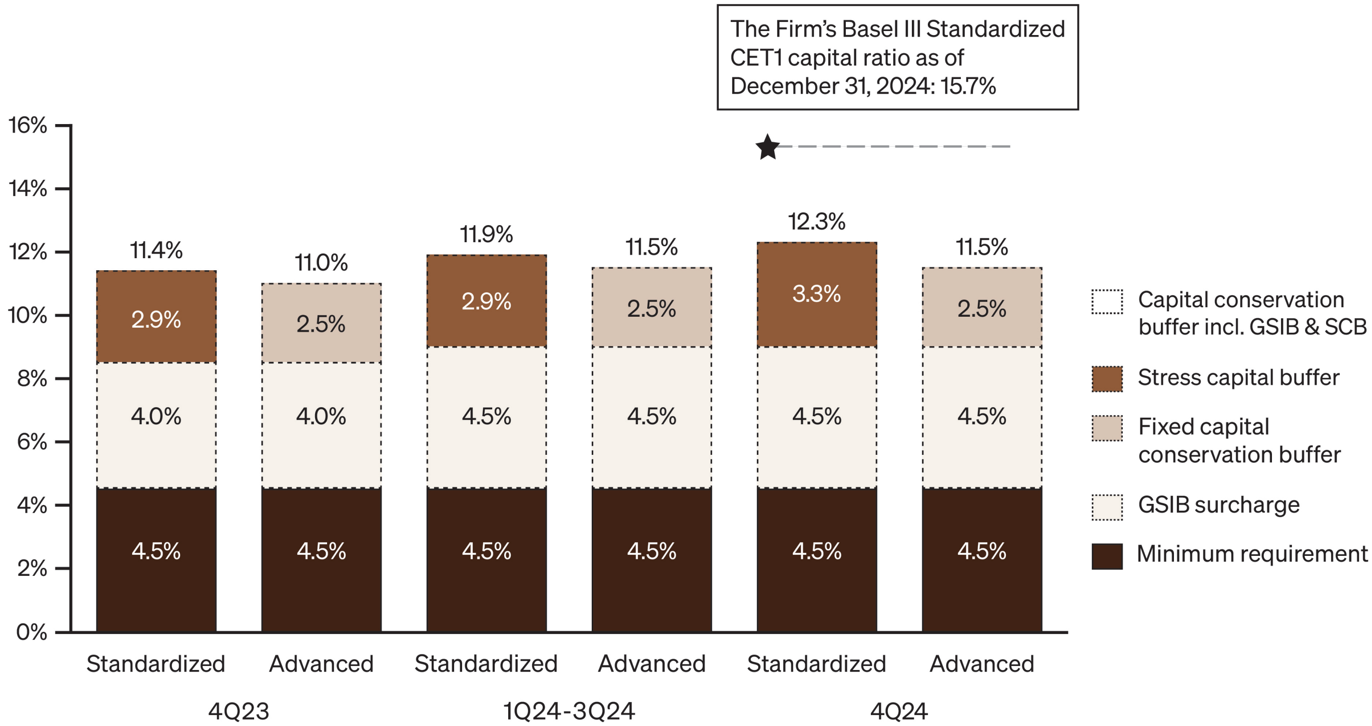
In July 2023, the Federal Reserve released a proposal to amend the calculation of the GSIB surcharge. Under the proposal, the annual GSIB surcharge would be based on an average of the quarterly surcharge calculations throughout the calendar year, with daily averaging required for certain measures. The proposal would also reduce surcharge increments from 50 bps to 10 bps and includes other technical amendments to the “Method 2” calculation. The proposed changes would revise risk-based capital requirements for the Firm and other U.S. GSIBs. Refer to Risk-based Capital Regulatory Requirements on page 100 for further information on the GSIB surcharge.

Additionally, in August 2023, the Federal Reserve, the FDIC and the OCC released a proposal to expand the eligible long-term debt ("eligible LTD") and clean holding company requirements under the existing total loss-absorbing capacity ("TLAC") rule to apply to non-GSIB banks with $100 billion or more in total consolidated assets. The proposal would also reduce the amount of LTD with remaining maturities of less than two years that count towards a U.S. GSIB's TLAC requirement and expand the existing capital deduction framework for LTD issued by GSIBs to include LTD issued by non-GSIB banks subject to the LTD requirements.

Finalization of the above proposals, including the required implementation dates, is uncertain. The Firm continues to monitor developments and potential impacts.

Risk-based Capital Regulatory Requirements

The following chart presents the Firm's Basel III CET1 capital ratio requirements under the Basel III rules currently in effect.



All banking institutions are currently required to have a minimum CET1 capital ratio of 4.5% of risk-weighted assets.

Certain banking organizations, including the Firm, are required to hold additional levels of capital to serve as a "capital conservation buffer". The capital conservation buffer incorporates a GSIB surcharge, a discretionary countercyclical capital buffer and a fixed capital conservation buffer of 2.5% for Advanced regulatory capital requirements, as well as a variable SCB requirement, floored at 2.5%, for Standardized regulatory capital requirements.

Under the Federal Reserve's GSIB rule, the Firm is required to assess its GSIB surcharge on an annual basis under two separately prescribed methods based on data for the previous fiscal year-end, and is subject to the higher of the two. "Method 1" reflects the GSIB surcharge as prescribed by the Basel Committee's assessment methodology, and is calculated across five criteria: size, cross-jurisdictional activity, interconnectedness, complexity and substitutability. "Method 2" modifies the Method 1 requirements to include a measure of short-term wholesale funding in place of substitutability, and introduces a GSIB score "multiplication factor".

The following table presents the Firm's effective GSIB surcharge for the years ended December 31, 2024 and 2023. For 2025, the Firm's effective regulatory minimum GSIB surcharge calculated under both Method 1 and Method 2 remains unchanged at 2.5% and 4.5%, respectively.

	2024	2023
Method 1	2.5 %	2.5 %
Method 2	4.5 %	4.0 %

The U.S. federal regulatory capital standards include a framework for setting a discretionary countercyclical capital buffer taking into account the macro financial environment in which large, internationally active banks function. As of December 31, 2024, the U.S. countercyclical capital buffer remained at 0%. The Federal Reserve will continue to review the buffer at least annually. The buffer can be increased if the Federal Reserve, the FDIC and the OCC determine that systemic risks are meaningfully above normal and can be calibrated up to an additional 2.5% of RWA subject to a 12-month implementation period.

Failure to maintain regulatory capital equal to or in excess of the risk-based regulatory capital minimum plus the capital conservation buffer (inclusive of the GSIB surcharge) and any countercyclical buffer will result in limitations to the amount of capital that the Firm may distribute, such as through dividends and common share repurchases, as well as on discretionary bonus payments for certain executive officers.

Total Loss-Absorbing Capacity
The Federal Reserve's TLAC rule requires the U.S. GSIB top-tier holding companies, including the Firm, to maintain minimum levels of external TLAC and eligible LTD. Refer to TLAC on page 106 for additional information.

Leverage-based Capital Regulatory Requirements
Supplementary leverage ratio
Banking organizations subject to the Basel III Advanced approach are currently required to have a minimum SLR of 3.0%. Certain banking organizations, including the Firm, are also required to hold an additional 2.0% leverage buffer. The SLR is defined as Tier 1 capital under Basel III divided by the Firm's total leverage exposure. Total leverage exposure is calculated by taking the Firm's total average on-balance sheet assets, less amounts permitted to be deducted for Tier 1 capital, and adding certain off-balance sheet exposures, as defined in regulatory capital rules. Refer to SLR on page 104 for additional information.

Failure to maintain an SLR equal to or greater than the regulatory requirement will result in limitations on the amount of capital that the Firm may distribute such as through dividends and common share repurchases, as well as on discretionary bonus payments for certain executive officers.

Other regulatory capital
In addition to meeting the capital ratio requirements of Basel III, the Firm and its principal IDI subsidiary, JPMorgan Chase Bank, N.A., must also maintain minimum capital and leverage ratios in order to be "well-capitalized" under the regulations issued by the Federal Reserve and the Prompt Corrective Action requirements of the FDIC Improvement Act, respectively. Refer to Note 27 for additional information.

Additional information regarding the Firm's capital ratios, as well as the U.S. federal regulatory capital standards to which the Firm is subject, is presented in Note 27. Refer to the Firm's Pillar 3 Regulatory Capital Disclosures reports, which are available on the Firm's website, for further information on the Firm's current capital measures.

Selected capital and RWA data

The following tables present the Firm's risk-based capital metrics under both the Basel III Standardized and Advanced approaches and leverage-based capital metrics. Refer to Note 27 for JPMorgan Chase Bank, N.A.'s risk-based and leverage-based capital metrics. First Republic Bank was not subject to Advanced approach regulatory capital requirements. As a result, for certain exposures associated with the First Republic acquisition, Advanced RWA and any impact on Advanced Total capital is calculated under the Standardized approach as permitted by the transition provisions in the U.S. capital rules. Refer to Note 34 for additional information on the First Republic acquisition.

	Standardized			Advanced		
(in millions, except ratios)	**December 31, 2024**	December 31, 2023	Capital ratio requirements[b]	**December 31, 2024**	December 31, 2023	Capital ratio requirements[b]
Risk-based capital metrics:[a]						
CET1 capital	**$ 275,513**	$ 250,585		**$ 275,513**	$ 250,585	
Tier 1 capital	**294,881**	277,306		**294,881**	277,306	
Total capital	**325,589**	308,497		**311,898** [c]	295,417 [c]	
Risk-weighted assets	**1,757,460**	1,671,995		**1,740,429** [c]	1,669,156 [c]	
CET1 capital ratio	**15.7 %**	15.0 %	**12.3 %**	**15.8 %**	15.0 %	**11.5 %**
Tier 1 capital ratio	**16.8**	16.6	**13.8**	**16.9**	16.6	**13.0**
Total capital ratio	**18.5**	18.5	**15.8**	**17.9**	17.7	**15.0**

(a) The capital metrics reflect the CECL capital transition provisions. As of December 31, 2024, CET1 capital reflected the remaining $720 million CECL benefit and were fully phased in as of January 1, 2025; as of December 31, 2023, CET1 capital reflected a $1.4 billion benefit. Refer to Note 27 for additional information.
(b) Represents minimum requirements and regulatory buffers applicable to the Firm for the period ended December 31, 2024. For the period ended December 31, 2023, the Basel III Standardized CET1, Tier 1, and Total capital ratio requirements applicable to the Firm were 11.4%, 12.9%, and 14.9%, respectively; the Basel III Advanced CET1, Tier 1, and Total capital ratio requirements applicable to the Firm were 11.0%, 12.5%, and 14.5%, respectively. Refer to Note 27 for additional information.
(c) Includes the impacts of certain assets associated with First Republic to which the Standardized approach has been applied as permitted by the transition provisions in the U.S. capital rules.

Three months ended (in millions, except ratios)	**December 31, 2024**	December 31, 2023	Capital ratio requirements[c]
Leverage-based capital metrics:[a]			
Adjusted average assets[b]	**$ 4,070,499**	$ 3,831,200	
Tier 1 leverage ratio	**7.2 %**	7.2 %	**4.0 %**
Total leverage exposure	**$ 4,837,568**	$ 4,540,465	
SLR	**6.1 %**	6.1 %	**5.0 %**

(a) The capital metrics reflect the CECL capital transition provisions. Refer to Note 27 for additional information.
(b) Adjusted average assets, for purposes of calculating the leverage ratios, includes quarterly average assets adjusted for on-balance sheet assets that are subject to deduction from Tier 1 capital, predominantly goodwill, inclusive of estimated equity method goodwill, and other intangible assets.
(c) Represents minimum requirements and regulatory buffers applicable to the Firm. Refer to Note 27 for additional information.

Capital components

The following table presents reconciliations of total stockholders' equity to Basel III CET1 capital, Tier 1 capital and Total capital as of December 31, 2024 and 2023.

(in millions)		**December 31, 2024**		December 31, 2023
Total stockholders' equity	**$**	**344,758**	$	327,878
Less: Preferred stock		20,050		27,404
Common stockholders' equity		**324,708**		300,474
Add:				
Certain deferred tax liabilities[a]		2,943		2,996
Other CET1 capital adjustments[b]		4,499		4,717
Less:				
Goodwill[c]		53,763		54,377
Other intangible assets		2,874		3,225
Standardized/Advanced CET1 capital		**275,513**		250,585
Add: Preferred stock		20,050		27,404
Less: Other Tier 1 adjustments		682		683
Standardized/Advanced Tier 1 capital	**$**	**294,881**	$	277,306
Long-term debt and other instruments qualifying as Tier 2 capital	$	10,312	$	11,779
Qualifying allowance for credit losses[d]		20,992		20,102
Other		(596)		(690)
Standardized Tier 2 capital	**$**	**30,708**	$	31,191
Standardized Total capital	**$**	**325,589**	$	308,497
Adjustment in qualifying allowance for credit losses for Advanced Tier 2 capital[e][f]		(13,691)		(13,080)
Advanced Tier 2 capital	**$**	**17,017**	$	18,111
Advanced Total capital	**$**	**311,898**	$	295,417

(a) Represents deferred tax liabilities related to tax-deductible goodwill and to identifiable intangibles created in nontaxable transactions, which are netted against goodwill and other intangibles when calculating CET1 capital.

(b) As of December 31, 2024 and 2023, included a net benefit associated with cash flow hedges and debit valuation adjustments ("DVA") related to structured notes recorded in AOCI of $5.2 billion and $4.3 billion and the benefit from the CECL capital transition provisions of $720 million and $1.4 billion, respectively.

(c) Goodwill deducted from capital includes goodwill associated with equity method investments in nonconsolidated financial institutions based on regulatory requirements. Refer to page 140 for additional information on principal investment risk.

(d) Represents the allowance for credit losses eligible for inclusion in Tier 2 capital up to 1.25% of credit risk RWA, including the impact of the CECL capital transition provision with any excess deducted from RWA. Refer to Note 27 for additional information on the CECL capital transition.

(e) Represents an adjustment to qualifying allowance for credit losses for the excess of eligible credit reserves over expected credit losses up to 0.6% of credit risk RWA, including the impact of the CECL capital transition provision with any excess deducted from RWA.

(f) As of December 31, 2024 and 2023, included an incremental $541 million and $655 million allowance for credit losses, respectively, on certain assets associated with First Republic to which the Standardized approach has been applied, as permitted by the transition provisions in the U.S. capital rules.

Capital rollforward

The following table presents the changes in Basel III CET1 capital, Tier 1 capital and Tier 2 capital for the year ended December 31, 2024.

Year ended December 31, (in millions)	**2024**
Standardized/Advanced CET1 capital at December 31, 2023	$ 250,585
Net income applicable to common equity	57,212
Dividends declared on common stock	(13,786)
Net purchase of treasury stock	(17,801)
Changes in additional paid-in capital	783
Changes related to AOCI applicable to capital:	
Unrealized gains/(losses) on investment securities	(87)
Translation adjustments, net of hedges[a]	(858)
Fair value hedges	(87)
Defined benefit pension and other postretirement employee benefit ("OPEB") plans	(63)
Changes related to other CET1 capital adjustments[b]	(385)
Change in Standardized/Advanced CET1 capital	24,928
Standardized/Advanced CET1 capital at December 31, 2024	**$ 275,513**
Standardized/Advanced Tier 1 capital at December 31, 2023	$ 277,306
Change in CET1 capital[b]	24,928
Net redemptions of noncumulative perpetual preferred stock	(7,354)
Other	1
Change in Standardized/Advanced Tier 1 capital	17,575
Standardized/Advanced Tier 1 capital at December 31, 2024	**$ 294,881**
Standardized Tier 2 capital at December 31, 2023	$ 31,191
Change in long-term debt and other instruments qualifying as Tier 2	(1,467)
Change in qualifying allowance for credit losses[b]	890
Other	94
Change in Standardized Tier 2 capital	(483)
Standardized Tier 2 capital at December 31, 2024	**$ 30,708**
Standardized Total capital at December 31, 2024	**$325,589**
Advanced Tier 2 capital at December 31, 2023	$ 18,111
Change in long-term debt and other instruments qualifying as Tier 2	(1,467)
Change in qualifying allowance for credit losses[b][c]	279
Other	94
Change in Advanced Tier 2 capital	(1,094)
Advanced Tier 2 capital at December 31, 2024	**$ 17,017**
Advanced Total capital at December 31, 2024	**$ 311,898**

(a) Includes foreign currency translation adjustments and the impact of related derivatives.

(b) Includes the impact of the CECL capital transition provisions and the cumulative effect of changes in accounting principles. Refer to Note 1 for additional information on changes in accounting principles and Note 27 for additional information on the CECL capital transition provisions.

(c) As of December 31, 2024 and 2023, included an incremental $541 million and $655 million allowance for credit losses, respectively, on certain assets associated with First Republic to which the Standardized approach has been applied, as permitted by the transition provisions in the U.S. capital rules.

RWA rollforward

The following table presents changes in the components of RWA under Basel III Standardized and Advanced approaches for the year ended December 31, 2024. The amounts in the rollforward categories are estimates, based on the predominant driver of the change.

	Standardized			Advanced			
Year ended December 31, 2024 (in millions)	Credit risk RWA[(c)]	Market risk RWA	**Total RWA**	Credit risk RWA[(c)(d)]	Market risk RWA	Operational risk RWA	**Total RWA**
December 31, 2023	$ 1,603,851	$ 68,144	**$ 1,671,995**	$ 1,155,261	$ 68,603	$ 445,292	**$ 1,669,156**
Model & data changes[(a)]	4,743	(366)	**4,377**	4,811	(366)	—	**4,445**
Movement in portfolio levels[(b)]	64,169	16,919	**81,088**	57,933	16,895	(8,000)	**66,828**
Changes in RWA	68,912	16,553	**85,465**	62,744	16,529	(8,000)	**71,273**
December 31, 2024	**$ 1,672,763**	**$ 84,697**	**$ 1,757,460**	**$ 1,218,005**	**$ 85,132**	**$ 437,292**	**$ 1,740,429**

(a) Model & data changes refer to material movements in levels of RWA as a result of revised methodologies and/or treatment per regulatory guidance (exclusive of rule changes).
(b) Movement in portfolio levels (inclusive of rule changes) refers to: for Credit risk RWA, changes in book size, changes in composition and credit quality, market movements, and deductions for excess eligible allowances for credit losses not eligible for inclusion in Tier 2 capital; for Market risk RWA, changes in position and market movements; and for Operational risk RWA, updates to cumulative losses and macroeconomic model inputs.
(c) As of December 31, 2024 and 2023, the Basel III Standardized Credit risk RWA included wholesale and retail off balance-sheet RWA of $208.0 billion and $208.5 billion, respectively; and the Basel III Advanced Credit risk RWA included wholesale and retail off balance-sheet RWA of $192.1 billion and $188.5 billion, respectively.
(d) As of December 31, 2024 and 2023, Credit risk RWA reflected approximately $43.3 billion and $52.4 billion, respectively, of RWA calculated under the Standardized approach for certain assets associated with First Republic as permitted by the transition provisions in the U.S. capital rules.

Refer to the Firm's Pillar 3 Regulatory Capital Disclosures reports, which are available on the Firm's website, for further information on Credit risk RWA, Market risk RWA and Operational risk RWA.

Supplementary leverage ratio

The following table presents the components of the Firm's SLR.

Three months ended (in millions, except ratio)	**December 31, 2024**	December 31, 2023
Tier 1 capital	**$ 294,881**	$ 277,306
Total average assets	4,125,167	3,885,632
Less: Regulatory capital adjustments[(a)]	54,668	54,432
Total adjusted average assets[(b)]	4,070,499	3,831,200
Add: Off-balance sheet exposures[(c)]	767,069	709,265
Total leverage exposure	**$ 4,837,568**	$4,540,465
SLR	**6.1 %**	6.1 %

(a) For purposes of calculating the SLR, includes quarterly average assets adjusted for on-balance sheet assets that are subject to deduction from Tier 1 capital, predominantly goodwill, inclusive of estimated equity method goodwill, other intangible assets and adjustments for the CECL capital transition provisions. Refer to Note 27 for additional information on the CECL capital transition.
(b) Adjusted average assets used for the calculation of Tier 1 leverage ratio.
(c) Off-balance sheet exposures are calculated as the average of the three month-end spot balances on applicable regulatory exposures during the reporting quarter. Refer to the Firm's Pillar 3 Regulatory Capital Disclosures reports for additional information.

Line of business and Corporate equity

Each LOB and Corporate is allocated capital by taking into consideration a variety of factors including capital levels of similarly rated peers and applicable regulatory capital requirements. ROE is measured and internal targets for expected returns are established as key measures of an LOB's performance.

The Firm's current equity allocation methodology incorporates Basel III Standardized RWA and the GSIB surcharge, both under rules currently in effect, as well as a simulation of capital depletion in a severe stress environment. At least annually, the assumptions, judgments and methodologies used to allocate capital are reassessed and, as a result, the capital allocated to the LOBs and Corporate may change. As of January 1, 2025, changes to the Firm's capital allocations are primarily a result of updates to the Firm's current capital requirements and changes in RWA for each LOB under rules currently in effect. Any capital that the Firm has accumulated in excess of these current requirements, including the capital required to meet the potential increased requirements of the U.S. Basel III proposal, has been retained in Corporate in addition to its allocated balance.

The following table presents the capital allocated to each LOB and Corporate.

		December 31,	
(in billions)	**January 1, 2025**	2024	2023
Consumer & Community Banking	**$ 56.0**	$ 54.5	$ 55.5
Commercial & Investment Bank	**149.5**	132.0	138.0
Asset & Wealth Management	**16.0**	15.5	17.0
Corporate	**103.2**	122.7	90.0
Total common stockholders' equity	**$ 324.7**	$ 324.7	$ 300.5

Capital actions

Common stock dividends

The Firm's common stock dividends are planned as part of the Capital Management governance framework in line with the Firm's capital management objectives.

On December 9, 2024, the Firm announced that its Board of Directors had declared a quarterly common stock dividend of $1.25 per share, payable on January 31, 2025. The Firm's dividends are subject to approval by the Board of Directors on a quarterly basis.

Refer to Note 21 and Note 26 for information regarding dividend restrictions.

The following table shows the common dividend payout ratio based on net income applicable to common equity.

Year ended December 31,	**2024**	2023	2022
Common dividend payout ratio	**24 %**	25 %	33 %

Common stock

On June 28, 2024, the Firm announced that its Board of Directors had authorized a new $30 billion common share repurchase program, effective July 1, 2024. Through June 30, 2024, the Firm was authorized to purchase up to $30 billion of common shares under its previously-approved common share repurchase program that was announced on April 13, 2022.

The following table sets forth the Firm's repurchases of common stock for the years ended December 31, 2024, 2023 and 2022.

Year ended December 31, (in millions)	**2024**	2023	2022[b]
Total number of shares of common stock repurchased	**91.7**	69.5	23.1
Aggregate purchase price of common stock repurchases[a]	**$ 18,841**	$ 9,898	$ 3,122

(a) Excludes excise tax and commissions. As part of the Inflation Reduction Act of 2022, a 1% excise tax is imposed on net share repurchases commencing January 1, 2023.

(b) In the second half of 2022, the Firm temporarily suspended share repurchases, which it resumed in the first quarter of 2023 under its common share repurchase program.

The Board of Directors' authorization to repurchase common shares is utilized at management's discretion. The $30 billion common share repurchase program approved by the Board of Directors does not establish specific price targets or timetables. Management determines the amount and timing of common share repurchases based on various factors, including market conditions; legal and regulatory considerations affecting the amount and timing of repurchase activity; the Firm's capital position (taking into account goodwill and intangibles); organic capital generation; current and proposed future capital requirements; and other investment opportunities. The amount of common shares that the Firm repurchases in any period may be substantially more or less than the amounts estimated or actually repurchased in prior periods, reflecting the dynamic nature of the decision-making process. The Firm's common share repurchases may be suspended by management at any time; and may be executed through open market purchases or privately negotiated transactions, or utilizing Rule 10b5-1 plans, which are written trading plans that the Firm may enter into from time to time under Rule 10b5-1 of the Securities Exchange Act of 1934 and which allow the Firm to repurchase its common shares during periods when it may otherwise not be repurchasing common shares — for example, during internal trading blackout periods.

Refer to capital planning and stress testing on pages 97–98 for additional information.

Refer to Part II, Item 5: Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities on page 39 of this 2024 Form 10-K for additional information regarding repurchases of the Firm's equity securities.

Preferred stock

Preferred stock dividends were $1.3 billion, $1.5 billion, and $1.6 billion for the years ended December 31, 2024, 2023, and 2022, respectively.

During the year ended and subsequent to December 31, 2024, the Firm issued and redeemed certain series of non-cumulative preferred stock. Refer to Note 21 for additional information on the Firm's preferred stock, including the issuance and redemption of preferred stock.

Subordinated Debt

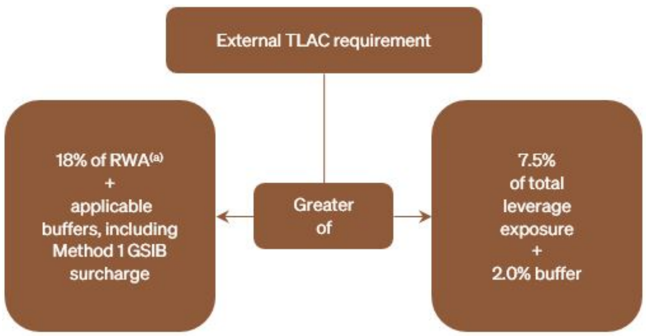
Refer to Long-term funding on page 114 and Note 20 for additional information on the Firm's subordinated debt.

Other capital requirements

Total Loss-Absorbing Capacity

The Federal Reserve's TLAC rule requires the U.S. GSIB top-tier holding companies, including the Firm, to maintain minimum levels of external TLAC and eligible long-term debt.

The external TLAC requirements and the minimum level of eligible long-term debt requirements are shown below:



(a) RWA is the greater of Standardized and Advanced compared to their respective regulatory capital ratio requirements.

Failure to maintain TLAC equal to or in excess of the regulatory minimum plus applicable buffers will result in limitations on the amount of capital that the Firm may distribute, such as through dividends and common share repurchases, as well as on discretionary bonus payments for certain executive officers.

The following table presents the eligible external TLAC and eligible LTD amounts, as well as a representation of these amounts as a percentage of the Firm's total RWA and total leverage exposure applying the impact of the CECL capital transition provisions as of December 31, 2024 and 2023.

	December 31, 2024		December 31, 2023	
(in billions, except ratio)	**External TLAC**	**LTD**	External TLAC	LTD
Total eligible amount	**$ 546.6**	**$ 236.8**	$ 513.8	$ 222.6
% of RWA	**31.1 %**	**13.5 %**	30.7 %	13.3 %
Regulatory requirements	**23.0**	**10.5**	23.0	10.0
Surplus/(shortfall)	**$ 142.3**	**$ 52.3**	$ 129.2	$ 55.4
% of total leverage exposure	**11.3 %**	**4.9 %**	11.3 %	4.9 %
Regulatory requirements	**9.5**	**4.5**	9.5	4.5
Surplus/(shortfall)	**$ 87.0**	**$ 19.2**	$ 82.5	$ 18.3

Effective January 1, 2024, the Firm's regulatory requirement for its eligible LTD to RWA ratio increased by 50 bps to 10.5%, due to the increase in the Firm's GSIB Method 2 requirements. The Firm's regulatory requirement for its TLAC to RWA ratio remained at 23.0%. Refer to Risk-based Capital Regulatory Requirements on pages 100–101 for further information on the GSIB surcharge.

Refer to Liquidity Risk Management on pages 108–115 for further information on long-term debt issued by the Parent Company.

Refer to Part I, Item 1A: Risk Factors on pages 10-37 of this 2024 Form 10-K for information on the financial consequences to holders of the Firm's debt and equity securities in a resolution scenario.

U.S. broker-dealer regulatory capital

J.P. Morgan Securities

JPMorganChase's principal U.S. broker-dealer subsidiary is J.P. Morgan Securities. J.P. Morgan Securities is subject to the regulatory capital requirements of Rule 15c3-1 under the Securities Exchange Act of 1934 (the "Net Capital Rule"). J.P. Morgan Securities is also registered as a futures commission merchant and is subject to regulatory capital requirements, including those imposed by the SEC, the Commodity Futures Trading Commission ("CFTC"), the Financial Industry Regulatory Authority ("FINRA") and the National Futures Association ("NFA").

J.P. Morgan Securities has elected to compute its minimum net capital requirements in accordance with the "Alternative Net Capital Requirements" of the Net Capital Rule.

The following table presents J.P. Morgan Securities' net capital.

December 31, 2024 (in millions)	Actual	Minimum
Net Capital	**$ 24,980**	**$ 5,999**

J.P. Morgan Securities is registered with the SEC as a security-based swap dealer and with the CFTC as a swap dealer. As a result of additional SEC and CFTC capital and financial reporting requirements for security-based swap dealers and swap dealers, J.P. Morgan Securities is subject to alternative minimum net capital requirements and required to hold "tentative net capital" in excess of $5.0 billion. J.P. Morgan Securities is also required to notify the SEC and CFTC in the event that its tentative net capital is less than $6.0 billion. Tentative net capital is net capital before deducting market and credit risk charges as defined by the Net Capital Rule. As of December 31, 2024, J.P. Morgan Securities maintained tentative net capital in excess of the minimum and notification requirements.

Non-U.S. subsidiary regulatory capital

J.P. Morgan Securities plc

J.P. Morgan Securities plc is a wholly-owned subsidiary of JPMorgan Chase Bank, N.A. and has authority to engage in banking, investment banking and broker-dealer activities. J.P. Morgan Securities plc is jointly regulated in the U.K. by the Prudential Regulation Authority ("PRA") and the Financial Conduct Authority ("FCA"). J.P. Morgan Securities plc is subject to the Capital Requirements Regulation ("CRR"), as adopted and amended in the U.K., and the capital rules in the PRA Rulebook. These requirements collectively represent the U.K.'s implementation of the Basel III standards. The PRA announced that it intends to delay the U.K.'s implementation of the final Basel III standards until January 1, 2027, with a three-year transitional period for certain aspects.

The Bank of England requires that U.K. banks, including U.K. regulated subsidiaries of overseas groups, maintain minimum requirements for own funds and eligible liabilities ("MREL"). As of December 31, 2024, J.P. Morgan Securities plc was compliant with its MREL requirements.

The following table presents J.P. Morgan Securities plc's risk-based and leverage-based capital metrics.

December 31, 2024 (in millions, except ratios)	Actual	Regulatory Minimum ratios[a]
Total capital	**$ 53,120**	
CET1 capital ratio	**17.0 %**	**4.5 %**
Tier 1 capital ratio	**22.1**	**6.0**
Total capital ratio	**27.1**	**8.0**
Tier 1 leverage ratio	**7.1**	**3.3** [b]

(a) Represents minimum Pillar 1 requirements specified by the PRA. J.P. Morgan Securities plc's capital ratios as of December 31, 2024 exceeded the minimum requirements, including the additional capital requirements specified by the PRA.

(b) At least 75% of the Tier 1 leverage ratio minimum must be met with CET1 capital.

J.P. Morgan SE

JPMSE is a wholly-owned subsidiary of JPMorgan Chase Bank, N.A. and has authority to engage in banking, investment banking and markets activities. JPMSE is regulated by the European Central Bank ("ECB"), the German Financial Supervisory Authority and the German Central Bank, as well as the local regulators in each of the countries in which it operates, and it is subject to EU capital requirements under Basel III. JPMSE is subject to the EU implementation of the final Basel III standards. Those standards became effective beginning on January 1, 2025, with the exception of market risk aspects for which the effective date is January 1, 2026.

JPMSE is required by the EU Single Resolution Board to maintain MREL. As of December 31, 2024, JPMSE was compliant with its MREL requirements.

The following table presents JPMSE's risk-based and leverage-based capital metrics.

December 31, 2024 (in millions, except ratios)	Actual	Regulatory Minimum ratios[a]
Total capital	**$ 43,298**	
CET1 capital ratio	**20.0 %**	**4.5 %**
Tier 1 capital ratio	**20.0**	**6.0**
Total capital ratio	**34.8**	**8.0**
Tier 1 leverage ratio	**6.1**	**3.0**

(a) Represents minimum Pillar 1 requirements specified by the EU CRR. J.P. Morgan SE's capital and leverage ratios as of December 31, 2024 exceeded the minimum requirements, including the additional capital requirements specified by EU regulators.

LIQUIDITY RISK MANAGEMENT

Liquidity risk is the risk that the Firm will be unable to meet its cash and collateral needs as they arise or that it does not have the appropriate amount, composition and tenor of funding and liquidity to support its assets and liabilities.

Liquidity risk management

The Firm has a Liquidity Risk Management ("LRM") function whose primary objective is to provide independent oversight of liquidity risk across the Firm. Liquidity Risk Management's responsibilities include:

- Defining, monitoring and reporting liquidity risk metrics;
- Independently establishing and monitoring limits and indicators, including liquidity risk appetite;
- Developing a process to classify, monitor and report limit breaches;
- Performing an independent review of liquidity risk management processes to evaluate their adequacy and effectiveness;
- Monitoring and reporting internal Firmwide and legal entity liquidity stress tests, regulatory defined metrics, as well as liquidity positions, balance sheet variances and funding activities; and
- Approving or escalating for review new or updated liquidity stress assumptions.

Liquidity management

Treasury and CIO is responsible for liquidity management.

The primary objectives of the Firm's liquidity management are to:

- Ensure that the Firm's core businesses and material legal entities are able to operate in support of client needs and meet contractual and contingent financial obligations through normal economic cycles as well as during stress events, and
- Manage an optimal funding mix and availability of liquidity sources.

The Firm addresses these objectives through:

- Analyzing and understanding the liquidity characteristics of the assets and liabilities of the Firm, LOBs, legal entities, as well as currencies, taking into account legal, regulatory, and operational restrictions;
- Developing and maintaining internal liquidity stress testing assumptions;
- Defining and monitoring Firmwide and legal entity-specific liquidity strategies, policies, reporting and contingency funding plans;
- Managing liquidity within the Firm's approved limits and indicators, including liquidity risk appetite tolerances;
- Managing compliance with regulatory requirements related to funding and liquidity risk; and
- Setting FTP in accordance with underlying liquidity characteristics of balance sheet assets and liabilities as well as certain off-balance sheet items.

As part of the Firm's overall liquidity management strategy, the Firm manages liquidity and funding using a centralized, global approach designed to:

- Optimize liquidity sources and uses;
- Monitor exposures;
- Identify constraints on the transfer of liquidity between the Firm's legal entities; and
- Maintain the appropriate amount of surplus liquidity at a Firmwide and legal entity level, where relevant.

Governance

Committees responsible for liquidity governance include the Firmwide ALCO, as well as regional ALCOs, the Treasurer Committee, and the CTC Risk Committee. In addition, the Board Risk Committee reviews and recommends to the Board of Directors, for approval, the Firm's liquidity risk tolerances, liquidity strategy, and liquidity policy. Refer to Firmwide Risk Management on pages 91–95 for further discussion of ALCO and other risk-related committees.

Internal stress testing

The Firm conducts internal liquidity stress testing to monitor liquidity positions at the Firm and its material legal entities under a variety of adverse scenarios, including scenarios analyzed as part of the Firm's resolution and recovery planning. Internal stress tests are produced on a daily basis, and other stress tests are performed in response to specific market events or concerns. Liquidity stress tests assume all of the Firm's contractual financial obligations are met and take into consideration:

- Varying levels of access to unsecured and secured funding markets;
- Estimated non-contractual and contingent cash outflows;
- Credit rating downgrades;
- Collateral haircuts; and
- Potential impediments to the availability and transferability of liquidity between jurisdictions and material legal entities such as regulatory, legal or other restrictions.

Liquidity outflows are modeled across a range of time horizons and currency dimensions and contemplate both market and idiosyncratic stresses.

Results of stress tests are considered in the formulation of the Firm's funding plan and assessment of its liquidity position. The Parent Company acts as a source of funding for the Firm through equity and long-term debt issuances, and its intermediate holding company, JPMorgan Chase Holdings LLC (the "IHC"), provides funding to support the ongoing operations of the Parent Company and its subsidiaries. The Firm manages liquidity at the Parent Company, the IHC, and operating subsidiaries at levels sufficient to comply with liquidity risk tolerances and minimum liquidity requirements, and to manage through periods of stress when access to normal funding sources may be disrupted.

Contingency funding plan

The Firm's Contingency Funding Plan ("CFP") sets out the strategies for addressing and managing liquidity resource needs during a liquidity stress event and incorporates liquidity risk limits, indicators and risk appetite tolerances. The CFP also identifies the alternative contingent funding and liquidity resources available to the Firm and its legal entities in a period of stress.

LCR and HQLA

The LCR rule requires that the Firm and JPMorgan Chase Bank, N.A. maintain an amount of eligible HQLA that is sufficient to meet their respective estimated total net cash outflows over a prospective 30 calendar-day period of significant stress. Eligible HQLA, for purposes of calculating the LCR, is the amount of unencumbered HQLA that satisfy certain operational considerations as defined in the LCR rule. HQLA primarily consist of cash and certain high-quality liquid securities as defined in the LCR rule.

Under the LCR rule, the amount of eligible HQLA held by JPMorgan Chase Bank, N.A. that is in excess of its stand-alone 100% minimum LCR requirement, and that is not transferable to non-bank affiliates, must be excluded from the Firm's reported eligible HQLA.

Estimated net cash outflows are based on standardized stress outflow and inflow rates prescribed in the LCR rule, which are applied to the balances of the Firm's assets, sources of funds, and obligations. The LCR for both the Firm and JPMorgan Chase Bank, N.A. is required to be a minimum of 100%.

The following table summarizes the Firm and JPMorgan Chase Bank, N.A.'s average LCR for the three months ended December 31, 2024, September 30, 2024 and December 31, 2023 based on the Firm's interpretation of the LCR framework.

	Three months ended		
Average amount (in millions)	**December 31, 2024**	September 30, 2024	December 31, 2023
JPMorgan Chase & Co.:			
HQLA			
Eligible cash[(a)]	**$ 396,123**	$ 412,389	$ 485,263
Eligible securities[(b)(c)]	**464,877**	453,899	313,365
Total HQLA[(d)]	**$ 861,000**	$ 866,288	$ 798,628
Net cash outflows	**$ 763,648**	$ 762,072	$ 704,857
LCR	**113 %**	114 %	113 %
Net excess eligible HQLA[(d)]	**$ 97,352**	$ 104,216	$ 93,771
JPMorgan Chase Bank, N.A.:			
LCR	**124 %**	121 %	129 %
Net excess eligible HQLA	**$ 193,682**	$ 168,137	$ 215,190

(a) Represents cash on deposit at central banks, primarily the Federal Reserve Banks.

(b) Eligible HQLA securities may be reported in securities borrowed or purchased under resale agreements, trading assets, or investment securities on the Firm's Consolidated balance sheets. For purposes of calculating the LCR, HQLA securities are included at fair value, which may differ from the accounting treatment under U.S. GAAP.

(c) Predominantly U.S. Treasuries, U.S. GSE and government agency MBS, and sovereign bonds net of regulatory haircuts under the LCR rule.

(d) Excludes average excess eligible HQLA at JPMorgan Chase Bank, N.A. that are not transferable to non-bank affiliates.

JPMorgan Chase Bank, N.A.'s average LCR increased during the three months ended December 31, 2024, compared with the three months ended September 30, 2024, driven by activities in CIB Markets, partially offset by lower market values of HQLA-eligible investment securities and funding maturities.

JPMorgan Chase Bank, N.A.'s average LCR for the three months ended December 31, 2024 decreased compared with the three months ended December 31, 2023, driven by dividend payments to the Parent Company and lending activity, largely offset by higher market values of HQLA-eligible investment securities, a reduction in unencumbered non-HQLA AFS securities, activities in CIB Markets, and long-term debt issuances.

Each of the Firm and JPMorgan Chase Bank, N.A.'s average LCR may fluctuate from period to period due to changes in their respective eligible HQLA and estimated net cash outflows as a result of ongoing business activity and from the impacts of Federal Reserve actions as well as other factors. Refer to the Firm's U.S. LCR Disclosure reports, which are available on the Firm's website, for a further discussion of the Firm's LCR.

Liquidity sources

In addition to the assets reported in the Firm's eligible HQLA discussed above, the Firm had unencumbered marketable securities, such as equity and debt securities, that the Firm believes would be available to raise liquidity. This includes excess eligible HQLA securities at JPMorgan Chase Bank, N.A. that are not transferable to non-bank affiliates. The fair value of these securities was approximately $594 billion and $649 billion as of December 31, 2024 and 2023, respectively, although the amount of liquidity that could be raised at any particular time would be dependent on prevailing market conditions. The decrease compared to December 31, 2023, was driven by reductions in unencumbered AFS securities in Treasury and CIO, excess eligible HQLA securities at JPMorgan Chase Bank, N.A., and unencumbered CIB trading assets.

The Firm had approximately $1.4 trillion of available cash and securities as of both December 31, 2024 and 2023. For each respective period, the amount was comprised of eligible end-of-period HQLA, excluding the impact of regulatory haircuts, of approximately $834 billion and $798 billion, and unencumbered marketable securities with a fair value of approximately $594 billion and $649 billion.

The Firm also had available borrowing capacity at the Federal Home Loan Banks ("FHLBs") and the discount window at the Federal Reserve Banks as a result of collateral pledged by the Firm to such banks of approximately $413 billion and $340 billion as of December 31, 2024 and 2023, respectively. This borrowing capacity excludes the benefit of cash and securities reported in the Firm's eligible HQLA or other unencumbered securities that are currently pledged at the Federal Reserve Banks discount window and other central banks. Available borrowing capacity increased from December 31, 2023 primarily due to a higher amount of commercial loans and credit card receivables pledged at the Federal Reserve Banks. Although available, the Firm does not view this borrowing capacity at the Federal Reserve Banks discount window and the other central banks as a primary source of liquidity.

NSFR

The net stable funding ratio ("NSFR") is a liquidity requirement for large banking organizations that is intended to measure the adequacy of "available" stable funding that is sufficient to meet their "required" amounts of stable funding over a one-year horizon.

For the three months ended December 31, 2024, both the Firm and JPMorgan Chase Bank, N.A. were compliant with the 100% minimum NSFR requirement, based on the Firm's interpretation of the final NSFR rule. Refer to the Firm's U.S. NSFR Disclosure report on the Firm's website for additional information.

Funding

Sources of funds

Management believes that the Firm's unsecured and secured funding capacity is sufficient to meet its on- and off-balance sheet obligations, which includes both short- and long-term cash requirements.

The Firm funds its global balance sheet through diverse sources of funding including deposits, secured and unsecured funding in the capital markets and stockholders' equity. Deposits are the primary funding source for JPMorgan Chase Bank, N.A. Additionally, JPMorgan Chase Bank, N.A. may access funding through short- or long-term secured borrowings, the issuance of unsecured long-term debt, or from borrowings from the IHC. The Firm's non-bank subsidiaries are primarily funded from long-term unsecured borrowings and short-term secured borrowings which are primarily securities loaned or sold under repurchase agreements. Excess funding is invested by Treasury and CIO in the Firm's investment securities portfolio or deployed in cash or other short-term liquid investments based on their interest rate and liquidity risk characteristics.

Refer to Note 28 for additional information on off–balance sheet obligations.

Deposits

The table below summarizes, by LOB and Corporate, the period-end and average deposit balances as of and for the years ended December 31, 2024 and 2023.

As of or for the year ended December 31,			Average	
(in millions)	**2024**	2023	**2024**	2023
Consumer & Community Banking[a]	**$ 1,056,652**	$ 1,094,738	**$ 1,064,215**	$ 1,126,552
Commercial & Investment Bank[a]	**1,073,512**	1,050,892	**1,061,488**	996,295
Asset & Wealth Management[a]	**248,287**	233,232	**235,146**	216,178
Corporate	**27,581**	21,826	**25,793**	20,042
Total Firm	**$ 2,406,032**	$ 2,400,688	**$ 2,386,642**	$ 2,359,067

(a) In the fourth quarter of 2023, CCB transferred certain deposits associated with First Republic to AWM and CIB.

The Firm believes that deposits provide a stable source of funding and reduce the Firm's reliance on the wholesale funding markets. A significant portion of the Firm's deposits are consumer deposits and wholesale operating deposits, which are both considered to be stable sources of liquidity. Wholesale operating deposits are generally considered to be stable sources of liquidity because they are generated from customers that maintain operating service relationships with the Firm.

The Firm believes that average deposit balances are generally more representative of deposit trends than period-end deposit balances. However, during periods of market disruption, average deposit trends may be impacted.

The following discussion excludes the impact of the transfer of certain First Republic deposits in the fourth quarter of 2023 from CCB to the other LOBs as the transfers had no net impact on Firmwide deposits.

Average deposits increased for the year ended December 31, 2024 compared to the year ended December 31, 2023, reflecting:

- an increase in CIB due to net inflows predominantly in Payments and net issuances of structured notes as a result of client demand in Markets, partially offset by deposit attrition, which included actions taken to reduce certain deposits,
- the timing impact of First Republic,
- an increase in AWM as a result of growth in balances in new and existing client accounts, reflecting the impact of higher-yielding product offerings, largely offset by continued migration into other investments, and
- a decline in CCB primarily driven by a decrease in balances in existing accounts due to increased customer spending, largely offset by new accounts.

Period-end deposits increased from December 31, 2023, reflecting:

- an increase in CIB due to net inflows predominantly in Payments, largely offset by net maturities of structured notes in Markets,
- an increase in AWM as a result of growth in balances in new and existing client accounts, reflecting the impact of higher-yielding product offerings, largely offset by continued migration into other investments, and
- a decline in CCB primarily driven by a decrease in balances in existing accounts due to increased customer spending and migration into higher-yielding investments, predominantly offset by new accounts.

Refer to the Firm's Consolidated Balance Sheets Analysis and the Business Segment & Corporate Results on pages 63–65 and pages 70–90, respectively, for further information on deposit and liability balance trends, as well as Executive Overview on pages 54–58 and Note 34 for additional information on the First Republic acquisition. Refer to Note 3 for further information on structured notes.

Certain deposits are covered by insurance protection that provides additional funding stability and results in a benefit to the LCR. Deposit insurance protection may be available to depositors in the countries in which the deposits are placed. For example, the FDIC provides deposit insurance protection for deposits placed in a U.S. depository institution. At December 31, 2024 and 2023[(a)], the Firmwide estimated uninsured deposits were $1,414.0 billion and $1,347.8 billion, respectively, primarily reflecting wholesale operating deposits.

Total uninsured deposits include time deposits. The table below presents an estimate of uninsured U.S. and non-U.S. time deposits, and their remaining maturities. The Firm's estimates of its uninsured U.S. time deposits are based on data that the Firm calculates periodically under applicable FDIC regulations. For purposes of this presentation, all non-U.S. time deposits are deemed to be uninsured.

	December 31, 2024		December 31, 2023	
(in millions)	U.S.	Non-U.S.	U.S.	Non-U.S.
Three months or less	**$ 119,333**	**$ 77,253**	$98,606 [(a)]	$ 77,466
Over three months but within 6 months	**11,040**	**12,229**	17,736	5,358
Over six months but within 12 months	**7,056**	**1,542**	10,294	4,820
Over 12 months	**823**	**1,924**	710	2,543
Total	**$138,252**	**$ 92,948**	$127,346 [(a)]	$ 90,187

(a) Prior-period amounts have been revised to include cash collateral for certain derivatives to align with a change in the methodology for calculating uninsured U.S. time deposits.

The table below shows the loan and deposit balances, the loans-to-deposits ratios, and deposits as a percentage of total liabilities, as of December 31, 2024 and 2023.

As of December 31, (in billions except ratios)	**2024**	2023
Deposits	**$ 2,406.0**	$ 2,400.7
Deposits as a % of total liabilities	**66 %**	68 %
Loans	**$ 1,348.0**	$ 1,323.7
Loans-to-deposits ratio	**56 %**	55 %

The following table provides a summary of the average balances and average interest rates of JPMorganChase's deposits for the years ended December 31, 2024, 2023, and 2022.

Year ended December 31,	Average balances			Average interest rates		
(in millions, except interest rates)	**2024**	2023	2022	**2024**	2023	2022
U.S. offices						
Noninterest-bearing	**$ 611,734**	$ 635,791	$ 691,206	**NA**	NA	NA
Interest-bearing						
Demand[(a)]	**282,533**	279,725	324,512	**3.90 %**	3.50 %	0.92 %
Savings[(b)]	**800,964**	864,558	971,788	**1.39**	1.10	0.28
Time	**223,503**	145,827	62,022	**4.93**	4.74	2.07
Total interest-bearing deposits	**1,307,000**	1,290,110	1,358,322	**2.54**	2.03	0.52
Total deposits in U.S. offices	**1,918,734**	1,925,901	2,049,528	**1.73**	1.36	0.34
Non-U.S. offices						
Noninterest-bearing	**26,858**	24,747	28,043	**NA**	NA	NA
Interest-bearing						
Demand	**346,179**	321,976	324,740	**3.13**	2.71	0.57
Time	**94,871**	86,443	65,604	**5.86**	5.82	1.85
Total interest-bearing deposits	**441,050**	408,419	390,344	**3.72**	3.37	0.78
Total deposits in non-U.S. offices	**467,908**	433,166	418,387	**3.50**	3.18	0.73
Total deposits	**$ 2,386,642**	$ 2,359,067	$ 2,467,915	**2.08 %**	1.70 %	0.41 %

(a) Includes Negotiable Order of Withdrawal accounts, and certain trust accounts.
(b) Includes Money Market Deposit Accounts.

Refer to Note 17 for additional information on deposits.

The following table summarizes short-term and long-term funding, excluding deposits, as of December 31, 2024 and 2023, and average balances for the years ended December 31, 2024 and 2023. Refer to the Consolidated Balance Sheets Analysis on pages 63–65 and Note 11 for additional information.

Sources of funds (excluding deposits)

As of or for the year ended December 31,					Average			
(in millions)		**2024**		2023		**2024**		2023
Commercial paper	**$**	**14,932**	$	14,737	**$**	**11,398**	$	12,675
Other borrowed funds		**13,018**		8,200		**12,040**		9,712
Federal funds purchased		**567**		787		**1,547**		1,754
Total short-term unsecured funding	**$**	**28,517**	$	23,724	**$**	**24,985**	$	24,141
Securities sold under agreements to repurchase[a]	**$**	**291,500**	$	212,804	**$**	**357,144**	$	249,661
Securities loaned[a]		**4,768**		2,944		**5,129**		4,671
Other borrowed funds		**24,943**		21,775		**25,504**		22,010
Obligations of Firm-administered multi-seller conduits[b]		**18,228**		17,781		**18,620**		14,918
Total short-term secured funding	**$**	**339,439**	$	255,304	**$**	**406,397**	$	291,260
Senior notes	**$**	**203,639**	$	191,202	**$**	**199,908**	$	181,803
Subordinated debt		**16,060**		19,708		**18,614**		20,374
Structured notes[c]		**98,792**		86,056		**93,483**		76,574
Total long-term unsecured funding	**$**	**318,491**	$	296,966	**$**	**312,005**	$	278,751
Credit card securitization[b]	**$**	**5,312**	$	2,998	**$**	**5,138**	$	1,634
FHLB advances		**29,257**		41,246		**35,040** [g]		28,865
Purchase Money Note[d]		**49,207**	$	48,989	**$**	**49,090**	$	32,829
Other long-term secured funding[e]		**4,463**		4,624		**4,676**		4,513
Total long-term secured funding	**$**	**88,239**	$	97,857	**$**	**93,944**	$	67,841
Preferred stock[f]	**$**	**20,050**	$	27,404	**$**	**24,054**	$	27,404
Common stockholders' equity[f]	**$**	**324,708**	$	300,474	**$**	**312,370**	$	282,056

(a) Primarily consists of short-term securities loaned or sold under agreements to repurchase.
(b) Included in beneficial interests issued by consolidated variable interest entities on the Firm's Consolidated balance sheets.
(c) Includes certain TLAC-eligible long-term unsecured debt issued by the Parent Company.
(d) Reflects the Purchase Money Note associated with the First Republic acquisition on May 1, 2023. Refer to Note 34 for additional information.
(e) Includes long-term structured notes that are secured.
(f) Refer to Capital Risk Management on pages 97–107, Consolidated statements of changes in stockholders' equity on page 175, Note 21 and Note 22 for additional information on preferred stock and common stockholders' equity.
(g) Includes the timing impact of First Republic. Refer to the Executive Overview on pages 54–58 and Note 34 for additional information.

Short-term funding

The Firm's primary source of short-term secured funding is securities sold under agreements to repurchase. These instruments are secured predominantly by high-quality securities collateral, including government-issued debt and U.S. GSE and government agency MBS. Securities sold under agreements to repurchase increased at December 31, 2024, compared with December 31, 2023, driven by Markets, reflecting higher client-driven market-making activities and higher secured financing of trading assets.

The increase in secured other borrowed funds at December 31, 2024 from December 31, 2023, as well as the increase for the average year ended December 31, 2024, compared to the prior year period, were both due to higher financing requirements in Markets, partially offset by FHLB maturities in Treasury and CIO.

The balances associated with securities loaned or sold under agreements to repurchase fluctuate over time due to investment and financing activities of clients, the Firm's demand for financing, the ongoing management of the mix of the Firm's liabilities, including its secured and unsecured financing (for both the investment securities and market-making portfolios), and other market and portfolio factors.

The Firm's primary sources of short-term unsecured funding consist of issuances of wholesale commercial paper and other borrowed funds.

The decrease in average commercial paper for the year ended December 31, 2024 compared to the prior year period was due to lower issuances primarily as a result of short-term liquidity management.

The increase in unsecured other borrowed funds at December 31, 2024 from December 31, 2023, was predominantly driven by net issuances of structured notes in Markets.

Long-term funding

Long-term funding provides an additional source of stable funding and liquidity for the Firm. The Firm's long-term funding plan is driven primarily by expected client activity, liquidity considerations and regulatory requirements, including TLAC. Long-term funding objectives include maintaining diversification, maximizing market access and optimizing funding costs. The Firm evaluates various funding markets, tenors and currencies in creating its optimal long-term funding plan.

Unsecured funding and issuance

The significant majority of the Firm's total outstanding long-term debt has been issued by the Parent Company to provide flexibility in support of the funding needs of both bank and non-bank subsidiaries. The Parent Company advances substantially all net funding proceeds to its subsidiary, the IHC. The IHC does not issue debt to external counterparties. The increase in structured notes at December 31, 2024 from December 31, 2023, and for the average year ended December 31, 2024, compared to the prior year period, was primarily driven by net issuances of structured notes in Markets due to client demand.

The following table summarizes long-term unsecured issuance and maturities or redemptions for the years ended December 31, 2024 and 2023. Refer to Note 20 for additional information on the IHC and long-term debt.

Long-term unsecured funding

Year ended December 31,	2024	2023	2024	2023
(Notional in millions)	Parent Company		Subsidiaries	
Issuance				
Senior notes issued in the U.S. market	**$ 37,000**	$ 14,256	**$ —**	$ 3,750
Senior notes issued in non-U.S. markets	**4,079**	2,141	**—**	—
Total senior notes	**41,079**	16,397	**—**	3,750
Structured notes[(a)]	**3,944**	3,013	**54,993**	35,281
Total long-term unsecured funding – issuance	**$ 45,023**	$ 19,410	**$ 54,993**	$ 39,031
Maturities/redemptions				
Senior notes	**$ 25,765**	$ 21,483	**$ 65**	$ 67
Subordinated debt	**3,097**	2,090	**250**	—
Structured notes	**892**	1,532	**47,425**	28,777
Total long-term unsecured funding – maturities/redemptions	**$ 29,754**	$ 25,105	**$ 47,740**	$ 28,844

(a) Includes certain TLAC-eligible long-term unsecured debt issued by the Parent Company.

Secured funding and issuance

The Firm can also raise secured long-term funding through securitization of consumer credit card loans and FHLB advances. The following table summarizes the securitization issuance, the FHLB advances and their respective maturities or redemptions, as applicable for the years ended December 31, 2024 and 2023.

Long-term secured funding

Year ended December 31,	Issuance		Maturities/Redemptions	
(in millions)	2024	2023	2024	2023
Credit card securitization	**$ 2,348**	$ 1,998	**$ —**	$ 1,000
FHLB advances	**6,000**	39,775 [(c)]	**18,050**	9,485
Purchase Money Note[(a)]	**—**	50,000	**—**	$ —
Other long-term secured funding[(b)]	**1,578**	991	**1,049**	432
Total long-term secured funding	**$ 9,926**	$ 92,764	**$ 19,099**	$ 10,917

(a) Reflects the Purchase Money Note associated with the First Republic acquisition. Refer to Note 34 for additional information.
(b) Includes long-term structured notes that are secured.
(c) Includes FHLB advances associated with the First Republic acquisition on May 1, 2023. Refer to Note 34 for additional information.

The Firm's wholesale businesses also securitize loans for client-driven transactions; those client-driven loan securitizations are not considered to be a source of funding for the Firm and are not included in the table above. Refer to Note 14 for a further description of client-driven loan securitizations.

Credit ratings

The cost and availability of financing are influenced by credit ratings. Reductions in these ratings could have an adverse effect on the Firm's access to liquidity sources, increase the cost of funds, trigger additional collateral or funding requirements and decrease the number of investors and counterparties willing to lend to the Firm. The nature and magnitude of the impact of ratings downgrades depends on numerous contractual and behavioral factors, which the Firm believes are incorporated in its liquidity risk and stress testing metrics. The Firm believes that it maintains sufficient liquidity to withstand a potential decrease in funding capacity due to ratings downgrades.

Additionally, the Firm's funding requirements for VIEs and other third-party commitments may be adversely affected by a decline in credit ratings. Refer to Notes 5 and 14 for additional information.

The credit ratings of the Parent Company and certain of its principal subsidiaries as of December 31, 2024 were as follows:

	JPMorgan Chase & Co.			JPMorgan Chase Bank, N.A.			J.P. Morgan Securities LLC J.P. Morgan Securities plc J.P. Morgan SE[(a)]		
December 31, 2024	Long-term issuer	Short-term issuer	Outlook	Long-term issuer	Short-term issuer	Outlook	Long-term issuer	Short-term issuer	Outlook
Moody's Investors Service[(a)]	A1	P-1	Positive	Aa2	P-1	Developing	Aa3	P-1	Positive
Standard & Poor's[(b)]	A	A-1	Stable	AA-	A-1+	Stable	AA-	A-1+	Stable
Fitch Ratings	AA-	F1+	Stable	AA	F1+	Stable	AA	F1+	Stable

(a) On November 11, 2024, Moody's (i) affirmed the credit ratings of the Parent Company, JPMorgan Chase Bank, N.A. and the other subsidiaries listed above; (ii) revised its outlook for the Parent Company, J.P. Morgan Securities LLC and J.P. Morgan Securities plc from stable to positive; (iii) revised its outlook for JPMorgan Chase Bank, N.A. from negative to developing, reflecting its view with respect to possible support from the U.S. government; and (iv) assessed its outlook for J.P. Morgan SE as negative with an "(m)" modifier, reflecting a negative outlook for long-term bank deposits and a positive outlook for the long-term issuer rating.

(b) The credit ratings of the Parent Company, JPMorgan Chase Bank, N.A. and the other subsidiaries presented in the table reflect ratings upgrades by Standard & Poor's on November 15, 2024. Standard & Poor's also revised its outlook for the Parent Company and such subsidiaries from positive to stable.

JPMorganChase's unsecured debt does not contain requirements that would call for an acceleration of payments, maturities or changes in the structure of the existing debt, provide any limitations on future borrowings or require additional collateral, based on unfavorable changes in the Firm's credit ratings, financial ratios, earnings, or stock price.

Critical factors in maintaining high credit ratings include a stable and diverse earnings stream, strong capital and liquidity ratios, strong credit quality and risk management controls, and diverse funding sources. Rating agencies continue to evaluate economic and geopolitical trends, regulatory developments, future profitability, risk management practices, and litigation matters, as well as their broader ratings methodologies. Changes in any of these factors could lead to changes in the Firm's credit ratings.

REPUTATION RISK MANAGEMENT

Reputation risk is the risk that an action or inaction may negatively impact perception of the Firm's integrity and reduce confidence in the Firm's competence by various stakeholders, including clients, counterparties, customers, communities, investors, regulators, or employees.

The types of events that may result in reputation risk are wide-ranging and can be introduced by the Firm's employees, business strategies and activities, clients, customers and counterparties with which the Firm does business. These events could contribute to financial losses, litigation, regulatory enforcement actions, fines, penalties or other sanctions, as well as other harm to the Firm.

Organization and management

Reputation Risk Management is an independent risk management function that establishes the governance framework for managing reputation risk across the Firm's LOBs and Corporate. Reputation risk is inherently challenging to identify, manage, and quantify.

The Firm's reputation risk management function includes the following activities:

- Maintaining a Firmwide Reputation Risk Governance policy and a standard consistent with the reputation risk framework
- Providing oversight of the governance framework through processes and infrastructure to support consistent identification, escalation and monitoring of reputation risk issues Firmwide

Governance and oversight

The Reputation Risk Governance policy establishes the principles for managing reputation risk for the Firm. It is the responsibility of each LOB and Corporate, and the Firm's employees, to consider the reputation of the Firm when deciding whether to offer a new product, engage in a transaction or client relationship, enter a new jurisdiction, initiate a business process or consider any other activity. Environmental impacts and social concerns are important considerations in assessing the Firm's reputation risk, and are a component of the Firm's reputation risk governance.

Credit and investment risk is the risk associated with the default or change in credit profile of a client, counterparty or customer; or loss of principal or a reduction in expected returns on investments, including consumer credit risk, wholesale credit risk, and investment portfolio risk.

Credit risk management

Credit risk is the risk associated with the default or change in credit profile of a client, counterparty or customer. The Firm provides credit to a variety of clients and customers, ranging from large corporate and institutional clients to individual consumers and small businesses. In its consumer businesses, the Firm is exposed to credit risk primarily through its home lending, credit card, auto, and business banking businesses. In its wholesale businesses, the Firm is exposed to credit risk through its underwriting, lending, market-making, and hedging activities with and for clients and counterparties, as well as through its operating services activities (such as cash management and clearing activities), and securities financing activities. The Firm is also exposed to credit risk through its investment securities portfolio and cash placed with banks.

Credit Risk Management monitors and measures credit risk throughout the Firm, and defines credit risk policies, procedures and limits. The Firm's credit risk management governance includes the following activities:

- Maintaining a credit risk policy framework
- Monitoring and measuring credit risk across all portfolio segments, including transaction and exposure approval
- Setting industry and geographic concentration limits, as appropriate, and setting guidelines for credit review and analysis
- Assigning and maintaining credit approval authorities in connection with the approval of credit exposure
- Monitoring and independent assessment of criticized exposures and delinquent loans, and
- Estimating credit losses and supporting appropriate credit risk-based capital management

Risk identification and measurement

To measure credit risk, the Firm employs several methodologies for estimating the likelihood of obligor or counterparty default. Methodologies for measuring credit risk vary depending on several factors, including type of asset (e.g., consumer versus wholesale), risk measurement parameters (e.g., delinquency status and borrower's credit score versus wholesale risk-rating) and risk management and collection processes (e.g., retail collection center versus centrally managed workout groups). Credit risk measurement is based on the probability of default of an obligor or counterparty, the loss severity given a default event and the exposure at default.

Based on these factors and the methodology and estimates described in Note 13 and Note 10, the Firm estimates credit losses for its exposures. The allowance for loan losses reflects estimated credit losses related to the consumer and wholesale held-for-investment loan portfolios, the allowance for lending-related commitments reflects estimated credit losses related to the Firm's lending-related commitments and the allowance for investment securities reflects estimated credit losses related to the investment securities portfolio. Refer to Note 13, Note 10 and Critical Accounting Estimates used by the Firm on pages 161–164 for further information.

In addition, potential and unexpected credit losses are reflected in the allocation of credit risk capital and represent the potential volatility of actual losses relative to the established allowances for loan losses and lending-related commitments. The analyses for these losses include stress testing that considers alternative economic scenarios as described below.

Stress testing

Stress testing is important in measuring and managing credit risk in the Firm's credit portfolio. The stress testing process assesses the potential impact of alternative economic and business scenarios on estimated credit losses for the Firm. Economic scenarios and the underlying parameters are defined centrally, articulated in terms of macroeconomic factors and applied across the businesses. The stress test results may indicate credit migration, changes in delinquency trends and potential losses in the credit portfolio. In addition to the periodic stress testing processes, management also considers additional stresses outside these scenarios, including industry and country- specific stress scenarios, as appropriate. The Firm uses stress testing to inform decisions on setting risk appetite both at a Firm and LOB level, as well as to assess the impact of stress on individual counterparties.

Risk monitoring and management

The Firm has developed policies and practices that are designed to preserve the independence and integrity of the approval and decision-making process for extending credit so that credit risks are assessed accurately, approved properly, monitored regularly and managed actively at both the transaction and portfolio levels. The policy framework establishes credit approval authorities, concentration limits, risk-rating methodologies, portfolio review parameters and guidelines for management of distressed exposures. In addition, certain models, assumptions and inputs used in evaluating and monitoring credit risk are independently validated by groups that are separate from the LOBs.

Consumer credit risk is monitored for delinquency and other trends, including any concentrations at the portfolio level, as certain of these trends can be addressed through changes in underwriting policies and portfolio guidelines. Consumer Risk Management evaluates delinquency and other trends against business expectations, current and forecasted economic conditions, and industry benchmarks. Historical and forecasted economic performance and trends are incorporated into the modeling of estimated consumer credit losses and are part of the monitoring of the credit risk profile of the portfolio.

Wholesale credit risk is monitored regularly at an aggregate portfolio, industry, and individual client and counterparty level with established concentration limits that are reviewed and revised periodically as deemed appropriate by management. Industry and counterparty limits, as measured in terms of exposure and economic risk appetite, are subject to stress-based loss constraints.

Management of the Firm's wholesale credit risk exposure is accomplished through a number of means, including:

- Loan underwriting and credit approval processes
- Loan syndications and participations
- Loan sales and securitizations
- Credit derivatives
- Master netting agreements, and
- Collateral and other risk-reduction techniques

In addition to Credit Risk Management, an independent Credit Review function is responsible for:

- Independently assessing risk grades assigned to exposures in the Firm's wholesale credit portfolio and the timeliness of risk grade changes initiated by responsible business units; and
- Evaluating the effectiveness of the credit management processes of the LOBs and Corporate, including the adequacy of credit analyses and risk grading/loss given default ("LGD") rationales, proper monitoring and management of credit exposures, and compliance with applicable grading policies and underwriting guidelines.

Refer to Note 12 for further discussion of consumer and wholesale loans.

Risk reporting

To enable monitoring of credit risk and effective decision-making, aggregate credit exposure, credit quality forecasts, concentration levels and risk profile changes are reported regularly to senior members of Credit Risk Management. Detailed portfolio reporting of industry, clients, counterparties and customers, product and geography are prepared, and the appropriateness of the allowance for credit losses is reviewed by senior management at least on a quarterly basis. Through the risk reporting and governance structure, credit risk trends and limit exceptions are provided regularly to, and discussed with, risk committees, senior management and the Board of Directors.

Credit risk is the risk associated with the default or change in credit profile of a client, counterparty or customer.

In the following tables, total loans include loans retained (i.e., held-for-investment); loans held-for-sale; and certain loans accounted for at fair value. The following tables do not include loans which the Firm accounts for at fair value and classifies as trading assets; refer to Notes 2 and 3 for further information regarding these loans. Refer to Notes 12, 28, and 5 for additional information on the Firm's loans, lending-related commitments and derivative receivables, including the Firm's related accounting policies.

Refer to Note 10 for information regarding the credit risk inherent in the Firm's investment securities portfolio; and refer to Note 11 for information regarding credit risk inherent in the securities financing portfolio. Refer to Consumer Credit Portfolio on pages 120–125 and Note 12 for further discussions of the consumer credit environment, consumer loans and nonperforming exposure. Refer to Wholesale Credit Portfolio on pages 126–136 and Note 12 for further discussions of the wholesale credit environment and wholesale loans.

Total credit portfolio

December 31, (in millions)	Credit exposure		Nonperforming[c]	
	2024	2023	**2024**	2023
Loans retained	**$1,299,590**	$1,280,870	**$ 7,175**	$ 5,989
Loans held-for-sale	**7,048**	3,985	**160**	184
Loans at fair value	**41,350**	38,851	**1,502**	744
Total loans	**1,347,988**	1,323,706	**8,837**	6,917
Derivative receivables	**60,967**	54,864	**145**	364
Receivables from customers[a]	**51,929**	47,625	**—**	—
Total credit-related assets	**1,460,884**	1,426,195	**8,982**	7,281
Assets acquired in loan satisfactions				
Real estate owned	**NA**	NA	**284**	274
Other	**NA**	NA	**34**	42
Total assets acquired in loan satisfactions	**NA**	NA	**318**	316
Lending-related commitments	**1,577,622**	1,497,847	**737**	464
Total credit portfolio	**$3,038,506**	$2,924,042	**$10,037**	$ 8,061
Credit derivatives and credit-related notes used in credit portfolio management activities[b]	**$ (41,367)**	$ (37,779)	**$ —**	$ —
Liquid securities and other cash collateral held against derivatives	**(28,160)**	(22,461)	**NA**	NA

(a) Receivables from customers reflect held-for-investment margin loans to brokerage clients in CIB, CCB and AWM; these are reported within accrued interest and accounts receivable on the Consolidated balance sheets.

(b) Represents the net notional amount of protection purchased and sold through credit derivatives and credit-related notes used to manage credit exposures.

(c) Excludes mortgage loans past due and insured by U.S. government agencies, which are primarily 90 or more days past due. These loans have been excluded based upon the government guarantee. At December 31, 2024 and 2023, mortgage loans 90 or more days past due and insured by U.S. government agencies were $121 million and $182 million, respectively. In addition, the Firm's policy is generally to exempt credit card loans from being placed on nonaccrual status as permitted by regulatory guidance.

The following table provides information on Firmwide nonaccrual loans to total loans.

December 31, (in millions, except ratios)	**2024**	2023
Total nonaccrual loans	**$ 8,837**	$ 6,917
Total loans	**1,347,988**	1,323,706
Firmwide nonaccrual loans to total loans outstanding	**0.66 %**	0.52 %

The following table provides information about the Firm's net charge-offs and recoveries.

December 31, (in millions, except ratios)	**2024**	2023
Net charge-offs	**$ 8,638**	$ 6,209
Average retained loans	**1,271,344**	1,202,348
Net charge-off rates	**0.68 %**	0.52 %

CONSUMER CREDIT PORTFOLIO

The Firm's retained consumer portfolio consists primarily of loans and lending-related commitments for residential real estate, credit card, scored auto and business banking. The consumer credit portfolio also includes loans at fair value, predominantly in residential real estate. The Firm's focus is on serving primarily the prime segment of the consumer credit market. Originated mortgage loans are retained in the residential real estate portfolio, securitized or sold to U.S. government agencies and U.S. government-sponsored enterprises; other types of consumer loans are typically retained on the balance sheet. Refer to Note 12 for further information on the consumer loan portfolio. Refer to Note 28 for further information on lending-related commitments.

The following tables present consumer credit-related information with respect to the scored credit portfolio held in CCB, AWM, CIB and Corporate.

Consumer credit portfolio

December 31, (in millions)	Credit exposure		Nonaccrual loans[i]	
	2024	2023	**2024**	2023
Consumer, excluding credit card				
Residential real estate[a]	**$ 309,513**	$ 326,409	**$ 2,984**	$ 3,466
Auto and other[b][c]	**66,821**	70,866	**249**	177
Total loans - retained	**376,334**	397,275	**3,233**	3,643
Loans held-for-sale	**945**	487	**155**	95
Loans at fair value[d]	**15,531**	12,331	**538**	465
Total consumer, excluding credit card loans	**392,810**	410,093	**3,926**	4,203
Lending-related commitments[e]	**44,844**	45,403		
Total consumer exposure, excluding credit card	**437,654**	455,496		
Credit card				
Loans retained[f]	**232,860**	211,123	**NA**	NA
Total credit card loans	**232,860**	211,123	**NA**	NA
Lending-related commitments[e][g]	**1,001,311**	915,658		
Total credit card exposure	**1,234,171**	1,126,781		
Total consumer credit portfolio	**$ 1,671,825**	$ 1,582,277	**$ 3,926**	$ 4,203
Credit-related notes used in credit portfolio management activities[h]	**$ (479)**	$ (790)		

	Year ended December 31,					
	Net charge-offs/ (recoveries)		Average loans - retained		Net charge-off/(recovery) rate[j]	
(in millions, except ratios)	**2024**	2023	**2024**	2023	**2024**	2023
Consumer, excluding credit card						
Residential real estate	**$ (101)**	$ (52)	**$ 316,042**	$ 296,515	**(0.03)%**	(0.02)%
Auto and other	**775**	684	**67,959**	67,546	**1.14**	1.01
Total consumer, excluding credit card - retained	**674**	632	**384,001**	364,061	**0.18**	0.17
Credit card - retained	**7,142**	4,698	**214,033**	191,412	**3.34**	2.45
Total consumer - retained	**$ 7,816**	$ 5,330	**$ 598,034**	$ 555,473	**1.31 %**	0.96 %

(a) Includes scored mortgage and home equity loans held in CCB and AWM.
(b) At December 31, 2024 and 2023, excluded operating lease assets of $12.8 billion and $10.4 billion, respectively. These operating lease assets are included in other assets on the Firm's Consolidated balance sheets. Refer to Note 18 for further information.
(c) Includes scored auto and business banking loans, and overdrafts.
(d) Includes scored mortgage loans held in CCB and CIB, and other consumer unsecured loans in CIB.
(e) Credit card, home equity and certain business banking lending-related commitments represent the total available lines of credit for these products. The Firm has not experienced, and does not anticipate, that all available lines of credit would be used at the same time. Refer to Note 28 for further information.
(f) Includes billed interest and fees.
(g) Also includes commercial card lending-related commitments primarily in CIB.
(h) Represents the notional amount of protection obtained through the issuance of credit-related notes that reference certain pools of residential real estate and auto loans in the retained consumer portfolio.
(i) Excludes mortgage loans past due and insured by U.S. government agencies, which are primarily 90 or more days past due. These loans have been excluded based upon the government guarantee. At December 31, 2024 and 2023, mortgage loans 90 or more days past due and insured by U.S. government agencies were $121 million and $182 million, respectively. In addition, the Firm's policy is generally to exempt credit card loans from being placed on nonaccrual status, as permitted by regulatory guidance.
(j) Average consumer loans held-for-sale and loans at fair value were $17.2 billion and $12.9 billion for the years ended December 31, 2024 and 2023, respectively. These amounts were excluded when calculating net charge-off/(recovery) rates.

Maturities and sensitivity to changes in interest rates

The table below sets forth loan maturities by scheduled repayments, by class of loan and the distribution between fixed and floating interest rates based on the stated terms of the loan agreements. The Firm estimated the principal repayment amounts for both the residential real estate and auto and other loan classes by calculating the weighted-average loan balance and interest rates for loan pools based on remaining loan term. Refer to Note 12 for further information on loan classes.

December 31, 2024 (in millions)	Within 1 year[(a)]	1-5 years	5-15 years	After 15 years	Total
Consumer, excluding credit card					
Residential real estate	**$ 21,442**	**$ 26,712**	**$109,608**	**$ 166,715**	**$324,477**
Auto and other	**19,404** [(b)]	**43,701**	**5,224**	**4**	**68,333**
Total consumer, excluding credit card loans	**$ 40,846**	**$ 70,413**	**$ 114,832**	**$ 166,719**	**$392,810**
Total credit card loans	**$231,799**	**$ 1,048**	**$ 13**	**$ —**	**$232,860**
Total consumer loans	**$272,645**	**$ 71,461**	**$ 114,845**	**$ 166,719**	**$625,670**
Loans due after one year at fixed interest rates					
Residential real estate		**$ 19,639**	**$ 57,351**	**$ 77,865**	
Auto and other		**43,565**	**2,957**	**4**	
Credit card		**1,048**	**13**	**—**	
Loans due after one year at variable interest rates					
Residential real estate		**$ 7,073**	**$ 52,257**	**$ 88,850**	
Auto and other		**136**	**2,267**	**—**	
Total consumer loans		**$ 71,461**	**$ 114,845**	**$ 166,719**	

(a) Includes loans held-for-sale and loans at fair value.
(b) Includes overdrafts.

Consumer, excluding credit card

Portfolio analysis

Loans decreased from December 31, 2023 driven by residential real estate loans and scored auto loans.

The following discussions provide information concerning individual loan products. Refer to Note 12 for further information about this portfolio, including information about delinquencies, loan modifications and other credit quality indicators.

Residential real estate: The residential real estate portfolio, including loans held-for-sale and loans at fair value, predominantly consists of prime mortgage loans and home equity lines of credit.

Retained loans decreased compared to December 31, 2023, predominantly driven by paydowns and loan sales, net of originations. Retained nonaccrual loans decreased compared to December 31, 2023, predominantly driven by loan sales. Net recoveries were higher for the year ended December 31, 2024 compared to the prior year, driven by loan sales.

Loans held-for-sale and nonaccrual loans held-for-sale increased from December 31, 2023, predominantly driven by transfers of certain retained loans in anticipation of securitization and loan sales, respectively.

Loans at fair value increased from December 31, 2023, predominantly driven by higher Home Lending loans, as originations outpaced warehouse loan sales. Nonaccrual loans at fair value increased compared to December 31, 2023, driven by CIB.

At December 31, 2024 and 2023, the carrying values of retained interest-only residential mortgage loans were $88.9 billion and $90.6 billion, respectively. These loans have an interest-only payment period generally followed by an adjustable-rate or fixed-rate fully amortizing payment period to maturity and are typically originated as higher-balance loans to higher-income borrowers. The credit performance of this portfolio is comparable to the performance of the broader prime mortgage portfolio.

The carrying value of retained home equity lines of credit outstanding was $14.5 billion at December 31, 2024, including $3.8 billion of HELOCs that have recast from interest-only to fully amortizing payments or have been modified, and $3.6 billion of interest-only balloon HELOCs, which primarily mature after 2030. The Firm manages the risk of HELOCs during their revolving period by reducing or canceling the undrawn line in accordance with the contract or to the extent otherwise permitted by law, including when there has been a demonstrable decline in the creditworthiness of the borrower or significant decrease in the value of the underlying property.

The following table provides a summary of the Firm's residential mortgage portfolio insured and/or guaranteed by U.S. government agencies, predominantly loans held-for-sale and loans at fair value. The Firm monitors its exposure to certain potential unrecoverable claim payments related to government-insured loans and considers this exposure in estimating the allowance for loan losses.

(in millions)	**December 31, 2024**	December 31, 2023
Current	**$ 462**	$ 446
30-89 days past due	**72**	102
90 or more days past due	**121**	182
Total government guaranteed loans	**$ 655**	$ 730

Geographic composition and current estimated loan-to-value ratio of residential real estate loans

At December 31, 2024, $217.7 billion, or 70% of the total retained residential real estate loan portfolio, was concentrated in California, New York, Florida, Texas and Massachusetts, compared to $228.4 billion, or 70% at December 31, 2023.

Average current estimated loan-to-value ("LTV") ratios have improved, reflecting an increase in home prices.

Refer to Note 12 for information on the geographic composition and current estimated LTVs of the Firm's residential real estate loans.

Auto and other: The auto and other loan portfolio, including loans at fair value, generally consists of prime-quality scored auto and business banking loans, other consumer unsecured loans, and overdrafts. The portfolio decreased when compared to December 31, 2023, predominantly due to loan securitizations. Net charge-offs increased compared to the prior year, predominantly due to net charge-offs of scored auto loans of $445 million compared to $357 million for the year ended December 31, 2023, reflecting a decline in used vehicle valuations. Refer to Note 14 for further information on securitization activity.

Nonperforming assets

The following table presents information as of December 31, 2024 and 2023, about consumer, excluding credit card, nonperforming assets.

Nonperforming assets[(a)]

December 31, (in millions)	2024	2023
Nonaccrual loans		
Residential real estate	**$ 3,665**	$ 4,015
Auto and other	**261**	188
Total nonaccrual loans	**3,926**	4,203
Assets acquired in loan satisfactions		
Real estate owned	**78**	120
Other	**34**	42
Total assets acquired in loan satisfactions	**112**	162
Total nonperforming assets	**$ 4,038**	$ 4,365

(a) Excludes mortgage loans past due and insured by U.S. government agencies, which are primarily 90 or more days past due. These loans have been excluded based upon the government guarantee. At December 31, 2024 and 2023, mortgage loans 90 or more days past due and insured by U.S. government agencies were $121 million and $182 million, respectively.

Nonaccrual loans

The following table presents changes in consumer, excluding credit card, nonaccrual loans for the years ended December 31, 2024 and 2023.

Nonaccrual loan activity

Year ended December 31, (in millions)	2024	2023
Beginning balance	**$ 4,203**	$ 4,325
Additions:	**3,225**	2,894
Reductions:		
Principal payments and other	**894**	1,030
Sales	**803**	276
Charge-offs	**665**	472
Returned to performing status	**963**	1,052
Foreclosures and other liquidations	**177**	186
Total reductions	**3,502**	3,016
Net changes	**(277)**	(122)
Ending balance	**$ 3,926**	$ 4,203

Refer to Note 12 for further information about the consumer credit portfolio, including information about delinquencies, other credit quality indicators and loans that were in the process of active or suspended foreclosure.

Credit card

Total credit card loans increased from December 31, 2023 reflecting growth from new accounts and revolving balances. The December 31, 2024 30+ and 90+ day delinquency rates of 2.17% and 1.14%, respectively, increased compared to the December 31, 2023 30+ and 90+ day delinquency rates of 2.14% and 1.05%, respectively, in line with the Firm's expectations. Net charge-offs increased for the year ended December 31, 2024 compared to the prior year reflecting the seasoning of vintages originated in recent years, credit normalization and balance growth.

Consistent with the Firm's policy, all credit card loans typically remain on accrual status until charged off. However, the Firm's allowance for loan losses includes the estimated uncollectible portion of accrued and billed interest and fee income.

Geographic and FICO composition of credit card loans

At December 31, 2024, $109.0 billion, or 47% of the total retained credit card loan portfolio, was concentrated in California, Texas, New York, Florida and Illinois, compared to $98.1 billion, or 46%, at December 31, 2023.

Refer to Note 12 for further information about this portfolio, including information about delinquencies, geographic and FICO composition.

WHOLESALE CREDIT PORTFOLIO

In its wholesale businesses, the Firm is exposed to credit risk primarily through its underwriting, lending, market-making, and hedging activities with and for clients and counterparties, as well as through various operating services (such as cash management and clearing activities), securities financing activities and cash placed with banks. A portion of the loans originated or acquired by the Firm's wholesale businesses is generally retained on the balance sheet. The Firm distributes a significant percentage of the loans that it originates into the market as part of its syndicated loan business and to manage portfolio concentrations and credit risk. The wholesale portfolio is actively managed, in part by conducting ongoing, in-depth reviews of client credit quality and transaction structure, inclusive of collateral where applicable, and of industry, product and client concentrations. Refer to the industry discussion on pages 128–131 for further information.

The Firm's wholesale credit portfolio includes exposure held in CIB, AWM and Corporate, and risk-rated exposure held in CCB, for which the wholesale methodology is applied when determining the allowance for loan losses.

As of December 31, 2024, loans increased $19.8 billion, driven by higher loans in CIB and higher securities-based lending in AWM. Lending-related commitments decreased $5.3 billion, with decreases in AWM and CCB, largely offset by higher commitments in CIB.

As of December 31, 2024, nonperforming exposure increased by $2.3 billion, predominantly driven by Real Estate, concentrated in Office, Healthcare and Consumer & Retail, in each case resulting from downgrades.

For the year ended December 31, 2024, wholesale net charge-offs were $822 million, largely driven by Real Estate, concentrated in Office, and client-specific charge-offs across multiple industries including Consumer & Retail and Individuals.

Wholesale credit portfolio

December 31, (in millions)	Credit exposure		Nonperforming	
	2024	2023	**2024**	2023
Loans retained	**$ 690,396**	$ 672,472	**$ 3,942**	$ 2,346
Loans held-for-sale	**6,103**	3,498	**5**	89
Loans at fair value	**25,819**	26,520	**964**	279
Loans	**722,318**	702,490	**4,911**	2,714
Derivative receivables	**60,967**	54,864	**145**	364
Receivables from customers[(a)]	**51,929**	47,625	**—**	—
Total wholesale credit-related assets	**835,214**	804,979	**5,056**	3,078
Assets acquired in loan satisfactions				
Real estate owned	**NA**	NA	**206**	154
Other	**NA**	NA	**—**	—
Total assets acquired in loan satisfactions	**NA**	NA	**206**	154
Lending-related commitments	**531,467**	536,786	**737**	464
Total wholesale credit portfolio	**$1,366,681**	$1,341,765	**$ 5,999**	$ 3,696
Credit derivatives and credit-related notes used in credit portfolio management activities[(b)]	**$ (40,888)**	$ (36,989)	**$ —**	$ —
Liquid securities and other cash collateral held against derivatives	**(28,160)**	(22,461)	**NA**	NA

(a) Receivables from customers reflect held-for-investment margin loans to brokerage clients in CIB, CCB and AWM; these are reported within accrued interest and accounts receivable on the Consolidated balance sheets.

(b) Represents the net notional amount of protection purchased and sold through credit derivatives and credit-related notes used to manage both performing and nonperforming wholesale credit exposures; these derivatives do not qualify for hedge accounting under U.S. GAAP. Refer to Credit derivatives on page 136 and Note 5 for additional information.

Wholesale credit exposure – maturity and ratings profile

The following tables present the maturity and internal risk ratings profiles of the wholesale credit portfolio as of December 31, 2024 and 2023. The Firm generally considers internal ratings with qualitative characteristics equivalent to BBB-/Baa3 or higher as investment grade, and takes into consideration collateral and structural support when determining the internal risk rating for each credit facility. Refer to Note 12 for further information on internal risk ratings.

	Maturity profile[d]				Ratings profile			
December 31, 2024 (in millions, except ratios)	1 year or less	After 1 year through 5 years	After 5 years	Total	Investment-grade	Noninvestment-grade	Total	Total % of IG
Loans retained	**$ 225,982**	**$ 289,199**	**$ 175,215**	**$ 690,396**	**$ 471,670**	**$ 218,726**	**$ 690,396**	**68 %**
Derivative receivables				**60,967**			**60,967**	
Less: Liquid securities and other cash collateral held against derivatives				**(28,160)**			**(28,160)**	
Total derivative receivables, net of collateral	**11,515**	**7,418**	**13,874**	**32,807**	**24,707**	**8,100**	**32,807**	**75**
Lending-related commitments	**121,283**	**384,529**	**25,655**	**531,467**	**352,082**	**179,385**	**531,467**	**66**
Subtotal	**358,780**	**681,146**	**214,744**	**1,254,670**	**848,459**	**406,211**	**1,254,670**	**68**
Loans held-for-sale and loans at fair value[a]				**31,922**			**31,922**	
Receivables from customers				**51,929**			**51,929**	
Total exposure – net of liquid securities and other cash collateral held against derivatives				**$1,338,521**			**$ 1,338,521**	
Credit derivatives and credit-related notes used in credit portfolio management activities[b][c]	**$ (5,442)**	**$ (33,751)**	**$ (1,695)**	**$ (40,888)**	**$ (31,691)**	**$ (9,197)**	**$ (40,888)**	**78 %**

	Maturity profile[d]				Ratings profile			
December 31, 2023 (in millions, except ratios)	1 year or less	After 1 year through 5 years	After 5 years	Total	Investment-grade	Noninvestment-grade	Total	Total % of IG
Loans retained	$ 211,104	$ 280,821	$ 180,547	$ 672,472	$ 458,838	$ 213,634	$ 672,472	68 %
Derivative receivables				54,864			54,864	
Less: Liquid securities and other cash collateral held against derivatives				(22,461)			(22,461)	
Total derivative receivables, net of collateral	8,007	8,970	15,426	32,403	24,919	7,484	32,403	77
Lending-related commitments	143,337	368,646	24,803	536,786	341,611	195,175	536,786	64
Subtotal	362,448	658,437	220,776	1,241,661	825,368	416,293	1,241,661	66
Loans held-for-sale and loans at fair value[a]				30,018			30,018	
Receivables from customers				47,625			47,625	
Total exposure – net of liquid securities and other cash collateral held against derivatives				$1,319,304			$ 1,319,304	
Credit derivatives and credit-related notes used in credit portfolio management activities[b][c]	$ (3,311)	$ (28,353)	$ (5,325)	$ (36,989)	$ (28,869)	$ (8,120)	$ (36,989)	78 %

(a) Loans held-for-sale are primarily related to syndicated loans and loans transferred from the retained portfolio.
(b) These derivatives do not qualify for hedge accounting under U.S. GAAP.
(c) The notional amounts are presented on a net basis by underlying reference entity and the ratings profile shown is based on the ratings of the reference entity on which protection has been purchased. Predominantly all of the credit derivatives entered into by the Firm where it has purchased protection used in credit portfolio management activities are executed with investment-grade counterparties. In addition, the Firm obtains credit protection against certain loans in the retained loan portfolio through the issuance of credit-related notes.
(d) The maturity profile of retained loans, lending-related commitments and derivative receivables is generally based on remaining contractual maturity. Derivative contracts that are in a receivable position at December 31, 2024, may become payable prior to maturity based on their cash flow profile or changes in market conditions.

Wholesale credit exposure – industry exposures

The Firm focuses on the management and diversification of its industry exposures, and pays particular attention to industries with actual or potential credit concerns.

Exposures that are deemed to be criticized align with the U.S. banking regulators' definition of criticized exposures, which consist of the special mention, substandard and doubtful categories. Total criticized exposure, excluding loans held-for-sale and loans at fair value, was $44.7 billion and $41.4 billion at December 31, 2024 and 2023, representing approximately 3.5% and 3.3% of total wholesale credit exposure, respectively; of the $44.7 billion, $39.9 billion was performing. The increase in criticized exposure was driven by Real Estate resulting from downgrades, primarily in Multifamily and Office, and new commitments in Technology and Media, partially offset by Consumer & Retail resulting from net portfolio activity and upgrades.

The table below summarizes by industry the Firm's exposures as of December 31, 2024 and 2023. The industry of risk category is generally based on the client or counterparty's primary business activity. Refer to Note 4 for additional information on industry concentrations.

Wholesale credit exposure – industries[(a)]

As of or for the year ended December 31, 2024 (in millions)	Credit exposure[(f)(g)]	Investment-grade	Noninvestment-grade: Noncriticized	Noninvestment-grade: Criticized performing	Noninvestment-grade: Criticized nonperforming	Selected metrics: 30 days or more past due and accruing loans	Selected metrics: Net charge-offs/ (recoveries)	Selected metrics: Credit derivative and credit-related notes[(h)]	Selected metrics: Liquid securities and other cash collateral held against derivative receivables
Real Estate	$ 207,050	$ 143,803	$ 50,865	$ 10,858	$ 1,524	$ 913	$ 345	$ (584)	$ —
Individuals and Individual Entities[(b)]	144,145	118,650	24,831	217	447	831	122	—	—
Asset Managers	135,541	101,150	34,148	206	37	375	2	—	(9,194)
Consumer & Retail	129,815	62,800	60,141	6,055	819	252	123	(4,320)	—
Technology, Media & Telecommunications	84,716	45,021	28,629	10,592	474	79	94	(4,800)	—
Industrials	72,530	37,572	30,912	3,807	239	185	91	(2,312)	—
Healthcare	64,224	44,135	17,062	2,219	808	245	56	(3,286)	(34)
Banks & Finance Companies	61,287	36,884	24,119	257	27	36	—	(702)	(729)
Utilities	35,871	24,205	10,256	1,273	137	1	—	(2,700)	—
State & Municipal Govt[(c)]	35,039	33,303	1,711	9	16	90	—	(2)	(1)
Automotive	34,336	22,015	11,353	931	37	121	1	(997)	—
Oil & Gas	31,724	19,053	12,479	188	4	9	(3)	(1,711)	(2)
Insurance	24,267	17,847	6,198	222	—	2	—	(1,077)	(9,184)
Chemicals & Plastics	20,782	11,013	8,152	1,521	96	31	14	(1,164)	—
Transportation	17,019	9,462	7,135	391	31	17	(20)	(658)	—
Metals & Mining	15,860	7,373	7,860	590	37	9	—	(246)	(2)
Central Govt	13,862	13,580	157	125	—	4	—	(1,490)	(2,051)
Securities Firms	9,443	5,424	4,014	5	—	—	—	(13)	(2,635)
Financial Markets Infrastructure	4,446	4,201	245	—	—	—	—	(1)	—
All other[(d)]	140,873	117,986	22,398	398	91	10	(3)	(14,825)	(4,328)
Subtotal	$ 1,282,830	$ 875,477	$ 362,665	$ 39,864	$ 4,824	$ 3,210	$ 822	$ (40,888)	$ (28,160)
Loans held-for-sale and loans at fair value	31,922								
Receivables from customers	51,929								
Total[(e)]	$ 1,366,681								

As of or for the year ended December 31, 2023 (in millions)	Credit exposure[f][g]	Investment-grade	Noninvestment-grade			Selected metrics			
			Noncriticized	Criticized performing	Criticized nonperforming	30 days or more past due and accruing loans	Net charge-offs/ (recoveries)	Credit derivative and credit-related notes[h]	Liquid securities and other cash collateral held against derivative receivables
Real Estate	$ 208,261	$ 148,866	$ 50,190	$ 8,558	$ 647	$ 717	$ 275	$ (574)	$ —
Individuals and Individual Entities[b]	145,849	110,673	34,261	334	581	861	10	—	—
Asset Managers	129,574	83,857	45,623	90	4	201	1	—	(7,209)
Consumer & Retail	127,086	60,168	58,606	7,863	449	318	161	(4,204)	—
Technology, Media & Telecommunications	77,296	40,468	27,094	9,388	346	36	81	(4,287)	—
Industrials	75,092	40,951	30,586	3,419	136	213	31	(2,949)	—
Healthcare	65,025	43,163	18,396	3,005	461	130	17	(3,070)	—
Banks & Finance Companies	57,177	33,881	22,744	545	7	9	277	(511)	(412)
Utilities	36,061	25,242	9,929	765	125	1	(3)	(2,373)	—
State & Municipal Govt[c]	35,986	33,561	2,390	27	8	31	—	(4)	—
Automotive	33,977	23,152	10,060	640	125	59	—	(653)	—
Oil & Gas	34,475	18,276	16,076	111	12	45	11	(1,927)	(5)
Insurance	20,501	14,503	5,700	298	—	2	—	(961)	(6,898)
Chemicals & Plastics	20,773	11,353	8,352	916	152	106	2	(1,045)	—
Transportation	16,060	8,865	5,943	1,196	56	23	(26)	(574)	—
Metals & Mining	15,508	8,403	6,514	536	55	12	44	(229)	—
Central Govt	17,704	17,264	312	127	1	—	—	(3,490)	(2,085)
Securities Firms	8,689	4,570	4,118	1	—	—	—	(14)	(2,765)
Financial Markets Infrastructure	4,251	4,052	199	—	—	—	—	—	—
All other[d]	134,777	115,711	18,618	439	9	21	(2)	(10,124)	(3,087)
Subtotal	$ 1,264,122	$ 846,979	$ 375,711	$ 38,258	$ 3,174	$ 2,785	$ 879	$ (36,989)	$ (22,461)
Loans held-for-sale and loans at fair value	30,018								
Receivables from customers	47,625								
Total[e]	$ 1,341,765								

(a) The industry rankings presented in the table as of December 31, 2023, are based on the industry rankings of the corresponding exposures at December 31, 2024, not actual rankings of such exposures at December 31, 2023.

(b) Individuals and Individual Entities predominantly consists of Global Private Bank clients within AWM and J.P. Morgan Wealth Management within CCB, and includes exposure to personal investment companies and personal and testamentary trusts.

(c) In addition to the credit risk exposure to states and municipal governments (both U.S. and non-U.S.) at December 31, 2024 and 2023, noted above, the Firm held: $6.1 billion and $5.9 billion, respectively, of trading assets; $17.9 billion and $21.4 billion, respectively, of AFS securities; and $9.3 billion and $9.9 billion, respectively, of HTM securities, issued by U.S. state and municipal governments. Refer to Note 2 and Note 10 for further information.

(d) All other includes: SPEs and Private education and civic organizations, representing approximately 94% and 6%, respectively, at both December 31, 2024 and 2023.

(e) Excludes cash placed with banks of $459.2 billion and $614.1 billion, at December 31, 2024 and 2023, respectively, which is predominantly placed with various central banks, primarily Federal Reserve Banks.

(f) Credit exposure is net of risk participations and excludes the benefit of credit derivatives and credit-related notes used in credit portfolio management activities held against derivative receivables or loans and liquid securities and other cash collateral held against derivative receivables.

(g) Credit exposure includes held-for-sale and fair value option elected lending-related commitments.

(h) Represents the net notional amounts of protection purchased and sold through credit derivatives and credit-related notes used to manage the credit exposures; these derivatives do not qualify for hedge accounting under U.S. GAAP. The All other category includes purchased credit protection on certain credit indices.

Presented below is additional detail on certain of the Firm's industry exposures.

Real Estate

Real Estate exposure was $207.1 billion as of December 31, 2024. Criticized exposure increased by $3.2 billion from $9.2 billion at December 31, 2023 to $12.4 billion at December 31, 2024, predominantly driven by downgrades, primarily in Multifamily and Office.

	December 31, 2024				
(in millions, except ratios)	Loans and Lending-related Commitments	Derivative Receivables	Credit exposure	% Investment-grade	% Drawn[d]
Multifamily[a]	**$ 124,074**	**$ 7**	**$ 124,081**	**77 %**	**92 %**
Industrial	**19,092**	**17**	**19,109**	**65**	**72**
Other Income Producing Properties[b]	**16,411**	**158**	**16,569**	**50**	**63**
Office	**16,331**	**29**	**16,360**	**47**	**81**
Services and Non Income Producing	**14,047**	**57**	**14,104**	**62**	**46**
Retail	**12,230**	**23**	**12,253**	**77**	**75**
Lodging	**4,555**	**19**	**4,574**	**31**	**53**
Total Real Estate Exposure[c]	**$ 206,740**	**$ 310**	**$ 207,050**	**69 %**	**82 %**

	December 31, 2023				
(in millions, except ratios)	Loans and Lending-related Commitments	Derivative Receivables	Credit exposure	% Investment-grade	% Drawn[d]
Multifamily[a]	$ 121,946	$ 21	$ 121,967	79 %	90 %
Industrial	20,254	18	20,272	70	72
Other Income Producing Properties[b]	15,542	208	15,750	55	63
Office	16,462	32	16,494	51	81
Services and Non Income Producing	16,145	74	16,219	62	46
Retail	12,763	48	12,811	75	73
Lodging	4,729	19	4,748	30	48
Total Real Estate Exposure	$ 207,841	$ 420	$ 208,261	71 %	80 %

(a) Total Multifamily exposure is approximately 99% performing. Multifamily exposure is largely in California.
(b) Other Income Producing Properties consists of clients with diversified property types or other property types outside of categories listed in the table above.
(c) Real Estate exposure is approximately 84% secured; unsecured exposure is largely investment-grade primarily to Real Estate Investment Trusts ("REITs") and Real Estate Operating Companies ("REOCs") whose underlying assets are generally diversified.
(d) Represents drawn exposure as a percentage of credit exposure.

Consumer & Retail

Consumer & Retail exposure was $129.8 billion as of December 31, 2024. Criticized exposure decreased by $1.4 billion from $8.3 billion at December 31, 2023 to $6.9 billion at December 31, 2024, driven by net portfolio activity and upgrades, largely offset by downgrades.

	December 31, 2024				
(in millions, except ratios)	Loans and Lending-related Commitments	Derivative Receivables	Credit exposure	% Investment-grade	% Drawn[d]
Food and Beverage	**$ 34,774**	**$ 683**	**$ 35,457**	**61 %**	**34 %**
Retail	**34,917**	**261**	**35,178**	**51**	**31**
Business and Consumer Services[a]	**34,534**	**412**	**34,946**	**42**	**41**
Consumer Hard Goods	**13,796**	**208**	**14,004**	**43**	**35**
Leisure[b]	**10,186**	**44**	**10,230**	**26**	**43**
Total Consumer & Retail[c]	**$ 128,207**	**$ 1,608**	**$ 129,815**	**48 %**	**36 %**

	December 31, 2023				
(in millions, except ratios)	Loans and Lending-related Commitments	Derivative Receivables	Credit exposure	% Investment-grade	% Drawn[d]
Food and Beverage	$ 32,256	$ 930	$ 33,186	57 %	36 %
Retail	36,042	334	36,376	51	30
Business and Consumer Services[a]	34,822	392	35,214	42	42
Consumer Hard Goods	13,169	197	13,366	43	33
Leisure[b]	8,784	160	8,944	25	47
Total Consumer & Retail	$ 125,073	$ 2,013	$ 127,086	47 %	36 %

(a) Retail consists of Home Improvement & Specialty Retailers, Restaurants, Discount & Drug Stores, Specialty Apparel, Department Stores and Supermarkets.
(b) Leisure consists of Arts & Culture, Travel Services, Gaming and Sports & Recreation. As of December 31, 2024, approximately 90% of the noninvestment-grade Leisure portfolio is secured.
(c) Consumer & Retail exposure is approximately 57% secured; unsecured exposure is approximately 80% investment-grade.
(d) Represents drawn exposure as a percent of credit exposure.

Oil & Gas

Oil & Gas exposure was $31.7 billion as of December 31, 2024. Criticized exposure was $192 million and $123 million at December 31, 2024 and 2023, respectively.

	December 31, 2024				
(in millions, except ratios)	Loans and Lending-related Commitments	Derivative Receivables	Credit exposure	% Investment-grade	% Drawn[c]
Exploration & Production ("E&P") and Oil field Services	**$ 14,265**	**$ 848**	**$ 15,113**	**55 %**	**27 %**
Other Oil & Gas[a]	**16,306**	**305**	**16,611**	**65**	**19**
Total Oil & Gas[b]	**$ 30,571**	**$ 1,153**	**$ 31,724**	**60 %**	**23 %**

	December 31, 2023				
(in millions, except ratios)	Loans and Lending-related Commitments	Derivative Receivables	Credit exposure	% Investment-grade	% Drawn[c]
Exploration & Production ("E&P") and Oil field Services	$ 18,121	$ 536	$ 18,657	51 %	26 %
Other Oil & Gas[a]	15,649	169	15,818	55	22
Total Oil & Gas	$ 33,770	$ 705	$ 34,475	53 %	25 %

(a) Other Oil & Gas includes Integrated Oil & Gas companies, Midstream/Oil Pipeline companies and refineries.
(b) Oil & Gas exposure is approximately 33% secured, and includes reserve-based lending to the Exploration & Production sub-sector; unsecured exposure is approximately 69% investment-grade.
(c) Represents drawn exposure as a percent of credit exposure.

Loans

In its wholesale businesses, the Firm provides loans to a variety of clients, ranging from large corporate and institutional clients to high-net-worth individuals. Refer to Note 12 for a further discussion on loans, including information about delinquencies, loan modifications and other credit quality indicators.

The following table presents the change in the nonaccrual loan portfolio for the years ended December 31, 2024 and 2023. Since December 31, 2023, nonaccrual loan exposure increased by $2.2 billion, predominantly driven by Real Estate, concentrated in Office, Healthcare and Consumer & Retail, in each case resulting from downgrades.

Wholesale nonaccrual loan activity

Year ended December 31, (in millions)	2024	2023
Beginning balance	$ 2,714	$ 2,395
Additions	5,841	3,543
Reductions:		
Paydowns and other	2,387	1,336
Gross charge-offs	780	965
Returned to performing status	392	616
Sales	85	307
Total reductions	3,644	3,224
Net changes	2,197	319
Ending balance	$ 4,911	$ 2,714

The following table presents net charge-offs/recoveries, which are defined as gross charge-offs less recoveries, for the years ended December 31, 2024 and 2023. The amounts in the table below do not include gains or losses from sales of nonaccrual loans recognized in noninterest revenue.

Wholesale net charge-offs/(recoveries)

Year ended December 31, (in millions, except ratios)	2024	2023
Loans		
Average loans retained	$ 673,310	$ 646,875
Gross charge-offs	1,022	1,011
Gross recoveries collected	(200)	(132)
Net charge-offs/(recoveries)	822	879
Net charge-off/(recovery) rate	0.12 %	0.14 %

Maturities and sensitivity to changes in interest rates

The table below sets forth wholesale loan maturities and the distribution between fixed and floating interest rates based on the stated terms of the loan agreements by loan class. Refer to Note 12 for further information on loan classes.

December 31, 2024 (in millions, except ratios)	1 year or less[b]	After 1 year through 5 years	After 5 years through 15 years	After 15 years	Total
Wholesale loans:					
Secured by real estate	**$ 12,474**	**$ 57,125**	**$ 57,967**	**$ 42,597**	**$ 170,163**
Commercial and industrial	**55,731**	**109,839**	**8,587**	**94**	**174,251**
Other	**182,722**	**150,346**	**36,281**	**8,555**	**377,904**
Total wholesale loans	**$250,927**	**$ 317,310**	**$ 102,835**	**$ 51,246**	**$ 722,318**
Loans due after one year at fixed interest rates					
Secured by real estate		**$ 13,119**	**$ 17,943**	**$ 935**	
Commercial and industrial		**3,964**	**1,231**	**7**	
Other		**26,929**	**15,542**	**5,824**	
Loans due after one year at variable interest rates[a]					
Secured by real estate		**$ 44,006**	**$ 40,024**	**$ 41,662**	
Commercial and industrial		**105,875**	**7,356**	**87**	
Other		**123,417**	**20,739**	**2,731**	
Total wholesale loans		**$ 317,310**	**$ 102,835**	**$ 51,246**	

(a) Includes loans that have an initial fixed interest rate that resets to a variable rate as the variable rate will be the prevailing rate over the life of the loan.
(b) Includes loans held-for-sale, demand loans and overdrafts.

The following table presents net charge-offs/recoveries, average retained loans and net charge-off/recovery rate by loan class for the years ended December 31, 2024 and 2023.

	Year ended December 31,							
	Secured by real estate		Commercial and industrial		Other		Total	
(in millions, except ratios)	**2024**	2023	**2024**	2023	**2024**	2023	**2024**	2023
Net charge-offs/(recoveries)	**$ 313**	$ 178	**$ 381**	$ 370	**$ 128**	$ 331	**$ 822**	$ 879
Average retained loans	**162,653**	151,214	**169,363**	170,503	**341,294**	325,158	**673,310**	646,875
Net charge-off/(recovery) rate	**0.19 %**	0.12 %	**0.22 %**	0.22 %	**0.04 %**	0.10 %	**0.12 %**	0.14 %

Lending-related commitments

The Firm uses lending-related financial instruments, such as commitments (including revolving credit facilities) and guarantees, to address the financing needs of its clients. The contractual amounts of these financial instruments represent the maximum possible credit risk should the clients draw down on these commitments or when the Firm fulfills its obligations under these guarantees, and the clients subsequently fail to perform according to the terms of these contracts. Most of these commitments and guarantees have historically been refinanced, extended, cancelled, or expired without being drawn upon or a default occurring. As a result, the Firm does not believe that the total contractual amount of these wholesale lending-related commitments is representative of the Firm's expected future credit exposure or funding requirements. Refer to Note 28 for further information on wholesale lending-related commitments.

Receivables from customers

Receivables from customers reflect held-for-investment margin loans to brokerage clients in CIB, CCB and AWM that are collateralized by assets maintained in the clients' brokerage accounts (including cash on deposit, and primarily liquid and readily marketable debt or equity securities). To manage its credit risk, the Firm establishes margin requirements and monitors the required margin levels on an ongoing basis, and requires clients to deposit additional cash or other collateral, or to reduce positions, when appropriate. Credit risk arising from lending activities subject to collateral maintenance requirements is generally mitigated by factors such as the short-term nature of the activity, the fair value of collateral held and the Firm's right to call for, and the borrower's obligation to provide, additional margin when the fair value of the collateral declines. Because of these mitigating factors, these receivables generally do not require an allowance for credit losses. However, if in management's judgment, an allowance for credit losses is required, the Firm estimates expected credit losses based on the value of the collateral and probability of borrower default. These receivables are reported within accrued interest and accounts receivable on the Firm's Consolidated balance sheets.

Refer to Note 13 for further information on the Firm's accounting policies for the allowance for credit losses.

Derivative contracts

Derivatives enable clients and counterparties to manage risk, including credit risk and risks arising from fluctuations in interest rates, foreign exchange and equities and commodities prices. The Firm makes markets in derivatives in order to meet these needs and uses derivatives to manage certain risks associated with net open risk positions from its market-making activities, including the counterparty credit risk arising from derivative receivables. The Firm also uses derivative instruments to manage its own credit risk and other market risk exposure. The nature of the counterparty and the settlement mechanism of the derivative affect the credit risk to which the Firm is exposed. For over-the-counter ("OTC") derivatives, the Firm is exposed to the credit risk of the derivative counterparty. For exchange-traded derivatives ("ETD"), such as futures and options, and cleared over-the-counter ("OTC-cleared") derivatives, the Firm can also be exposed to the credit risk of the relevant CCP. Where possible, the Firm seeks to mitigate its credit risk exposures arising from derivative contracts through the use of legally enforceable master netting arrangements and collateral agreements. The percentage of the Firm's OTC derivative transactions subject to collateral agreements — excluding foreign exchange spot trades, which are not typically covered by collateral agreements due to their short maturity and centrally cleared trades that are settled daily — was approximately 86% and 87% at December 31, 2024 and 2023, respectively. Refer to Note 5 for additional information on the Firm's use of collateral agreements and for a further discussion of derivative contracts, counterparties and settlement types.

The fair value of derivative receivables reported on the Consolidated balance sheets was $61.0 billion and $54.9 billion at December 31, 2024 and 2023, respectively. The increase was primarily as a result of market movements. Derivative receivables represent the fair value of the derivative contracts after giving effect to legally enforceable master netting agreements and the related cash collateral held by the Firm.

In addition, the Firm holds liquid securities and other cash collateral that may be used as security when the fair value of the client's exposure is in the Firm's favor. For these purposes, the definition of liquid securities is consistent with the definition of high quality liquid assets as defined in the LCR rule.

In management's view, the appropriate measure of current credit risk should also take into consideration other collateral, which generally represents securities that do not qualify as high quality liquid assets under the LCR rule. The benefits of these additional collateral amounts for each counterparty are subject to a legally enforceable master netting agreement and limited to the net amount of the derivative receivables for each counterparty.

The Firm also holds additional collateral (primarily cash, G7 government securities, other liquid government agency and guaranteed securities, and corporate debt and equity securities) delivered by clients at the initiation of transactions, as well as collateral related to contracts that have a non-daily call frequency and collateral that the Firm has agreed to return but has not yet settled as of the reporting date. Although this collateral does not reduce the receivables balances and is not included in the tables below, it is available as security against potential exposure that could arise should the fair value of the client's derivative contracts move in the Firm's favor. Refer to Note 5 for additional information on the Firm's use of collateral agreements for derivative transactions.

The following tables summarize the net derivative receivables and the internal ratings profile for the periods presented.

Derivative receivables

December 31, (in millions)		2024		2023
Total, net of cash collateral	**$**	**60,967**	$	54,864
Liquid securities and other cash collateral held against derivative receivables		**(28,160)**		(22,461)
Total, net of liquid securities and other cash collateral	**$**	**32,807**	$	32,403
Other collateral held against derivative receivables		**(1,021)**		(993)
Total, net of collateral	**$**	**31,786**	$	31,410

Ratings profile of derivative receivables

December 31, (in millions, except ratios)	2024			2023		
		Exposure net of collateral	% of exposure net of collateral		Exposure net of collateral	% of exposure net of collateral
Investment-grade	**$**	**23,783**	**75 %**	$	24,004	76 %
Noninvestment-grade		**8,003**	**25**		7,406	24
Total	**$**	**31,786**	**100 %**	$	31,410	100 %

While useful as a current view of credit exposure, the net fair value of the derivative receivables does not capture the potential future variability of that credit exposure. To capture this variability, the Firm calculates, on a client-by-client basis, three measures of potential derivatives-related credit loss: Peak, Derivative Risk Equivalent ("DRE"), and Average exposure ("AVG"). These measures all incorporate netting and collateral benefits, where applicable.

Peak represents a conservative measure of potential derivative exposure, including the benefit of collateral, to a counterparty calculated in a manner that is broadly equivalent to a 97.5% confidence level over the life of the transaction. Peak is the primary measure used by the Firm for setting credit limits for derivative contracts, senior management reporting and derivatives exposure management.

DRE exposure is a measure that expresses the risk of derivative exposure, including the benefit of collateral, on a basis intended to be equivalent to the risk of loan exposures. DRE is a less extreme measure of potential credit loss than Peak.

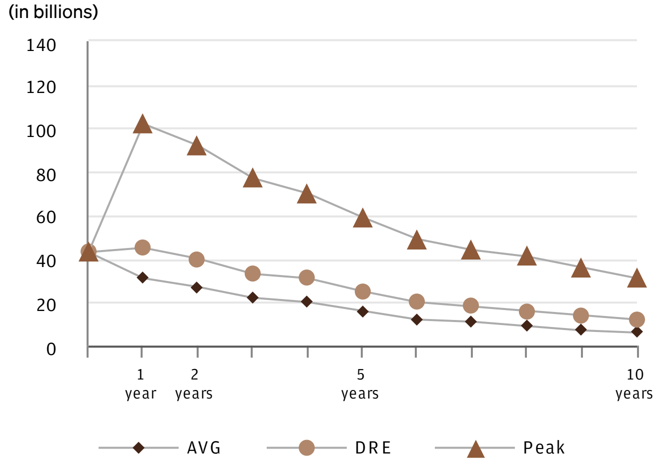
Finally, AVG is a measure of the expected fair value of the Firm's derivative exposures, including the benefit of collateral, at future time periods. AVG over the total life of the derivative contract is used as the primary metric for pricing purposes and is used to calculate credit risk capital and CVA, as further described below.

The fair value of the Firm's derivative receivables incorporates CVA to reflect the credit quality of counterparties. CVA is based on the Firm's AVG to a counterparty and the counterparty's credit spread in the credit derivatives market. The Firm believes that active risk management is essential to controlling the dynamic credit risk in the derivatives portfolio. In addition, the Firm's risk management process for derivatives exposures takes into consideration the potential impact of wrong-way risk, which is broadly defined as the risk that exposure to a counterparty is positively correlated with the impact of a default by the same counterparty, which could cause exposure to increase at the same time as the counterparty's capacity to meet its obligations is decreasing. Many factors may influence the nature and magnitude of these correlations over time. To the extent that these correlations are identified, the Firm may adjust the CVA associated with a particular counterparty's AVG. The Firm risk manages exposure to changes in CVA by entering into credit derivative contracts, as well as interest rate, foreign exchange, equity and commodity derivative contracts.

The below graph shows exposure profiles to the Firm's current derivatives portfolio over the next 10 years as calculated by the Peak, DRE and AVG metrics. The three measures generally show that exposure will decline after the first year, if no new trades are added to the portfolio.

Exposure profile of derivatives measures

December 31, 2024
(in billions)



Credit derivatives

The Firm uses credit derivatives for two primary purposes: first, in its capacity as a market-maker, and second, as an end-user to manage the Firm's own credit risk associated with various exposures.

Credit portfolio management activities

Included in the Firm's end-user activities are credit derivatives used to mitigate the credit risk associated with traditional lending activities (loans and lending-related commitments) and derivatives counterparty exposure in the Firm's wholesale businesses (collectively, "credit portfolio management activities"). Information on credit portfolio management activities is provided in the table below.

The Firm also uses credit derivatives as an end-user to manage other exposures, including credit risk arising from certain securities held in the Firm's market-making businesses. These credit derivatives are not included in credit portfolio management activities.

Credit derivatives and credit-related notes used in credit portfolio management activities

	Notional amount of protection purchased and sold[(a)]	
December 31, (in millions)	**2024**	2023
Credit derivatives and credit-related notes used to manage:		
Loans and lending-related commitments	**$ 25,216**	$ 24,157
Derivative receivables	**15,672**	12,832
Credit derivatives and credit-related notes used in credit portfolio management activities	**$ 40,888**	$ 36,989

(a) Amounts are presented net, considering the Firm's net protection purchased or sold with respect to each underlying reference entity or index.

The credit derivatives used in credit portfolio management activities do not qualify for hedge accounting under U.S. GAAP; these derivatives are reported at fair value, with gains and losses recognized in principal transactions revenue. In contrast, the loans and lending-related commitments being risk-managed are accounted for on an accrual basis. This asymmetry in accounting treatment, between loans and lending-related commitments and the credit derivatives used in credit portfolio management activities, causes earnings volatility that is not representative, in the Firm's view, of the true changes in value of the Firm's overall credit exposure.

The effectiveness of credit default swaps ("CDS") as a hedge against the Firm's exposures may vary depending on a number of factors, including the named reference entity (i.e., the Firm may experience losses on specific exposures that are different than the named reference entities in the purchased CDS); the contractual terms of the CDS (which may have a defined credit event that does not align with an actual loss realized by the Firm); and the maturity of the Firm's CDS protection (which in some cases may be shorter than the Firm's exposures). However, the Firm generally seeks to purchase credit protection with a maturity date that is the same or similar to the maturity date of the exposure for which the protection was purchased, and remaining differences in maturity are actively monitored and managed by the Firm. Refer to Credit derivatives in Note 5 for further information on credit derivatives and derivatives used in credit portfolio management activities.

The Firm’s allowance for credit losses represents management's estimate of expected credit losses over the remaining expected life of the Firm's financial assets measured at amortized cost and certain off-balance sheet lending-related commitments. The Firm's allowance for credit losses generally consists of:

- the allowance for loan losses, which covers the Firm’s retained loan portfolios (scored and risk-rated) and is presented separately on the Consolidated balance sheets,
- the allowance for lending-related commitments, which is reflected in accounts payable and other liabilities on the Consolidated balance sheets, and
- the allowance for credit losses on investment securities, which is reflected in investment securities on the Consolidated balance sheets.

Discussion of changes in the allowance

The allowance for credit losses as of December 31, 2024 was $26.9 billion, reflecting a net addition of $2.1 billion from December 31, 2023.

The net addition to the allowance for credit losses included:

- $2.1 billion in **consumer**, reflecting:
  - a $2.2 billion net addition in Card Services, predominantly driven by loan growth, reflecting higher revolving balances, including the seasoning of vintages originated in recent years,

  partially offset by

  - a $125 million net reduction in Home Lending in the first quarter of 2024, and
- a net reduction of $30 million in **wholesale**, reflecting:
  - changes in certain macroeconomic variables, an update to loss assumptions on certain loans in Markets, and a reduction due to charge-offs largely from collateral-dependent loans,

  predominantly offset by

  - net downgrade activity, primarily in Real Estate, and the impact of incorporating the First Republic portfolio into the Firm’s modeled credit loss estimates in the second quarter of 2024.

The Firm’s qualitative adjustments continued to include additional weight placed on the adverse scenarios to reflect ongoing uncertainties and downside risks related to the geopolitical and macroeconomic environment.

The Firm's allowance for credit losses is estimated using a weighted average of five internally developed macroeconomic scenarios. The adverse scenarios incorporate more punitive macroeconomic factors than the central case assumptions provided in the table below, resulting in:

- a weighted average U.S. unemployment rate peaking at 5.5% in the fourth quarter of 2025, and
- a weighted average U.S. real GDP level that is 1.9% lower than the central case at the end of the second quarter of 2026.

The following table presents the Firm’s central case assumptions for the periods presented:

	Central case assumptions at December 31, 2024		
	2Q25	**4Q25**	**2Q26**
U.S. unemployment rate(a)	**4.5 %**	**4.3 %**	**4.3 %**
YoY growth in U.S. real GDP(b)	**2.0 %**	**1.9 %**	**1.8 %**
	Central case assumptions at December 31, 2023		
	2Q24	4Q24	2Q25
U.S. unemployment rate(a)	4.1 %	4.4 %	4.1 %
YoY growth in U.S. real GDP(b)	1.8 %	0.7 %	1.0 %

(a) Reflects quarterly average of forecasted U.S. unemployment rate.
(b) The year over year growth in U.S. real GDP in the forecast horizon of the central scenario is calculated as the percentage change in U.S. real GDP levels from the prior year.

Subsequent changes to this forecast and related estimates will be reflected in the provision for credit losses in future periods.

Refer to Consumer Credit Portfolio on pages 120–125, Wholesale Credit Portfolio on pages 126–136 and Note 12 for additional information on the consumer and wholesale credit portfolios.

Refer to Critical Accounting Estimates Used by the Firm on pages 161–164 for further information on the allowance for credit losses and related management judgments.

Allowance for credit losses and related information

Year ended December 31, (in millions, except ratios)	2024 Consumer, excluding credit card	2024 Credit card	2024 Wholesale	2024 Total	2023 Consumer, excluding credit card	2023 Credit card	2023 Wholesale	2023 Total
Allowance for loan losses								
Beginning balance at January 1,	**$ 1,856**	**$ 12,450**	**$ 8,114**	**$ 22,420**	$ 2,040	$ 11,200	$ 6,486	$ 19,726
Cumulative effect of a change in accounting principle[a]	**NA**	**NA**	**NA**	**NA**	(489)	(100)	2	(587)
Gross charge-offs	**1,299**	**8,198**	**1,022**	**10,519**	1,151	5,491	1,011	7,653
Gross recoveries collected	**(625)**	**(1,056)**	**(200)**	**(1,881)**	(519)	(793)	(132)	(1,444)
Net charge-offs	**674**	**7,142**	**822**	**8,638**	632	4,698	879	6,209
Provision for loan losses	**624**	**9,292**	**578**	**10,494**	936	6,048	2,484	9,468
Other	**1**	**—**	**68**	**69**	1	—	21	22
Ending balance at December 31,	**$ 1,807**	**$ 14,600**	**$ 7,938**	**$ 24,345**	$ 1,856	$ 12,450	$ 8,114	$ 22,420
Allowance for lending-related commitments								
Beginning balance at January 1,	**$ 75**	**$ —**	**$ 1,899**	**$ 1,974**	$ 76	$ —	$ 2,306	$ 2,382
Provision for lending-related commitments	**7**	**—**	**121**	**128**	(1)	—	(407)	(408)
Other	**—**	**—**	**(1)**	**(1)**	—	—	—	—
Ending balance at December 31,	**$ 82**	**$ —**	**$ 2,019**	**$ 2,101**	$ 75	$ —	$ 1,899	$ 1,974
Impairment methodology								
Asset-specific[b]	**$ (728)**	**$ —**	**$ 526**	**$ (202)**	$ (876)	$ —	$ 392	$ (484)
Portfolio-based	**2,535**	**14,600**	**7,412**	**24,547**	2,732	12,450	7,722	22,904
Total allowance for loan losses	**$ 1,807**	**$ 14,600**	**$ 7,938**	**$ 24,345**	$ 1,856	$ 12,450	$ 8,114	$ 22,420
Impairment methodology								
Asset-specific	**$ —**	**$ —**	**$ 109**	**$ 109**	$ —	$ —	$ 89	$ 89
Portfolio-based	**82**	**—**	**1,910**	**1,992**	75	—	1,810	1,885
Total allowance for lending-related commitments	**$ 82**	**$ —**	**$ 2,019**	**$ 2,101**	$ 75	$ —	$ 1,899	$ 1,974
Total allowance for investment securities	**NA**	**NA**	**NA**	**$ 152**	NA	NA	NA	$ 128
Total allowance for credit losses[c]	**$ 1,889**	**$ 14,600**	**$ 9,957**	**$ 26,598**	$ 1,931	$ 12,450	$ 10,013	$ 24,522
Memo:								
Retained loans, end of period	**$376,334**	**$232,860**	**$690,396**	**$1,299,590**	$397,275	$ 211,123	$ 672,472	$1,280,870
Retained loans, average	**384,001**	**214,033**	**673,310**	**1,271,344**	364,061	191,412	646,875	1,202,348
Credit ratios								
Allowance for loan losses to retained loans	**0.48 %**	**6.27 %**	**1.15 %**	**1.87 %**	0.47 %	5.90 %	1.21 %	1.75 %
Allowance for loan losses to retained nonaccrual loans[d]	**56**	**NA**	**201**	**339**	51	NA	346	374
Allowance for loan losses to retained nonaccrual loans excluding credit card	**56**	**NA**	**201**	**136**	51	NA	346	166
Net charge-off rates	**0.18**	**3.34**	**0.12**	**0.68**	0.17	2.45	0.14	0.52

(a) Represents the impact to the allowance for loan losses upon the adoption of the Financial Instruments - Credit Losses: Troubled Debt Restructurings accounting guidance. Refer to Note 1 for further information.
(b) Includes collateral-dependent loans, including those for which foreclosure is deemed probable, and nonaccrual risk-rated loans.
(c) At December 31, 2024 and 2023, in addition to the allowance for credit losses in the table above, the Firm also had an allowance for credit losses of $268 million and $243 million, respectively, associated with certain accounts receivable in CIB.
(d) The Firm's policy is generally to exempt credit card loans from being placed on nonaccrual status as permitted by regulatory guidance.

Allocation of allowance for loan losses

The table below presents a breakdown of the allowance for loan losses by loan class. Refer to Note 12 for further information on loan classes.

	2024		2023	
December 31, (in millions, except ratios)	Allowance for loan losses	Percent of retained loans to total retained loans	Allowance for loan losses	Percent of retained loans to total retained loans
Residential real estate	**$ 666**	**24 %**	$ 817	25 %
Auto and other	**1,141**	**5**	1,039	6
Consumer, excluding credit card	**1,807**	**29**	1,856	31
Credit card	**14,600**	**18**	12,450	16
Total consumer	**16,407**	**47**	14,306	47
Secured by real estate	**2,978**	**12**	2,997	13
Commercial and industrial	**3,350**	**13**	3,519	13
Other	**1,610**	**28**	1,598	27
Total wholesale	**7,938**	**53**	8,114	53
Total	**$ 24,345**	**100 %**	$ 22,420	100 %

INVESTMENT PORTFOLIO RISK MANAGEMENT

Investment portfolio risk is the risk associated with the loss of principal or a reduction in expected returns on investments arising from the investment securities portfolio or from principal investments. The investment securities portfolio is predominantly held by Treasury and CIO in connection with the Firm's balance sheet and asset-liability management objectives. Principal investments are predominantly privately-held financial instruments and are managed in the LOBs and Corporate. Investments are typically intended to be held over extended periods and, accordingly, the Firm has no expectation for short-term realized gains with respect to these investments.

Investment securities risk

Investment securities risk includes the exposure associated with a default in the payment of principal and interest. This risk is mitigated given that the investment securities portfolio held by Treasury and CIO predominantly consists of high-quality securities. At December 31, 2024, the Treasury and CIO investment securities portfolio, net of the allowance for credit losses, was $678.3 billion, and the average credit rating of the securities comprising the portfolio was AA+ (based upon external ratings where available, and where not available, based primarily upon internal risk ratings). Refer to Corporate results on pages 88–90 and Note 10 for further information on the investment securities portfolio and internal risk ratings. Refer to Liquidity Risk Management on pages 108–115 for further information on related liquidity risk. Refer to Market Risk Management on pages 141–149 for further information on the market risk inherent in the portfolio.

Governance and oversight

Investment securities risks are governed by the Firm's Risk Appetite framework, and reviewed at the CTC Risk Committee with regular updates provided to the Board Risk Committee.

The Firm's independent control functions are responsible for reviewing the appropriateness of the carrying value of investment securities in accordance with relevant policies. Approved levels for investment securities are established for each risk category, including capital and credit risks.

Principal investment risk

Principal investments are typically privately-held financial instruments representing ownership interests or other forms of junior capital. In general, principal investments include tax-oriented investments and investments made to enhance or accelerate the Firm's business strategies and exclude those that are consolidated on the Firm's balance sheets. These investments are made by dedicated investing businesses or as part of a broader business strategy. The Firm's principal investments are managed by the LOBs and Corporate and are reflected within their respective financial results. The Firm's investments will continue to evolve based on market circumstances and in line with its strategic initiatives.

The table below presents the aggregate carrying values of the principal investment portfolios as of December 31, 2024 and 2023.

(in billions)		**December 31, 2024**		December 31, 2023
Tax-oriented investments, primarily in alternative energy and affordable housing[a]	**$**	**33.3**	$	28.8
Private equity, various debt and equity instruments, and real assets		**9.1**		10.5
Total carrying value	**$**	**42.4**	$	39.3

(a) Effective January 1, 2024, the Firm adopted updates to the Accounting for Investments in Tax Credit Structures guidance. Refer to Notes 1, 6, 14 and 25 for additional information.

Governance and oversight

The Firm's approach to managing principal investment risk is consistent with the Firm's risk governance structure. The Firm has established a Firmwide risk policy framework for all principal investing activities that includes approval by executives who are independent from the investing businesses, as appropriate.

The Firm's independent control functions are responsible for reviewing the appropriateness of the carrying value of investments in accordance with relevant policies. As part of the risk governance structure, approved levels for investments are established and monitored for each relevant business or segment in order to manage the overall size of the portfolios. The Firm also conducts stress testing on these portfolios using specific scenarios that estimate losses based on significant market moves and/or other risk events.

Market risk is the risk associated with the effect of changes in market factors such as interest and foreign exchange rates, equity and commodity prices, credit spreads or implied volatilities, on the value of assets and liabilities held for both the short and long term.

Market Risk Management

Market Risk Management monitors market risks throughout the Firm and defines market risk policies and procedures.

Market Risk Management seeks to facilitate efficient risk/return decisions, reduce volatility in operating performance and provide transparency into the Firm's market risk profile for senior management, the Board of Directors and regulators. Market Risk Management is responsible for the following functions:

- Maintaining a market risk policy framework
- Independently measuring and monitoring LOB, Corporate, and Firmwide market risk
- Defining, approving and monitoring limits
- Performing stress testing and qualitative risk assessments

Risk measurement

Measures used to capture market risk

There is no single measure to capture market risk and therefore Market Risk Management uses various metrics, both statistical and nonstatistical, to assess risk including:

- Value-at-risk
- Stress testing
- Profit and loss drawdowns
- Earnings-at-risk
- Economic Value Sensitivity
- Other sensitivity-based measures

Risk monitoring and control

Market risk exposure is managed primarily through a series of limits set in the context of the market environment and business strategy. In setting limits, Market Risk Management takes into consideration factors such as market volatility, product liquidity, accommodation of client business, and management judgment. Market Risk Management maintains different levels of limits. Firm level limits include VaR and stress limits. Similarly, LOB and Corporate limits include VaR and stress limits and may be supplemented by certain nonstatistical risk measures such as profit and loss drawdowns. Limits may also be set within the LOBs and Corporate, as well as at the legal entity level.

Market Risk Management sets limits and regularly reviews and updates them as appropriate. Senior management is responsible for reviewing and approving certain of these risk limits on an ongoing basis. Limits that have not been reviewed within specified time periods by Market Risk Management are reported to senior management. The LOBs and Corporate are responsible for adhering to established limits against which exposures are monitored and reported.

Limit breaches are required to be reported in a timely manner to limit approvers, which include Market Risk Management and senior management. In the event of a breach, Market Risk Management consults with senior members of appropriate groups within the Firm to determine the suitable course of action required to return the applicable positions to compliance, which may include a reduction in risk in order to remedy the breach or granting a temporary increase in limits to accommodate an expected increase in client activity and/or market volatility. Firm, Corporate or LOB-level limit breaches are escalated as appropriate.

Models used to measure market risk are inherently imprecise and are limited in their ability to measure certain risks or to predict losses. This imprecision may be heightened when sudden or severe shifts in market conditions occur. For additional discussion on model uncertainty refer to Estimations and Model Risk Management on page 160.

Market Risk Management periodically reviews the Firm's existing market risk measures to identify opportunities for enhancement, and to the extent appropriate, will calibrate those measures accordingly over time.

The following table summarizes the predominant business activities and related market risks, as well as positions which give rise to market risk and certain measures used to capture those risks, for each LOB and Corporate.

In addition to the predominant business activities, each LOB and Corporate may engage in principal investing activities. To the extent principal investments are deemed market risk sensitive, they are reflected in relevant risk measures and captured in the table below. Refer to Investment Portfolio Risk Management on page 140 for additional discussion on principal investments.

LOBs and Corporate	Predominant business activities	Related market risks	Positions included in Risk Management VaR	Positions included in earnings-at-risk	Positions included in other sensitivity-based measures
CCB	• Originates and services mortgage loans • Originates loans and takes deposits	• Risk from changes in the probability of newly originated mortgage commitments closing • Interest rate risk and prepayment risk	• Mortgage commitments, classified as derivatives • Warehouse loans that are fair value option elected, classified as loans – debt instruments • MSRs • Hedges of mortgage commitments, warehouse loans and MSRs, classified as derivatives • Interest-only and mortgage-backed securities, classified as trading assets debt instruments, and related hedges, classified as derivatives • Fair value option elected liabilities[(b)]	• Retained and held-for-sale loan portfolios • Deposits	• Fair value option elected liabilities DVA[(b)]
CIB[(a)]	• Makes markets and services clients across fixed income, foreign exchange, equities and commodities • Originates loans and takes deposits	• Risk of loss from adverse movements in market prices and implied volatilities across interest rate, foreign exchange, credit, commodity and equity instruments • Basis and correlation risk from changes in the way asset values move relative to one another • Interest rate risk and prepayment risk	• Trading assets/liabilities – debt and marketable equity instruments, and derivatives, including hedges of the retained loan portfolio • Certain securities purchased, loaned or sold under resale agreements and securities borrowed • Fair value option elected liabilities[(b)] • Certain fair value option elected loans • Derivative CVA and associated hedges • Marketable equity investments	• Retained and held-for-sale loan portfolios • Deposits	• Privately held equity and other investments measured at fair value; and certain real estate-related fair value option elected loans • Derivatives FVA and fair value option elected liabilities DVA[(b)] • Credit risk component of CVA and associated hedges for counterparties with credit spreads that have widened to elevated levels
AWM	• Provides initial capital investments in products such as mutual funds and capital invested alongside third-party investors • Originates loans and takes deposits	• Risk from adverse movements in market factors (e.g., market prices, rates and credit spreads) • Interest rate risk and prepayment risk	• Debt securities held in advance of distribution to clients, classified as trading assets - debt instruments • Trading assets/liabilities - derivatives that hedge the retained loan portfolio	• Retained and held-for-sale loan portfolios • Deposits	• Initial seed capital investments and related hedges, classified as derivatives • Certain deferred compensation and related hedges, classified as derivatives • Capital invested alongside third-party investors, typically in privately distributed collective vehicles managed by AWM (i.e., co-investments), as well as in third-party funds
Corporate	• Manages the Firm's liquidity, funding, capital, structural interest rate and foreign exchange risks	• Structural interest rate risk from the Firm's traditional banking activities • Structural non-USD foreign exchange risks	• Derivative positions measured through noninterest revenue in earnings • Marketable equity investments	• Deposits with banks and financing activities • Investment securities portfolio and related interest rate hedges • Cash flow hedges on retained loan portfolios in the LOBs • Long-term and short-term funding and related interest rate hedges • Deposits • Foreign exchange hedges of non-U.S. dollar capital investments	• Privately held equity and other investments measured at fair value • Foreign exchange exposure related to Firm-issued non-USD long-term debt ("LTD") and related hedges

(a) Effective in the second quarter of 2024, the Firm reorganized its reportable business segments by combining the former Corporate & Investment Bank and Commercial Banking business segments to form one reportable segment, the Commercial & Investment Bank ("CIB"). Refer to Business Segment & Corporate Results on pages 70–90 for additional information.
(b) Reflects structured notes in Risk Management VaR and the DVA on structured notes in other sensitivity-based measures.

Value-at-risk

JPMorganChase utilizes value-at-risk ("VaR"), a statistical risk measure, to estimate the potential loss from adverse market moves in the current market environment. The Firm has a single VaR framework used as a basis for calculating Risk Management VaR and Regulatory VaR.

The framework is employed across the Firm using historical simulation based on data for the previous 12 months. The framework's approach assumes that historical changes in market values are representative of the distribution of potential outcomes in the immediate future. The Firm believes the use of Risk Management VaR provides a daily measure of risk that is closely aligned to risk management decisions made by the LOBs and Corporate and, along with other market risk measures, provides the appropriate information needed to respond to risk events.

The Firm's Risk Management VaR is calculated assuming a one-day holding period and an expected tail-loss methodology which approximates a 95% confidence level. Risk Management VaR provides a consistent framework to measure risk profiles and levels of diversification across product types and is used for aggregating risks and monitoring limits across businesses. VaR results are reported as appropriate to various groups including senior management, the Board Risk Committee and regulators.

Underlying the overall VaR model framework are individual VaR models that simulate historical market returns for individual risk factors and/or product types. To capture material market risks as part of the Firm's risk management framework, comprehensive VaR model calculations are performed daily for businesses whose activities give rise to market risk. These VaR models are granular and incorporate numerous risk factors and inputs to simulate daily changes in market values over the historical period; inputs are selected based on the risk profile of each portfolio, as sensitivities and historical time series used to generate daily market values may be different across product types or risk management systems. The VaR model results across all portfolios are aggregated at the Firm level.

As VaR is based on historical data, it is an imperfect measure of market risk exposure and potential future losses. In addition, based on their reliance on available historical data, limited time horizons, and other factors, VaR measures are inherently limited in their ability to measure certain risks and to predict losses, particularly those associated with market illiquidity and sudden or severe shifts in market conditions.

For certain products, specific risk parameters are not captured in VaR due to the lack of liquidity and availability of appropriate historical data. The Firm uses proxies to estimate the VaR for these and other products when daily time series are not available. It is likely that using an actual price-based time series for these products, if available, would affect the VaR results presented. The Firm therefore considers other nonstatistical measures such as stress testing, in addition to VaR, to capture and manage its market risk positions.

As VaR model calculations require daily data and a consistent source for valuation, the daily market data used may be different than the independent third-party data collected for VCG price testing in its monthly valuation process. For example, in cases where market prices are not observable, or where proxies are used in VaR historical time series, the data sources may differ. Refer to Valuation process in Note 2 for further information on the Firm's valuation process.

The Firm's VaR model calculations are periodically evaluated and enhanced in response to changes in the composition of the Firm's portfolios, changes in market conditions, improvements in the Firm's modeling techniques and measurements, and other factors. Such changes may affect historical comparisons of VaR results. Refer to Estimations and Model Risk Management on page 160 for information regarding model reviews and approvals.

The Firm calculates separately a daily aggregated VaR in accordance with regulatory rules ("Regulatory VaR"), which is used to derive the Firm's regulatory VaR-based capital requirements under Basel III capital rules. This Regulatory VaR model framework currently assumes a ten business-day holding period and an expected tail-loss methodology which approximates a 99% confidence level. Regulatory VaR is applied to "covered" positions as defined by Basel III capital rules, which may be different than the positions included in the Firm's Risk Management VaR. For example, credit derivative hedges of accrual loans are included in the Firm's Risk Management VaR, while Regulatory VaR excludes these credit derivative hedges. In addition, in contrast to the Firm's Risk Management VaR, Regulatory VaR currently excludes the diversification benefit for certain VaR models.

Refer to JPMorganChase's Basel III Pillar 3 Regulatory Capital Disclosures reports, which are available on the Firm's website, for additional information on Regulatory VaR and the other components of market risk regulatory capital for the Firm (e.g., VaR-based measure, stressed VaR-based measure and the respective backtesting).

The table below shows the results of the Firm's Risk Management VaR measure using a 95% confidence level. VaR can vary significantly as positions change, market volatility fluctuates, and diversification benefits change.

Total VaR

As of or for the year ended December 31,	2024			2023		
(in millions)	Avg.	Min	Max	Avg.	Min	Max
CIB trading VaR by risk type[(a)]						
Fixed income	**$ 34**	**$ 26**	**$ 53**	$ 49	$ 31	$ 71
Foreign exchange	**15**	**7**	**23**	12	6	26
Equities	**8**	**4**	**15**	7	3	11
Commodities and other	**8**	**6**	**13**	11	6	19
Diversification benefit to CIB trading VaR [(b)]	**(32)**	**NM**	**NM**	(42)	NM	NM
CIB trading VaR	**33**	**27**	**42**	37	24	55
Credit Portfolio VaR[(c)]	**22**	**18**	**28**	14	8	26
Diversification benefit to CIB VaR[(b)]	**(16)**	**NM**	**NM**	(11)	NM	NM
CIB VaR	**39**	**27**	**52**	40	23	58
CCB VaR	**3**	**1**	**6**	7	1	15
AWM VaR[(d)]	**9**	**5**	**10**	1	—	10
Corporate VaR[(d)(e)]	**23**	**7**	**102**	12	9	17
Diversification benefit to other VaR[(b)]	**(10)**	**NM**	**NM**	(6)	NM	NM
Other VaR	**25**	**10**	**101**	14	9	22
Diversification benefit to CIB and other VaR[(b)]	**(17)**	**NM**	**NM**	(11)	NM	NM
Total VaR	**$ 47**	**$ 30**	**$ 91**	$ 43	$ 26	$ 57

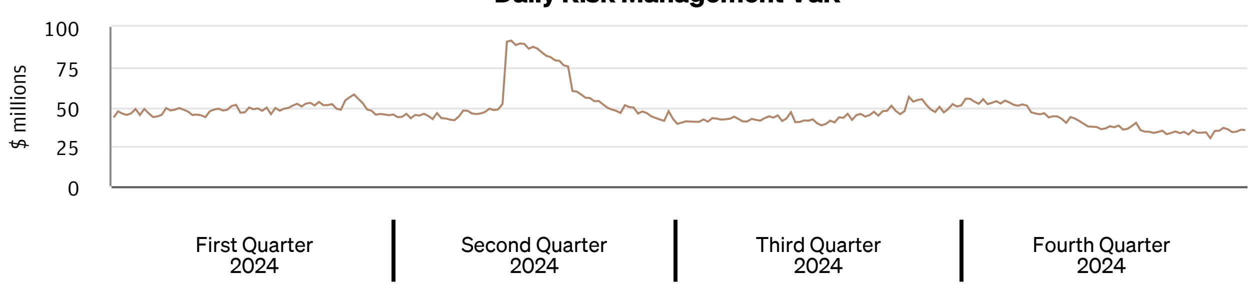
(a) The impact of the business segment reorganization in the second quarter of 2024 was not material to Total CIB VaR. Prior periods have not been revised. Refer to Business Segment & Corporate Results on pages 70–90 for additional information.
(b) Diversification benefit represents the difference between the portfolio VaR and the sum of its individual components. This reflects the non-additive nature of VaR due to imperfect correlation across LOBs, Corporate, and risk types. For maximum and minimum VaR, diversification benefit is not meaningful as the maximum and minimum VaR for each portfolio may have occurred on different trading days than the components.
(c) Includes the derivative CVA, hedges of the CVA and credit protection purchased against certain retained loans and lending-related commitments, which are reported in principal transactions revenue. This VaR does not include the retained loan portfolio, which is not reported at fair value. In line with the Firm's internal model governance, the credit risk component of CVA related to certain counterparties was removed from Credit Portfolio VaR due to the widening of the credit spreads for those counterparties to elevated levels. The related hedges were also removed to maintain consistency. This exposure is now reflected in other sensitivity-based measures.
(d) In the second quarter of 2024, the presentation of Corporate and other LOB VaR was updated to disaggregate AWM VaR due to the increase associated with credit protection purchased against certain retained loans and lending-related commitments. The VaR does not include the retained loan portfolio, which is not reported at fair value.
(e) Includes a legacy private equity position which is publicly traded, as well as Visa C shares which the Firm disposed of in the second and third quarters of 2024. The impact of Visa C shares resulted in elevated average and maximum Corporate VaR, Other VaR and Total VaR. Refer to Executive Overview on pages 54–58 for additional information.

2024 compared with 2023

Average Total VaR increased by $4 million for the year ended December 31, 2024 when compared with the prior year. The increase was predominantly driven by the impact of the Firm's receipt of Visa C shares on Corporate VaR and increases associated with credit protection purchased against certain retained loans and lending-related commitments within Credit Portfolio VaR and AWM VaR, largely offset by market volatility rolling out of the one-year historical look-back period impacting the Fixed income risk type.

The following graph presents daily Risk Management VaR for the four trailing quarters. The increase in VaR and subsequent decline observed in the second quarter of 2024 was primarily driven by changes in Visa C share exposure in the Firm's Corporate VaR.

Daily Risk Management VaR



VaR backtesting

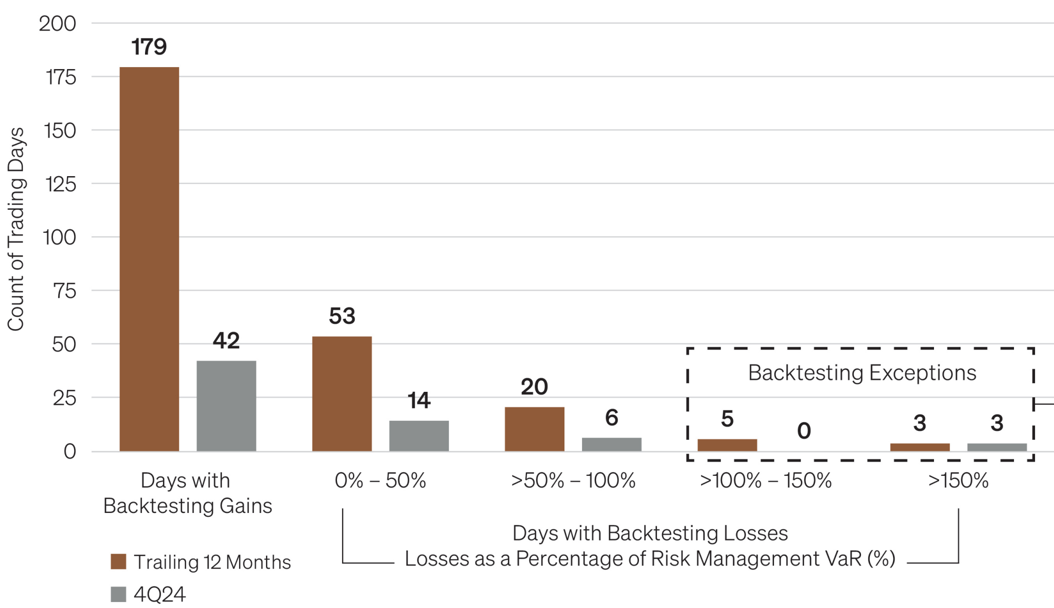
The Firm performs daily VaR model backtesting, which compares the daily Risk Management VaR results with the daily gains and losses that are utilized for VaR backtesting purposes. The gains and losses depicted in the chart below do not reflect the Firm's reported revenue as they exclude certain components of total net revenue, such as those associated with the execution of new transactions (i.e., intraday client-driven trading and intraday risk management activities), fees, commissions, other valuation adjustments and net interest income. These excluded components of total net revenue may more than offset the backtesting gain or loss on a particular day. The definition of backtesting gains and losses above is consistent with the requirements for backtesting under Basel III capital rules.

A backtesting exception occurs when the daily backtesting loss exceeds the daily Risk Management VaR for the prior day. Under the Firm's Risk Management VaR methodology, assuming current changes in market values are consistent with the historical changes used in the simulation, the Firm would expect to incur VaR backtesting exceptions five times every 100 trading days on average. The number of VaR backtesting exceptions observed can differ from the statistically expected number of backtesting exceptions if the current level of market volatility is materially different from the level of market volatility during the 12 months of historical data used in the VaR calculation.

For the 12 months ended December 31, 2024, the Firm posted backtesting gains on 179 of the 260 days, and observed eight VaR backtesting exceptions, of which three were in the three months ended December 31, 2024. Firmwide backtesting loss days can differ from the loss days for which Fixed Income Markets and Equity Markets posted losses, as disclosed in CIB Markets revenue, as the population of positions which comprise each metric are different and due to the exclusion of certain components of total net revenue in backtesting gains and losses as described above.

The following chart presents the distribution of Firmwide daily backtesting gains and losses for the trailing 12 months and three months ended December 31, 2024. The daily backtesting losses are displayed as a percentage of the corresponding daily Risk Management VaR. The count of days with backtesting losses are shown in aggregate, in fifty percentage point intervals. Backtesting exceptions are displayed within the intervals that are greater than one hundred percent. The results in the chart below differ from the results of backtesting disclosed in the Market Risk section of the Firm's Basel III Pillar 3 Regulatory Capital Disclosures reports, which are based on Regulatory VaR applied to the Firm's covered positions.

Distribution of Daily Backtesting Gains and Losses



Backtesting Exceptions for Trailing 12 Months	
1Q24	0
2Q24	5
3Q24	0
4Q24	3

Other risk measures

Stress testing

Along with VaR, stress testing is an important tool used to assess risk. While VaR reflects the risk of loss due to adverse changes in markets using recent historical market behavior, stress testing reflects the risk of loss from hypothetical changes in the value of market risk sensitive positions applied simultaneously. Stress testing measures the Firm's vulnerability to losses under a range of stressed but possible economic and market scenarios. The results are used to understand the exposures responsible for those potential losses and are measured against limits.

The Firm's stress framework covers market risk sensitive positions in the LOBs and Corporate. The framework is used to calculate multiple magnitudes of potential stress for both market rallies and market sell-offs, assuming significant changes in market factors such as credit spreads, equity prices, interest rates, currency rates and commodity prices, and combines them in multiple ways to capture an array of hypothetical economic and market scenarios.

The Firm generates a number of scenarios that focus on tail events in specific asset classes and geographies, including how the event may impact multiple market factors simultaneously. Scenarios also incorporate specific idiosyncratic risks and stress basis risk between different products. The flexibility in the stress framework allows the Firm to construct new scenarios that can test the outcomes against possible future stress events. Stress testing results are reported periodically to senior management of the Firm, as appropriate.

Stress methodologies are governed by the overall stress framework, under the oversight of Market Risk Management. The Firmwide Market Risk Stress Methodology Committee reviews and approves changes to stress testing methodology and scenarios across the Firm. Significant changes to the framework are escalated to senior management, as appropriate. In addition, stress methodology and the models to calculate the stress results are subject to the Firm's Estimations and Model Risk Management Policy

The Firm's stress testing framework is utilized in calculating the Firm's CCAR and other stress test results, which are reported periodically to the Board of Directors. In addition, stress testing results are incorporated into the Firm's Risk Appetite framework, and are reported periodically to the Board Risk Committee.

Profit and loss drawdowns

Profit and loss drawdowns are used to highlight trading losses above certain levels of risk tolerance. A profit and loss drawdown is a decline in revenue from its year-to-date peak level.

Structural interest rate risk management

The effect of interest rate exposure on the Firm's reported net income is important as interest rate risk represents one of the Firm's significant market risks. Interest rate risk arises not only from trading activities which are included in VaR, but also from the Firm's traditional banking activities, which include extension of loans and credit facilities, taking deposits, issuing debt, as well as the investment securities portfolio, and associated derivative instruments. Refer to the table on page 142 for a summary by LOB and Corporate identifying positions included in earnings-at-risk.

Governance

The CTC Risk Committee establishes the Firm's interest rate risk management policy and related limits, which are subject to approval by the Board Risk Committee. Treasury and CIO, working in partnership with the LOBs, calculates the Firm's structural interest rate risk profile and reviews it with senior management, including the CTC Risk Committee. In addition, oversight of structural interest rate risk is managed through a dedicated risk function reporting to the CTC CRO. This risk function is responsible for providing independent oversight and governance around assumptions and establishing and monitoring limits for structural interest rate risk, including limits related to Earnings-at-Risk and Economic Value Sensitivity. The Firm manages structural interest rate risk generally through its investment securities portfolio and interest rate derivatives.

Key risk drivers and risk management process

Structural interest rate risk can arise due to a variety of factors, including:

- Differences in timing among the maturity or repricing of assets, liabilities and off-balance sheet instruments
- Differences in the amounts of assets, liabilities and off-balance sheet instruments that are maturing or repricing at the same time
- Differences in the amounts by which short-term and long-term market interest rates change (for example, changes in the slope of the yield curve)
- The impact of changes in the maturity of various assets, liabilities or off-balance sheet instruments as interest rates change

The Firm manages interest rate exposure related to its assets and liabilities on a consolidated, Firmwide basis. Business units transfer their interest rate risk to Treasury and CIO through funds transfer pricing, which takes into account the elements of interest rate exposure that can be risk-managed in financial markets. These elements include asset and liability balances and contractual rates of interest, contractual principal payment schedules, expected prepayment experience, interest rate reset dates and maturities, rate indices used for repricing, and any interest rate ceilings or floors for adjustable rate products.

Earnings-at-Risk

One way that the Firm evaluates its structural interest rate risk is through earnings-at-risk. Earnings-at-risk estimates the Firm's interest rate exposure for a given interest rate scenario. It is presented as a sensitivity to a baseline, which includes net interest income and certain interest rate sensitive fees. The baseline uses market interest rates and, in the case of deposits, pricing assumptions. The Firm conducts simulations of changes to this baseline for interest rate-sensitive assets and liabilities denominated in U.S. dollars and other currencies ("non-U.S. dollar" currencies). These simulations primarily include retained and held-for-sale loans, deposits, deposits with banks and financing activities, investment securities, long-term debt, related interest rate hedges, and funds transfer pricing of other positions in risk management VaR and other sensitivity-based measures as described on page 142. Beginning in the fourth quarter of 2024, these simulations also include hedges of non-U.S. dollar foreign exchange exposures arising from capital investments. Refer to non-U.S. dollar foreign exchange risk on page 149 for more information.

Earnings-at-risk scenarios estimate the potential change to a baseline over the following 12 months utilizing multiple assumptions. These scenarios include a parallel shift involving changes to both short-term and long-term rates by an equal amount; a steeper yield curve involving holding short-term rates constant and increasing long-term rates; and a flatter yield curve involving increasing short-term rates and holding long-term rates constant or holding short-term rates constant and decreasing long-term rates. These scenarios consider many different factors, including:

- The impact on exposures as a result of instantaneous changes in interest rates from baseline rates.
- Forecasted balance sheet, as well as modeled prepayment and reinvestment behavior, but excluding assumptions about actions that could be taken by the Firm or its clients and customers in response to instantaneous rate changes. Mortgage prepayment assumptions are based on the interest rates used in the scenarios compared with underlying contractual rates, the time since origination, and other factors which are updated periodically based on historical experience. Deposit forecasts are a key assumption in the Firm's earnings-at-risk. The baseline reflects certain assumptions relating to the Federal Reserve's balance sheet policy (e.g., quantitative tightening and usage at the Reverse Repurchase Facility) that require management judgment. The amount of deposits that the Firm holds at any given time may be influenced by Federal Reserve actions, as well as broader monetary conditions and competition for deposits.
- The pricing sensitivity of deposits, known as deposit betas, represent the amount by which deposit rates paid could change upon a given change in market interest rates. Actual deposit rates paid may differ from the modeled assumptions, primarily due to customer behavior and competition for deposits.

The Firm performs sensitivity analyses of the assumptions used in earnings-at-risk scenarios, including with respect to deposit betas and forecasts of deposit balances, both of which are especially significant in the case of consumer deposits. The results of these sensitivity analyses are reported to the CTC Risk Committee and the Board Risk Committee.

The Firm's earnings-at-risk scenarios are periodically evaluated and enhanced in response to changes in the composition of the Firm's balance sheet, changes in market conditions, improvements in the Firm's simulation and other factors. In the second quarter of 2024, the Firm updated certain deposit rates paid assumptions which take into account observed pricing and client and customer behavior during the most recent economic cycle. These updated deposit rates paid assumptions impacted the U.S. dollar scenarios, resulting in an increase in positive sensitivity in higher interest rate scenarios, and an increase in negative sensitivity in lower interest rate scenarios.

The Firm's earnings-at-risk sensitivities are measures of the Firm's interest rate exposure. The Firm's actual net interest income for the rate changes presented may differ as the earnings-at-risk scenarios are modelled as instantaneous changes and exclude any actions that could be taken by the Firm or its clients or customers in response to rate changes. Other significant assumptions in the earnings-at-risk scenarios, including mortgage prepayments and deposit rates paid, may also differ from actual results. The Firm's forecast for net interest income is included in the Firm's outlook on page 57.

The Firm's sensitivities are presented in the table below.

December 31, (in billions)	2024[a]	2023[b]
Parallel shift:		
+100 bps shift in rates	**$ 2.3**	$ 3.1
-100 bps shift in rates	**(2.5)**	(2.8)
+200 bps shift in rates	**4.6**	6.2
-200 bps shift in rates	**(4.9)**	(6.1)
Steeper yield curve:		
+100 bps shift in long-term rates	**1.0**	0.6
-100 bps shift in short-term rates	**(1.4)**	(2.2)
Flatter yield curve:		
+100 bps shift in short-term rates	**1.2**	2.5
-100 bps shift in long-term rates	**(1.1)**	(0.6)

(a) Reflects the simultaneous shift of U.S. dollar and non-U.S. dollar rates, and the inclusion of the hedges of non-U.S. dollar capital investments. This inclusion had no impact on total sensitivities but increased U.S. dollar and decreased non-U.S. dollar sensitivities. Subsequent to this change, non-U.S. dollar sensitivities were insignificant.
(b) At December 31, 2023, represents the total of the Firm's U.S. dollar and non-U.S. dollar sensitivities as previously reported.

The change in the Firm's sensitivities as of December 31, 2024, compared to December 31, 2023, were primarily driven by Treasury and CIO balance sheet actions where the Firm added duration through investment securities activity, cash flow hedges of retained loans and fair value hedges of Firm debt. The impact on the sensitivities of the Treasury and CIO balance sheet actions were largely offset by the impact of deposits, primarily from the second quarter of 2024 update of the deposit rates paid assumptions for certain consumer and wholesale deposit products. Additionally, the results as of December 31, 2024 reflected the update to include hedges of the Firm's non-U.S. dollar capital investments. Although total results were not impacted, these hedges increase U.S. dollar sensitivities and decrease non-U.S. dollar sensitivities. In the absence of these updates the Firm's sensitivities as of December 31, 2024, would have been different by the amounts reported in the following table:

	Amounts by which reported sensitivities would have been different	
December 31, 2024 (in billions)	Impact from update in the second quarter of 2024	Impact from update in the fourth quarter of 2024
U.S. dollar:		
Parallel shift:		
+100 bps shift in rates	$ (1.0)	$ (0.6)
-100 bps shift in rates	0.9	0.6
+200 bps shift in rates	(1.9)	(1.3)
-200 bps shift in rates	1.5	1.3
Steeper yield curve:		
+100 bps shift in long-term rates	—	—
-100 bps shift in short-term rates	0.9	0.6
Flatter yield curve:		
+100 bps shift in short-term rates	(1.0)	(0.6)
-100 bps shift in long-term rates	—	—
Non-U.S. dollar:		
Parallel shift:		
+100 bps shift in rates	—	0.6
-100 bps shift in rates	—	(0.6)

Economic Value Sensitivity

In addition to earnings-at-risk, which is measured as a sensitivity to a baseline of earnings over the next 12 months, the Firm also measures Economic Value Sensitivity ("EVS"). EVS stress tests the longer-term economic value of equity by measuring the sensitivity of the Firm's current balance sheet, primarily retained loans, deposits, debt and investment securities as well as related hedges, under various interest rate scenarios. The Firm's pricing and cash flow assumptions associated with deposits, as well as prepayment assumptions for loans and securities, are significant factors in the EVS measure. In accordance with the CTC interest rate risk management policy, the Firm has established limits on EVS as a percentage of TCE.

Certain assumptions used in the EVS measure may differ from those required in the fair value measurement note to the Consolidated Financial Statements. For example, certain assets and liabilities with no stated maturity, such as credit card receivables and deposits, have longer assumed durations in the EVS measure. Additional information on long-term debt and held to maturity investment securities is disclosed on page 201 in Note 2.

Non-U.S. dollar foreign exchange risk

Non-U.S. dollar FX risk is the risk that changes in foreign exchange rates affect the value of the Firm's assets or liabilities or future results. The Firm has structural non-U.S. dollar FX exposures arising from capital investments, forecasted expense and revenue, the investment securities portfolio and non-U.S. dollar-denominated debt issuance. Treasury and CIO, working in partnership with the LOBs, primarily manage these risks on behalf of the Firm. Treasury and CIO may hedge certain of these risks using derivatives. Refer to Business Segment & Corporate Results on page 71 for additional information.

Other sensitivity-based measures

The Firm quantifies the market risk of certain debt and equity and credit and funding-related exposures by assessing the potential impact on net revenue, other comprehensive income ("OCI") and noninterest expense due to changes in relevant market variables. Refer to the predominant business activities that give rise to market risk on page 142 for additional information on the positions captured in other sensitivity-based measures.

The table below represents the potential impact to net revenue, OCI or noninterest expense for market risk sensitive instruments that are not included in VaR or earnings-at-risk. Where appropriate, instruments used for hedging purposes are reported net of the positions being hedged. The sensitivities disclosed in the table below may not be representative of the actual gain or loss that would have been realized at December 31, 2024 and 2023, as the movement in market parameters across maturities may vary and are not intended to imply management's expectation of future changes in these sensitivities.

Gain/(loss) (in millions) Activity	Description	Sensitivity measure	December 31, 2024	December 31, 2023
Debt and equity[a]				
Asset Management activities	Consists of seed capital and related hedges; fund co-investments[c]; and certain deferred compensation and related hedges[d]	10% decline in market value	**$ (53)**	$ (61)
Other debt and equity	Consists of certain real estate-related fair value option elected loans, privately held equity and other investments held at fair value[c]	10% decline in market value	**(1,030)**	(1,044)
Credit- and funding-related exposures				
Non-USD LTD cross-currency basis	Represents the basis risk on derivatives used to hedge the foreign exchange risk on the non-USD LTD[e]	1 basis point parallel tightening of cross currency basis	**(10)**	(12)
Non-USD LTD hedges foreign currency ("FX") exposure	Primarily represents the foreign exchange revaluation on the fair value of the derivative hedges[e]	10% depreciation of currency	**28**	16
Derivatives – funding spread risk	Impact of changes in the spread related to derivatives FVA[c]	1 basis point parallel increase in spread	**(2)**	(3)
CVA - counterparty credit risk[b]	Credit risk component of CVA and associated hedges	10% credit spread widening	**—**	—
Fair value option elected liabilities - funding spread risk	Impact of changes in the spread related to fair value option elected liabilities DVA[e]	1 basis point parallel increase in spread	**47**	46

(a) Excludes equity securities without readily determinable fair values that are measured under the measurement alternative. Refer to Note 2 for additional information.
(b) In line with the Firm's internal model governance, the credit risk component of CVA related to certain counterparties was removed from Credit Portfolio VaR due to the widening of the credit spreads for those counterparties to elevated levels. The related hedges were also removed to maintain consistency. This exposure is now reflected in the table above.
(c) Impact recognized through net revenue.
(d) Impact recognized through noninterest expense.
(e) Impact recognized through OCI.

COUNTRY RISK MANAGEMENT

The Firm, through its LOBs and Corporate, may be exposed to country risk resulting from financial, economic, political or other significant developments which adversely affect the value of the Firm's exposures related to a particular country or set of countries. The Country Risk Management group actively monitors the various portfolios which may be impacted by these developments and measures the extent to which the Firm's exposures are diversified given the Firm's strategy and risk tolerance relative to a country.

Organization and management

Country Risk Management is an independent risk management function that assesses and monitors exposure to country risk across the Firm.

The Firm's country risk management function includes the following activities:

- Maintaining policies, procedures and standards consistent with a comprehensive country risk framework
- Assigning sovereign ratings, assessing country risks and establishing risk tolerance relative to a country
- Measuring and monitoring country risk exposure and stress across the Firm
- Managing and approving country limits and reporting trends and limit breaches to senior management
- Developing surveillance tools, such as signaling models and ratings indicators, for early identification of potential country risk concerns
- Providing country risk scenario analysis

Sources and measurement

The Firm is exposed to country risk through its lending and deposits, investing, and market-making activities, whether cross-border or locally funded. Country exposure includes activity with both government and private-sector entities in a country.

Under the Firm's internal country risk management approach, attribution of exposure to an individual country is based on the country where the largest proportion of the assets of the counterparty, issuer, obligor or guarantor are located or where the largest proportion of its revenue is derived, which may be different than the domicile (i.e. legal residence) or country of incorporation.

Individual country exposures reflect an aggregation of the Firm's risk to an immediate default, with zero recovery, of the counterparties, issuers, obligors or guarantors attributed to that country. Activities which result in contingent or indirect exposure to a country are not included in the country exposure measure (for example, providing clearing services or secondary exposure to collateral on securities financing receivables).

Assumptions are sometimes required in determining the measurement and allocation of country exposure, particularly in the case of certain non-linear or index products, or where the nature of the counterparty, issuer, obligor or guarantor is not suitable for attribution to an individual country. The use of different measurement approaches or assumptions could affect the amount of reported country exposure.

Under the Firm's internal country risk measurement framework:

- Deposits with banks are measured as the cash balances placed with central banks, commercial banks, and other financial institutions
- Lending exposures are measured at the total committed amount (funded and unfunded), net of the allowance for credit losses and eligible cash and marketable securities collateral received
- Securities financing exposures are measured at their receivable balance, net of eligible collateral received
- Debt and equity securities are measured at the fair value of all positions, including both long and short positions
- Counterparty exposure on derivative receivables is measured at the derivative's fair value, net of the fair value of the eligible collateral received
- Credit derivatives exposure is measured at the net notional amount of protection purchased or sold for the same underlying reference entity, inclusive of the fair value of the derivative receivable or payable, reflecting the manner in which the Firm manages these exposures

The Firm's internal country risk reporting differs from the reporting provided under the FFIEC bank regulatory requirements.

Stress testing

Stress testing is an important component of the Firm's country risk management framework, which aims to estimate and limit losses arising from a country crisis by measuring the impact of adverse asset price movements to a country based on market shocks combined with counterparty specific assumptions. Country Risk Management periodically designs and runs tailored stress scenarios to test vulnerabilities to individual countries or sets of countries in response to specific or potential market events, sector performance concerns, sovereign actions and geopolitical risks. These tailored stress results are used to inform potential risk reduction across the Firm, as necessary.

Risk reporting

Country exposure and stress are measured and reported regularly, and used by Country Risk Management to identify trends and monitor high usages and breaches against limits.

For country risk management purposes, the Firm may report exposure to jurisdictions that are not fully autonomous, including dependent territories and Special Administrative Regions ("SAR") such as Hong Kong SAR, separately from the independent sovereign states with which they are associated.

The following table presents the Firm's top 20 exposures by country (excluding the U.S.) as of December 31, 2024, and their comparative exposures as of December 31, 2023. The top 20 country exposures represent the Firm's largest total exposures by individual country. Country exposures may fluctuate from period to period due to a variety of factors, including client activity, market flows and liquidity management activities undertaken by the Firm.

The increase in exposure to Germany when compared to December 31, 2023, was driven by an increase in cash placed with the central bank of Germany, predominantly due to client-driven market-making activities and higher client deposits.

The increase in exposure to Japan when compared to December 31, 2023, was driven by an increase in cash placed with the central bank of Japan as a result of client-driven market-making activities.

The Firm continues to monitor its exposure to Russia, which corresponds to cash placed with the central bank, but which excludes deposits placed on behalf of clients at the Deposit Insurance Agency of Russia. The Firm currently believes that its remaining exposure to Russia is not material. Refer to Note 30 on pages 310–311 for information concerning Russian litigation.

Top 20 country exposures (excluding the U.S.)[a]

	2024					2023[f]
December 31, (in billions)	Deposits with banks[b]	Lending[c]	Trading and investing[d]	Other[e]	Total exposure	Total exposure
Germany	**$ 89.7**	**$ 12.6**	**$ 0.9**	**$0.7**	**$ 103.9**	$ 84.8
United Kingdom	**24.6**	**22.4**	**27.7**	**1.4**	**76.1**	77.1
Japan	**55.1**	**3.1**	**4.5**	**0.4**	**63.1**	36.0
France	**0.6**	**12.3**	**4.2**	**0.9**	**18.0**	10.1
Canada	**1.6**	**10.6**	**2.7**	**0.2**	**15.1**	16.0
Brazil	**3.5**	**4.2**	**7.0**	**—**	**14.7**	16.7
Australia	**5.0**	**7.4**	**1.9**	**—**	**14.3**	18.3
Switzerland	**4.7**	**4.2**	**1.4**	**3.3**	**13.6**	10.9
Mainland China	**3.1**	**6.2**	**4.1**	**—**	**13.4**	14.0
India	**1.1**	**5.2**	**4.1**	**0.9**	**11.3**	9.7
Italy	**0.1**	**8.2**	**1.8**	**0.3**	**10.4**	6.0
South Korea	**0.6**	**2.9**	**6.3**	**0.5**	**10.3**	7.8
Saudi Arabia	**0.8**	**5.7**	**2.9**	**—**	**9.4**	7.7
Singapore	**1.5**	**2.0**	**3.5**	**0.4**	**7.4**	9.8
Mexico	**1.3**	**4.4**	**1.5**	**—**	**7.2**	8.2
Spain	**0.2**	**4.6**	**1.2**	**0.1**	**6.1**	6.3
Netherlands	**—**	**6.6**	**(0.9)**	**0.2**	**5.9**	5.6
Belgium	**4.0**	**1.3**	**0.1**	**—**	**5.4**	8.0
Malaysia	**2.1**	**0.2**	**1.0**	**0.3**	**3.6**	4.2
Luxembourg	**0.9**	**1.7**	**1.0**	**—**	**3.6**	4.0

(a) Country exposures presented in the table reflect 89% and 88% of total Firmwide non-U.S. exposure, where exposure is attributed to an individual country based on the Firm's internal country risk management approach, at December 31, 2024 and 2023, respectively.
(b) Predominantly represents cash placed with central banks.
(c) Includes loans and accrued interest receivable, lending-related commitments (net of eligible collateral and the allowance for credit losses). Excludes intra-day and operating exposures, such as those from settlement and clearing activities.
(d) Includes market-making positions and hedging, investment securities, and counterparty exposure on derivative and securities financings net of eligible collateral. Market-making positions and hedging includes exposure from single reference entity ("single-name"), index and other multiple reference entity transactions for which one or more of the underlying reference entities is in a country listed in the above table.
(e) Includes physical commodities inventory and clearing house guarantee funds.
(f) The country rankings presented in the table as of December 31, 2023, are based on the country rankings of the corresponding exposures at December 31, 2024, not actual rankings of such exposures at December 31, 2023.

CLIMATE RISK MANAGEMENT

Climate risk refers to the potential threats posed by climate change to the Firm and its clients, customers, operations and business strategy. Climate change is viewed as a driver of risk that may impact existing types of risks managed by the Firm. Climate risk is categorized into physical risk and transition risk.

Physical risk involves economic costs and financial losses due to a changing climate. Acute physical risk drivers include the increased frequency or severity of climate and weather events, such as floods, wildfires and tropical cyclones. Chronic physical risk drivers include more gradual shifts in the climate, such as sea level rise, persistent changes in precipitation levels and increases in average ambient temperatures.

Transition risk involves the financial and economic consequences of society's shift toward a lower-carbon economy. Transition risk drivers include possible changes in public policy, adoption of new technologies and shifts in consumer preferences. Transition risks may also be influenced by changes in the physical climate.

Organization and management

The Firm has a Climate Risk Management function that is responsible for establishing and maintaining the Firmwide framework and strategy for managing climate risks that may impact the Firm.

Other responsibilities of Climate Risk Management include:

- Setting policies, standards, procedures and processes to support identification, escalation, monitoring and management of climate risk across the Firm
- Developing metrics, scenarios and stress testing mechanisms designed to assess the range of potential climate-related financial and economic impacts to the Firm
- Establishing a Firmwide climate risk data strategy and the supporting climate risk technology infrastructure

The LOBs and Corporate are responsible for the identification, assessment and management of climate risks present in their business activities and for the adherence to applicable climate-related laws, rules and regulations.

Governance and oversight

The Firm's framework and strategy for managing climate risk is integrated into the Firm's risk governance structure. This framework allows for the escalation of significant climate risk-related issues to LOB Risk Committees. The Board Risk Committee also receives information on significant climate risks and climate-related initiatives, as appropriate.

Operational risk is the risk of an adverse outcome resulting from inadequate or failed internal processes or systems; human factors; or external events impacting the Firm's processes or systems. Operational Risk includes compliance, conduct, legal, and estimations and model risk. Operational risk is inherent in the Firm's activities and can manifest itself in various ways, including fraudulent acts, business disruptions (including those caused by extraordinary events beyond the Firm's control), cyber attacks, inappropriate employee behavior, failure to comply with applicable laws, rules and regulations or failure of vendors or other third party providers to perform in accordance with their agreements. Operational Risk Management attempts to manage operational risk at appropriate levels in light of the Firm's financial position, the characteristics of its businesses, and the markets and regulatory environments in which it operates.

Operational Risk Management Framework

The Firm's Compliance, Conduct, and Operational Risk ("CCOR") Management Framework is designed to enable the Firm to govern, identify, measure, monitor and test, manage and report on the Firm's operational risk.

Operational Risk Governance

The LOBs and Corporate are responsible for the management of operational risk. The Control Management Organization, which consists of control managers within each LOB and Corporate, is responsible for the day-to-day execution of the CCOR Framework.

The Firm's Global Chief Compliance Officer ("CCO") and FRE for Operational Risk and Qualitative Risk Appetite is responsible for defining the CCOR Management Framework and establishing the minimum standards for its execution. The LOB and Corporate aligned CCOR Lead Officers report to the Global CCO and FRE for Operational Risk and Qualitative Risk Appetite and are independent of the respective businesses or functions they oversee. The CCOR Management Framework is included in the Risk Governance and Oversight Policy that is reviewed and approved by the Board Risk Committee periodically.

Operational Risk Identification

The Firm utilizes a structured risk and control self-assessment process that is executed by the LOBs and Corporate. As part of this process, the LOBs and Corporate evaluate the effectiveness of their respective control environment to assess circumstances in which controls have failed, and to determine where remediation efforts may be required. The Firm's Operational Risk and Compliance organization ("Operational Risk and Compliance") provides oversight of and challenge to these evaluations and may also perform independent assessments of significant operational risk events and areas of concentrated or emerging risk.

Operational Risk Measurement

Operational Risk and Compliance performs an independent assessment of the operational risks inherent within the LOBs and Corporate, which includes evaluating the effectiveness of the control environments and reporting the results to senior management.

In addition, Operational Risk and Compliance assesses operational risks through quantitative means, including operational risk-based capital and estimation of operational risk losses under both baseline and stressed conditions.

The primary component of the operational risk-based capital estimate is the Loss Distribution Approach ("LDA") statistical model, which simulates the projected frequency and severity of operational risk losses based on historical data. The LDA model is used to estimate an aggregate operational risk loss over a one-year time horizon, at a 99.9% confidence level. The LDA model incorporates actual internal operational risk losses in the quarter following the period in which those losses were realized, and the calculation generally continues to reflect such losses even after the issues or business activities giving rise to the losses have been remediated or reduced.

As required under the Basel III capital framework, the Firm's operational risk capital methodology, which uses the Advanced Measurement Approach ("AMA"), incorporates internal and external losses as well as management's view of tail risk captured through operational risk scenario analysis, and evaluation of key business environment and internal control metrics. The Firm does not reflect the impact of insurance in its AMA estimate of operational risk capital.

The Firm considers the impact of stressed economic conditions on operational risk losses and develops a forward looking view of material operational risk events that may occur in a stressed environment. The Firm's operational risk stress testing framework is utilized in calculating results for the Firm's CCAR and other stress testing processes.

Refer to Capital Risk Management on pages 97–107 for information related to operational risk RWA, and CCAR.

Operational Risk Monitoring and Testing

The results of risk assessments performed by Operational Risk and Compliance are used in connection with their independent monitoring and testing compliance of the LOBs and Corporate with laws, rules and regulations. Through monitoring and testing, Operational Risk and Compliance independently identify areas of heightened operational risk and tests the effectiveness of controls within the LOBs and Corporate.

Management of Operational Risk
The operational risk areas or issues identified through monitoring and testing are escalated to the LOBs and Corporate to be remediated through action plans, as needed, to mitigate operational risk. Operational Risk and Compliance may advise the LOBs and Corporate in the development and implementation of action plans.

Operational Risk Reporting
All employees of the Firm are expected to escalate risks appropriately. Risks identified by Operational Risk and Compliance are escalated to the appropriate LOB and Corporate Control Committees, as needed. Operational Risk and Compliance has established standards designed to ensure that consistent operational risk reporting and operational risk reports are produced on a Firmwide basis as well as by the LOBs and Corporate. Reporting includes the evaluation of key risk and performance indicators against established thresholds as well as the assessment of different types of operational risk against stated risk appetite. The standards establish escalation protocols to senior management and to the Board of Directors.

Insurance

One of the ways in which operational risk may be mitigated is through insurance maintained by the Firm. The Firm purchases insurance from commercial insurers and maintains a wholly-owned captive insurer, Park Assurance Company. Insurance may also be required by third parties with whom the Firm does business.

Subcategories and examples of operational risks

Operational risk can manifest itself in various ways. Operational risk subcategories include Compliance risk, Conduct risk, Legal risk, and Estimations and Model risk. Refer to pages 157, 158, 159 and 160, respectively for more information on Compliance, Conduct, Legal, and Estimations and Model risk. Details on other select examples of operational risks such as business and technology resiliency, payment fraud and third-party outsourcing, as well as cybersecurity, are provided below.

Firmwide resiliency risk
Disruptions of the Firm's business and operations can occur due to forces beyond the Firm's control such as the spread of infectious diseases or pandemics, severe weather, natural disasters, the effects of climate change, power or telecommunications loss, failure of a third party to provide expected services, cyberattacks, civil or political unrest or terrorism. The Firm's resiliency framework is intended to enable the Firm to prepare for and adapt to changing conditions and withstand and recover from, and address adverse effects on its operations caused by, disruptions that may impact critical business functions and supporting assets, including its staff, technology, data and facilities, as well as those of third-party service providers. The framework includes governance, awareness training, planning and testing of recovery strategies, as well as strategic and tactical initiatives to identify, assess, and manage resiliency risks. The framework operates in accordance with the Firm's overall approach to Operational Risk Management, including alignment with technology, cybersecurity, data, physical security, crisis management, real estate and outsourcing programs.

Payment fraud risk
Payment fraud risk is the risk of external and internal parties unlawfully obtaining personal monetary benefit through misdirected or otherwise improper payment. The Firm employs various controls for managing payment fraud risk as well as providing employee and client education and awareness trainings.

Third-party outsourcing risk
The Firm's Third-Party Oversight ("TPO") and Inter-affiliates Oversight ("IAO") frameworks assist the LOBs and Corporate in selecting, documenting, onboarding, monitoring and managing their supplier relationships including services provided by affiliates. The objectives of the TPO framework are to hold suppliers and other third parties to an appropriate standard of operational performance and to mitigate key risks, including data loss and business disruptions. The Corporate Third-Party Oversight group is responsible for Firmwide training, monitoring, reporting and standards with respect to third-party outsourcing risks.

Cybersecurity risk
Cybersecurity risk is the risk of harm or loss resulting from misuse or abuse of technology or the unauthorized disclosure of data.

Overview

Cybersecurity risk is an important and continuously evolving focus for the Firm. Significant resources are devoted to protecting and enhancing the security of computer systems, software, networks, storage devices, and other technology. The Firm's security efforts are designed to protect against, among other things, cybersecurity attacks that can result in unauthorized access to confidential information, the destruction of data, disruptions to or degradations of service, the sabotaging of systems or other damage.

The Firm has experienced, and expects that it will continue to experience, a higher volume and complexity of cyber attacks against the backdrop of heightened geopolitical tensions. The Firm has implemented measures and controls reasonably designed to address this evolving environment, including enhanced threat monitoring. In addition, the Firm continues to review and enhance its capabilities to address associated risks, such as those relating to the management of administrative access to systems.

Third parties with which the Firm does business, that facilitate the Firm's business activities (e.g., vendors, supply chain, exchanges, clearing houses, central depositories, and financial intermediaries) or that the Firm has acquired are also sources of cybersecurity risk to the Firm. Third party incidents such as system breakdowns or failures, misconduct by the employees of such parties, or cyber attacks, including ransomware and supply-chain compromises, could have a material adverse effect on the Firm, including in circumstances in which an affected third party is unable to deliver a product or service to the Firm or where the incident delivers compromised software to the Firm or results in lost or compromised information of the Firm or its clients or customers.

Clients and customers are also sources of cybersecurity risk to the Firm and its information assets, particularly when their activities and systems are beyond the Firm's own security and control systems. The Firm engages in periodic discussions with its clients, customers and other external parties concerning cybersecurity risks including opportunities to improve cybersecurity.

Risks from cybersecurity threats, including any previous cybersecurity events, have not materially affected the Firm or its business strategy, results of operations or financial condition. Notwithstanding the comprehensive approach that the Firm takes to address cybersecurity risk, the Firm may not be successful in preventing or mitigating a future cybersecurity incident that could have a material adverse effect on the Firm or its business strategy, results of operations or financial condition.

Organization and management

The Global Chief Information Security Officer ("CISO") reports to the Global Chief Information Officer, and is a member of key cybersecurity governance forums. The CISO leads the Global Cybersecurity and Technology Controls organization, which is responsible for identifying technology and cybersecurity risks and for implementing and maintaining controls to manage cybersecurity threats. The CISO and the members of senior management within Global Technology and the Cybersecurity and Technology Controls organizations all have relevant expertise and experience in cybersecurity and information technology risk management, including relevant experience at the Firm, at other financial services companies or in other highly-regulated industries.

The CISO is responsible for the Firm's Information Security Program, which is designed to prevent, detect and respond to cyber attacks in order to help safeguard the confidentiality, integrity and availability of the Firm's infrastructure, resources and information. The program includes managing the Firm's global cybersecurity operations centers, providing training, conducting cybersecurity event simulation exercises, implementing the Firm's policies and standards relating to technology risk and cybersecurity management, and enhancing, as needed, the Firm's cybersecurity capabilities.

The Firm's Information Security Program includes the following functions:

Cyber Operations, which is responsible for implementing and maintaining controls designed to detect and defend the Firm against cyber attacks, and includes a dedicated function for incident response and ongoing monitoring for cybersecurity threats and vulnerabilities, including those among the Firm's third-party suppliers.

Technology Governance, Risk & Controls, which is responsible for operationalizing technology risk and control frameworks, analyzing regulatory developments that may impact the Firm, and developing control catalogs and assessments of controls, as well as overseeing governance and reporting of technology and cybersecurity risk.

Security Awareness, which provides awareness and training that reinforces information risk and security management practices and compliance with the Firm's policies, standards and practices. The training is mandatory for all employees globally on a periodic basis, and it is supplemented by Firmwide testing initiatives, including periodic phishing tests. The Firm also provides specialized security training to employees in specific roles, such as application developers. The Firm's Global Privacy Program requires all employees to take periodic training on data privacy that focuses on confidentiality and security, as well as responding to unauthorized access to or use of information.

Technology Resiliency, which establishes control requirements for planning and testing the prioritized recovery of technology services in the event of degradation or outage, including incident response planning, data backup and retention, and recovery readiness in support of the Firmwide Business Resiliency Program and operational risk management practices.

The Firm has a cybersecurity incident response plan designed to enable the Firm to respond to attempted cybersecurity incidents, coordinate as appropriate with law enforcement and other government agencies, notify clients and customers, as applicable, and recover from such incidents. In addition, the Firm actively partners with appropriate government and law enforcement agencies and peer industry forums, participating in discussions and simulations to assist in understanding the full spectrum of cybersecurity risks and in enhancing defenses and improving resiliency in the Firm's operating environment.

Governance and oversight

The governance structure for the Global Cybersecurity and Technology Controls organization is designed to appropriately identify, escalate and mitigate cybersecurity risks. Cybersecurity risk management and its governance and oversight are integrated into the Firm's operational risk management framework, including through the escalation of key risk and control issues to management and the development of risk mitigation plans for heightened risk and control issues. IRM independently assesses and challenges the activities and risk management practices of the Global Cybersecurity and Technology Controls organization related to the identification, assessment, measurement and mitigation of cybersecurity risk. As needed, the Firm engages third-party assessors or auditing firms with industry-recognized expertise on cybersecurity matters to review specific aspects of the Firm's cybersecurity risk management framework, processes and controls.

The governance and oversight for cybersecurity risk management includes governance forums that inform management of key areas of concern regarding the prevention, detection, mitigation and remediation of cybersecurity risks.

The Cybersecurity and Technology Controls Operating Committee ("CTOC") is the principal management committee that oversees the Firm's assessment and management of cybersecurity risk, including oversight of the implementation and maintenance of appropriate controls in support of the Firm's Information Security Program. The membership of the CTOC includes senior representatives from the Global Cybersecurity and Technology Controls organization and relevant corporate functions, including IRM and Internal Audit.

The CTOC escalates key operational risk and control issues, as appropriate, to the Global Technology Operating Committee ("GTOC") or its business control committee or to the appropriate LOB and Corporate Control Committees. The GTOC is responsible for the governance of the Firmwide Global Technology organization, including oversight of Firmwide technology strategies, the delivery of technology and technology operations, the effective use of information technology resources, and monitoring and resolving key operational risk and control matters arising in the Global Technology organization.

As part of its oversight of management's implementation and maintenance of the Firm's risk management framework, the Firm's Board of Directors receives periodic updates from the CIO, the CISO and senior members of the CTOC concerning cybersecurity matters. These updates generally include information regarding cybersecurity and technology developments, the Firm's Information Security Program and recommended changes to that program, cybersecurity policies and practices, and ongoing initiatives to improve information security, as well as any significant cybersecurity incidents and the Firm's efforts to address those incidents. The Audit Committee and the Risk Committee assist the Board in this oversight.

Compliance risk, a subcategory of operational risk, is the risk of failing to comply with laws, rules, regulations or codes of conduct and standards of self-regulatory organizations.

Overview

Each of the LOBs and Corporate hold primary ownership of and accountability for managing their compliance risk. The Firm's Operational Risk and Compliance Organization ("Operational Risk and Compliance"), which is independent of the LOBs and Corporate, provides independent review, monitoring and oversight of business operations with a focus on compliance with the laws, rules, and regulations applicable to the delivery of the Firm's products and services to clients and customers.

These compliance risks relate to a wide variety of laws, rules and regulations across the LOBs and Corporate, and jurisdictions, and include risks related to financial products and services, relationships and interactions with clients and customers, and employee activities. For example, compliance risks include those associated with anti-money laundering compliance, trading activities, market conduct, and complying with the laws, rules, and regulations related to the offering of products and services across jurisdictional borders. Compliance risk is also inherent in the Firm's fiduciary activities, including the failure to exercise the applicable standard of care to act in the best interest of fiduciary clients and customers or to treat fiduciary clients and customers fairly.

Other functions provide oversight of significant regulatory obligations that are specific to their respective areas of responsibility.

Operational Risk and Compliance implements policies and standards designed to govern, identify, measure, monitor and test, manage, and report on compliance risk.

Governance and oversight

Operational Risk and Compliance is led by the Firm's Global CCO and FRE for Operational Risk and Qualitative Risk Appetite.

The Firm maintains oversight and coordination of its compliance risk through the CCOR Management Framework. The Firm's Global CCO and FRE for Operational Risk and Qualitative Risk Appetite also provides regular updates to the Board Risk Committee and the Audit Committee on significant compliance risk issues, as appropriate.

Code of Conduct

The Firm has a Code of Conduct (the "Code") that sets forth the Firm's expectation that employees will conduct themselves with integrity, at all times. The Code provides the principles that help govern employee conduct with clients, customers, suppliers, vendors, shareholders, regulators, other employees, as well as with the markets and communities in which the Firm operates. The Code requires employees to promptly report any potential or actual violation of the Code, Firm policies, or laws, rules or regulations applicable to the Firm's business. It also requires employees to report any illegal or unethical conduct, or conduct that violates the underlying principles of the Code, by any of the Firm's employees, consultants, clients, customers, suppliers, contract or temporary workers, or business partners or agents. Training is assigned to newly hired employees after joining the Firm, and to current employees periodically thereafter. Employees are required to affirm their compliance with the Code annually.

Employees can report any potential or actual violations of the Code through the Firm's Conduct Hotline (the "Hotline") by phone, mobile device or the internet. The Hotline is anonymous, where permitted by law, is available at all times globally, has translation services, and is administered by an outside service provider. The Code prohibits retaliation against anyone who raises an issue or concern in good faith or assists with an inquiry or investigation. Periodically, the Audit Committee receives reports on the Code of Conduct program.

CONDUCT RISK MANAGEMENT

Conduct risk, a subcategory of operational risk, is the risk that any action or misconduct by an employee could lead to unfair client or customer outcomes, impact the integrity of the markets in which the Firm operates, harm employees or the Firm, or compromise the Firm's reputation.

Overview

Each LOB and Corporate is accountable for identifying and managing its conduct risk to provide appropriate engagement, ownership and sustainability of a culture consistent with the Firm's Business Principles. The Business Principles serve as a guide for how employees are expected to conduct themselves. With the Business Principles serving as a guide, the Firm's Code sets out the Firm's expectations for each employee and provides information and resources to help employees conduct business ethically and in compliance with applicable laws, rules and regulations everywhere the Firm operates. Refer to Compliance Risk Management on page 157 for further discussion of the Code.

Governance and oversight

The Firm's oversight and coordination of conduct risk is managed in the same manner as Compliance risk. Refer to Compliance Risk Management on page 157 for further information.

Conduct risk management encompasses various aspects of people management practices throughout the employee life cycle, including recruiting, onboarding, training and development, performance management, promotion and compensation processes. Each LOB, Treasury and CIO, and each designated corporate function completes an assessment of conduct risk periodically, reviews metrics and issues which may involve conduct risk, and provides conduct education as appropriate.

Legal risk, a subcategory of operational risk, is the risk of loss primarily caused by the actual or alleged failure to meet legal obligations that arise from the rule of law in jurisdictions in which the Firm operates, agreements with clients and customers, and products and services offered by the Firm.

Overview

The global Legal function ("Legal") provides legal services and advice to the Firm. Legal is responsible for managing the Firm's exposure to legal risk by:

- managing actual and potential litigation and enforcement matters, including internal reviews and investigations related to such matters
- advising on products and services, including contract negotiation and documentation
- advising on offering and marketing documents and new business initiatives
- managing dispute resolution
- interpreting existing laws, rules and regulations, and advising on changes to them
- advising on advocacy in connection with contemplated and proposed laws, rules and regulations, and
- providing legal advice to the LOBs, Corporate and the Board.

Legal selects, engages and manages outside counsel for the Firm on all matters in which outside counsel is engaged. In addition, Legal advises the Firm's Conflicts Office which reviews the Firm's wholesale transactions that may have the potential to create conflicts of interest for the Firm.

Governance and oversight

The Firm's General Counsel reports to the CEO and is a member of the Operating Committee, the Firmwide Risk Committee and the Firmwide Control Committee. The Firm's General Counsel and other members of Legal report on significant legal matters to the Firm's Board of Directors and to the Audit Committee.

Legal serves on and advises various committees and advises the Firm's LOBs and Corporate on potential reputation risk issues.

ESTIMATIONS AND MODEL RISK MANAGEMENT

Estimations and Model risk, a subcategory of operational risk, is the potential for adverse consequences from decisions based on incorrect or misused estimation outputs.

The Firm uses models and other analytical and judgment-based estimations, including those based upon machine learning or artificial intelligence techniques, across various businesses and functions. The estimation methods are of varying levels of sophistication and are used for many purposes, such as the valuation of positions and measurement of risk, assessing regulatory capital requirements, conducting stress testing, evaluating the allowance for credit losses and making business decisions. A dedicated independent function, Model Risk Governance and Review ("MRGR"), defines and governs the Firm's policies relating to the management of model risk and risks associated with certain analytical and judgment-based estimations, such as those used in risk management, budget forecasting and capital planning and analysis.

Model risks are owned by the users of the models within the LOBs and Corporate based on the specific purposes of such models. Users and developers of models are responsible for developing, implementing and testing their models, as well as referring models to MRGR for review and approval. Once models have been approved, model users and developers are responsible for maintaining a robust operating environment, and must monitor and evaluate the performance of the models on an ongoing basis. Model users and developers may seek to enhance models in response to changes in the relevant portfolios and in product and market developments, as well as to capture improvements in available modeling techniques and systems capabilities.

Models are tiered based on an internal standard according to their complexity, the exposure associated with the model and the Firm's reliance on the model. This tiering is subject to the approval of MRGR. In its review of a model, MRGR considers whether the model is suitable for the specific purposes for which it will be used. When reviewing a model, MRGR analyzes and challenges the model methodology and the reasonableness of model assumptions, and may perform or require additional testing, including back-testing of model outcomes. Model reviews are approved by the appropriate level of management within MRGR based on the relevant model tier.

Under the Firm's Estimations and Model Risk Management Policy, MRGR reviews and approves new models, as well as material changes to existing models, prior to their use. In certain circumstances, exceptions may be granted to the Firm's policy to allow a model to be used prior to review or approval. MRGR may also require the user to take appropriate actions to mitigate the model risk if it is to be used in the interim. These actions will depend on the model and may include, for example, limitation of trading activity.

While models are inherently imprecise, the degree of imprecision or uncertainty can be heightened by the market or economic environment. This is particularly true when the current and forecasted environments are significantly different from the historical environments upon which the models were developed. This increased uncertainty may necessitate a greater degree of judgment and analytics to inform any adjustments that the Firm may make to model outputs than would otherwise be the case. In addition, the Firm may experience increased uncertainty in its estimates if assets acquired differ from those used to develop the models.

Refer to Critical Accounting Estimates Used by the Firm on pages 161–164 and Note 2 for a summary of model-based valuations and other valuation techniques.

JPMorganChase's accounting policies and use of estimates are integral to understanding its reported results. The Firm's most complex accounting estimates require management's judgment to ascertain the appropriate carrying value of assets and liabilities. The Firm has established policies and control procedures intended to ensure that estimation methods, including any judgments made as part of such methods, are well-controlled, independently reviewed and applied consistently from period to period. The methods used and judgments made reflect, among other factors, the nature of the assets or liabilities and the related business and risk management strategies, which may vary across the Firm's businesses and portfolios. In addition, the policies and procedures are intended to ensure that the process for changing methodologies occurs in an appropriate manner. The Firm believes its estimates for determining the carrying value of its assets and liabilities are appropriate. The following is a brief description of the Firm's critical accounting estimates involving significant judgments.

Allowance for credit losses

The Firm's allowance for credit losses represents management's estimate of expected credit losses over the remaining expected life of the Firm's financial assets measured at amortized cost and certain off-balance sheet lending-related commitments. The allowance for credit losses generally comprises:

- The allowance for loan losses, which covers the Firm's retained loan portfolios (scored and risk-rated),
- The allowance for lending-related commitments, and
- The allowance for credit losses on investment securities.

The allowance for credit losses involves significant judgment on a number of matters including development and weighting of macroeconomic forecasts, incorporation of historical loss experience, assessment of risk characteristics, assignment of risk ratings, valuation of collateral, and the determination of remaining expected life. Refer to Note 10 and Note 13 for further information on these judgments as well as the Firm's policies and methodologies used to determine the Firm's allowance for credit losses.

One of the most significant judgments involved in estimating the Firm's allowance for credit losses relates to the macroeconomic forecasts used to estimate credit losses over the eight-quarter forecast period within the Firm's methodology. The eight-quarter forecast incorporates hundreds of macroeconomic variables ("MEVs") that are relevant for exposures across the Firm, with modeled credit losses being driven primarily by a subset of less than twenty variables. The specific variables that have the greatest effect on the modeled losses vary by portfolio and geography.

- Key MEVs for the consumer portfolio include regional U.S. unemployment rates and U.S. HPI.
- Key MEVs for the wholesale portfolio include U.S. unemployment, U.S. real GDP, U.S. equity prices, U.S. interest rates, U.S. corporate credit spreads, oil prices, U.S. commercial real estate prices and U.S. HPI.

Changes in the Firm's assumptions and forecasts of economic conditions could significantly affect its estimate of expected credit losses in the portfolio at the balance sheet date or lead to significant changes in the estimate from one reporting period to the next.

As a result of the First Republic acquisition, the Firm recorded an allowance for credit losses for the loans acquired and lending-related commitments assumed as of May 1, 2023. Due to differences in risk rating methodologies for the First Republic portfolio and the ongoing integration of products and systems, the allowance for credit losses for the acquired wholesale portfolio was initially measured based on similar risk characteristics from other facilities underwritten by the Firm. Starting in the second quarter of 2024, the acquired portfolio was incorporated into the Firm's modeled credit loss estimates and is now reflected in the wholesale sensitivity analysis below. Refer to Note 34 for additional information on the First Republic acquisition.

It is difficult to estimate how potential changes in any one factor or input might affect the overall allowance for credit losses because management considers a wide variety of factors and inputs in estimating the allowance for credit losses. Changes in the factors and inputs considered may not occur at the same rate and may not be consistent across all geographies or product types, and changes in factors and inputs may be directionally inconsistent, such that improvement in one factor or input may offset deterioration in others.

To consider the impact of a hypothetical alternate macroeconomic forecast, the Firm compared the modeled credit losses determined using its central and relative adverse macroeconomic scenarios, which are two of the five scenarios considered in estimating the allowances for loan losses and lending-related commitments. The central and relative adverse scenarios each included a full suite of MEVs, but differed in the levels, paths and peaks/troughs of those variables over the eight-quarter forecast period.

For example, compared to the Firm's central scenario shown on page 137 and in Note 13, the Firm's relative adverse scenario assumes an elevated U.S.

unemployment rate, averaging approximately 2.1% higher over the eight-quarter forecast, with a peak difference of approximately 3.0% in the fourth quarter of 2025.

This analysis is not intended to estimate expected future changes in the allowance for credit losses, for a number of reasons, including:

- The allowance as of December 31, 2024, reflects credit losses beyond those estimated under the central scenario due to the weight placed on the adverse scenarios.
- The impacts of changes in many MEVs are both interrelated and nonlinear, so the results of this analysis cannot be simply extrapolated for more severe changes in macroeconomic variables.
- Expectations of future changes in portfolio composition and borrower behavior can significantly affect the allowance for credit losses.

To demonstrate the sensitivity of credit loss estimates to macroeconomic forecasts as of December 31, 2024, the Firm compared the modeled estimates under its relative adverse scenario to its central scenario. Without considering offsetting or correlated effects in other qualitative components of the Firm's allowance for credit losses, the comparison between these two scenarios for the exposures below reflect the following differences:

- An increase of approximately $850 million for residential real estate loans and lending-related commitments
- An increase of approximately $3.7 billion for credit card loans
- An increase of approximately $4.1 billion for wholesale loans and lending-related commitments

This analysis relates only to the modeled credit loss estimates and is not intended to estimate changes in the overall allowance for credit losses as it does not reflect any potential changes in other adjustments to the quantitative calculation, which would also be influenced by the judgment management applies to the modeled lifetime loss estimates to reflect the uncertainty and imprecision of these modeled lifetime loss estimates based on then-current circumstances and conditions.

Recognizing that forecasts of macroeconomic conditions are inherently uncertain, the Firm believes that its process to consider the available information and associated risks and uncertainties is appropriately governed and that its estimates of expected credit losses were reasonable and appropriate for the period ended December 31, 2024.

Fair value

JPMorganChase carries a portion of its assets and liabilities at fair value. The majority of such assets and liabilities are measured at fair value on a recurring basis, including derivatives, structured note products and certain securities financing agreements. Certain assets and liabilities are measured at fair value on a nonrecurring basis, including certain mortgage, home equity and other loans, where the carrying value is based on the fair value of the underlying collateral.

Assets measured at fair value

The following table includes the Firm's assets measured at fair value and the portion of such assets that are classified within level 3 of the fair value hierarchy. Refer to Note 2 for further information.

December 31, 2024 (in millions, except ratios)	Total assets at fair value	Total level 3 assets
Federal funds sold and securities purchased under resale agreements	$ 286,771	$ —
Securities borrowed	83,962	—
Trading assets:		
Trading-debt and equity instruments	576,817	2,442
Derivative receivables[(a)]	60,967	8,452
Total trading assets	637,784	10,894
AFS securities	406,852	8
Loans	41,350	2,416
MSRs	9,121	9,121
Other	14,073	1,344
Total assets measured at fair value on a recurring basis	1,479,913	23,783
Total assets measured at fair value on a nonrecurring basis	2,489	1,742
Total assets measured at fair value	$ 1,482,402	$ 25,525
Total Firm assets	$ 4,002,814	
Level 3 assets at fair value as a percentage of total Firm assets[(a)]		1%
Level 3 assets at fair value as a percentage of total Firm assets at fair value[(a)]		2%

(a) For purposes of the table above, the derivative receivables total reflects the impact of netting adjustments; however, the $8.5 billion of derivative receivables classified as level 3 does not reflect the netting adjustment as such netting is not relevant to a presentation based on the transparency of inputs to the valuation of an asset. The level 3 balances would be reduced if netting were applied, including the netting benefit associated with cash collateral.

Valuation
Details of the Firm's processes for determining fair value are set out in Note 2. Estimating fair value requires the application of judgment. The type and level of judgment required is largely dependent on the amount of observable market information available to the Firm. For instruments valued using internally developed valuation models and other valuation techniques that use significant unobservable inputs and are therefore classified within level 3 of the fair value hierarchy, judgments used to estimate fair value are more significant than those required when estimating the fair value of instruments classified within levels 1 and 2.

In arriving at an estimate of fair value for an instrument within level 3, management must first determine the appropriate valuation model or other valuation technique to use. Second, the lack of observability of certain significant inputs requires management to assess relevant empirical data in deriving valuation inputs including, for example, transaction details, yield curves, interest rates, prepayment speeds, default rates, volatilities, correlations, prices (such as commodity, equity or debt prices), valuations of comparable instruments, foreign exchange rates and credit curves. Refer to Note 2 for a further discussion of the valuation of level 3 instruments, including unobservable inputs used.

For instruments classified in levels 2 and 3, management judgment must be applied to assess the appropriate level of valuation adjustments to reflect counterparty credit quality, the Firm's creditworthiness, market funding rates, liquidity considerations, unobservable parameters, and for portfolios that meet specified criteria, the size of the net open risk position. The judgments made are typically affected by the type of product and its specific contractual terms, and the level of liquidity for the product or within the market as a whole. In periods of heightened market volatility and uncertainty judgments are further affected by the wider variation of reasonable valuation estimates, particularly for positions that are less liquid. Refer to Note 2 for a further discussion of valuation adjustments applied by the Firm.

Imprecision in estimating unobservable market inputs or other factors can affect the amount of gain or loss recorded for a particular position. Furthermore, while the Firm believes its valuation methods are appropriate and consistent with those of other market participants, the methods and assumptions used reflect management judgment and may vary across the Firm's businesses and portfolios.

The Firm uses various methodologies and assumptions in the determination of fair value. The use of methodologies or assumptions different than those used by the Firm could result in a different estimate of fair value at the reporting date. Refer to Note 2 for a detailed discussion of the Firm's valuation process and hierarchy, and its determination of fair value for individual financial instruments.

Goodwill impairment
Under U.S. GAAP, goodwill must be allocated to reporting units and tested for impairment at least annually. The Firm's process and methodology used to conduct goodwill impairment testing is described in Note 15.

Management applies significant judgment when testing goodwill for impairment. The goodwill associated with each business combination is allocated to the related reporting units for goodwill impairment testing.

For the year ended December 31, 2024, the Firm reviewed current economic conditions, estimated market cost of equity, as well as actual business results and projections of business performance. Based on such reviews, the Firm has concluded that goodwill was not impaired as of December 31, 2024. For each of the reporting units, fair value exceeded carrying value by at least 10% and there was no indication of a significant risk of goodwill impairment based on current projections and valuations.

The projections for the Firm's reporting units are consistent with management's current business outlook assumptions in the short term, and the Firm's best estimates of long-term growth and return on equity in the longer term. Where possible, the Firm uses third-party and peer data to benchmark its assumptions and estimates.

Refer to Note 15 for additional information on goodwill, including the goodwill impairment assessment as of December 31, 2024.

Credit card rewards liability
JPMorganChase offers credit cards with various rewards programs which allow cardholders to earn rewards points based on their account activity and the terms and conditions of the rewards program. Generally, there are no limits on the points that an eligible cardholder can earn, nor do the points expire, and the points can be redeemed for a variety of rewards, including cash (predominantly in the form of account credits), gift cards and travel. The Firm maintains a rewards liability which represents the estimated cost of rewards points earned and expected to be redeemed by cardholders. The liability is accrued as the cardholder earns the benefit and is reduced when the cardholder redeems points. This liability was $14.4 billion and $13.2 billion at December 31, 2024 and 2023, respectively, and is recorded in accounts payable and other liabilities on the Consolidated balance sheets. The increase in the liability was driven by continued growth in rewards points earned on higher spend and promotional offers outpacing redemptions throughout 2024.

The rewards liability is sensitive to redemption rate ("RR") and cost per point ("CPP") assumptions. The RR assumption is used to estimate the number of points earned by customers that will be redeemed over the life of the account. The CPP assumption is used to estimate the cost of future point redemptions. These assumptions are evaluated periodically considering historical actuals, cardholder redemption behavior and management judgment. Updates to these assumptions will impact the rewards liability. As of December 31, 2024, a combined increase of 25 basis points in RR and 1 basis point in CPP would increase the rewards liability by approximately $442 million.

Income taxes

JPMorganChase is subject to the income tax laws of the various jurisdictions in which it operates, including U.S. federal, state and local, and non-U.S. jurisdictions. These laws are often complex and may be subject to different interpretations. To determine the financial statement impact of accounting for income taxes, including the provision for income tax expense and unrecognized tax benefits, JPMorganChase must make assumptions and judgments about how to interpret and apply these complex tax laws to numerous transactions and business events, as well as make judgments regarding the timing of when certain items may affect taxable income in the U.S. and non-U.S. tax jurisdictions.

JPMorganChase's interpretations of tax laws around the world are subject to review and examination by the various taxing authorities in the jurisdictions where the Firm operates, and disputes may occur regarding its view on a tax position. These disputes over interpretations with the various taxing authorities may be settled by audit, administrative appeals or adjudication in the court systems of the tax jurisdictions in which the Firm operates. JPMorganChase regularly reviews whether it may be assessed additional income taxes as a result of the resolution of these matters, and the Firm records additional unrecognized tax benefits, as appropriate. In addition, the Firm may revise its estimate of income taxes due to changes in income tax laws, legal interpretations, and business strategies. It is possible that revisions in the Firm's estimate of income taxes may materially affect the Firm's results of operations in any reporting period.

Deferred taxes arise from differences between assets and liabilities measured for financial reporting versus income tax return purposes. Deferred tax assets are recognized if, in management's judgment, their realizability is determined to be more likely than not. Deferred taxes are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred taxes of a change in tax rates is recognized within the provision for income taxes in the period enacted.

The Firm has also recognized deferred tax assets in connection with certain tax attributes, including net operating loss ("NOL") carryforwards and foreign tax credit ("FTC") carryforwards. The Firm performs regular reviews to ascertain whether its deferred tax assets are realizable. These reviews include management's estimates and assumptions regarding future taxable income, including foreign source income, and may incorporate various tax planning strategies, including strategies that may be available to utilize NOLs and FTCs before they expire. In connection with these reviews, if it is determined that a deferred tax asset is not realizable, a valuation allowance is established. The valuation allowance may be reversed in a subsequent reporting period if the Firm determines that, based on revised estimates of future taxable income or changes in tax planning strategies, it is more likely than not that all or part of the deferred tax asset will become realizable. As of December 31, 2024, management has determined it is more likely than not that the Firm will realize its deferred tax assets, net of the existing valuation allowance.

The Firm adjusts its unrecognized tax benefits as necessary when new information becomes available, including changes in tax law and regulations, and interactions with taxing authorities. Uncertain tax positions that meet the more-likely-than-not recognition threshold are measured to determine the amount of benefit to recognize. An uncertain tax position is measured at the largest amount of benefit that management believes is more likely than not to be realized upon settlement. It is possible that the reassessment of JPMorganChase's unrecognized tax benefits may have a material impact on its effective income tax rate in the period in which the reassessment occurs. Although the Firm believes that its estimates are reasonable, the final tax amount could be different from the amounts reflected in the Firm's income tax provisions and accruals. To the extent that the final outcome of these amounts is different than the amounts recorded, such differences will generally impact the Firm's provision for income taxes in the period in which such a determination is made.

The Firm's provision for income taxes is composed of current and deferred taxes. The current and deferred tax provisions are calculated based on estimates and assumptions that could differ from the actual results reflected in income tax returns filed during the subsequent year. Adjustments based on filed returns are generally recorded in the period when the tax returns are filed and the global tax implications are known, which could impact the Firm's effective tax rate.

Refer to Note 25 for additional information on income taxes.

Litigation reserves

Refer to Note 30 for a description of the significant estimates and judgments associated with establishing litigation reserves.

Financial Accounting Standards Board ("FASB") Standards Adopted since January 1, 2024

Standard	Summary of guidance	Effects on financial statements
Fair Value Measurement: Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions *Issued June 2022*	• Clarifies that a contractual sale restriction is not considered part of the unit of account of the equity security and, therefore, is not considered in measuring fair value. • Requires disclosure for investments in equity securities subject to contractual sale restrictions, including: 1) fair value of these investments, 2) nature and remaining duration of the restriction(s) and 3) circumstances that could cause a lapse in the restriction(s).	• Adopted prospectively on January 1, 2024, with no impact to the Firm's Consolidated Financial Statements.
Investments - Equity Method and Joint Ventures: Accounting for Investments in Tax Credit Structures Using the Proportional Amortization Method *Issued March 2023*	• Expands the ability to elect proportional amortization on a program-by-program basis, for additional types of tax-oriented investments (beyond affordable housing tax credit investments). • May be adopted using a full retrospective method, or a modified retrospective method wherein the effect of adoption is reflected as an adjustment to retained earnings at the effective date.	• Adopted under the modified retrospective method on January 1, 2024. • Refer to Note 1 for further information.
Segment Reporting: Improvements to Reportable Segment Disclosures *Issued November 2023*	• Requires disclosure of significant segment expenses that are readily provided to the chief operating decision maker ("CODM") and included in segment profit or loss. • Requires disclosure of the composition and aggregate amount of other segment items, which represent the difference between profit or loss and segment revenues less significant segment expenses. • Requires disclosure of the title and position of the CODM and an explanation of how the CODM uses the reported segment measures in assessing segment performance and deciding how to allocate resources.	• Adopted retrospectively for the Firm's annual Consolidated Financial Statements for the year ended December 31, 2024.[a] • The adoption of this guidance resulted in additional reportable segment disclosures, primarily relating to significant segment expenses and the CODM. Refer to Note 32 for further information.

(a) The accounting standards update applies to the Firm's annual Consolidated Financial Statements for the year ended December 31, 2024, and interim financial statements thereafter.

FASB Standards Issued but not yet Adopted as of December 31, 2024

Standard	Summary of guidance	Effects on financial statements
Income Taxes: Improvements to Income Tax Disclosures *Issued December 2023*	• Requires disclosure of income taxes paid disaggregated by 1) federal, state, and foreign taxes and 2) individual jurisdiction on the basis of a quantitative threshold of equal to or greater than 5 percent of total income taxes paid (net of refunds received). • Requires disclosure of the effective tax rate reconciliation by specific categories, at a minimum, with accompanying qualitative disclosures, and separate disclosure of reconciling items based on quantitative thresholds. • Requires categories within the effective tax rate reconciliation to be further disaggregated if quantitative thresholds are met.	• Required effective date: Annual financial statements for the year ending December 31, 2025. • The guidance can be applied on a prospective basis with the option to apply the standard retrospectively. • The Firm is evaluating the potential impact on the Consolidated Financial Statements disclosures.
Income Statement - Reporting Comprehensive Income - Expense Disaggregation Disclosures: Disaggregation of Income Statement Expenses *Issued November 2024*	• Requires additional annual and interim disclosures about specific types of expenses presented in the Consolidated statements of income.	• Required effective date: Annual financial statements for the year ending December 31, 2027, and interim financial statements for the year ending December 31, 2028. [a] • The guidance can be applied on a prospective basis with the option to apply the standard retrospectively. • The Firm is evaluating the potential impact on the Consolidated Financial Statements disclosures, as well as the Firm's planned date of adoption.

(a) Early adoption is permitted.

FORWARD-LOOKING STATEMENTS

From time to time, the Firm has made and will make forward-looking statements. These statements can be identified by the fact that they do not relate strictly to historical or current facts. Forward-looking statements often use words such as “anticipate,” “target,” “expect,” “estimate,” “intend,” “plan,” “goal,” “believe,” or other words of similar meaning. Forward-looking statements provide JPMorganChase’s current expectations or forecasts of future events, circumstances, results or aspirations. JPMorganChase’s disclosures in this 2024 Form 10-K contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. The Firm also may make forward-looking statements in its other documents filed or furnished with the SEC. In addition, the Firm’s senior management may make forward-looking statements orally to investors, analysts, representatives of the media and others.

All forward-looking statements are, by their nature, subject to risks and uncertainties, many of which are beyond the Firm’s control. JPMorganChase’s actual future results may differ materially from those set forth in its forward-looking statements. While there is no assurance that any list of risks and uncertainties or risk factors is complete, below are certain factors which could cause actual results to differ from those in the forward-looking statements:

- Local, regional and global business, economic and political conditions and geopolitical events, including geopolitical tensions and hostilities;
- Changes in laws, rules and regulatory requirements, including capital and liquidity requirements affecting the Firm’s businesses, and the ability of the Firm to address those requirements;
- Heightened regulatory and governmental oversight and scrutiny of JPMorganChase’s business practices, including dealings with retail customers;
- Changes in trade, monetary and fiscal policies and laws;
- Changes in the level of inflation;
- Changes in income tax laws, rules, and regulations;
- Changes in FDIC assessments;
- Securities and capital markets behavior, including changes in market liquidity and volatility;
- Changes in investor sentiment or consumer spending or savings behavior;
- Ability of the Firm to manage effectively its capital and liquidity;
- Changes in credit ratings assigned to the Firm or its subsidiaries;
- Damage to the Firm’s reputation;
- Ability of the Firm to appropriately address social, environmental and sustainability concerns that may arise, including from its business activities;
- Ability of the Firm to deal effectively with an economic slowdown or other economic or market disruption, including, but not limited to, in the interest rate environment;
- Technology changes instituted by the Firm, its counterparties or competitors;
- The effectiveness of the Firm’s control agenda;
- Ability of the Firm to develop or discontinue products and services, and the extent to which products or services previously sold by the Firm require the Firm to incur liabilities or absorb losses not contemplated at their initiation or origination;
- Acceptance of the Firm’s new and existing products and services by the marketplace and the ability of the Firm to innovate and to increase market share;
- Ability of the Firm to attract and retain qualified employees;
- Ability of the Firm to control expenses;
- Competitive pressures;
- Changes in the credit quality of the Firm’s clients, customers and counterparties;
- Adequacy of the Firm’s risk management framework, disclosure controls and procedures and internal control over financial reporting;
- Adverse judicial or regulatory proceedings;
- Ability of the Firm to determine accurate values of certain assets and liabilities;
- Occurrence of natural or man-made disasters or calamities, including health emergencies, the spread of infectious diseases, epidemics or pandemics, an outbreak or escalation of hostilities or other geopolitical instabilities, the effects of climate change or extraordinary events beyond the Firm’s control, and the Firm’s ability to deal effectively with disruptions caused by the foregoing;
- Ability of the Firm to maintain the security of its financial, accounting, technology, data processing and other operational systems and facilities;
- Ability of the Firm to withstand disruptions that may be caused by any failure of its operational systems or those of third parties;
- Ability of the Firm to effectively defend itself against cyber attacks and other attempts by unauthorized parties to access information of the Firm or its customers or to disrupt the Firm’s systems; and
- The other risks and uncertainties detailed in Part I, Item 1A: Risk Factors in JPMorganChase’s 2024 Form 10-K.

Any forward-looking statements made by or on behalf of the Firm speak only as of the date they are made, and JPMorganChase does not undertake to update any forward-looking statements. The reader should, however, consult any further disclosures of a forward-looking nature the Firm may make in any subsequent Annual Reports on Form 10-Ks, Quarterly Reports on Form 10-Qs, or Current Reports on Form 8-K.