
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM 10-K**

(Mark One)

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT
OF 1934**

For the fiscal year ended December 31, 2023

OR

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT
OF 1934**

For the transition period from _____ to
Commission file number 1-9924

Citigroup Inc.

(Exact name of registrant as specified in its charter)

Delaware

52-1568099

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

388 Greenwich Street, New York NY

10013

(Address of principal executive offices)

(Zip code)

(212) 559-1000

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Securities Exchange Act of 1934 formatted in Inline XBRL: See Exhibit 99.01

Securities registered pursuant to Section 12(g) of the Act: none

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (\$232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

Emerging growth company

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

Indicate by check mark whether the Registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

The aggregate market value of Citigroup Inc. common stock held by non-affiliates of Citigroup Inc. on June 30, 2023 was approximately \$88.4 billion.

Number of shares of Citigroup Inc. common stock outstanding on January 31, 2024: 1,911,366,783

Documents Incorporated by Reference: Portions of the registrant's proxy statement for the annual meeting of stockholders scheduled to be held on April 30, 2024 are incorporated by reference in this Form 10-K in response to Items 10, 11, 12, 13 and 14 of Part III.

Available on the web at www.citigroup.com

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** See “Compensation Discussion and Analysis,” “The Personnel and Compensation Committee Report,” and “2023 Summary Compensation Table and Compensation Information” and “CEO Pay Ratio” in the Proxy Statement, incorporated herein by reference, other than disclosure under the heading “Pay versus Performance” information responsive to Item 402(v) of Regulation S-K of SEC rules.			
*** See “About the Annual Meeting,” “Stock Ownership” and “Equity Compensation Plan Information” in the Proxy Statement, incorporated herein by reference.			
**** See “Corporate Governance—Director Independence,” “—Certain Transactions and Relationships, Compensation Committee Interlocks and Insider Participation” and “—Indebt edness” in the Proxy Statement, incorporated herein by reference.			
***** See “Proposal 2: Ratification of Selection of Independent Registered Public Accountants” in the Proxy Statement, incorporated herein by reference.			

CITIGROUP'S 2023 ANNUAL REPORT ON FORM 10-K

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OVERVIEW

Citigroup's history dates back to the founding of the City Bank of New York in 1812.

Citigroup is a global diversified financial services holding company whose businesses provide consumers, corporations, governments and institutions with a broad, yet focused, range of financial products and services, including consumer banking and credit, corporate and investment banking, securities brokerage, trade and securities services and wealth management. Citi does business in nearly 160 countries and jurisdictions.

Citi's vision is to be the preeminent banking partner for institutions with cross-border needs, a global leader in wealth management and a valued personal bank in the U.S.

At December 31, 2023, Citi had approximately 239,000 full-time employees, largely unchanged from December 31, 2022. For additional information, see "Human Capital Resources and Management" below.

Throughout this report, "Citigroup," "Citi" and "the Company" refer to Citigroup Inc. and its consolidated subsidiaries. For a list of certain terms and acronyms used herein, see "Glossary of Terms and Acronyms" at the end of this report. All "Note" references correspond to the Notes to the Consolidated Financial Statements.

Additional Information

Additional information about Citigroup is available on Citi's website at www.citigroup.com. Citigroup's annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and proxy statements, as well as other filings with the U.S. Securities and Exchange Commission (SEC) are available free of charge through Citi's website by clicking on "SEC Filings" under the "Investors" tab. The SEC's website also contains these filings and other information regarding Citi at www.sec.gov.

Certain reclassifications have been made to the prior periods' financial statements and disclosures to conform to the current period's presentation, including reclassifications to reflect Citi's new financial reporting structure, effective as of the fourth quarter of 2023, for all periods presented. For additional information, see "New Financial Reporting Structure" below.

Please see "Risk Factors" below for a discussion of material risks and uncertainties that could impact Citigroup's businesses, results of operations and financial condition.

Non-GAAP Financial Measures

Citi prepares its financial statements in accordance with U.S. generally accepted accounting principles (GAAP) and also presents certain non-GAAP financial measures (non-GAAP measures) that exclude certain items or otherwise include components that differ from the most directly comparable measures calculated in accordance with U.S. GAAP. Citi believes the presentation of these non-GAAP measures

provides a meaningful depiction of the underlying fundamentals of period-to-period operating results for investors, industry analysts and others, including increased transparency and clarity into Citi's results, and improved visibility into management decisions and their impacts on operational performance; enables better comparison to peer companies; and allows Citi to provide a long-term strategic view of its businesses and results going forward. These non-GAAP measures are not intended as a substitute for GAAP financial measures and may not be defined or calculated the same way as non-GAAP measures with similar names used by other companies.

Citi's non-GAAP financial measures in this Form 10-K include:

- Earnings per share (EPS), revenues and expenses excluding applicable notable items and divestiture-related impacts
- Expenses excluding the Federal Deposit Insurance Corporation (FDIC) special assessment and restructuring charges
- *All Other* (managed basis), which excludes divestiture-related impacts
- Tangible common equity (TCE), return on tangible common equity (RoTCE) and tangible book value per share (TBVPS)
- *Banking* and Corporate Lending revenues excluding gain (loss) on loan hedges
- *Services* revenues excluding the impact of the Argentine peso devaluations
- *Non-Markets* net interest income

For more information on the notable items, including the FDIC special assessment and restructuring charges, see "Executive Summary" below.

Citi's results excluding divestiture-related impacts represent as reported, or GAAP, financial results adjusted for items that are incurred and recognized, which are wholly and necessarily a consequence of actions taken to sell (including through a public offering), dispose of or wind down business activities associated with Citi's previously announced exit markets within *All Other*—Legacy Franchises. Citi's Chief Executive Officer, its chief operating decision maker, regularly reviews financial information for *All Other* on a managed basis that excludes these divestiture-related impacts. For more information on Citi's results excluding divestiture-related impacts, see "Executive Summary" and "*All Other*—Divestiture-Related Impacts (Reconciling Items)" below.

For more information on TCE, RoTCE and TBVPS, see "Capital Resources—Tangible Common Equity, Book Value Per Share, Tangible Book Value Per Share and Return on Equity" below.

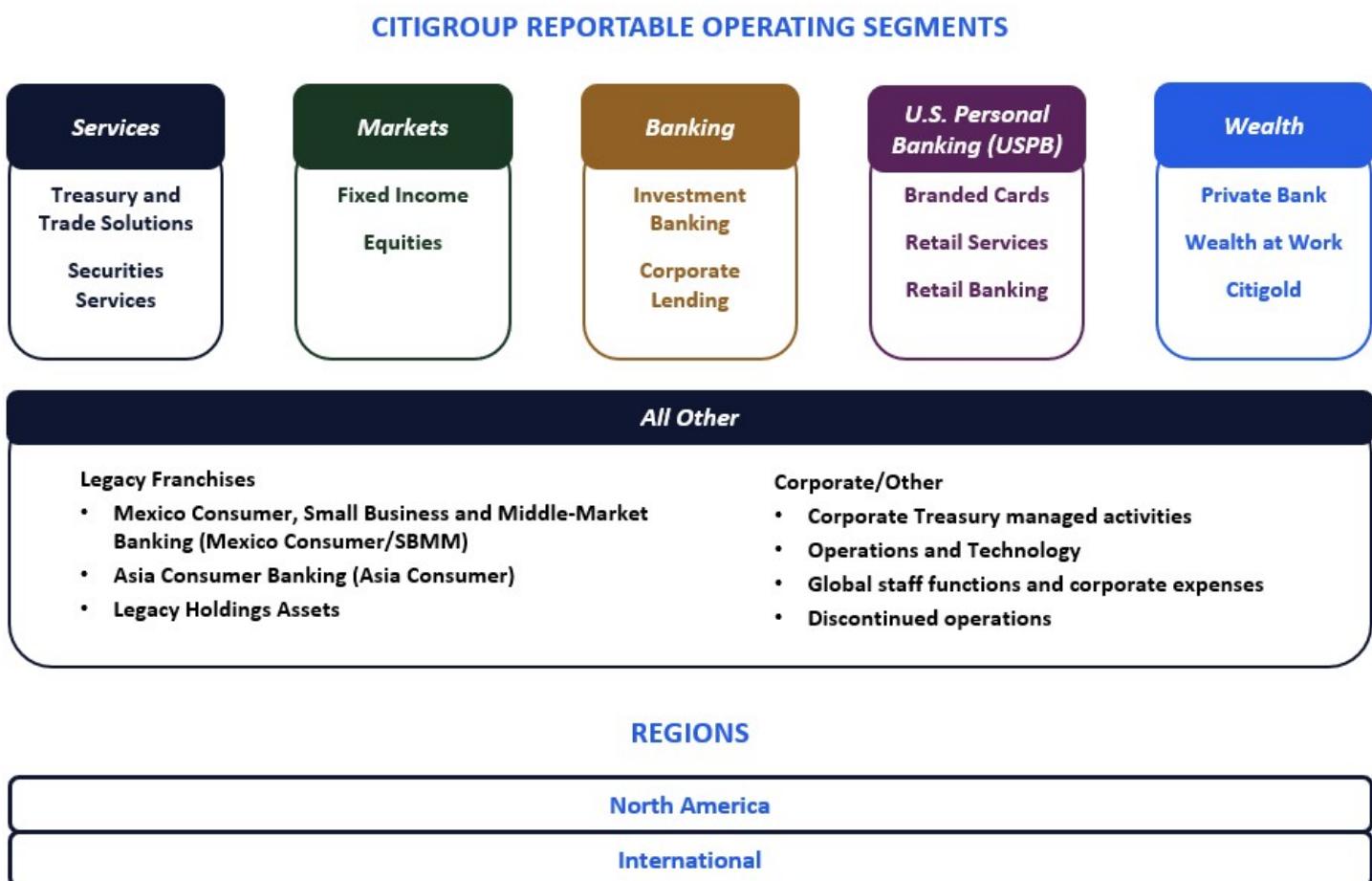
For more information on *Banking* and Corporate Lending revenues excluding gains (losses) on loan hedges, see "Executive Summary" and "*Banking*" below.

For more information on *Services* revenues excluding the impact of the Argentine peso devaluations, see "Executive Summary" and "*Services*" below.

For more information on *non-Markets* net interest income, see "Market Risk—*Non-Markets* Net Interest Income" below.

Effective as of the fourth quarter of 2023, Citigroup was managed pursuant to five operating segments: *Services*, *Markets*, *Banking*, *U.S. Personal Banking* and *Wealth*. Activities not assigned to the operating segments are included in *All Other*.

New Financial Reporting Structure



Note: Mexico is included in International.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

EXECUTIVE SUMMARY

As described further throughout this Executive Summary, Citi demonstrated substantial progress across the franchise during 2023, despite the impact of several notable items in the fourth quarter:

- Citi's revenues increased 4% versus the prior year, reflecting an increase in net interest income in *Services* and *U.S. Personal Banking (USPB)*, driven by higher interest rates, as well as loan growth in cards. The increase in revenues was partially offset by lower non-interest revenues, primarily driven by approximately \$1.9 billion in aggregate translation losses (including approximately \$880 million in the fourth quarter) due to devaluations of the Argentine peso during the year, the impact of lower volatility in *Markets* and the contraction of the global investment banking wallet in Investment Banking.
- Citi's expenses increased 10% versus the prior year. The increase included fourth-quarter pretax charges of approximately \$1.7 billion associated with the FDIC special assessment and approximately \$780 million of restructuring charges. Excluding both of these charges, expenses increased 5%, driven by increased investments in other risk and controls and technology, elevated business-as-usual severance costs and additional transformation and business-led investments. The increase was partially offset by productivity savings and expense reductions from the exited markets and continued wind-downs (see "Expenses" below).
- Citi's cost of credit was \$9.2 billion versus \$5.2 billion in the prior year. The increase was primarily driven by higher cards net credit losses in Branded Cards and Retail Services, reflecting normalization from historically low levels. The increase was also due to net builds in the allowance for credit losses (ACL), including approximately \$1.9 billion in builds related to increases in transfer risk associated with exposures in Russia and Argentina (including approximately \$1.3 billion in the fourth quarter), as well as builds due to volume growth in Branded Cards and Retail Services.
- Citi returned \$6.1 billion to common shareholders in the form of dividends (\$4.1 billion) and share repurchases (\$2.0 billion).
- Citi's Common Equity Tier 1 (CET1) Capital ratio under the Basel III Standardized Approach increased to 13.4% as of December 31, 2023, compared to 13.0% as of December 31, 2022 (see "Capital Resources" below). This compares to Citi's required regulatory CET1 Capital ratio of 12.3% as of October 1, 2023 under the Basel III Standardized Approach.
- Citi closed the four remaining signed consumer banking sale transactions in 2023. Citi also continued to make progress with the wind-downs of the Korea and China consumer banking businesses and the Russia consumer, local commercial and institutional businesses, as well as the planned initial public offering of Citi's consumer

banking and small business and middle-market banking operations in Mexico, and restarted the sales process for its Poland consumer banking business.

2023 Results Summary

Citigroup

Citigroup reported net income of \$9.2 billion, or \$4.04 per share, compared to net income of \$14.8 billion, or \$7.00 per share in the prior year. Net income decreased 38% versus the prior year, driven by the higher expenses, the higher cost of credit and a higher effective tax rate, partially offset by the higher revenues. Citigroup's effective tax rate was 27% in 2023 versus 19% in the prior year, largely driven by the geographic mix of earnings (see Note 10).

As discussed above, results for 2023 included several notable items impacting pretax revenues, expenses and cost of credit:

- Approximately \$1.9 billion of aggregate translation losses in revenues due to devaluations of the Argentine peso
- Approximately \$1.9 billion in aggregate reserve builds related to increases in transfer risk associated with exposures in Russia and Argentina, driven by safety and soundness considerations under U.S. banking law
- An approximate \$1.7 billion charge to operating expenses related to the FDIC special assessment in the fourth quarter
- Approximately \$780 million of restructuring charges in the fourth quarter, recorded in operating expenses in Corporate/Other within *All Other* (managed basis), related to actions taken as part of Citi's organizational simplification initiatives

In total, on an after-tax basis the notable items were \$(5.4) billion.

Additionally, results for 2023 included pretax divestiture-related impacts of approximately \$1.0 billion (approximately \$659 million after-tax), primarily driven by gains on sale of Citi's India and Taiwan consumer banking businesses. (See "*All Other*—Divestiture-Related Impacts (Reconciling Items)" below.)

The above notable items and divestiture-related impacts, collectively, had a \$2.40 negative impact on EPS in 2023. For additional information on the translation losses due to the devaluations of the Argentine peso, see "Managing Global Risk—Other Risks—Country Risk—Argentina" below and "*Services*," "*Markets*" and "*Banking*" below. Excluding the notable items and divestiture-related impacts, EPS was \$6.44. (As used throughout this Form 10-K, Citi's results of operations and financial condition excluding the notable items and divestiture-related impacts are non-GAAP financial measures.)

Results for 2022 included pretax divestiture-related impacts of \$82 million. (See "*All Other*—Divestiture-Related Impacts (Reconciling Items)" below.) Collectively, divestiture-related impacts had a \$0.09 negative impact on

EPS. Excluding divestiture-related impacts, EPS in 2022 was \$7.09. Results in 2022 also included approximately \$820 million of translation losses in revenues due to the devaluations of the Argentine peso.

Citigroup revenues of \$78.5 billion in 2023 increased 4% on a reported basis. Excluding divestiture-related impacts, revenues of \$77.1 billion also increased 4% versus the prior year. Excluding both divestiture-related and Argentine peso devaluation impacts, revenues of \$79 billion in 2023 increased 5% versus the prior year. The increase in revenues reflected strength across *Services* and *USPB*, partially offset by declines in *Markets*, *Banking* and *Wealth*, as well as the revenue reduction from the exited markets and continued wind-downs in *All Other* (managed basis).

Citigroup's end-of-period loans were \$689 billion, up 5% versus the prior year, largely driven by growth in *USPB*.

Citigroup's end-of-period deposits were approximately \$1.3 trillion, down 4% versus the prior year. The decline in deposits was largely due to a reduction in *Services*, reflecting quantitative tightening and a shift of deposits to higher-yielding investments in *USPB* and *Wealth* in 2023. For additional information about Citi's deposits by business, including drivers and deposit trends, see each respective business's results of operations and "Liquidity Risk—Deposits" below.

Expenses

Citigroup's operating expenses of \$56.4 billion increased 10% from the prior year. In the fourth quarter of 2023, Citi incurred the approximate \$1.7 billion charge associated with the FDIC special assessment and approximately \$780 million of restructuring charges related to Citi's organizational simplification initiatives (see Note 9). Expenses also included divestiture-related impacts of \$372 million in 2023 and \$696 million in the prior year. Excluding divestiture-related impacts, expenses of \$56 billion increased 11% versus the prior year. Excluding divestiture-related impacts, the restructuring charges and the FDIC special assessment, expenses of \$53.5 billion increased 6%, driven by increased investments in other risk and controls and technology, elevated business-as-usual severance costs and additional transformation and business-led investments. The increase was partially offset by productivity savings and expense reductions from the exited markets and continued wind-downs in Legacy Franchises (managed basis) within *All Other* (managed basis). Citi expects to incur additional costs related to its organizational simplification in the first quarter of 2024.

Cost of Credit

Citi's total provisions for credit losses and for benefits and claims was a cost of \$9.2 billion, compared to \$5.2 billion in the prior year. The increase was driven by higher net credit losses in Branded Cards and Retail Services, reflecting the normalization to pre-pandemic levels at the end of 2023, and net builds in the allowance for credit losses (ACL), including approximately \$1.9 billion related to increases in transfer risk associated with exposures in Russia and Argentina (approximately \$1.3 billion in the fourth quarter), as well as builds due to volume growth in Branded Cards and Retail Services. For additional information on Citi's ACL, including

the builds for transfer risk, see "Significant Accounting Policies and Significant Estimates—Citi's Allowance for Credit Losses (ACL)" below.

Net credit losses of \$6.4 billion increased 70% from the prior year. Consumer net credit losses of \$6.2 billion increased 71%, largely reflecting the rise in cards net credit loss rates from historically low levels. Corporate net credit losses increased to \$250 million from \$178 million.

Citi expects to incur higher net credit losses in 2024, primarily due to higher cards net credit loss rates, which Citi expects to rise above pre-pandemic levels and, on a full-year basis, peak in 2024. The higher net credit losses expectation is already reflected in the Company's ACL on loans for outstanding balances at December 31, 2023.

For additional information on Citi's consumer and corporate credit costs, see each respective business's results of operations and "Credit Risk" below.

Capital

Citigroup's CET1 Capital ratio was 13.4% as of December 31, 2023, compared to 13.0% as of December 31, 2022, based on the Basel III Standardized Approach for determining risk-weighted assets (RWA). The increase was primarily driven by net income, impacts from the sales of certain Asia consumer banking (Asia Consumer) businesses and beneficial net movements in *Accumulated other comprehensive income (AOCI)*, partially offset by the payment of common dividends, share repurchases and an increase in RWA.

In 2023, Citi repurchased \$2.0 billion of common shares and paid \$4.1 billion of common dividends (see "Unregistered Sales of Equity Securities, Repurchases of Equity Securities and Dividends" below). Citi will continue to assess common share repurchases on a quarter-by-quarter basis given uncertainty regarding regulatory capital requirements. For additional information on capital-related risks, trends and uncertainties, see "Capital Resources—Regulatory Capital Standards and Developments" as well as "Risk Factors—Strategic Risks," "—Operational Risks" and "—Compliance Risks" below.

Citigroup's Supplementary Leverage ratio as of December 31, 2023 was 5.8%, unchanged from December 31, 2022 as higher Tier 1 Capital was offset by an increase in Total Leverage Exposure. For additional information on Citi's capital ratios and related components, see "Capital Resources" below.

Services

Services net income of \$4.6 billion decreased 6%, as higher expenses and higher cost of credit were partially offset by the increase in revenues. *Services* expenses of \$10.0 billion increased 15%, primarily driven by continued investment in technology and other risk and controls, volume-related expenses and business-led investments in Treasury and Trade Solutions (TTS), partially offset by the impact of productivity savings. Cost of credit increased to \$950 million from \$207 million the prior year, largely driven by an ACL build in other assets, primarily due to the reserve build for increases in transfer risk associated with exposures in Russia and Argentina.

Services revenues of \$18.1 billion increased 16%, driven by net interest income growth of 28%, partially offset by an 8% decrease in non-interest revenue due to the impact of the Argentine peso devaluations (approximately \$1.2 billion in 2023 and approximately \$0.4 billion in 2022). Excluding this impact, non-interest revenue increased 6%.

TTS revenues of \$13.6 billion increased 16%, driven by 25% growth in net interest income, partially offset by an 11% decrease in non-interest revenue due to the impact of the Argentine peso devaluations. The increase in TTS net interest income was primarily driven by higher interest rates and cost of funds management across currencies, as well as growth in deposits. Excluding the impact of the currency devaluations, non-interest revenue increased 10%, driven by continued growth in underlying drivers.

Securities Services revenues of \$4.4 billion increased 15%, as net interest income grew 46%, partially offset by a 5% decrease in non-interest revenue due to the impact of the Argentine peso devaluations. The increase in net interest income was driven by higher interest rates across currencies and cost of funds management, partially offset by lower average deposits.

Excluding the impact of the currency devaluations, non-interest revenue increased 1%, driven by increased fees from higher AUC/AUA balances from new client business and deepening share of existing client wallet, as well as continued elevated levels of corporate activity in Issuer Services.

For additional information on the results of operations of *Services* in 2023, see “*Services*” below.

Markets

Markets net income of \$4.0 billion decreased 33%, driven by lower revenues, higher expenses and higher cost of credit.

Markets expenses of \$13.2 billion increased 7%, primarily driven by investments in transformation, technology and other risk and controls, partially offset by productivity savings. Cost of credit increased to \$437 million from \$155 million in the prior year, driven by an ACL build in other assets, largely due to the reserve build for increases in transfer risk associated with exposures in Russia and Argentina.

Markets revenues of \$18.9 billion decreased 6%, driven by a 6% decrease in Fixed Income markets and a 9% decrease in Equity markets. The decrease in Fixed Income was driven by a decrease in rates and currencies and spread products reflecting lower volatility, the impact of the Argentine peso devaluations, a strong prior-year comparison and a significant slowdown in activity in December 2023. The decrease in Equity markets was primarily due to a decline in equity derivatives, due to lower institutional activity, spread compression and lower volatility.

For additional information on the results of operations of *Markets* in 2023, see “*Markets*” below.

Banking

Banking reported a net loss of \$48 million, compared to net income of \$386 million in the prior year, primarily driven by lower Corporate Lending revenues, including the impact of a loss on loan hedges, and higher expenses, partially offset by lower cost of credit. *Banking* expenses of \$4.9 billion increased 9%, primarily driven by the absence of an

operational loss reserve release in the prior year, business-led investments and the impact of business-as-usual severance, partially offset by productivity savings. Cost of credit was a benefit of \$165 million, compared to cost of credit of \$549 million in the prior year, driven by ACL releases in loans and unfunded lending commitments, partially offset by an ACL build in other assets.

Banking revenues of \$4.6 billion decreased 15%, including the \$443 million loss on loan hedges in 2023 and the \$307 million gain on loan hedges in the prior year. Excluding the gain (loss) on loan hedges, *Banking* revenues of \$5.0 billion decreased 2%, as slightly higher revenues in Investment Banking were more than offset by lower Corporate Lending revenues. Investment Banking revenues of \$2.5 billion increased 1%, driven by lower markdowns in non-investment-grade loan commitments. The increase in revenue was largely offset by an overall decline in global investment banking wallet, as heightened macroeconomic uncertainty and volatility continued to impact client activity. Excluding the impact of the gain (loss) on loan hedges, Corporate Lending revenues decreased 4%, largely driven by lower volumes on continued balance sheet optimization. The decline in revenues also reflected approximately \$134 million in translation losses in Argentina due to devaluations of the Argentine peso, including a \$64 million translation loss in the fourth quarter of 2023. (As used throughout this Form 10-K, Citi’s results of operations and financial condition excluding the impact of the gain (loss) on loan hedges are non-GAAP financial measures.)

For additional information on the results of operations of *Banking* in 2023, see “*Banking*” below.

U.S. Personal Banking

USPB net income of \$1.8 billion decreased 34%, reflecting higher cost of credit and higher expenses, partially offset by higher revenues. *USPB* expenses increased 3%, primarily driven by continued investments in other risk and controls and technology, business-led investments and business-as-usual severance costs, partially offset by productivity savings. Cost of credit increased to \$6.7 billion, compared to \$3.4 billion in the prior year. The increase was largely driven by higher net credit losses and a higher net ACL build, primarily reflecting growth in loan balances in Branded Cards and Retail Services. Net credit losses increased 79%, primarily reflecting normalization from historically low levels in U.S. cards, as net credit loss rates for both Branded Cards and Retail Services reached pre-pandemic levels at the end of 2023.

USPB revenues of \$19.2 billion increased 14%, due to higher net interest income (up 12%), driven by strong loan growth and higher deposit spreads, as well as higher non-interest revenue (up 19%). Branded Cards revenues of \$10.0 billion increased 11%, primarily driven by the higher net interest income, as average loans increased 13%. Retail Services revenues of \$6.6 billion increased 21%, primarily driven by the higher net interest income from loan growth, as well as higher non-interest revenue due to the lower partner payments, driven by higher net credit losses. Retail Banking revenues of \$2.6 billion increased 6%, primarily driven by higher deposit spreads and mortgage loan growth, partially offset by the impact of the transfer of certain relationships and the associated deposit balances to *Wealth*.

For additional information on the results of operations of USPB in 2023, see “*U.S. Personal Banking*” below.

Wealth

Wealth net income of \$346 million decreased 64%, reflecting lower revenues and higher expenses, partially offset by lower cost of credit. *Wealth* expenses increased 10% to \$6.6 billion, primarily driven by continued investments in other risk and controls and technology, partially offset by productivity savings and re-pacing of strategic investments. Cost of credit was a net benefit of \$2 million, compared to cost of credit of \$306 million in the prior year, largely driven by a net ACL release.

Wealth revenues of \$7.1 billion decreased 5%, largely driven by lower net interest income (down 6%), driven by lower deposit spreads, as well as lower non-interest revenue (down 3%), largely driven by investment product revenue headwinds, partially offset by the benefits of the transfer of certain relationships and the associated deposit balances from USPB.

For additional information on the results of operations of *Wealth* in 2023, see “*Wealth*” below.

All Other (Managed Basis)

All Other (managed basis) net loss of \$2.1 billion, compared to net income of \$163 million in the prior year, was driven by higher expenses, primarily due to the \$1.7 billion FDIC special assessment, and higher cost of credit due to ACL builds for loans in Mexico Consumer and other assets, reflecting an increase in transfer risk associated with exposures in Russia. The higher expenses and cost of credit were partially offset by higher revenues and the prior-year release of cumulative translation adjustment (CTA) losses (net of hedges) from *AOCI*, recorded in revenues (approximately \$140 million pretax), and in discontinued operations (approximately \$260 million pretax), related to the substantial liquidation of a U.K. consumer legacy operation (see Note 2).

For additional information on the results of operations of *All Other* (managed basis) in 2023, see “*All Other—Divestiture-Related Impacts (Reconciling Items)*” and “*All Other (Managed Basis)*” below.

Macroeconomic and Other Risks and Uncertainties

Various geopolitical, macroeconomic and regulatory challenges and uncertainties continue to adversely affect economic conditions in the U.S. and globally, including, among others, continued elevated interest rates, elevated inflation, and economic and geopolitical challenges related to China, the Russia–Ukraine war and escalating conflicts in the Middle East. These and other factors have negatively impacted global economic growth rates and consumer sentiment and have resulted in a continued risk of recession in various regions and countries globally. In addition, these and other factors could adversely affect Citi’s customers, clients, businesses, funding costs, cost of credit and overall results of operations and financial condition during 2024.

For a further discussion of trends, uncertainties and risks that will or could impact Citi’s businesses, results of operations, capital and other financial condition during 2024, see “Executive Summary” above and “Risk Factors,” each

respective business’s results of operations and “Managing Global Risk,” including “Managing Global Risk—Other Risks—Country Risk—Russia” and “—Argentina” below.

CITI’S CONSENT ORDER COMPLIANCE

Citi has embarked on a multiyear transformation, with the target outcome to change Citi’s business and operating models such that they simultaneously strengthen risk and controls and improve Citi’s value to customers, clients and shareholders.

This includes efforts to effectively implement the October 2020 Federal Reserve Board (FRB) and Office of the Comptroller of the Currency (OCC) consent orders issued to Citigroup and Citibank, respectively. In the second quarter of 2021, Citi made an initial submission to the OCC, and submitted its plans to address the consent orders to both regulators during the third quarter of 2021. Citi continues to work constructively with the regulators and provides to both regulators on an ongoing basis additional information regarding its plans and progress. Citi will continue to reflect their feedback in its project plans and execution efforts.

As discussed above, Citi’s efforts include continued investments in its transformation, including the remediation of its consent orders. Citi’s CEO has made the strengthening of Citi’s risk and control environment a strategic priority and has established a Chief Operating Officer organization to centralize program management. In addition, the Citigroup and Citibank Boards of Directors each formed a Transformation Oversight Committee, an ad hoc committee of each Board, to provide oversight of management’s remediation efforts under the consent orders. The Citi Board of Directors has determined that Citi’s plans are responsive to the Company’s objectives and that progress continues to be made on execution of the plans.

For additional information about the consent orders, see “Risk Factors—Compliance Risks” below and Citi’s Current Report on Form 8-K filed with the SEC on October 7, 2020.

RESULTS OF OPERATIONS

SUMMARY OF SELECTED FINANCIAL DATA

Citigroup Inc. and Consolidated Subsidiaries

<i>In millions of dollars, except per share amounts</i>	2023	2022	2021	2020	2019
Net interest income	\$ 54,900	\$ 48,668	\$ 42,494	\$ 44,751	\$ 48,128
Non-interest revenue	23,562	26,670	29,390	30,750	26,939
Revenues, net of interest expense	\$ 78,462	\$ 75,338	\$ 71,884	\$ 75,501	\$ 75,067
Operating expenses	56,366	51,292	48,193	44,374	42,783
Provisions for credit losses and for benefits and claims	9,186	5,239	(3,778)	17,495	8,383
Income from continuing operations before income taxes	\$ 12,910	\$ 18,807	\$ 27,469	\$ 13,632	\$ 23,901
Income taxes	3,528	3,642	5,451	2,525	4,430
Income from continuing operations	\$ 9,382	\$ 15,165	\$ 22,018	\$ 11,107	\$ 19,471
Income (loss) from discontinued operations, net of taxes	(1)	(231)	7	(20)	(4)
Net income before attribution of noncontrolling interests	\$ 9,381	\$ 14,934	\$ 22,025	\$ 11,087	\$ 19,467
Net income attributable to noncontrolling interests	153	89	73	40	66
Citigroup's net income	\$ 9,228	\$ 14,845	\$ 21,952	\$ 11,047	\$ 19,401
Earnings per share					
Basic					
Income from continuing operations	\$ 4.07	\$ 7.16	\$ 10.21	\$ 4.75	\$ 8.08
Net income	4.07	7.04	10.21	4.74	8.08
Diluted					
Income from continuing operations	\$ 4.04	\$ 7.11	\$ 10.14	\$ 4.73	\$ 8.04
Net income	4.04	7.00	10.14	4.72	8.04
Dividends declared per common share	2.08	2.04	2.04	2.04	1.92
Common dividends	\$ 4,076	\$ 4,028	\$ 4,196	\$ 4,299	\$ 4,403
Preferred dividends	1,198	1,032	1,040	1,095	1,109
Common share repurchases	2,000	3,250	7,600	2,925	17,875

Table continues on the next page, including footnotes.

SUMMARY OF SELECTED FINANCIAL DATA (Continued)

Citigroup Inc. and Consolidated Subsidiaries

<i>In millions of dollars, except per share amounts, ratios and direct staff</i>	2023	2022	2021	2020	2019
At December 31:					
Total assets	\$ 2,411,834	\$ 2,416,676	\$ 2,291,413	\$ 2,260,090	\$ 1,951,158
Total deposits	1,308,681	1,365,954	1,317,230	1,280,671	1,070,590
Long-term debt	286,619	271,606	254,374	271,686	248,760
Citigroup common stockholders' equity	187,853	182,194	182,977	179,962	175,262
Total Citigroup stockholders' equity	205,453	201,189	201,972	199,442	193,242
Average assets	2,442,233	2,396,023	2,347,709	2,226,454	1,978,805
Direct staff (in thousands)	239	240	223	210	210
Performance metrics					
Return on average assets	0.38 %	0.62 %	0.94 %	0.50 %	0.98 %
Return on average common stockholders' equity ⁽¹⁾	4.3	7.7	11.5	5.7	10.3
Return on average total stockholders' equity ⁽¹⁾	4.5	7.5	10.9	5.7	9.9
Return on tangible common equity (RoTCE) ⁽²⁾	4.9	8.9	13.4	6.6	12.1
Efficiency ratio (total operating expenses/total revenues, net)	71.8	68.1	67.0	58.8	57.0
Basel III ratios					
CET1 Capital ⁽³⁾	13.37 %	13.03 %	12.25 %	11.51 %	11.79 %
Tier 1 Capital ⁽³⁾	15.02	14.80	13.91	13.06	13.33
Total Capital ⁽³⁾	15.13	15.46	16.04	15.33	15.87
Supplementary Leverage ratio	5.82	5.82	5.73	6.99	6.20
Citigroup common stockholders' equity to assets	7.79 %	7.54 %	7.99 %	7.96 %	8.98 %
Total Citigroup stockholders' equity to assets	8.52	8.33	8.81	8.82	9.90
Dividend payout ratio ⁽⁴⁾	51	29	20	43	24
Total payout ratio ⁽⁵⁾	76	53	56	73	122
Book value per common share	\$ 98.71	\$ 94.06	\$ 92.21	\$ 86.43	\$ 82.90
Tangible book value per share (TBVPS) ⁽²⁾	86.19	81.65	79.16	73.67	70.39

- (1) The return on average common stockholders' equity is calculated using net income less preferred stock dividends divided by average common stockholders' equity. The return on average total Citigroup stockholders' equity is calculated using net income divided by average Citigroup stockholders' equity.
- (2) RoTCE and TBVPS are non-GAAP financial measures. For information on RoTCE and TBVPS, see "Capital Resources—Tangible Common Equity, Book Value Per Share, Tangible Book Value Per Share and Return on Equity" below.
- (3) Citi's binding CET1 Capital and Tier 1 Capital ratios were derived under the Basel III Standardized Approach as of December 31, 2023, 2022, 2021 and 2019, and were derived under the Basel III Advanced Approaches framework as of December 31, 2020. Citi's binding Total Capital ratio was derived under the Basel III Advanced Approaches framework for all periods presented.
- (4) Dividends declared per common share as a percentage of net income per diluted share.
- (5) Total common dividends declared plus common share repurchases as a percentage of net income available to common shareholders (*Net income* less preferred dividends). See "Consolidated Statement of Changes in Stockholders' Equity," Note 11 and "Equity Security Repurchases" below for the component details.

SEGMENT REVENUES AND INCOME (LOSS)

REVENUES

In millions of dollars	2023	2022	2021	% Change 2023 vs. 2022	% Change 2022 vs. 2021
Services	\$ 18,050	\$ 15,619	\$ 12,523	16 %	25 %
Markets	18,857	20,161	19,399	(6)	4
Banking	4,568	5,396	7,783	(15)	(31)
U.S. Personal Banking	19,187	16,872	15,845	14	6
Wealth	7,091	7,448	7,542	(5)	(1)
All Other—managed basis⁽¹⁾	9,363	8,988	9,462	4	(5)
All Other—divestiture-related impacts (Reconciling Items)⁽¹⁾	1,346	854	(670)	58	NM
Total Citigroup net revenues	\$ 78,462	\$ 75,338	\$ 71,884	4 %	5 %

INCOME

In millions of dollars	2023	2022	2021	% Change 2023 vs. 2022	% Change 2022 vs. 2021
Income (loss) from continuing operations					
Services	\$ 4,671	\$ 4,924	\$ 3,768	(5)%	31 %
Markets	4,020	5,924	6,661	(32)	(11)
Banking	(44)	383	4,105	NM	(91)
U.S. Personal Banking	1,820	2,770	6,099	(34)	(55)
Wealth	346	950	1,968	(64)	(52)
All Other—managed basis⁽¹⁾	(2,090)	398	1,059	NM	(62)
All Other—divestiture-related impacts (Reconciling Items)⁽¹⁾	659	(184)	(1,642)	NM	89
Income from continuing operations	\$ 9,382	\$ 15,165	\$ 22,018	(38)%	(31)%
Discontinued operations	\$ (1)	\$ (231)	7	100 %	NM
Less: Net income attributable to noncontrolling interests	153	89	73	72	22 %
Citigroup's net income	\$ 9,228	\$ 14,845	\$ 21,952	(38)%	(32)%

(1) All Other (managed basis) excludes divestiture-related impacts (Reconciling Items) related to (i) Citi's divestitures of its Asia Consumer businesses and (ii) the planned divestiture of Mexico consumer banking and small business and middle-market banking within Legacy Franchises. The Reconciling Items are fully reflected in the various line items in Citi's Consolidated Statement of Income. See "All Other—Divestiture-Related Impacts (Reconciling Items)" below.

NM Not meaningful

SELECT BALANCE SHEET ITEMS BY SEGMENT⁽¹⁾—DECEMBER 31, 2023

<i>In millions of dollars</i>	Services	Markets	Banking	USPB	Wealth	All Other and consolidating eliminations⁽²⁾	Citigroup parent company- issued long-term debt⁽³⁾	Total Citigroup consolidated
Cash and deposits with banks, net of allowance	\$ 14,064	\$ 64,595	\$ 363	\$ 5,463	\$ 1,785	\$ 174,662	\$ —	\$ 260,932
Securities borrowed and purchased under agreements to resell, net of allowance	7,200	335,836	—	—	335	2,329	—	345,700
Trading account assets	92	397,531	1,032	312	926	11,863	—	411,756
Investments, net of allowance	707	139,754	1,586	—	3	377,035	—	519,085
Loans, net of unearned income and allowance for credit losses on loans	84,321	121,400	83,556	195,999	150,708	35,233	—	671,217
Deposits	\$ 779,449	\$ 20,777	\$ 696	\$ 103,151	\$ 322,695	\$ 81,913	\$ —	\$ 1,308,681
Securities loaned and sold under agreements to repurchase	903	274,384	—	—	53	2,767	—	278,107
Trading account liabilities	70	153,456	—	190	276	1,353	—	155,345
Short-term borrowings	124	20,173	—	—	2	17,158	—	37,457
Long-term debt ⁽³⁾	—	98,789	—	—	409	25,112	162,309	286,619

- (1) The information presented in the table above reflects select GAAP balance sheet items by reportable segment and component. This table does not include intersegment funding.
- (2) Consolidating eliminations for total Citigroup and Citigroup parent company items are recorded within *All Other*.
- (3) The majority of long-term debt of Citigroup is reflected on the Citigroup parent company balance sheet (see Notes 19 and 31). Citigroup allocates stockholders' equity and long-term debt to its businesses.

SERVICES

Services includes Treasury and Trade Solutions (TTS) and Securities Services. TTS provides an integrated suite of tailored cash management, trade and working capital solutions to multinational corporations, financial institutions and public sector organizations. Securities Services provides cross-border support for clients, providing on-the-ground local market expertise, post-trade technologies, customized data solutions and a wide range of securities services solutions that can be tailored to meet clients' needs.

Services revenue is generated primarily from fees and spreads associated with these activities. *Services* earns fee income for assisting clients with transactional services and clearing. Revenue generated from these activities is recorded in *Commissions and fees*. Revenue is also generated from assets under custody and administration and is recognized when the associated service is satisfied, which normally occurs at the point in time the service is requested by the client and provided by Citi. Revenue generated from these activities is primarily recorded in *Administration and other fiduciary fees*. For additional information on these various types of revenues, see Note 5. *Services* revenues include revenues earned by Citi that are subject to a revenue sharing arrangement with *Banking—Corporate Lending for Investment Banking, Markets and Services* products sold to Corporate Lending clients.

At December 31, 2023, *Services* had \$585 billion in assets and \$779 billion in deposits. Securities Services managed \$25.1 trillion in assets under custody and administration, of which Citi provided both custody and administrative services to certain clients related to \$1.8 trillion of such assets. Managed assets under trust were \$4.1 trillion.

<i>In millions of dollars, except as otherwise noted</i>	2023	2022	2021	% Change 2023 vs. 2022	% Change 2022 vs. 2021
Net interest income (including dividends)	\$ 13,198	\$ 10,318	\$ 6,821	28 %	51 %
Fee revenue					
Commissions and fees	3,118	2,882	2,550	8	13
Other	2,508	2,490	2,447	1	2
Total fee revenue	\$ 5,626	\$ 5,372	\$ 4,997	5 %	8 %
Principal transactions	1,006	854	782	18	9
All other ⁽¹⁾	(1,780)	(925)	(77)	(92)	NM
Total non-interest revenue	\$ 4,852	\$ 5,301	\$ 5,702	(8)%	(7)%
Total revenues, net of interest expense	\$ 18,050	\$ 15,619	\$ 12,523	16 %	25 %
Total operating expenses	\$ 10,024	\$ 8,728	\$ 7,706	15 %	13 %
Net credit losses on loans	40	51	42	(22)	21
Credit reserve build (release) for loans	47	128	(248)	(63)	NM
Provision (release) for credit losses on unfunded lending commitments	(18)	24	(61)	NM	NM
Provisions for credit losses for other assets and HTM debt securities	881	4	4	NM	—
Provision (release) for credit losses	\$ 950	\$ 207	\$ (263)	NM	NM
Income from continuing operations before taxes	\$ 7,076	\$ 6,684	\$ 5,080	6 %	32 %
Income taxes	2,405	1,760	1,312	37	34
Income from continuing operations	\$ 4,671	\$ 4,924	\$ 3,768	(5)%	31 %
Noncontrolling interests	66	36	6	83	NM
Net income	\$ 4,605	\$ 4,888	\$ 3,762	(6)%	30 %
Balance Sheet data (in billions of dollars)					
EOP assets	\$ 585	\$ 599	\$ 547	(2)%	10 %
Average assets	582	545	556	7	(2)
Efficiency ratio	56 %	56 %	62 %		
Revenue by component					
Net interest income	\$ 11,027	\$ 8,832	\$ 5,913	25 %	49 %
Non-interest revenue	2,625	2,947	3,247	(11)	(9)
Treasury and Trade Solutions (TTS)	\$ 13,652	\$ 11,779	\$ 9,160	16 %	29 %
Net interest income	\$ 2,171	\$ 1,486	\$ 908	46 %	64 %
Non-interest revenue	2,227	2,354	2,455	(5)	(4)
Securities Services	\$ 4,398	\$ 3,840	\$ 3,363	15 %	14 %
Total Services	\$ 18,050	\$ 15,619	\$ 12,523	16 %	25 %

Revenue by geography							
North America	\$ 5,132	\$ 4,782	\$ 3,748	7 %	28 %		
International	\$ 12,918	\$ 10,837	\$ 8,775	19	23		
Total	\$ 18,050	\$ 15,619	\$ 12,523	16 %	25 %		
Key drivers ⁽²⁾							
Average loans by reporting unit (in billions of dollars)							
TTS	\$ 80	\$ 80	\$ 72	— %	11 %		
Securities Services	\$ 1	\$ 2	\$ 2	(50)	—		
Total	\$ 81	\$ 82	\$ 74	(1)%	11 %		
ACLL as a percentage of EOP loans ⁽³⁾	0.47 %	0.46 %	0.24 %				
Average deposits by reporting unit and selected component (in billions of dollars)							
TTS	\$ 687	\$ 675	\$ 670	2 %	1 %		
Securities Services	\$ 123	\$ 133	\$ 135	(8)	(1)		
Total	\$ 810	\$ 808	\$ 805	— %	— %		

- (1) Includes revenues earned by Citi that are subject to a revenue sharing arrangement with *Banking*—Corporate Lending for Investment Banking, *Markets* and *Services* products sold to Corporate Lending clients.
(2) Management uses this information in reviewing the segment's results and believes it is useful to investors concerning underlying segment performance and trends.
(3) Excludes loans that are carried at fair value for all periods.
NM Not meaningful

2023 vs. 2022

Net income of \$4.6 billion decreased 6%, primarily driven by higher expenses and higher cost of credit, partially offset by higher revenues.

Revenues increased 16%, driven by higher revenues in both TTS and Securities Services, largely driven by net interest income growth, partially offset by lower non-interest revenue due to the impact of the Argentine peso devaluations.

TTS revenues increased 16%, reflecting 25% growth in net interest income, partially offset by an 11% decrease in non-interest revenue. The increase in net interest income was primarily driven by higher interest rates and cost of funds management across currencies as well as growth in deposits. Average deposits increased 2%, largely driven by growth in international markets. The decrease in non-interest revenue was driven by approximately \$1.0 billion in translation losses in revenues in Argentina due to devaluations of the Argentine peso, including a \$0.5 billion translation loss in the fourth quarter of 2023. Excluding these translation losses, non-interest revenue grew 10%, reflecting continued growth in underlying drivers, including higher cross-border flows (up 15%), U.S. dollar clearing volumes (up 6%) and commercial card spend (up 16%).

Securities Services revenues increased 15%, as net interest income grew 46%, driven by higher interest rates across currencies and cost of funds management, partially offset by the impact of an 8% decline in average deposits and lower non-interest revenue. The decline in average deposits largely reflected the impact of monetary tightening. The decrease in non-interest revenue was driven by approximately \$0.2 billion in translation losses in revenues in Argentina due to the Argentine peso devaluations, including a \$0.1 billion translation loss in the fourth quarter of 2023. The decline in non-interest revenues was partially offset by increased fees from higher AUC/AUA balances from new client business and deepening share of existing client wallet, as well as continued elevated levels of corporate activity in Issuer Services.

Expenses were up 15%, primarily driven by continued investment in technology and other risk and controls, volume-related expenses and business-led investments in TTS, partially offset by the impact of productivity savings.

Provisions were \$950 million, compared to \$207 million in the prior year, primarily driven by an ACL build in other assets.

The net ACL build was \$910 million, compared to \$156 million in the prior year, primarily due to an ACL build in other assets related to transfer risk associated with exposures in Russia and Argentina, driven by safety and soundness considerations under U.S. banking law. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information on *Services'* corporate credit portfolio, see "Managing Global Risk—Credit Risk—Corporate Credit" below.

For additional information on trends in *Services'* deposits and loans, see "Managing Global Risk—Liquidity Risk—Loans" and "—Deposits" below.

For additional information about trends, uncertainties and risks related to *Services'* future results, see "Executive Summary" above and "Risk Factors" and "Managing Global Risk—Other Risks—Country Risk—Argentina" and "—Russia" below.

2022 vs. 2021

Net income of \$4.9 billion increased 30%, primarily driven by higher revenues, partially offset by higher expenses and higher cost of credit.

Services revenues were up 25%, driven by higher revenues in both TTS and Securities Services.

TTS revenues increased 29%, largely due to 49% growth in net interest income, reflecting deepening of existing client relations and gaining new clients across segments. The increase in net interest income was also driven by the benefits from higher interest rates, balance sheet optimization, higher

average deposits and higher average loans. Average deposits grew 1%, as volume growth was partially offset by the impact of foreign exchange translation. Average loans grew 11%, primarily driven by the strength in trade flows in International, partially offset by loan sales in North America.

Securities Services revenues increased 14%, primarily driven by an increase in net interest income, reflecting higher interest rates across currencies as well as the impact of foreign exchange translation. Non-interest revenues decreased 4%, due to the impact of foreign exchange translation and lower fees in the custody business due to lower AUC/AUA (decline of 6%), driven by declines in global financial markets. The decline in non-interest revenues was partially offset by continued elevated levels of corporate activity in Issuer Services and new client onboarding of \$1.2 trillion in AUC/AUA. Average deposits declined 1%, due to clients seeking higher rate alternatives.

Expenses were up 13%, primarily driven by continued investment in Citi's technology and other risk and controls, volume-related expenses and business-led investments in TTS.

Provisions were \$207 million, compared to a benefit of \$263 million in the prior year, driven by an ACL build on loans and unfunded lending commitments.

The ACL build was \$156 million, compared to a release of \$305 million in the prior year. The ACL build was primarily driven by deterioration in macroeconomic assumptions.

MARKETS

Markets provides corporate, institutional and public sector clients around the world with a full range of sales and trading services across equities, foreign exchange, rates, spread products and commodities. The range of services includes market-making across asset classes, risk management solutions, financing, prime brokerage, research, securities clearing and settlement.

As a market maker, *Markets* facilitates transactions, including holding product inventory to meet client demand, and earns the differential between the price at which it buys and sells the products. These price differentials and the unrealized gains and losses on the inventory are recorded in *Principal transactions*. *Other* primarily includes realized gains and losses on available-for-sale (AFS) debt securities, gains and losses on equity securities not held in trading accounts and other non-recurring gains and losses. Interest income earned on assets held, less interest paid on long- and short-term debt, secured funding transactions and customer deposits, is recorded as *Net interest income*.

The amount and types of *Markets* revenues are impacted by a variety of interrelated factors, including market liquidity; changes in market variables such as interest rates, foreign exchange rates, equity prices, commodity prices and credit spreads, as well as their implied volatilities; investor confidence; and other macroeconomic conditions. *Markets* revenues include revenues earned by Citi that are subject to a revenue sharing arrangement with *Banking*—Corporate Lending for Investment Banking, *Markets* and *Services* products sold to Corporate Lending clients.

Assuming all other market conditions do not change, increases in client activity levels or bid/offer spreads generally result in increases in revenues. However, changes in market conditions can significantly impact client activity levels, bid/offer spreads and the fair value of product inventory. Management of the *Markets* businesses involves daily monitoring and evaluation of the above factors.

Markets international presence is supported by trading floors in approximately 80 countries and a proprietary network in 95 countries and jurisdictions.

<i>In millions of dollars, except as otherwise noted</i>	2023	2022	2021	% Change 2023 vs. 2022	% Change 2022 vs. 2021
Net interest income (including dividends)	\$ 7,265	\$ 5,819	\$ 6,147	25 %	(5)%
Fee revenue					
Brokerage and fees	1,381	1,452	1,530	(5)	(5)
Investment banking fees ⁽¹⁾	392	481	656	(19)	(27)
Other	150	139	176	8	(21)
Total fee revenue	\$ 1,923	\$ 2,072	\$ 2,362	(7)%	(12)%
Principal transactions	10,562	13,087	9,647	(19)	36
All other ⁽²⁾	(893)	(817)	1,243	(9)	100
Total non-interest revenue	\$ 11,592	\$ 14,342	\$ 13,252	(19)%	8 %
Total revenues, net of interest expense⁽³⁾	\$ 18,857	\$ 20,161	\$ 19,399	(6)%	4 %
Total operating expenses	\$ 13,238	\$ 12,413	\$ 11,372	7 %	9 %
Net credit losses (recoveries) on loans	32	(5)	97	NM	NM
Credit reserve build (release) for loans	204	80	(325)	NM	NM
Provision for credit losses (release) on unfunded lending commitments	1	10	(101)	(90)	NM
Provisions for credit losses for other assets and HTM debt securities	200	70	—	NM	100
Provision (release) for credit losses	\$ 437	\$ 155	\$ (329)	NM	NM
Income (loss) from continuing operations before taxes	\$ 5,182	\$ 7,593	\$ 8,356	(32)%	(9)%
Income taxes (benefits)	1,162	1,669	1,695	(30)	(2)
Income (loss) from continuing operations	\$ 4,020	\$ 5,924	\$ 6,661	(32)%	(11)%
Noncontrolling interests	67	52	38	29	37
Net income (loss)	\$ 3,953	\$ 5,872	\$ 6,623	(33)%	(11)%
Balance Sheet data (in billions of dollars)					
EOP assets	\$ 995	\$ 950	\$ 895	5 %	6 %
Average assets	1,018	984	935	3	5
Efficiency ratio	70 %	62 %	59 %		
Revenue by component					
Fixed Income markets	\$ 14,820	\$ 15,710	\$ 14,345	(6)%	10 %
Equity markets	4,037	4,451	5,054	(9)	(12)
Total	\$ 18,857	\$ 20,161	\$ 19,399	(6)%	4 %

Rates and currencies	\$ 10,885	\$ 11,556	\$ 8,838	(6)%	31 %
Spread products/other fixed income	\$ 3,935	\$ 4,154	\$ 5,507	(5)	(25)
Total Fixed Income markets revenues	\$ 14,820	\$ 15,710	\$ 14,345	(6)%	10 %
Revenue by geography					
North America	\$ 6,956	\$ 6,846	\$ 7,520	2 %	(9)%
International	\$ 11,901	\$ 13,315	\$ 11,879	(11)	12
Total	\$ 18,857	\$ 20,161	\$ 19,399	(6)%	4 %
Key drivers⁽⁴⁾ (in billions of dollars)					
Average loans	\$ 110	\$ 111	\$ 112	(1)%	(1)%
NCLs as a percentage of average loans	0.03 %	— %	0.09 %		
ACLL as a percentage of EOP loans ⁽⁵⁾	0.71 %	0.58 %	0.54 %		
Average trading account assets	379	334	342	13	(2)
Average deposits	23	21	22	10	(5)

- (1) Investment banking fees are primarily composed of underwriting, advisory, loan syndication structuring and other related financing activity.
 (2) Includes revenues earned by Citi that are subject to a revenue sharing arrangement with *Banking*—Corporate Lending for Investment Banking, *Markets* and *Services* products sold to Corporate Lending clients.
 (3) Citi assesses its *Markets* business performance on a total revenue basis, as offsets may occur across revenue line items. For example, securities that generate *Net interest income* may be risk managed by derivatives that are recorded in *Principal transactions* revenue within *Non-interest revenue*. For a description of the composition of these revenue line items, see Notes 4, 5 and 6.
 (4) Management uses this information in reviewing the segment's results and believes it is useful to investors concerning underlying segment performance and trends.
 (5) Excludes loans that are carried at fair value for all periods.

2023 vs. 2022

Net income of \$4.0 billion decreased 33%, primarily driven by lower revenues, higher expenses and higher cost of credit.

Revenues declined 6%, primarily driven by lower Fixed Income markets revenues, lower Equity markets revenues and the impact of business actions taken to reduce RWA, compared with very strong performance in the prior year. Citi expects that revenues in its *Markets* business will continue to reflect the overall market environment during 2024.

Fixed Income markets revenues decreased 6%. Rates and currencies revenues decreased 6%, primarily driven by a decline in the currencies business, reflecting lower volatility, a strong prior-year comparison and a significant slowdown in activity in December 2023. The decline in rates and currencies revenues also reflected \$526 million in translation losses in revenues in Argentina due to the Argentine peso devaluations, including \$236 million in translation loss in the fourth quarter of 2023. Spread products and other fixed income revenues decreased 5%, largely driven by lower client activity, lower volatility and a strong prior-year comparison.

Equity markets revenues decreased 9%, primarily due to a decline in equity derivatives, due to lower institutional activity, spread compression and lower volatility. Prime services revenues increased modestly, as prime finance balances grew, reflecting continued client momentum.

Expenses increased 7%, primarily driven by investments in transformation, technology and other risk and controls, partially offset by productivity savings.

Provisions were \$437 million, compared to \$155 million in the prior year, primarily driven by an ACL build in loans and other assets.

The net ACL build was \$405 million, compared to \$160 million in the prior year. The ACL build for loans was \$204 million, primarily driven by risks and uncertainties impacting vulnerable industries, including commercial real estate. The

net ACL build for other assets was \$200 million, primarily driven by transfer risk associated with exposures in Russia and Argentina, driven by safety and soundness considerations under U.S. banking law. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information on *Markets'* corporate credit portfolio, see "Managing Global Risk—Credit Risk—Corporate Credit" below.

For additional information on trends in *Markets'* deposits and loans, see "Managing Global Risk—Liquidity Risk—Loans" and "—Deposits" below.

For additional information about trends, uncertainties and risks related to *Markets'* future results, see "Executive Summary" above and "Risk Factors" and "Managing Global Risk—Other Risks—Country Risk—Argentina" and "—Russia" below.

2022 vs. 2021

Net income of \$5.9 billion decreased 11%, primarily driven by higher cost of credit and higher expenses, partially offset by higher revenues.

Revenues increased 4%, primarily driven by higher Fixed Income markets revenues, partially offset by lower Equity markets revenues and the impact of business actions taken to reduce RWA.

Fixed Income markets revenues increased 10%. Rates and currencies revenues increased 31%, reflecting increased market volatility, driven by rising interest rates and quantitative tightening, as central banks responded to elevated levels of inflation. Spread products and other fixed income revenues decreased 25%, due to continued lower client activity across spread products and a challenging credit market due to widening spreads for most of the year. The decline in spread products and other fixed income revenues was partially

offset by strength in commodities, particularly with corporate clients, as the business assisted those clients in managing risk associated with the increased volatility.

Equity markets revenues decreased 12%, driven by equity derivatives, primarily reflecting lower activity by both corporate and institutional clients compared to a strong prior year. The lower revenues also reflected a decline in equity cash, driven by lower client activity.

Expenses increased 9%, primarily driven by volume-related costs and investment in transformation, technology and other risk and controls.

Provisions were \$155 million, compared to a benefit of \$329 million in the prior year, driven by a net ACL build, partially offset by lower net credit losses.

Net credit losses were a benefit of \$5 million, compared to \$97 million in the prior year, largely driven by improvements in portfolio credit quality.

The net ACL build was \$160 million, compared to a net release of \$426 million in the prior year. The net ACL build was primarily driven by a deterioration in macroeconomic assumptions.

BANKING

Banking includes Investment Banking, which supports clients' capital-raising needs to help strengthen and grow their businesses, including equity and debt capital markets-related strategic financing solutions, as well as advisory services related to mergers and acquisitions, divestitures, restructurings and corporate defense activities; and Corporate Lending, which includes corporate and commercial banking, serving as the conduit of Citi's full product suite to clients.

Banking revenues include revenues earned by Citi that are subject to a revenue sharing arrangement with *Banking*—Corporate Lending for Investment Banking, Markets and Services products sold to Corporate Lending clients.

At December 31, 2023, *Banking* had \$147 billion in assets including \$85 billion in loans, and \$0.7 billion in deposits.

<i>In millions of dollars, except as otherwise noted</i>	2023	2022	2021	% Change 2023 vs. 2022	% Change 2022 vs. 2021
Net interest income (including dividends)	\$ 2,094	\$ 2,057	\$ 2,204	2 %	(7)%
Fee revenue					
Investment banking fees ⁽¹⁾	2,713	3,053	6,018	(11)	(49)
Other	158	174	330	(9)	(47)
Total fee revenue	\$ 2,871	\$ 3,227	\$ 6,348	(11)%	(49)%
Principal transactions	(936)	(133)	(501)	NM	73
All other ⁽²⁾	539	245	(268)	NM	NM
Total non-interest revenue	\$ 2,474	\$ 3,339	\$ 5,579	(26)%	(40)%
Total revenues, net of interest expense	4,568	5,396	7,783	(15)	(31)
Total operating expenses	\$ 4,869	\$ 4,471	\$ 4,406	9 %	1 %
Net credit losses on loans	169	106	217	59	(51)
Credit reserve build (release) for loans	(370)	270	(1,520)	NM	NM
Provision (release) for credit losses on unfunded lending commitments	(353)	153	(591)	NM	NM
Provisions (releases) for credit losses for other assets and HTM debt securities	389	20	(4)	NM	NM
Provisions (releases) for credit losses	\$ (165)	\$ 549	\$ (1,898)	NM	NM
Income (loss) from continuing operations before taxes	\$ (136)	\$ 376	\$ 5,275	NM	(93)%
Income taxes (benefits)	(92)	(7)	1,170	NM	(101)
Income (loss) from continuing operations	\$ (44)	\$ 383	\$ 4,105	NM	(91)%
Noncontrolling interests	4	(3)	8	NM	NM
Net income (loss)	\$ (48)	\$ 386	\$ 4,097	NM	(91)%
Balance Sheet data (in billions of dollars)					
EOP assets	\$ 147	\$ 152	\$ 145	(3)%	5 %
Average assets	152	159	155	(4)	3
Efficiency ratio	107 %	83 %	57 %		
Revenue by component					
Total Investment Banking	\$ 2,538	\$ 2,510	\$ 6,089	1 %	(59)%
Corporate Lending (excluding gain (loss) on loan hedges) ⁽²⁾⁽³⁾	2,473	2,579	1,834	(4)	41
Total <i>Banking</i> revenues (excluding gain (loss) on loan hedges)⁽²⁾⁽³⁾	\$ 5,011	\$ 5,089	\$ 7,923	(2)%	(36)%
Gain (loss) on loan hedges ⁽²⁾⁽³⁾	(443)	307	(140)	NM	NM
Total <i>Banking</i> revenues (including gain (loss) on loan hedges)⁽²⁾⁽³⁾	\$ 4,568	\$ 5,396	\$ 7,783	(15)%	(31)%
Business metrics—investment banking fees					
Advisory	\$ 1,017	\$ 1,332	\$ 1,785	(24)%	(25)%
Equity underwriting (Equity Capital Markets (ECM))	500	621	2,152	(19)	(71)
Debt underwriting (Debt Capital Markets (DCM))	1,196	1,100	2,081	9	(47)
Total	\$ 2,713	\$ 3,053	\$ 6,018	(11)%	(49)%

Revenue by geography

North America	\$ 1,775	\$ 2,453	\$ 3,956	(28)%	(38)%
International	\$ 2,793	\$ 2,943	\$ 3,827	(5)	(23)
Total	\$ 4,568	\$ 5,396	\$ 7,783	(15)%	(31)%
Key drivers⁽⁴⁾ (in billions of dollars)					
Average loans	\$ 90	\$ 98	\$ 101	(8)%	(3)%
NCLs as a percentage of average loans	0.19 %	0.11 %	0.21 %		
ACLL as a percentage of EOP loans ⁽⁵⁾	1.60 %	1.89 %	1.56 %		
Average deposits	1	1	1	—	—

- (1) Investment banking fees are primarily composed of underwriting, advisory, loan syndication structuring and other related financing activity.
- (2) Includes revenues earned by Citi that are subject to a revenue sharing arrangement with *Banking*—Corporate Lending for Investment Banking, *Markets* and *Services* products sold to Corporate Lending clients.
- (3) Credit derivatives are used to economically hedge a portion of the corporate loan portfolio that includes both accrual loans and loans at fair value. Gain (loss) on loan hedges includes the mark-to-market on the credit derivatives, partially offset by the mark-to-market on the loans in the portfolio that are at fair value. Hedges on accrual loans reflect the mark-to-market on credit derivatives used to economically hedge the corporate loan accrual portfolio. The fixed premium costs of these hedges are netted against the corporate lending revenues to reflect the cost of credit protection. Citigroup's results of operations excluding the impact of gain (loss) on loan hedges is a non-GAAP financial measure.
- (4) Management uses this information in reviewing the segment's results and believes it is useful to investors concerning underlying segment performance and trends.
- (5) Excludes loans that are carried at fair value for all periods.
- NM Not meaningful

The discussion of the results of operations for Banking below excludes (where noted) the impact of any gain (loss) on hedges of accrual loans, which are non-GAAP financial measures. For a reconciliation of these metrics to the reported results, see the table above.

2023 vs. 2022

Net loss was \$48 million, compared to net income of \$386 million in the prior year, primarily driven by lower revenues and higher expenses, partially offset by lower cost of credit.

Revenues decreased 15% (including gain (loss) on loan hedges), primarily reflecting the loss on loan hedges (\$443 million loss versus \$307 million gain in the prior year) and lower revenues in Corporate Lending, as well as the contraction of global investment banking wallet.

Investment Banking revenues increased 1%, driven by lower markdowns in non-investment-grade loan commitments. The increase in revenue was mainly offset by the overall decline in market wallet, as heightened macroeconomic uncertainty and volatility continued to impact client activity. Advisory fees decreased 24%, primarily driven by a decline in the market wallet. Equity underwriting fees decreased 19%, driven by overall softness in equity issuance activity. Debt underwriting fees increased 9%, driven by increased client activity, partially offset by a decline in the market wallet.

Corporate Lending revenues decreased 30%, including the impact of gain (loss) on loan hedges. Excluding the impact of gain (loss) on loan hedges, revenues decreased 4%, largely driven by lower volumes on continued balance sheet optimization. The decline in revenues also reflected approximately \$134 million in translation losses in non-interest revenue in Argentina due to devaluations of the Argentine peso, including a \$64 million translation loss in the fourth quarter of 2023.

Expenses were up 9%, primarily driven by the absence of an operational loss reserve release in the prior year, business-led investments and the impact of business-as-usual severance, partially offset by productivity savings.

Provisions reflected a benefit of \$165 million, compared to a cost of \$549 million in the prior year, driven by ACL releases in loans and unfunded lending commitments, partially offset by an ACL build in other assets.

Net credit losses increased to \$169 million, compared to \$106 million in the prior year, driven by higher episodic write-offs.

The net ACL release was \$334 million, compared to a net build of \$443 million in the prior year. The ACL releases in loans and unfunded lending commitments were driven by an improved macroeconomic outlook. These releases were partially offset by an ACL build in other assets, primarily related to transfer risk associated with exposures in Argentina and Russia, driven by safety and soundness considerations under U.S. banking law. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information on *Banking*'s corporate credit portfolio, see "Managing Global Risk—Credit Risk—Corporate Credit" below.

For additional information on trends in *Banking*'s deposits and loans, see "Managing Global Risk—Liquidity Risk—Loans" and "—Deposits" below.

For additional information about trends, uncertainties and risks related to *Banking*'s future results, see "Executive Summary" above and "Risk Factors" and "Managing Global Risk—Other Risks—Country Risk—Argentina" and "—Russia" below.

2022 vs. 2021

Net income of \$386 million decreased 91%, primarily driven by lower revenues and higher cost of credit.

Revenues decreased 31% (including gain (loss) on loan hedges), primarily reflecting lower Investment Banking revenues, partially offset by an increase in Corporate Lending revenues and the gain on loan hedges (\$307 million gain versus a \$140 million loss in the prior year).

Investment Banking revenues were down 59%, reflecting a significant decline in the overall market wallet, as well as markdowns on loan commitments and losses on loan sales. Advisory, equity and debt underwriting fees decreased 25%, 71% and 47%, respectively, primarily driven by the decline in the market wallet.

Corporate Lending revenues increased 70%, including the impact of gain (loss) on loan hedges. Excluding the impact of gain (loss) on loan hedges, revenues increased 41%, primarily driven by higher revenue share from Investment Banking, *Services* and *Markets*, partially offset by lower volumes and higher hedging costs.

Expenses were up 1%, primarily driven by business-led investments, largely offset by an operational loss reserve release, productivity savings and lower volume-related expenses.

Provisions were \$549 million, compared to a benefit of \$1.9 billion in the prior year, driven by a net ACL build, partially offset by lower net credit losses.

Net credit losses were \$106 million, compared to \$217 million in the prior year, driven by improvements in portfolio credit quality.

The net ACL build was \$443 million, compared to a net release of \$2.1 billion in the prior year. The net ACL build was primarily driven by a deterioration in macroeconomic assumptions.

U.S. PERSONAL BANKING

U.S. Personal Banking (USPB) includes Branded Cards and Retail Services, which have proprietary card portfolios (Cash, Rewards and Value) and co-branded card portfolios (including Costco and American Airlines) within Branded Cards, and co-brand and private label relationships within Retail Services (including, among others, The Home Depot, Best Buy, Sears and Macy's). *USPB* also includes Retail Banking, which provides traditional banking services to retail and small business customers.

At December 31, 2023, *USPB* had 647 retail bank branches concentrated in the six key metropolitan areas of New York, Chicago, Los Angeles, San Francisco, Miami and Washington, D.C. *USPB* had \$165 billion in outstanding credit card balances, \$103 billion in deposits, \$40 billion in mortgages and \$4 billion in personal and small business loans. For additional information on *USPB*'s end-of-period consumer loan portfolios and metrics, see "Managing Global Risk—Credit Risk—Consumer Credit" below.

<i>In millions of dollars, except as otherwise noted</i>	2023	2022	2021	% Change 2023 vs. 2022	% Change 2022 vs. 2021
Net interest income	\$ 20,150	\$ 18,062	\$ 16,285	12 %	11 %
Fee revenue					
Interchange fees	9,674	9,190	7,894	5	16
Card rewards and partner payments	(11,083)	(10,862)	(9,105)	(2)	(19)
Other	349	462	527	(24)	(12)
Total fee revenue	\$ (1,060)	\$ (1,210)	\$ (684)	12 %	(77)%
All other	97	20	244	NM	(92)
Total non-interest revenue	\$ (963)	\$ (1,190)	\$ (440)	19 %	NM
Total revenues, net of interest expense	19,187	16,872	15,845	14	6 %
Total operating expenses	\$ 10,102	\$ 9,782	\$ 8,854	3 %	10 %
Net credit losses on loans	5,234	2,918	2,939	79	(1)
Credit reserve build (release) for loans	1,464	517	(3,953)	NM	NM
Provision for credit losses on unfunded lending commitments	1	(1)	(1)	NM	—
Provisions for benefits and claims (PBC), and other assets	8	14	17	(43)	(18)
Provisions for credit losses and PBC	\$ 6,707	\$ 3,448	\$ (998)	95 %	NM
Income from continuing operations before taxes	\$ 2,378	\$ 3,642	\$ 7,989	(35)%	(54)%
Income taxes	558	872	1,890	(36)	(54)
Income from continuing operations	\$ 1,820	\$ 2,770	\$ 6,099	(34)%	(55)%
Noncontrolling interests	—	—	—	—	—
Net income	\$ 1,820	\$ 2,770	\$ 6,099	(34)%	(55)%
Balance Sheet data (in billions of dollars)					
EOP assets	\$ 242	\$ 231	\$ 211	5 %	9 %
Average assets	231	213	210	8	1
Efficiency ratio	53 %	58 %	56 %		
Revenue by component					
Branded Cards	\$ 9,988	\$ 8,962	\$ 8,236	11 %	9 %
Retail Services	6,617	5,469	5,106	21	7
Retail Banking	2,582	2,441	2,503	6	(2)
Total	\$ 19,187	\$ 16,872	\$ 15,845	14 %	6 %
Average loans and deposits (in billions of dollars)					
Average loans	\$ 193	\$ 171	\$ 159	13 %	8 %
ACLL as a percentage of EOP loans ⁽¹⁾	6.28 %	6.31 %	6.80 %		
Average deposits	110	115	112	(4)	3

(1) Excludes loans that are carried at fair value for all periods.

NM Not meaningful

2023 vs. 2022

Net income was \$1.8 billion, compared to \$2.8 billion in the prior year, reflecting higher cost of credit and higher expenses, partially offset by higher revenues.

Revenues increased 14%, due to higher net interest income (up 12%), driven by strong loan growth and higher deposit spreads, as well as higher non-interest revenue (up 19%). The increase in non-interest revenue was largely driven by lower partner payments in Retail Services, due to higher net credit losses, and an increase in interchange fees, driven by higher card spend volumes in Branded Cards. The increase in non-interest revenue was partially offset by an increase in rewards costs in Branded Cards, driven by the higher card spend volumes.

Cards revenues increased 15%. Branded Cards revenues increased 11%, primarily driven by the higher net interest income, reflecting the strong loan growth. Branded Cards new account acquisitions increased 9% and card spend volumes increased 5%. Branded Cards average loans increased 13%, reflecting the higher card spend volumes and lower card payment rates.

Retail Services revenues increased 21%, primarily driven by higher net interest income on higher loan balances, as well as higher non-interest revenue due to the lower partner payments, driven by the higher net credit losses (see Note 5). Retail Services credit card spend volumes decreased 4% and average loans increased 9%, largely reflecting lower card payment rates.

Retail Banking revenues increased 6%, primarily driven by higher deposit spreads and mortgage loan growth, partially offset by the impact of the transfer of certain relationships and the associated deposit balances to *Wealth*. Average mortgage loans increased 16%, primarily driven by lower refinancings due to high interest rates and higher mortgage originations. Average deposits decreased 4%, largely reflecting the transfer of certain relationships and the associated deposit balances to *Wealth*.

Expenses increased 3%, primarily driven by continued investments in other risk and controls, technology, business-led investments and business-as-usual severance costs, partially offset by productivity savings.

Provisions were \$6.7 billion, compared to \$3.4 billion in the prior year, largely driven by higher net credit losses and a higher ACL build for loans. Net credit losses increased 79%, primarily reflecting higher losses in cards in line with expectations, with Branded Cards net credit losses up 93% to \$2.7 billion and Retail Services net credit losses up 84% to \$2.3 billion. Both Branded Cards and Retail Services net credit losses reached pre-pandemic levels at the end of 2023.

The net ACL build was \$1.5 billion, compared to \$0.5 billion in the prior year, primarily reflecting growth in loan balances in Branded Cards and Retail Services. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information on *USPB*'s Branded Cards, Retail Services and Retail Banking loan portfolios, see "Managing Global Risk—Credit Risk—Consumer Credit" below.

For additional information about trends, uncertainties and risks related to *USPB*'s future results, see "Executive Summary" above and "Risk Factors" below.

2022 vs. 2021

Net income was \$2.8 billion, compared to \$6.1 billion in the prior year, reflecting higher cost of credit and higher expenses, partially offset by higher revenues.

Revenues increased 6%, primarily due to higher net interest income (up 11%), driven by strong loan growth in Branded Cards and Retail Services and the impact of higher interest rates in Retail Banking. The increase in revenues was partially offset by lower non-interest revenue, largely reflecting higher partner payments in Retail Services resulting from higher revenues.

Cards revenues increased 8%. Branded Cards revenues increased 9%, primarily driven by higher net interest income on higher loan balances. Branded Cards new account acquisitions increased 11% and card spend volumes increased 16%. Average loans increased 11%, reflecting the higher card spend volumes.

Retail Services revenues increased 7%, primarily driven by higher net interest income on higher loan balances and lower card payment rates, partially offset by the increase in partner payments. The increase in partner payments reflected higher income sharing as a result of higher revenues. Retail Services card spend volumes increased 8% and average loans increased 6%, reflecting the higher card spend volumes.

Retail Banking revenues decreased 2%, as the higher interest rates and modest deposit growth were more than offset by lower mortgage revenues due to fewer mortgage originations, driven by the higher interest rates. Average deposits increased 3%, largely reflecting higher levels of consumer liquidity in the first half of 2022.

Expenses increased 10%, primarily driven by continued investments in Citi's transformation, other risk and control initiatives, volume-related expenses and business-led investments, partially offset by productivity savings.

Provisions were \$3.4 billion, compared to a benefit of \$1.0 billion in the prior year, largely driven by a net ACL build. Net credit losses decreased 1%, driven by historically low loss rates experienced in the first half of 2022, partially offset by higher losses in the second half of the year, particularly in Retail Services (net credit losses up 7% to \$1.3 billion). Branded Cards net credit losses declined 17% to \$1.4 billion.

The net ACL build was \$0.5 billion, compared to a net release of \$3.9 billion in the prior year, primarily driven by U.S. cards loan growth and a deterioration in macroeconomic assumptions.

WEALTH

Wealth includes Private Bank, Wealth at Work and Citigold and provides financial services to a range of client segments including affluent, high net worth and ultra-high net worth clients through banking, lending, mortgages, investment, custody and trust product offerings in 20 countries, including the U.S., Mexico and four wealth management centers: Singapore, Hong Kong, the UAE and London. Private Bank provides financial services to ultra-high net worth clients through customized product offerings. Wealth at Work provides financial services to professional industries (including law firms, consulting groups, accounting and asset management) through tailored solutions. Citigold includes Citigold and Citigold Private Clients, which both provide financial services to affluent and high net worth clients through elevated product offerings and financial relationships.

At December 31, 2023, *Wealth* had \$323 billion in deposits and \$152 billion in loans, including \$90 billion in mortgage loans, \$29 billion in margin loans, \$27 billion in personal and small business loans and \$5 billion in outstanding credit card balances. For additional information on *Wealth*'s end-of-period consumer loan portfolios and metrics, see "Managing Global Risk—Credit Risk—Consumer Credit" below.

<i>In millions of dollars, except as otherwise noted</i>	2023	2022	2021	% Change 2023 vs. 2022	% Change 2022 vs. 2021
Net interest income	\$ 4,460	\$ 4,744	\$ 4,491	(6)%	6 %
Fee revenue					
Commissions and fees	1,211	1,218	1,608	(1)	(24)
Other	808	866	899	(7)	(4)
Total fee revenue	\$ 2,019	\$ 2,084	\$ 2,507	(3)%	(17)%
All other	612	620	544	(1)	14
Total non-interest revenue	\$ 2,631	\$ 2,704	\$ 3,051	(3)%	(11)%
Total revenues, net of interest expense	7,091	7,448	7,542	(5)	(1)
Total operating expenses	\$ 6,644	\$ 6,058	\$ 5,381	10 %	13 %
Net credit losses on loans	98	103	122	(5)	(16)
Credit reserve build (release) for loans	(85)	190	(331)	NM	NM
Provision (release) for credit losses on unfunded lending commitments	(12)	12	(15)	NM	NM
Provisions (release) for benefits and claims (PBC), and other assets	(3)	1	(2)	NM	NM
Provisions (releases) for credit losses and PBC	\$ (2)	\$ 306	\$ (226)	(101)%	NM
Income from continuing operations before taxes	\$ 449	\$ 1,084	\$ 2,387	(59)%	(55)%
Income taxes	103	134	419	(23)	(68)
Income from continuing operations	\$ 346	\$ 950	\$ 1,968	(64)%	(52)%
Noncontrolling interests	—	—	—	—	—
Net income	\$ 346	\$ 950	\$ 1,968	(64)%	(52)%
Balance Sheet data (in billions of dollars)					
EOP assets	\$ 232	\$ 259	\$ 250	(10)%	4 %
Average assets	247	259	253	(5)	2
Efficiency ratio	94 %	81 %	71 %		
Revenue by component					
Private Bank	\$ 2,332	\$ 2,812	\$ 2,970	(17)%	(5)%
Wealth at Work	862	730	691	18	6
Citigold	3,897	3,906	3,881	—	1
Total	\$ 7,091	\$ 7,448	\$ 7,542	(5)%	(1)%
Revenue by geography					
North America	\$ 3,615	\$ 3,927	\$ 3,767	(8)%	4 %
International	3,476	3,521	3,775	(1)	(7)
Total	\$ 7,091	\$ 7,448	\$ 7,542	(5)%	(1)%
Key drivers⁽¹⁾ (in billions of dollars)					
EOP client balances					
Client investment assets ⁽²⁾	\$ 498	\$ 443	\$ 507	12 %	(13)%
Deposits	323	325	329	(1)	(1)
Loans	152	149	151	2	(1)
Total	\$ 973	\$ 917	\$ 987	6 %	(7)%
ACLL as a percentage of EOP loans	0.51 %	0.59 %	0.44 %		

- (1) Management uses this information in reviewing the segment's results and believes it is useful to investors concerning underlying segment performance and trends.
 (2) Includes assets under management, and trust and custody assets.
 NM Not meaningful

2023 vs. 2022

Net income was \$346 million, compared to \$950 million in the prior year, reflecting lower revenues and higher expenses, partially offset by lower cost of credit.

Revenues decreased 5%, largely driven by lower net interest income (down 6%), due to lower deposit spreads, as well as lower non-interest revenue (down 3%), largely driven by investment product revenue headwinds, partially offset by the benefits of the transfer of certain relationships and the associated deposit balances from USPB. Average loans were largely unchanged. Average deposits decreased 1%, reflecting transfers to higher-yielding investments on Citi's platform. Client balances increased 6%, primarily driven by higher client investment assets, partially offset by lower deposit balances.

Private Bank revenues decreased 17%, primarily driven by lower deposit spreads, lower deposit and loan volumes and the investment product revenue headwinds.

Wealth at Work revenues increased 18%, driven by improved lending spreads, primarily in mortgages, and higher investment product revenues, partially offset by lower deposit revenues.

Citigold revenues were largely unchanged, as higher deposit revenues internationally were offset by lower deposit revenues in North America and lower lending revenues globally.

Expenses increased 10%, primarily driven by continued investments in other risk and controls and technology, partially offset by productivity savings and re-pacing of strategic investments.

Provisions were a benefit of \$2 million, compared to provisions of \$306 million in the prior year, largely driven by a net ACL release.

The net ACL release was \$97 million, compared to a net build of \$202 million in the prior year, primarily driven by improvements in macroeconomic assumptions. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information on *Wealth*'s loan portfolios, see "Managing Global Risk—Credit Risk—Consumer Credit" below.

For additional information about trends, uncertainties and risks related to *Wealth*'s future results, see "Executive Summary" above and "Risk Factors" below.

2022 vs. 2021

Net income was \$950 million, compared to \$2.0 billion in the prior year, reflecting higher expenses, higher cost of credit and lower revenues.

Revenues decreased 1%, reflecting investment product revenue headwinds, particularly in Asia, driven by overall market volatility, partially offset by net interest income growth, driven by higher interest rates and higher loan and deposit volumes. Average loans increased 2% and average deposits increased 5%. Client balances decreased 7%, primarily driven by a decline in client investment assets.

Private Bank revenues decreased 5%, primarily driven by the investment product revenue headwinds.

Wealth at Work revenues increased 6%, driven by improved lending spreads, primarily in mortgages, partially offset by lower deposit revenues.

Citigold revenues increased 1%, primarily driven by higher deposit revenues, partially offset by lower investment revenues in Asia and North America due to lower client investment assets and client activity.

Expenses increased 13%, primarily driven by continued investments in other risk and controls, technology and business-led investments, partially offset by productivity savings.

Provisions were \$306 million, compared to a benefit of \$226 million in the prior year, largely driven by a net ACL build.

The net ACL build was \$202 million, compared to a net release of \$346 million in the prior year, primarily driven by deteriorations in macroeconomic assumptions.

ALL OTHER—Divestiture-Related Impacts (Reconciling Items)

All Other includes activities not assigned to the reportable operating segments (*Services, Markets, Banking, USPB and Wealth*), including Legacy Franchises and Corporate/Other. For additional information about Legacy Franchises and Corporate/Other, see “*All Other* (Managed Basis)” below.

All Other (managed basis) results exclude divestiture-related impacts (see the “Reconciling Items” column in the table below) related to (i) Citi’s divestitures of its Asia consumer banking businesses and (ii) the planned divestiture or IPO of Mexico consumer banking and small business and middle-market banking, within Legacy Franchises. Legacy Franchises (managed basis) results also exclude these divestiture-related impacts. Certain of the results of operations of *All Other* (managed basis) and Legacy Franchises (managed basis) are non-GAAP financial measures (see “Overview—Non-GAAP Financial Measures” above).

The table below presents a reconciliation from *All Other* (U.S. GAAP) to *All Other* (managed basis). *All Other* (U.S. GAAP), less Reconciling Items, equals *All Other* (managed basis). The Reconciling Items are fully reflected on each respective line item in Citi’s Consolidated Statement of Income.

<i>In millions of dollars, except as otherwise noted</i>	2023		2022		2021	
	All Other (U.S. GAAP)	Reconciling Items ⁽¹⁾	All Other (managed basis)	All Other (U.S. GAAP)	Reconciling Items ⁽²⁾	All Other (managed basis)
Net interest income	\$ 7,733	\$ —	\$ 7,733	\$ 7,668	\$ —	\$ 7,668
Non-interest revenue	2,976	1,346	1,630	2,174	854	1,320
Total revenues, net of interest expense	\$ 10,709	\$ 1,346	\$ 9,363	\$ 9,842	\$ 854	\$ 8,988
Total operating expenses	\$ 11,489	\$ 372	\$ 11,117	\$ 9,840	\$ 696	\$ 9,144
Net credit losses on loans	864	(6)	870	616	(156)	772
Credit reserve build (release) for loans	89	(61)	150	(229)	259	(488)
Provision for credit losses on unfunded lending commitments	(44)	—	(44)	93	(27)	120
Provisions for benefits and claims (PBC), other assets and HTM debt securities	350	—	350	94	—	94
Provisions (benefits) for credit losses and PBC	\$ 1,259	\$ (67)	\$ 1,326	\$ 574	\$ 76	\$ 498
Income (loss) from continuing operations before taxes	\$ (2,039)	\$ 1,041	\$ (3,080)	\$ (572)	\$ 82	\$ (654)
Income taxes (benefits)	(608)	382	(990)	(786)	266	(1,052)
Income (loss) from continuing operations	\$ (1,431)	\$ 659	\$ (2,090)	\$ 214	\$ (184)	\$ 398
Income (loss) from discontinued operations, net of taxes	(1)	—	(1)	(231)	—	(231)
Noncontrolling interests	16	—	16	4	—	4
Net income (loss)	\$ (1,448)	\$ 659	\$ (2,107)	\$ (21)	\$ (184)	\$ 163
Asia Consumer revenues	\$ 2,870	\$ 1,346	\$ 1,524	\$ 3,780	\$ 854	\$ 2,926

- (1) 2023 includes (i) an approximate \$1.059 billion gain on sale recorded in revenue (approximately \$727 million after-tax) related to the India consumer banking business sale; (ii) an approximate \$403 million gain on sale recorded in revenue (approximately \$284 million after-tax) related to the Taiwan consumer banking business sale; and (iii) approximately \$372 million (approximately \$263 million after-tax) in operating expenses primarily related to separation costs in Mexico and severance costs in the Asia exit markets.
- (2) 2022 includes (i) an approximate \$535 million (approximately \$489 million after-tax) goodwill write-down due to resegmentation and the timing of Asia consumer banking business divestitures; (ii) an approximate \$616 million gain on sale recorded in revenue (approximately \$290 million after-tax) related to the Philippines consumer banking business sale; and (iii) an approximate \$209 million gain on sale recorded in revenue (approximately \$115 million after-tax) related to the Thailand consumer banking business sale.
- (3) 2021 includes (i) an approximate \$680 million loss on sale (approximately \$580 million after-tax) related to Citi’s agreement to sell its Australia consumer banking business; and (ii) an approximate \$1.052 billion in expenses (approximately \$792 million after-tax) primarily related to charges incurred from the voluntary early retirement program (VERP) in connection with the wind-down of Citi’s consumer banking business in Korea.

ALL OTHER—Managed Basis

At December 31, 2023, *All Other* (managed basis) had \$211 billion in assets, primarily related to Mexico Consumer/SBMM and Asia Consumer reported within Legacy Franchises (managed basis), as well as Corporate Treasury investment securities and the Company’s deferred tax assets (DTAs) reported within Corporate/Other.

Legacy Franchises (Managed Basis)

Legacy Franchises (managed basis) includes (i) Mexico Consumer Banking (Mexico Consumer) and Mexico Small Business and Middle-Market Banking (Mexico SBMM), collectively Mexico Consumer/SBMM, (ii) Asia Consumer Banking (Asia Consumer), representing the consumer banking operations of the remaining four exit countries (Korea, Poland, China and Russia), and (iii) Legacy Holdings Assets, primarily legacy consumer mortgage loans in North America that the Company continues to wind down.

Mexico Consumer/SBMM operates in Mexico through Citibanamex and provides traditional retail banking and branded card products to consumers and small business customers and traditional middle-market banking products and services to commercial customers. As previously disclosed, Citi intends to pursue an IPO of its consumer, small business and middle-market banking operations in Mexico. Citi will retain its *Services, Markets, Banking and Wealth* businesses in Mexico. Citi currently expects that the separation of the businesses will be completed in the second half of 2024 and that the IPO will take place in 2025.

Legacy Franchises (managed basis) also included the following nine Asia Consumer businesses prior to their sales: Australia, until its closing in June 2022; the Philippines, until its closing in August 2022; Thailand and Malaysia, until their closings in November 2022; Bahrain, until its closing in December 2022; India and Vietnam, until their closings in March 2023; Taiwan, until its closing in August 2023; and Indonesia until its closing in November 2023.

Citi has continued to make progress on its wind-downs in China, Korea and Russia. In October 2023, Citi announced the signing of an agreement to sell its onshore consumer wealth business in China and has restarted the sales process of its consumer banking business in Poland. See Note 2 for additional information on Legacy Franchises’ consumer banking business sales and wind-downs. For additional information about Citi’s continued efforts to reduce its operations and exposures in Russia, see “Risk Factors” and “Managing Global Risk—Other Risks—Country Risk—Russia” below.

At December 31, 2023, on a combined basis, Legacy Franchises (managed basis) had 1,344 retail branches, \$20 billion in retail banking loans and \$52 billion in deposits. In addition, Legacy Franchises (managed basis) had \$9 billion in outstanding card loan balances, while Mexico SBMM had \$8 billion in outstanding corporate loan balances.

Corporate/Other

Corporate/Other includes certain unallocated costs of global staff functions (including finance, risk, human resources, legal and compliance-related costs), other corporate expenses and unallocated global operations and technology expenses and income taxes, as well as results of Corporate Treasury investment activities and discontinued operations.

<i>In millions of dollars, except as otherwise noted</i>	2023	2022	2021	% Change 2023 vs. 2022	% Change 2022 vs. 2021
Net interest income	\$ 7,733	\$ 7,668	\$ 6,546	1 %	17 %
Non-interest revenue	1,630	1,320	2,916	23	(55)
Total revenues, net of interest expense	\$ 9,363	\$ 8,988	\$ 9,462	4 %	(5)%
Total operating expenses	\$ 11,117	\$ 9,144	\$ 9,303	22 %	(2)%
Net credit losses on loans	870	772	1,484	13	(48)
Credit reserve build (release) for loans	150	(488)	(1,651)	NM	70
Provision (release) for credit losses on unfunded lending commitments	(44)	120	(19)	NM	NM
Provisions for benefits and claims (PBC), other assets and HTM debt securities	350	94	98	NM	(4)
Provisions (releases) for credit losses and PBC	\$ 1,326	\$ 498	\$ (88)	NM	NM
Income (loss) from continuing operations before taxes	\$ (3,080)	\$ (654)	\$ 247	NM	NM
Income taxes (benefits)	(990)	(1,052)	(812)	6 %	(30)%
Income (loss) from continuing operations	\$ (2,090)	\$ 398	\$ 1,059	NM	(62)%
Income (loss) from discontinued operations, net of taxes	(1)	(231)	7	100 %	NM
Noncontrolling interests	16	4	21	NM	(81)
Net income (loss)	\$ (2,107)	\$ 163	\$ 1,045	NM	(84)%
Balance Sheet data (in billions of dollars)					
EOP assets	\$ 211	\$ 226	\$ 243	(7)%	(7)%
Average assets	212	236	239	(10)	(1)
Revenue by reporting unit and component					
Mexico Consumer/SBMM	\$ 5,678	\$ 4,622	\$ 4,537	23 %	2 %
Asia Consumer	1,524	2,926	3,914	(48)	(25)
Legacy Holdings Assets	(4)	(81)	186	95	NM
Corporate/Other	2,165	1,521	825	42	84
Total	\$ 9,363	\$ 8,988	\$ 9,462	4 %	(5)%
Mexico Consumer/SBMM—key indicators (in billions of dollars)					
EOP loans	\$ 27.1	\$ 21.9	\$ 20.0	24 %	10 %
EOP deposits	42.2	36.5	32.7	16	12
Average loans	24.8	20.5	20.0	21	3
NCLs as a percentage of average loans (Mexico Consumer only)	4.01 %	3.50 %	6.87 %		
Loans 90+ days past due as a percentage of EOP loans (Mexico Consumer only)	1.35	1.28	1.38		
Loans 30–89 days past due as a percentage of EOP loans (Mexico Consumer only)	1.35	1.26	1.30		
Asia Consumer—key indicators⁽¹⁾ (in billions of dollars)					
EOP loans	\$ 7.4	\$ 13.3	\$ 41.1	(44)%	(68)%
EOP deposits	9.5	14.5	43.3	(34)	(67)
Average loans	9.5	17.4	49.5	(45)	(65)
Legacy Holdings Assets—key indicators (in billions of dollars)					
EOP loans	\$ 2.5	\$ 3.0	\$ 3.9	(17)%	(23)%

(1) The key indicators for Asia Consumer reflect the reclassification of loans and deposits to *Other assets* and *Other liabilities* under HFS accounting on Citi's Consolidated Balance Sheet.

NM Not meaningful

2023 vs. 2022

Net loss was \$2.1 billion, compared to net income of \$163 million in the prior year, driven by higher expenses (largely related to the FDIC special assessment and Citi's restructuring charge) and higher cost of credit. The higher expenses and cost of credit were partially offset by higher revenues and the prior-year release of CTA losses (net of hedges) from *AOCI*, consisting of approximately \$140 million recorded in revenues and approximately \$260 million pretax recorded in discontinued operations, related to the substantial liquidation of a U.K. consumer legacy operation (see Note 2).

All Other (managed basis) *revenues* increased 4%, driven by higher revenues in Corporate/Other, partially offset by lower revenues in Legacy Franchises (managed basis).

Legacy Franchises (managed basis) *revenues* decreased 4%, primarily driven by lower revenues in Asia Consumer (managed basis), partially offset by higher revenues in Mexico Consumer/SBMM (managed basis).

Mexico Consumer/SBMM (managed basis) *revenues* increased 23%, as cards revenues in Mexico Consumer increased 31%, SBMM revenues increased 28% and retail banking revenues increased 19%, mainly due to the benefit of FX translation as well as higher interest rates and higher deposit and loan growth.

Asia Consumer (managed basis) *revenues* decreased 48%, primarily driven by the reduction from exited markets and wind-downs.

Corporate/Other *revenues* were \$2.2 billion, compared to \$1.5 billion in the prior year, driven by higher net interest income. The higher net interest income was primarily due to higher interest rates on deposits with banks and the investment portfolio, partially offset by higher cost of funds.

Expenses increased 22%, primarily driven by the \$1.7 billion FDIC special assessment related to regional bank failures, restructuring charges and higher business-as-usual severance costs, partially offset by lower consulting expenses and lower expenses in both wind-down and exit markets. The restructuring charges were recorded in the fourth quarter and primarily consisted of severance costs associated with headcount reductions related to the organizational simplification initiatives (see Note 9).

Provisions were \$1.3 billion, compared to \$498 million in the prior year, driven by a higher net ACL build for loans and other assets and higher net credit losses. Net credit losses increased 13%, primarily driven by higher lending volumes in Mexico Consumer.

The net ACL build for loans was \$106 million, compared to a net release of \$368 million in the prior year, primarily driven by higher lending volumes in Mexico Consumer. The net ACL build in other assets was primarily due to the reserve build for transfer risk associated with exposures in Russia, driven by safety and soundness considerations under U.S. banking law. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information about trends, uncertainties and risks related to *All Other*'s (managed basis) future results, see "Executive Summary" above and "Risk Factors" and "Managing Global Risk—Other Risks—Country Risk—Russia" below.

2022 vs. 2021

Net income was \$163 million, compared to net income of \$1.0 billion in the prior year, primarily driven by lower revenues, higher cost of credit and the release of the CTA losses (net of hedges) from *AOCI*.

All Other (managed basis) *revenues* decreased 5%, driven by lower revenues in Legacy Franchises (managed basis), and lower non-interest revenue in Corporate/Other, partially offset by higher net interest income in Corporate/Other.

Legacy Franchises (managed basis) *revenues* decreased 14%, primarily driven by lower revenues in Asia Consumer (managed basis) and Legacy Holdings Assets, partially offset by higher revenues in Mexico Consumer/SBMM (managed basis).

Mexico Consumer/SBMM (managed basis) *revenues* increased 2%, as cards revenues in Mexico Consumer increased 6% and SBMM revenues increased 10%, primarily due to higher interest rates and higher deposit and loan growth. The increase in revenues was partially offset by a 1% decrease in retail banking revenues, primarily driven by lower fiduciary fees reflecting declines in equity market valuations.

Asia Consumer (managed basis) *revenues* decreased 25%, primarily driven by the loss of revenues from the closing of the exit markets and the impacts of the ongoing Korea wind-down.

Legacy Holdings Assets *revenues* of \$(81) million decreased from \$186 million in the prior year, largely driven by the CTA loss (net of hedges) recorded in *AOCI*, as well as the continued wind-down of Legacy Holdings Assets.

Corporate/Other *revenues* were \$1.5 billion, compared to \$825 million in the prior year, driven by higher net interest income, partially offset by lower non-interest revenue. The higher net interest income was primarily due to the investment portfolio driven by higher balances, higher interest rates and lower mortgage-backed securities prepayments, partially offset by higher cost of funds related to higher institutional certificates of deposit. The lower non-interest revenue was primarily due to the absence of mark-to-market gains in the prior year as well as higher hedging costs.

Expenses decreased 2%, primarily driven by lower consulting expenses, the impact of certain legal settlements and lower expenses in both wind-down and exit markets.

Provisions were \$498 million, compared to a benefit of \$88 million in the prior year, primarily driven by a lower net ACL release, partially offset by lower net credit losses. Net credit losses decreased 48%, primarily reflecting improved delinquencies in both Asia Consumer and Mexico Consumer.

The net ACL release was \$368 million, compared to a net ACL release of \$1.7 billion in the prior year, driven by further improvement in portfolio credit quality.

CAPITAL RESOURCES

Overview

Capital is used principally to support assets in Citi's businesses and to absorb potential losses, including credit, market and operational losses. Citi primarily generates capital through earnings from its operating businesses. Citi may augment its capital through issuances of common stock and noncumulative perpetual preferred stock, among other issuances. Further, Citi's capital levels may also be affected by changes in accounting and regulatory standards, as well as the impact of future events on Citi's business results, such as the signing or closing of divestitures and changes in interest and foreign exchange rates.

During 2023, Citi returned a total of \$6.1 billion of capital to common shareholders in the form of \$4.1 billion in dividends and \$2.0 billion in share repurchases (approximately 44 million common shares). For additional information, see "Unregistered Sales of Equity Securities, Repurchases of Equity Securities and Dividends" below.

Citi paid common dividends of \$0.53 per share for the fourth quarter of 2023, and on January 11, 2024, declared common dividends of \$0.53 per share for the first quarter of 2024. Citi intends to maintain a quarterly common dividend of at least \$0.53 per share, subject to financial and macroeconomic conditions as well as its Board of Directors' approval. In addition, as previously announced, Citi will continue to assess common share repurchases on a quarter-by-quarter basis given uncertainty regarding regulatory capital requirements. For additional information on capital-related risks, trends and uncertainties, see "Regulatory Capital Standards and Developments" as well as "Risk Factors—Strategic Risks," "—Operational Risks" and "—Compliance Risks" below.

Capital Management

Citi's capital management framework is designed to ensure that Citigroup and its principal subsidiaries maintain sufficient capital consistent with each entity's respective risk profile, management targets and all applicable regulatory standards and guidelines. Citi assesses its capital adequacy against a series of internal quantitative capital goals, designed to evaluate its capital levels in expected and stressed economic environments. Underlying these internal quantitative capital goals are strategic capital considerations, centered on preserving and building financial strength.

The Citigroup Capital Committee, with oversight from the Risk Management Committee of Citigroup's Board of Directors, has responsibility for Citi's aggregate capital structure, including the capital assessment and planning process, which is integrated into Citi's capital plan. Balance sheet management, including oversight of capital adequacy for Citigroup's subsidiaries, is governed by each entity's Asset and Liability Committee, where applicable.

For additional information regarding Citi's capital planning and stress testing exercises, see "Stress Testing Component of Capital Planning" below.

Current Regulatory Capital Standards

Citi is subject to regulatory capital rules issued by the Federal Reserve Board (FRB), in coordination with the OCC and FDIC, including the U.S. implementation of the Basel III rules (for information on potential changes to the Basel III rules, see "Regulatory Capital Standards and Developments" and "Risk Factors—Strategic Risks" below). These rules establish an integrated capital adequacy framework, encompassing both risk-based capital ratios and leverage ratios.

Risk-Based Capital Ratios

The U.S. Basel III rules set forth the composition of regulatory capital (including the application of regulatory capital adjustments and deductions), as well as two comprehensive methodologies (a Standardized Approach and Advanced Approaches) for measuring total risk-weighted assets.

Total risk-weighted assets under the Standardized Approach include credit and market risk-weighted assets, which are generally prescribed supervisory risk weights. Total risk-weighted assets under the Advanced Approaches, which are primarily model based, include credit, market and operational risk-weighted assets. As a result, credit risk-weighted assets calculated under the Advanced Approaches are more risk sensitive than those calculated under the Standardized Approach. Market risk-weighted assets are currently calculated on a generally consistent basis under both the Standardized and Advanced Approaches. The Standardized Approach does not include operational risk-weighted assets.

Under the U.S. Basel III rules, Citigroup is required to maintain several regulatory capital buffers above the stated minimum capital requirements to avoid certain limitations on capital distributions and discretionary bonus payments to executive officers. Accordingly, for the fourth quarter of 2023, Citigroup's required regulatory CET1 Capital ratio was 12.3% under the Standardized Approach (incorporating its Stress Capital Buffer of 4.3% and GSIB (Global Systemically Important Bank) surcharge of 3.5%) and 10.5% under the Advanced Approaches (inclusive of the fixed 2.5% Capital Conservation Buffer and GSIB surcharge of 3.5%).

Similarly, Citigroup's primary subsidiary, Citibank, N.A. (Citibank), is required to maintain minimum regulatory capital ratios plus applicable regulatory buffers, as well as hold sufficient capital to be considered "well capitalized" under the Prompt Corrective Action framework. In effect, Citibank's required CET1 Capital ratio was 7.0% under both the Standardized and Advanced Approaches, which is the sum of the minimum 4.5% CET1 requirement and a fixed 2.5% Capital Conservation Buffer. For additional information, see "Regulatory Capital Buffers" and "Prompt Corrective Action Framework" below.

Further, the U.S. Basel III rules implement the "capital floor provision" of the Dodd-Frank Act (the so-called "Collins Amendment"), which requires banking organizations to calculate "generally applicable" capital requirements. As a result, Citi must calculate each of the three risk-based capital ratios (CET1 Capital, Tier 1 Capital and Total Capital) under both the Standardized Approach and the Advanced Approaches and comply with the more binding of each of the resulting risk-based capital ratios.

Leverage Ratio

Under the U.S. Basel III rules, Citigroup is also required to maintain a minimum Leverage ratio of 4.0%. Similarly, Citibank is required to maintain a minimum Leverage ratio of 5.0% to be considered “well capitalized” under the Prompt Corrective Action framework. The Leverage ratio, a non-risk-based measure of capital adequacy, is defined as Tier 1 Capital as a percentage of quarterly adjusted average total assets less amounts deducted from Tier 1 Capital.

Supplementary Leverage Ratio

Citi is also required to calculate a Supplementary Leverage ratio (SLR), which differs from the Leverage ratio by including certain off-balance sheet exposures within the denominator of the ratio (Total Leverage Exposure). The SLR represents end-of-period Tier 1 Capital to Total Leverage Exposure. Total Leverage Exposure is defined as the sum of (i) the daily average of on-balance sheet assets for the quarter and (ii) the average of certain off-balance sheet exposures calculated as of the last day of each month in the quarter, less applicable Tier 1 Capital deductions. Advanced Approaches banking organizations are required to maintain a stated minimum SLR of 3.0%.

Further, U.S. GSIBs, including Citigroup, are subject to a 2.0% leverage buffer in addition to the 3.0% stated minimum SLR requirement, resulting in a 5.0% SLR. If a U.S. GSIB fails to exceed this requirement, it will be subject to increasingly stringent restrictions (depending upon the extent of the shortfall) on capital distributions and discretionary executive bonus payments.

Similarly, Citibank is required to maintain a minimum SLR of 6.0% to be considered “well capitalized” under the Prompt Corrective Action framework.

Regulatory Capital Treatment—Modified Transition of the Current Expected Credit Losses Methodology

In 2020, the U.S. banking agencies issued a final rule that modified the regulatory capital transition provision related to the current expected credit losses (CECL) methodology. The rule does not have any impact on U.S. GAAP accounting.

The rule permitted banks to delay for two years the “Day One” adverse regulatory capital effects resulting from adoption of the CECL methodology on January 1, 2020 until January 1, 2022, followed by a three-year transition to phase out the regulatory capital benefit provided by the delay.

In addition, for the ongoing impact of CECL, the agencies utilized a 25% scaling factor as an approximation of the increased reserve build under CECL compared to the previous incurred loss model and, therefore, allowed banks to add back to CET1 Capital an amount equal to 25% of the change in CECL-based allowances in each quarter between January 1, 2020 and December 31, 2021. Beginning January 1, 2022, the cumulative 25% change in CECL-based allowances between January 1, 2020 and December 31, 2021 started to be phased into regulatory capital (i) at 25% per year on January 1 of each year over the three-year transition period and (ii) along with the delayed Day One impact.

Citigroup and Citibank elected the modified CECL transition provision provided by the rule. Accordingly, the Day One regulatory capital effects resulting from adoption of

the CECL methodology, as well as the ongoing adjustments for 25% of the change in CECL-based allowances in each quarter between January 1, 2020 and December 31, 2021, started to be phased in on January 1, 2022 and will be fully reflected in Citi’s regulatory capital as of January 1, 2025.

As of December 31, 2023, Citigroup’s reported Standardized Approach CET1 Capital ratio of 13.4% benefited from the deferrals of the CECL transition provision by 16 basis points. For additional information on Citigroup’s and Citibank’s regulatory capital ratios excluding the impact of the CECL transition provision, see “Capital Resources (Full Adoption of CECL)” below.

Regulatory Capital Buffers

Citigroup and Citibank are required to maintain several regulatory capital buffers above the stated minimum capital requirements. These capital buffers would be available to absorb losses in advance of any potential impairment of regulatory capital below the stated minimum regulatory capital ratio requirements.

Banking organizations that fall below their regulatory capital buffers are subject to limitations on capital distributions and discretionary bonus payments to executive officers based on a percentage of “Eligible Retained Income” (ERI), with increasing restrictions based on the severity of the breach. ERI is equal to the greater of (i) the bank’s net income for the four calendar quarters preceding the current calendar quarter, net of any distributions and tax effects not already reflected in net income, and (ii) the average of the bank’s net income for the four calendar quarters preceding the current calendar quarter.

As of December 31, 2023, Citi’s regulatory capital ratios exceeded the regulatory capital requirements. Accordingly, Citi is not subject to payout limitations as a result of the U.S. Basel III requirements.

Stress Capital Buffer

Citigroup is subject to the FRB’s Stress Capital Buffer (SCB) rule, which integrates the annual stress testing requirements with ongoing regulatory capital requirements. The SCB equals the peak-to-trough CET1 Capital ratio decline under the Supervisory Severely Adverse scenario over a nine-quarter period used in the Comprehensive Capital Analysis and Review (CCAR) and Dodd-Frank Act Stress Testing (DFAST), plus four quarters of planned common stock dividends, subject to a floor of 2.5%. SCB-based capital requirements are reviewed and updated annually by the FRB as part of the CCAR process. For additional information regarding CCAR and DFAST, see “Stress Testing Component of Capital Planning” below. The fixed 2.5% Capital Conservation Buffer will continue to apply under the Advanced Approaches (see below).

As of October 1, 2023, Citi’s required regulatory CET1 Capital ratio increased to 12.3% from 12.0% under the Standardized Approach, incorporating the 4.3% SCB through September 30, 2024 and Citi’s current GSIB surcharge of 3.5%. Citi’s required regulatory CET1 Capital ratio under the Advanced Approaches (using the fixed 2.5% Capital Conservation Buffer) remains unchanged at 10.5%. The SCB applies to Citigroup only; the regulatory capital framework

applicable to Citibank, including the Capital Conservation Buffer, is unaffected by Citigroup's SCB.

Capital Conservation Buffer and Countercyclical Capital Buffer

Citigroup is subject to a fixed 2.5% Capital Conservation Buffer under the Advanced Approaches. Citibank is subject to the fixed 2.5% Capital Conservation Buffer under both the Advanced Approaches and the Standardized Approach.

In addition, Advanced Approaches banking organizations, such as Citigroup and Citibank, are subject to a discretionary Countercyclical Capital Buffer. The Countercyclical Capital Buffer is currently set at 0% by the U.S. banking agencies.

GSIB Surcharge

The FRB imposes a risk-based capital surcharge upon U.S. bank holding companies that are identified as GSIBs, including Citi (for information on potential changes to the GSIB surcharge, see "Regulatory Capital Standards and Developments" and "Risk Factors—Strategic Risks" below). The GSIB surcharge augments the SCB, Capital Conservation Buffer and, if invoked, any Countercyclical Capital Buffer.

A U.S. bank holding company that is designated a GSIB is required, on an annual basis, to calculate a surcharge using two methods and is subject to the higher of the resulting two surcharges. The first method ("method 1") is based on the Basel Committee's GSIB methodology. Under the second method ("method 2"), the substitutability category under the Basel Committee's GSIB methodology is replaced with a quantitative measure intended to assess a GSIB's reliance on short-term wholesale funding. In addition, method 1 incorporates relative measures of systemic importance across certain global banking organizations and a year-end spot foreign exchange rate, whereas method 2 uses fixed measures of systemic importance and application of an average foreign exchange rate over a three-year period. The GSIB surcharges calculated under both method 1 and method 2 are based on measures of systemic importance from the year immediately preceding that in which the GSIB surcharge calculations are being performed (e.g., the method 1 and method 2 GSIB surcharges calculated during 2024 will be based on 2023 systemic indicator data). Generally, Citi's surcharge determined under method 2 will be higher than its surcharge determined under method 1.

Should a GSIB's systemic importance change year-over-year, such that it becomes subject to a higher GSIB surcharge, the higher surcharge would become effective on January 1 of the year that is one full calendar year after the increased GSIB surcharge was calculated (e.g., a higher surcharge calculated in 2024 using data as of December 31, 2023 would not become effective until January 1, 2026). However, if a GSIB's systemic importance changes such that the GSIB would be subject to a lower surcharge, the GSIB would be subject to the lower surcharge on January 1 of the year immediately following the calendar year in which the decreased GSIB surcharge was calculated (e.g., a lower surcharge calculated in 2024 using data as of December 31, 2023 would become effective January 1, 2025).

The following table presents Citi's effective GSIB surcharge as determined under method 1 and method 2 during 2023 and 2022:

	2023	2022
Method 1	2.0 %	2.0 %
Method 2	3.5	3.0

Citi's GSIB surcharge effective during 2023 was 3.5% and during 2022 was 3.0%, as derived under the higher method 2 result. Citi's GSIB surcharge effective for 2024 remains unchanged at 3.5%, as derived under the higher method 2 result.

Citi expects that its method 2 GSIB surcharge will continue to remain higher than its method 1 GSIB surcharge. Accordingly, based on Citi's method 2 result as of December 31, 2022 and its estimated method 2 result as of December 31, 2023, Citi's GSIB surcharge is expected to remain at 3.5% effective January 1, 2025.

Prompt Corrective Action Framework

In general, the Prompt Corrective Action (PCA) regulations direct the U.S. banking agencies to enforce increasingly strict limitations on the activities of insured depository institutions that fail to meet certain regulatory capital thresholds. The PCA framework contains five categories of capital adequacy as measured by risk-based capital and leverage ratios: (i) "well capitalized," (ii) "adequately capitalized," (iii) "undercapitalized," (iv) "significantly undercapitalized" and (v) "critically undercapitalized."

Accordingly, an insured depository institution, such as Citibank, must maintain minimum CET1 Capital, Tier 1 Capital, Total Capital and Leverage ratios of 6.5%, 8.0%, 10.0% and 5.0%, respectively, to be considered "well capitalized." In addition, insured depository institution subsidiaries of U.S. GSIBs, including Citibank, must maintain a minimum Supplementary Leverage ratio of 6.0% to be considered "well capitalized." Citibank was "well capitalized" as of December 31, 2023.

Furthermore, to be "well capitalized" under current federal bank regulatory agency definitions, a bank holding company must have a Tier 1 Capital ratio of at least 6.0%, a Total Capital ratio of at least 10.0% and not be subject to a FRB directive to maintain higher capital levels.

Stress Testing Component of Capital Planning

Citi is subject to an annual assessment by the FRB as to whether Citigroup has effective capital planning processes as well as sufficient regulatory capital to absorb losses during stressful economic and financial conditions, while also meeting obligations to creditors and counterparties and continuing to serve as a credit intermediary. This annual assessment includes two related programs: the Comprehensive Capital Analysis and Review (CCAR) and Dodd-Frank Act Stress Testing (DFAST).

For the largest and most complex firms, such as Citi, CCAR includes a qualitative evaluation of a firm's abilities to determine its capital needs on a forward-looking basis. In conducting the qualitative assessment, the FRB evaluates

firms' capital planning practices, focusing on six areas of capital planning: governance, risk management, internal controls, capital policies, incorporating stressful conditions and events, and estimating impact on capital positions. As part of the CCAR process, the FRB evaluates Citi's capital adequacy, capital adequacy process and its planned capital distributions, such as dividend payments and common share repurchases. The FRB assesses whether Citi has sufficient capital to continue operations throughout times of economic and financial market stress and whether Citi has robust, forward-looking capital planning processes that account for its unique risks.

All CCAR firms, including Citi, are subject to a rigorous evaluation of their capital planning process. Firms with weak practices may be subject to a deficient supervisory rating, and potentially an enforcement action, for failing to meet supervisory expectations. For additional information regarding CCAR, see "Risk Factors—Strategic Risks" below.

DFAST is a forward-looking quantitative evaluation of the impact of stressful economic and financial market conditions on Citi's regulatory capital. This program serves to inform the FRB and the general public as to how Citi's regulatory capital ratios might change using a hypothetical set of adverse economic conditions as designed by the FRB. In addition to the annual supervisory stress test conducted by the FRB, Citi is required to conduct annual company-run stress tests under the same adverse economic conditions designed by the FRB.

Both CCAR and DFAST include an estimate of projected revenues, losses, reserves, pro forma regulatory capital ratios and any other additional capital measures deemed relevant by Citi. Projections are required over a nine-quarter planning horizon under two supervisory scenarios (baseline and severely adverse conditions). All risk-based capital ratios reflect application of the Standardized Approach framework under the U.S. Basel III rules.

In addition, Citibank is required to conduct the annual Dodd-Frank Act Stress Test. The annual stress test consists of a forward-looking quantitative evaluation of the impact of stressful economic and financial market conditions under several scenarios on Citibank's regulatory capital. This program serves to inform the Office of the Comptroller of the Currency as to how Citibank's regulatory capital ratios might change during a hypothetical set of adverse economic conditions and to ultimately evaluate the reliability of Citibank's capital planning process.

Citigroup and Citibank are required to disclose the results of their company-run stress tests.

Citigroup's Capital Resources

The following table presents Citi's required risk-based capital ratios as of December 31, 2023, September 30, 2023 and December 31, 2022:

	Advanced Approaches			Standardized Approach ⁽¹⁾		
	December 31, 2023	September 30, 2023	December 31, 2022	December 31, 2023	September 30, 2023	December 31, 2022
CET1 Capital ratio ⁽²⁾	10.5 %	10.5 %	10.0 %	12.3 %	12.0 %	11.5 %
Tier 1 Capital ratio ⁽²⁾	12.0	12.0	11.5	13.8	13.5	13.0
Total Capital ratio ⁽²⁾	14.0	14.0	13.5	15.8	15.5	15.0

- (1) As of October 1, 2023, Citi's required regulatory CET1 Capital ratio increased from 12.0% to 12.3% under the Standardized Approach, incorporating the 4.3% SCB and its current GSIB surcharge of 3.5%.
- (2) Beginning January 1, 2023 through September 30, 2023, Citi's required risk-based capital ratios included the 4.0% SCB and 3.5% GSIB surcharge under the Standardized Approach, and the 2.5% Capital Conservation Buffer and 3.5% GSIB surcharge under the Advanced Approaches (all of which must be composed of CET1 Capital). Commencing January 1, 2023, Citi's GSIB surcharge increased from 3.0% to 3.5%, which is applicable to both the Standardized Approach and Advanced Approaches. See "Regulatory Capital Buffers" above for more information.

The following tables present Citi's capital components and ratios as of December 31, 2023, September 30, 2023 and December 31, 2022:

In millions of dollars, except ratios	Advanced Approaches			Standardized Approach		
	December 31, 2023	September 30, 2023	December 31, 2022	December 31, 2023	September 30, 2023	December 31, 2022
CET1 Capital ⁽¹⁾	\$ 153,595	\$ 156,134	\$ 148,930	\$ 153,595	\$ 156,134	\$ 148,930
Tier 1 Capital ⁽¹⁾	172,504	176,878	169,145	172,504	176,878	169,145
Total Capital (Tier 1 Capital + Tier 2 Capital) ⁽¹⁾	191,919	197,219	188,839	201,768	205,932	197,543
Total Risk-Weighted Assets	1,268,723	1,249,606	1,221,538	1,148,608	1,148,550	1,142,985
Credit Risk ⁽¹⁾	\$ 910,226	\$ 892,423	\$ 851,875	\$ 1,087,019	\$ 1,087,701	\$ 1,069,992
Market Risk	61,194	59,880	71,889	61,589	60,849	72,993
Operational Risk	297,303	297,303	297,774	—	—	—
CET1 Capital ratio ⁽²⁾	12.11 %	12.49 %	12.19 %	13.37 %	13.59 %	13.03 %
Tier 1 Capital ratio ⁽²⁾	13.60	14.15	13.85	15.02	15.40	14.80
Total Capital ratio ⁽²⁾	15.13	15.78	15.46	17.57	17.93	17.28

In millions of dollars, except ratios	Required Capital Ratios	December 31, 2023	September 30, 2023	December 31, 2022
Quarterly Adjusted Average Total Assets ⁽¹⁾⁽³⁾	\$ 2,394,272	\$ 2,378,887	\$ 2,395,863	
Total Leverage Exposure ⁽¹⁾⁽⁴⁾	2,964,954	2,927,392	2,906,773	
Leverage ratio	4.0%	7.20 %	7.44 %	7.06 %
Supplementary Leverage ratio	5.0	5.82	6.04	5.82

- (1) Citi's regulatory capital ratios and components reflect certain deferrals based on the modified regulatory capital transition provision related to the CECL standard. See "Capital Resources—Regulatory Capital Treatment—Modified Transition of the Current Expected Credit Losses Methodology" above.
- (2) Citi's binding CET1 Capital and Tier 1 Capital ratios were derived under the Basel III Standardized Approach, whereas Citi's binding Total Capital ratio was derived under the Basel III Advanced Approaches framework for all periods presented.
- (3) Leverage ratio denominator. Represents quarterly average total assets less amounts deducted from Tier 1 Capital.
- (4) Supplementary Leverage ratio denominator.

As indicated in the table above, Citigroup's capital ratios at December 31, 2023 were in excess of the regulatory capital requirements under the U.S. Basel III rules. In addition, Citi was "well capitalized" under current federal bank regulatory agencies definitions as of December 31, 2023.

Common Equity Tier 1 Capital Ratio

Citi's Common Equity Tier 1 (CET1) Capital ratio under the Basel III Standardized Approach was 13.4% as of December 31, 2023, relative to a required regulatory CET1 Capital ratio of 12.3% as of such date under the Standardized Approach. This compares to a CET1 Capital ratio of 13.6% as of September 30, 2023 and 13.0% as of December 31, 2022, relative to a required regulatory CET1 Capital ratio of 12.0% and 11.5% as of such respective dates under the Standardized Approach.

Citi's CET1 Capital ratio under the Basel III Advanced Approaches was 12.1% as of December 31, 2023, compared to 12.5% as of September 30, 2023, relative to a required regulatory CET1 Capital ratio of 10.5% as of such dates under the Advanced Approaches framework. This compares to a CET1 Capital ratio of 12.2% as of December 31, 2022, relative to a required regulatory CET1 Capital ratio of 10.0% as of such date under the Advanced Approaches framework.

Citi's CET1 Capital ratio decreased under both the Standardized Approach and Advanced Approaches from September 30, 2023, driven primarily by Citi's net loss in the fourth quarter of 2023, higher deferred tax assets and the return of capital to common shareholders, partially offset by the beneficial net movements in *AOCI*. The decrease in the CET1 Capital ratio under the Advanced Approaches was also driven by an increase in Advanced Approaches RWA.

Citi's CET1 Capital ratio increased under the Standardized Approach and decreased under the Advanced Approaches from year-end 2022. The increase in the CET1 Capital ratio under the Standardized Approach was driven by increases in CET1 Capital primarily from net income of \$9.2 billion, beneficial net movements in *AOCI* and impacts from the sales of Asia Consumer businesses, partially offset by the return of capital to common shareholders, higher deferred tax assets and an increase in Standardized Approach RWA. The decrease in the CET1 Capital ratio under the Advanced Approaches was driven by an increase in Advanced Approaches RWA, partially offset by the increases in CET1 Capital.

Components of Citigroup Capital

<i>In millions of dollars</i>	December 31, 2023	December 31, 2022
CET1 Capital		
Citigroup common stockholders' equity ⁽¹⁾	\$ 187,937	\$ 182,325
Add: Qualifying noncontrolling interests	153	128
Regulatory capital adjustments and deductions:		
Add: CECL transition provision ⁽²⁾	1,514	2,271
Less: Accumulated net unrealized gains (losses) on cash flow hedges, net of tax	(1,406)	(2,522)
Less: Cumulative unrealized net gain (loss) related to changes in fair value of financial liabilities attributable to own creditworthiness, net of tax	(410)	1,441
Less: Intangible assets:		
Goodwill, net of related DTLs ⁽³⁾	18,778	19,007
Identifiable intangible assets other than MSRs, net of related DTLs	3,349	3,411
Less: Defined benefit pension plan net assets and other	1,317	1,935
Less: DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards ⁽⁴⁾	12,075	12,197
Less: Excess over 10%/15% limitations for other DTAs, certain common stock investments, and MSRs ⁽⁴⁾⁽⁵⁾	2,306	325
Total CET1 Capital (Standardized Approach and Advanced Approaches)	\$ 153,595	\$ 148,930
Additional Tier 1 Capital		
Qualifying noncumulative perpetual preferred stock ⁽¹⁾	\$ 17,516	\$ 18,864
Qualifying trust preferred securities ⁽⁶⁾	1,413	1,406
Qualifying noncontrolling interests	29	30
Regulatory capital deductions:		
Less: Other	49	85
Total Additional Tier 1 Capital (Standardized Approach and Advanced Approaches)	\$ 18,909	\$ 20,215
Total Tier 1 Capital (CET1 Capital + Additional Tier 1 Capital) (Standardized Approach and Advanced Approaches)	\$ 172,504	\$ 169,145
Tier 2 Capital		
Qualifying subordinated debt	\$ 16,137	\$ 15,530
Qualifying noncontrolling interests	37	37
Eligible allowance for credit losses ⁽²⁾⁽⁷⁾	13,703	13,426
Regulatory capital deduction:		
Less: Other	613	595
Total Tier 2 Capital (Standardized Approach)	\$ 29,264	\$ 28,398
Total Capital (Tier 1 Capital + Tier 2 Capital) (Standardized Approach)	\$ 201,768	\$ 197,543
Adjustment for excess of eligible credit reserves over expected credit losses ⁽²⁾⁽⁷⁾	\$ (9,849)	\$ (8,704)
Total Tier 2 Capital (Advanced Approaches)	\$ 19,415	\$ 19,694
Total Capital (Tier 1 Capital + Tier 2 Capital) (Advanced Approaches)	\$ 191,919	\$ 188,839

- (1) Issuance costs of \$84 million and \$131 million related to outstanding noncumulative perpetual preferred stock at December 31, 2023 and 2022, respectively, were excluded from common stockholders' equity and netted against such preferred stock in accordance with FRB regulatory reporting requirements, which differ from those under U.S. GAAP.
- (2) Citi's regulatory capital ratios and components reflect certain deferrals based on the modified regulatory capital transition provision related to the CECL standard. See "Capital Resources—Regulatory Capital Treatment—Modified Transition of the Current Expected Credit Losses Methodology" above.
- (3) Includes goodwill "embedded" in the valuation of significant common stock investments in unconsolidated financial institutions.
- (4) Of Citi's \$29.6 billion of net DTAs at December 31, 2023, \$12.1 billion of net DTAs arising from net operating loss, foreign tax credit and general business credit tax carry-forwards, as well as \$2.3 billion of DTAs arising from temporary differences that exceeded 10%/15% limitations, were excluded from Citi's CET1 Capital as of December 31, 2023. DTAs arising from net operating loss, foreign tax credit and general business credit tax carry-forwards are required to be entirely deducted from CET1 Capital under the U.S. Basel III rules. DTAs arising from temporary differences are required to be deducted from capital only if they exceed 10%/15% limitations under the U.S. Basel III rules.
- (5) Assets subject to 10%/15% limitations include MSRs, DTAs arising from temporary differences and significant common stock investments in unconsolidated financial institutions. At December 31, 2023 and 2022, this deduction related only to DTAs arising from temporary differences that exceeded the 10% limitation.
- (6) Represents Citigroup Capital XIII trust preferred securities, which are permanently grandfathered as Tier 1 Capital under the U.S. Basel III rules.

- (7) Under the Standardized Approach, the allowance for credit losses is eligible for inclusion in Tier 2 Capital up to 1.25% of credit risk-weighted assets, with any excess allowance for credit losses being deducted in arriving at credit risk-weighted assets, which differs from the Advanced Approaches framework, in which eligible credit reserves that exceed expected credit losses are eligible for inclusion in Tier 2 Capital to the extent that the excess reserves do not exceed 0.6% of credit risk-weighted assets. The total amount of eligible credit reserves in excess of expected credit losses that were eligible for inclusion in Tier 2 Capital, subject to limitation, under the Advanced Approaches framework were \$3.9 billion and \$4.7 billion at December 31, 2023 and 2022, respectively.

Citigroup Capital Rollforward

<i>In millions of dollars</i>	Three months ended December 31, 2023	Twelve months ended December 31, 2023
CET1 Capital, beginning of period	\$ 156,134	\$ 148,930
Net income (loss)	(1,839)	9,228
Common and preferred dividends declared	(1,334)	(5,274)
Treasury stock	(500)	(1,271)
Common stock and additional paid-in capital	156	450
CTA net of hedges, net of tax	1,383	752
Unrealized gains (losses) on debt securities AFS, net of tax	1,461	2,254
Defined benefit plans liability adjustment, net of tax	(367)	(295)
Adjustment related to change in fair value of financial liabilities attributable to own creditworthiness, net of tax	128	298
Other Accumulated other comprehensive income (loss)	(46)	(12)
Goodwill, net of related DTLs	(226)	229
Identifiable intangible assets other than MSRs, net of related DTLs	95	62
Defined benefit pension plan net assets	35	639
DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards	(856)	122
Excess over 10%/15% limitations for other DTAs, certain common stock investments and MSRs	(520)	(1,981)
CECL transition provision	—	(757)
Other	(109)	221
Net change in CET1 Capital	\$ (2,539)	\$ 4,665
CET1 Capital, end of period	\$ 153,595	\$ 153,595
(Standardized Approach and Advanced Approaches)		
Additional Tier 1 Capital, beginning of period	\$ 20,744	\$ 20,215
Qualifying perpetual preferred stock	(1,853)	(1,348)
Qualifying trust preferred securities	1	7
Other	17	35
Net change in Additional Tier 1 Capital	\$ (1,835)	\$ (1,306)
Tier 1 Capital, end of period	\$ 172,504	\$ 172,504
(Standardized Approach and Advanced Approaches)		
Tier 2 Capital, beginning of period (Standardized Approach)	\$ 29,054	\$ 28,398
Qualifying subordinated debt	25	607
Eligible allowance for credit losses	15	277
Other	170	(18)
Net change in Tier 2 Capital (Standardized Approach)	\$ 210	\$ 866
Tier 2 Capital, end of period (Standardized Approach)	\$ 29,264	\$ 29,264
Total Capital, end of period (Standardized Approach)	\$ 201,768	\$ 201,768
Tier 2 Capital, beginning of period (Advanced Approaches)	\$ 20,341	\$ 19,694
Qualifying subordinated debt	25	607
Excess of eligible credit reserves over expected credit losses	(1,121)	(868)
Other	170	(18)
Net change in Tier 2 Capital (Advanced Approaches)	\$ (926)	\$ (279)
Tier 2 Capital, end of period (Advanced Approaches)	\$ 19,415	\$ 19,415
Total Capital, end of period (Advanced Approaches)	\$ 191,919	\$ 191,919

Citigroup Risk-Weighted Assets Rollforward (Basel III Standardized Approach)

<i>In millions of dollars</i>	Three months ended December 31, 2023	Twelve months ended December 31, 2023
Total Risk-Weighted Assets, beginning of period	\$ 1,148,550	\$ 1,142,985
General credit risk exposures ⁽¹⁾	5,021	(951)
Derivatives ⁽²⁾	(4,961)	4,063
Repo-style transactions ⁽³⁾	(927)	9,546
Securitization exposures	(684)	(141)
Equity exposures ⁽⁴⁾	2,119	4,604
Other exposures	(1,250)	(94)
Net change in Credit Risk-Weighted Assets	\$ (682)	\$ 17,027
Risk levels	\$ 1,452	\$ (3,388)
Model and methodology updates	(712)	(8,016)
Net change in Market Risk-Weighted Assets⁽⁵⁾	\$ 740	\$ (11,404)
Total Risk-Weighted Assets, end of period	\$ 1,148,608	\$ 1,148,608

- (1) General credit risk exposures include cash and balances due from depository institutions, securities, and loans and leases. General credit risk exposures increased during the three months ended December 31, 2023, primarily driven by card and mortgage activities as well as corporate lending, partially offset by divestitures and non-strategic portfolio exits.
- (2) Derivative exposures decreased during the three months ended December 31, 2023, primarily driven by reduced exposures and hedging activities. Derivative exposures increased during the 12 months ended December 31, 2023, mainly driven by increased exposures.
- (3) Repo-style transactions include repurchase and reverse repurchase transactions, as well as securities borrowing and securities lending transactions. Repo-style transactions increased during the 12 months ended December 31, 2023, mainly due to increased business activities.
- (4) Equity exposures increased during the 12 months ended December 31, 2023, primarily due to increased investment market values.
- (5) Market risk-weighted assets decreased during the 12 months ended December 31, 2023, primarily due to exposure changes and changes in model inputs related to volatility and correlation between market risk factors.

Citigroup Risk-Weighted Assets Rollforward (Basel III Advanced Approaches)

<i>In millions of dollars</i>	Three months ended December 31, 2023	Twelve months ended December 31, 2023
Total Risk-Weighted Assets, beginning of period	\$ 1,249,606	\$ 1,221,538
General credit risk exposures ⁽¹⁾	18,587	47,594
Derivatives ⁽²⁾	(3,795)	(2,000)
Repo-style transactions ⁽³⁾	1,331	4,023
Securitization exposures	(854)	124
Equity exposures ⁽⁴⁾	2,260	5,011
Other exposures ⁽⁵⁾	274	3,599
Net change in Credit Risk-Weighted Assets	\$ 17,803	\$ 58,351
Risk levels	\$ 2,026	\$ (2,679)
Model and methodology updates	(712)	(8,016)
Net change in Market Risk-Weighted Assets⁽⁶⁾	\$ 1,314	\$ (10,695)
Net change in Operational Risk-Weighted Assets	\$ —	\$ (471)
Total Risk-Weighted Assets, end of period	\$ 1,268,723	\$ 1,268,723

- (1) General credit risk exposures increased during the three and 12 months ended December 31, 2023, mainly driven by card and mortgage activities as well as corporate lending, accompanied by parameter updates.
- (2) Derivative exposures decreased during the three and 12 months ended December 31, 2023, primarily driven by reduced exposures.
- (3) Repo-style transactions increased during the 12 months ended December 31, 2023, primarily driven by business activities and parameter updates.
- (4) Equity exposures increased during the three and 12 months ended December 31, 2023, primarily due to increased investment market values.
- (5) Other exposures decreased during the 12 months ended December 31, 2023, mainly driven by receivables and other assets.
- (6) Market risk-weighted assets decreased during the 12 months ended December 31, 2023, primarily due to exposure changes and changes in model inputs related to volatility and correlation between market risk factors.

Supplementary Leverage Ratio

The following table presents Citi's Supplementary Leverage ratio and related components as of December 31, 2023, September 30, 2023 and December 31, 2022:

<i>In millions of dollars, except ratios</i>	December 31, 2023	September 30, 2023	December 31, 2022
Tier 1 Capital	\$ 172,504	\$ 176,878	\$ 169,145
Total Leverage Exposure			
On-balance sheet assets ⁽¹⁾⁽²⁾	\$ 2,432,146	\$ 2,415,293	\$ 2,432,823
Certain off-balance sheet exposures ⁽³⁾			
Potential future exposure on derivative contracts	164,148	154,202	133,071
Effective notional of sold credit derivatives, net ⁽⁴⁾	33,817	32,784	34,117
Counterparty credit risk for repo-style transactions ⁽⁵⁾	22,510	21,199	17,169
Other off-balance sheet exposures	350,207	340,320	326,553
Total of certain off-balance sheet exposures	\$ 570,682	\$ 548,505	\$ 510,910
Less: Tier 1 Capital deductions	37,874	36,406	36,960
Total Leverage Exposure	\$ 2,964,954	\$ 2,927,392	\$ 2,906,773
Supplementary Leverage ratio	5.82 %	6.04 %	5.82 %

(1) Represents the daily average of on-balance sheet assets for the quarter.

(2) Citi's regulatory capital ratios and components reflect certain deferrals based on the modified regulatory capital transition provision related to the CECL standard. See "Capital Resources—Regulatory Capital Treatment—Modified Transition of the Current Expected Credit Losses Methodology" above.

(3) Represents the average of certain off-balance sheet exposures calculated as of the last day of each month in the quarter.

(4) Under the U.S. Basel III rules, banking organizations are required to include in Total Leverage Exposure the effective notional amount of sold credit derivatives, with netting of exposures permitted if certain conditions are met.

(5) Repo-style transactions include repurchase and reverse repurchase transactions as well as securities borrowing or securities lending transactions.

As presented in the table above, Citigroup's Supplementary Leverage ratio was 5.8% at December 31, 2023, compared to 6.0% at September 30, 2023 and 5.8% at December 31, 2022. The quarter-over-quarter decrease was primarily driven by a reduction in Tier 1 Capital due to Citi's net loss in the fourth quarter of 2023, redemption of qualifying perpetual preferred stock, the return of capital to common shareholders and an increase in Total Leverage Exposure, partially offset by beneficial net movements in AOCI.

Capital Resources of Citigroup's Subsidiary U.S. Deppository Institutions

Citigroup's subsidiary U.S. depository institutions are also subject to regulatory capital standards issued by their respective primary bank regulatory agencies, which are similar to the standards of the FRB.

The following tables present the capital components and ratios for Citibank, Citi's primary subsidiary U.S. depository institution, as of December 31, 2023, September 30, 2023 and December 31, 2022:

In millions of dollars, except ratios	Required Capital Ratios ⁽¹⁾	Advanced Approaches			Standardized Approach		
		December 31, 2023	September 30, 2023	December 31, 2022	December 31, 2023	September 30, 2023	December 31, 2022
CET1 Capital ⁽²⁾	\$ 147,109	\$ 150,635	\$ 149,593	\$ 147,109	\$ 150,635	\$ 149,593	
Tier 1 Capital ⁽²⁾	149,238	152,763	151,720	149,238	152,763	151,720	
Total Capital (Tier 1 Capital + Tier 2 Capital) ⁽²⁾⁽³⁾	160,706	165,977	165,131	168,571	173,610	172,647	
Total Risk-Weighted Assets	1,057,194	1,027,427	1,003,747	983,960	976,833	982,914	
Credit Risk ⁽²⁾	\$ 769,940	\$ 750,046	\$ 728,082	\$ 937,319	\$ 940,019	\$ 948,150	
Market Risk	46,540	36,667	34,403	46,641	36,814	34,764	
Operational Risk	240,714	240,714	241,262	—	—	—	
CET1 Capital ratio ⁽⁴⁾⁽⁵⁾	7.0 %	13.92 %	14.66 %	14.90 %	14.95 %	15.42 %	15.22 %
Tier 1 Capital ratio ⁽⁴⁾⁽⁵⁾	8.5	14.12	14.87	15.12	15.17	15.64	15.44
Total Capital ratio ⁽⁴⁾⁽⁵⁾	10.5	15.20	16.15	16.45	17.13	17.77	17.56

In millions of dollars, except ratios	Required Capital Ratios	December 31, 2023	September 30, 2023	December 31, 2022
Quarterly Adjusted Average Total Assets ⁽²⁾⁽⁶⁾	\$ 1,666,609	\$ 1,666,706	\$ 1,738,744	
Total Leverage Exposure ⁽²⁾⁽⁷⁾	2,166,334	2,139,843	2,189,541	
Leverage ratio ⁽⁵⁾	5.0 %	8.95 %	9.17 %	8.73 %
Supplementary Leverage ratio ⁽⁵⁾	6.0	6.89	7.14	6.93

- (1) Citibank's required risk-based capital ratios are inclusive of the 2.5% Capital Conservation Buffer (all of which must be composed of CET1 Capital).
- (2) Citibank's regulatory capital ratios and components reflect certain deferrals based on the modified regulatory capital transition provision related to the CECL standard. See "Capital Resources—Regulatory Capital Treatment—Modified Transition of the Current Expected Credit Losses Methodology" above.
- (3) Under the Standardized Approach, the allowance for credit losses is eligible for inclusion in Tier 2 Capital up to 1.25% of credit risk-weighted assets, with any excess allowance for credit losses being deducted in arriving at credit risk-weighted assets, which differs from the Advanced Approaches framework, in which eligible credit reserves that exceed expected credit losses are eligible for inclusion in Tier 2 Capital to the extent that the excess reserves do not exceed 0.6% of credit risk-weighted assets.
- (4) Citibank's binding CET1 Capital, Tier 1 Capital and Total Capital ratios were derived under the Basel III Advanced Approaches framework for all periods presented.
- (5) Citibank must maintain required CET1 Capital, Tier 1 Capital, Total Capital and Leverage ratios of 6.5%, 8.0%, 10.0% and 5.0%, respectively, to be considered "well capitalized" under the revised Prompt Corrective Action (PCA) regulations applicable to insured depository institutions as established by the U.S. Basel III rules. Citibank must also maintain a required Supplementary Leverage ratio of 6.0% to be considered "well capitalized."
- (6) Leverage ratio denominator. Represents quarterly average total assets less amounts deducted from Tier 1 Capital.
- (7) Supplementary Leverage ratio denominator.

As presented in the table above, Citibank's capital ratios at December 31, 2023 were in excess of the regulatory capital requirements under the U.S. Basel III rules. In addition, Citibank was "well capitalized" as of December 31, 2023.

Citibank's Supplementary Leverage ratio was 6.9% at December 31, 2023, compared to 7.1% at September 30, 2023 and 6.9% at December 31, 2022. The quarter-over-quarter decrease was primarily driven by a reduction in Tier 1 Capital resulting from dividends, Citibank's net loss and an increase in Total Leverage Exposure, partially offset by beneficial net movements in AOCI.

Impact of Changes on Citigroup and Citibank Capital Ratios

The following tables present the estimated sensitivity of Citigroup's and Citibank's capital ratios to changes of \$100 million in CET1 Capital, Tier 1 Capital and Total Capital (numerator), and changes of \$1 billion in Advanced Approaches and Standardized Approach risk-weighted assets and quarterly adjusted average total assets, as well as Total Leverage Exposure (denominator), as of December 31, 2023. This information is provided for the purpose of analyzing the

impact that a change in Citigroup's or Citibank's financial position or results of operations could have on these ratios. These sensitivities only consider a single change to either a component of capital, risk-weighted assets, quarterly adjusted average total assets or Total Leverage Exposure. Accordingly, an event that affects more than one factor may have a larger basis point impact than is reflected in these tables.

In basis points	CET1 Capital ratio		Tier 1 Capital ratio		Total Capital ratio	
	Impact of \$100 million change in CET1 Capital	Impact of \$1 billion change in risk- weighted assets	Impact of \$100 million change in Tier 1 Capital	Impact of \$1 billion change in risk- weighted assets	Impact of \$100 million change in Total Capital	Impact of \$1 billion change in risk- weighted assets
Citigroup						
Advanced Approaches	0.8	1.0	0.8	1.1	0.8	1.2
Standardized Approach	0.9	1.2	0.9	1.3	0.9	1.5
Citibank						
Advanced Approaches	0.9	1.3	0.9	1.3	0.9	1.4
Standardized Approach	1.0	1.5	1.0	1.5	1.0	1.7
In basis points	Leverage ratio			Supplementary Leverage ratio		
	Impact of \$100 million change in Tier 1 Capital	Impact of \$1 billion change in quarterly adjusted average total assets	Tier 1 Capital	Impact of \$100 million change in Tier 1 Capital	Impact of \$1 billion change in Total Leverage Exposure	
Citigroup						
	0.4	0.3		0.3	0.2	
Citibank						
	0.6	0.5		0.5	0.3	

Citigroup Broker-Dealer Subsidiaries

At December 31, 2023, Citigroup Global Markets Inc., a U.S. broker-dealer registered with the SEC that is an indirect wholly owned subsidiary of Citigroup, had net capital, computed in accordance with the SEC's net capital rule, of \$18 billion, which exceeded the minimum requirement by \$13 billion.

Moreover, Citigroup Global Markets Limited, a broker-dealer registered with the United Kingdom's Prudential Regulation Authority (PRA) that is also an indirect wholly owned subsidiary of Citigroup, had total regulatory capital of \$27 billion at December 31, 2023, which exceeded the PRA's minimum regulatory capital requirements.

In addition, certain of Citi's other broker-dealer subsidiaries are subject to regulation in the countries in which they do business, including requirements to maintain specified levels of net capital or its equivalent. Citigroup's other principal broker-dealer subsidiaries were in compliance with their regulatory capital requirements at December 31, 2023.

Total Loss-Absorbing Capacity (TLAC)

U.S. GSIBs, including Citi, are required to maintain minimum levels of TLAC and eligible long-term debt (LTD), each set by reference to the GSIB's consolidated risk-weighted assets (RWA) and total leverage exposure.

Minimum External TLAC Requirement

The minimum external TLAC requirement is the greater of (i) 18% of the GSIB's RWA plus the then-applicable RWA-based TLAC buffer (see below) and (ii) 7.5% of the GSIB's total leverage exposure plus a leverage-based TLAC buffer of 2% (i.e., 9.5%).

The RWA-based TLAC buffer equals the 2.5% Capital Conservation Buffer, plus any applicable Countercyclical Capital Buffer (currently 0%), plus the GSIB's capital surcharge as determined under method 1 of the GSIB surcharge rule (2.0% for Citi for 2023). Accordingly, Citi's total current minimum TLAC requirement was 22.5% of RWA for 2023.

Minimum Long-Term Debt (LTD) Requirement

The minimum LTD requirement is the greater of (i) 6% of the GSIB's RWA plus its capital surcharge as determined under method 2 of the GSIB surcharge rule (3.5% for Citi for 2023), for a total current requirement of 9.5% of RWA for Citi, and (ii) 4.5% of the GSIB's total leverage exposure.

The table below details Citi's eligible external TLAC and LTD amounts and ratios, and each TLAC and LTD regulatory requirement, as well as the surplus amount in dollars in excess of each requirement.

	December 31, 2023		
In billions of dollars, except ratios	External TLAC	LTD	
Total eligible amount	\$ 331	\$ 151	
% of Advanced Approaches risk-weighted assets	26.1 %	11.9 %	
Regulatory requirement ⁽¹⁾⁽²⁾	22.5	9.5	
Surplus amount	\$ 46	\$ 30	
% of Total Leverage Exposure	11.2 %	5.1 %	
Regulatory requirement	9.5	4.5	
Surplus amount	\$ 50	\$ 17	

(1) External TLAC includes method 1 GSIB surcharge of 2.0%.

(2) LTD includes method 2 GSIB surcharge of 3.5%.

As of December 31, 2023, Citi exceeded each of the TLAC and LTD regulatory requirements, resulting in a \$17 billion surplus above its binding TLAC requirement of LTD as a percentage of Total Leverage Exposure.

For additional information on Citi's TLAC-related requirements, see "Liquidity Risk—Total Loss-Absorbing Capacity (TLAC)" below.

Capital Resources (Full Adoption of CECL)⁽¹⁾

The following tables present Citigroup's and Citibank's capital components and ratios under a hypothetical scenario where the full impact of CECL is reflected as of December 31, 2023:

	Citigroup				Citibank		
	Required Capital Ratios, Advanced Approaches	Required Capital Ratios, Standardized Approach	Advanced Approaches	Standardized Approach	Required Capital Ratios ⁽²⁾	Advanced Approaches	Standardized Approach
CET1 Capital ratio	10.5 %	12.3 %	11.95 %	13.21 %	7.0 %	13.78 %	14.81 %
Tier 1 Capital ratio	12.0	13.8	13.44	14.86	8.5	13.98	15.03
Total Capital ratio	14.0	15.8	15.07	17.42	10.5	15.10	17.00
	Required Capital Ratios		Citigroup		Required Capital Ratios	Citibank	
Leverage ratio	4.0 %		7.12 %		5.0 %	8.87 %	
Supplementary Leverage ratio	5.0		5.75		6.0	6.83	

(1) See footnote 2 on the "Components of Citigroup Capital" table above.

(2) Citibank's required capital ratios were the same under the Standardized Approach and the Advanced Approaches framework.

Regulatory Capital Standards Developments

Basel III Revisions

On July 27, 2023, the U.S. banking agencies issued a notice of proposed rulemaking, known as the Basel III Endgame (capital proposal), that would amend U.S. regulatory capital requirements.

The capital proposal would maintain the current capital rule's dual-requirement structure for risk-weighted assets, but would eliminate the use of internal models to calculate credit risk and operational risk components of risk-weighted assets. Large banking organizations, such as Citi, would be required to calculate their risk-based capital ratios under both the new expanded risk-based approach and the Standardized Approach and use the lower of the two for each risk-based capital ratio for determining the binding constraints.

The expanded risk-based approach is designed to align with the international capital standards adopted by the Basel Committee on Banking Supervision (Basel Committee). The Basel Committee finalized the Basel III reforms in December 2017, which included revisions to the methodologies to determine credit, market and operational risk-weighted asset amounts.

If adopted as proposed, the capital proposal's impact on risk-weighted asset amounts would also affect several other requirements including TLAC, external long-term debt and the short-term wholesale funding score included in the GSIB surcharge under method 2 (see "GSIB Surcharge" below). The proposal has a three-year transition period that would begin on July 1, 2025. If finalized as proposed, the capital proposal would have a material adverse impact on Citi's required regulatory capital.

For information about risks related to changes in regulatory capital requirements, see "Risk Factors—Strategic Risks," "—Operational Risks" and "—Compliance Risks" below.

GSIB Surcharge

Separately on July 27, 2023, the Federal Reserve Board proposed changes to the GSIB surcharge rule that aim to make it more risk sensitive. Proposed changes include measuring certain systemic indicators on a daily versus quarterly average basis, changing certain of the risk indicators and shortening the time to come into compliance with each year's surcharge. In addition, the proposal would narrow surcharge bands under method 2 from 50 bps to 10 bps to reduce cliff effects when moving between bands.

Long-Term Debt Requirements

On August 29, 2023, the Federal Reserve Board issued a notice of proposed rulemaking to amend the TLAC rule to change the haircuts (i.e., the percentage reductions) that are applied to eligible long-term debt. Under the proposed rule, only 50% of eligible long-term debt with a maturity of one year or more but less than two years would count toward the TLAC requirement, instead of the current 100%. These proposed revisions are estimated to decrease the TLAC percentage of Advanced Approaches RWA as well as the TLAC percentage of Total Leverage Exposure. The proposed rule in its current form has no proposed transition period for its implementation and is not expected to be material to Citi.

**Tangible Common Equity, Book Value Per Share,
Tangible Book Value Per Share and Return on Equity**

Tangible common equity (TCE), as defined by Citi, represents common stockholders' equity less goodwill and identifiable intangible assets (other than mortgage servicing rights (MSRs)). Return on tangible common equity (RoTCE) represents annualized net income available to common shareholders as a percentage of average TCE. Tangible book value per share (TBVPS) represents average TCE divided by average common shares outstanding. Other companies may calculate these measures differently. TCE, RoTCE and TBVPS are non-GAAP financial measures. Citi believes TCE, TBVPS and RoTCE provide alternative measures of capital strength and performance for investors, industry analysts and others.

	At December 31,				
<i>In millions of dollars or shares, except per share amounts</i>	2023	2022	2021	2020	2019
Total Citigroup stockholders' equity	\$ 205,453	\$ 201,189	\$ 201,972	\$ 199,442	\$ 193,242
Less: Preferred stock	17,600	18,995	18,995	19,480	17,980
Common stockholders' equity	\$ 187,853	\$ 182,194	\$ 182,977	\$ 179,962	\$ 175,262
Less:					
Goodwill	20,098	19,691	21,299	22,162	22,126
Identifiable intangible assets (other than MSRs)	3,730	3,763	4,091	4,411	4,327
Goodwill and identifiable intangible assets (other than MSRs) related to assets held-for-sale (HFS)	—	589	510	—	—
Tangible common equity (TCE)	\$ 164,025	\$ 158,151	\$ 157,077	\$ 153,389	\$ 148,809
Common shares outstanding (CSO)	1,903.1	1,937.0	1,984.4	2,082.1	2,114.1
Book value per share (common stockholders' equity/ CSO)	\$ 98.71	\$ 94.06	\$ 92.21	\$ 86.43	\$ 82.90
Tangible book value per share (TCE/CSO)	86.19	81.65	79.16	73.67	70.39

	For the year ended December 31,				
<i>In millions of dollars</i>	2023	2022	2021	2020	2019
Net income available to common shareholders	\$ 8,030	\$ 13,813	\$ 20,912	\$ 9,952	\$ 18,292
Average common stockholders' equity	\$ 187,730	\$ 180,093	\$ 182,421	\$ 175,508	\$ 177,363
Less:					
Average goodwill	20,313	19,354	21,771	21,315	21,903
Average intangible assets (other than MSRs)	3,835	3,924	4,244	4,301	4,466
Average goodwill and identifiable intangible assets (other than MSRs) related to assets HFS	226	872	153	—	—
Average TCE	\$ 163,356	\$ 155,943	\$ 156,253	\$ 149,892	\$ 150,994
Return on average common stockholders' equity	4.3 %	7.7 %	11.5 %	5.7 %	10.3 %
RoTCE	4.9	8.9	13.4	6.6	12.1

RISK FACTORS

The following discussion presents what management currently believes could be the material risks and uncertainties that could impact Citi's businesses, results of operations and financial condition. Other risks and uncertainties, including those not currently known to Citi or its management, could also negatively impact Citi's businesses, results of operations and financial condition. Thus, the following should not be considered a complete discussion of all of the risks and uncertainties that Citi may face. For additional information about risks and uncertainties that could impact Citi, see "Executive Summary" and each respective business's results of operations above and "Managing Global Risk" below. The following risk factors are categorized to improve the readability and usefulness of the risk factor disclosure, and, while the headings and risk factors generally align with Citi's risk categorization, in certain instances the risk factors may not directly correspond with how Citi categorizes or manages its risks.

MARKET-RELATED RISKS

Macroeconomic, Geopolitical and Other Challenges and Uncertainties Could Continue to Have a Negative Impact on Citi.

Citi has experienced, and could experience in the future, negative impacts to its businesses, results of operations and financial condition as a result of various macroeconomic, geopolitical and other challenges, uncertainties and volatility. These include, among other things, government fiscal and monetary actions or expected actions, including continued high interest rates, reductions in central bank balance sheets, or other restrictive interest rate or other monetary policies; potential recessions in the U.S., Europe and other regions or countries; and elevated levels of inflation.

For example, in 2023, the U.S., the U.K., the EU and other economies continued to experience elevated levels of inflation. As a result, the Federal Reserve Board (FRB) and other central banks substantially raised interest rates, reduced the size of their balance sheets and took other actions in an aggressive effort to curb inflation. These actions may continue to adversely impact certain sectors sensitive to interest rates and consumer discretionary spending. They may also slow economic growth, increase the risk of recession and increase the unemployment rate in the U.S. and other countries, all of which would likely adversely affect Citi's consumer and institutional clients, businesses and results of operations. In addition, inflation may continue to result in higher labor and other costs, thus putting further pressure on Citi's expenses. More recently, the FRB has signaled that it expects to reduce the benchmark U.S. interest rate in 2024. If the FRB were to reduce interest rates prematurely, inflation could resurge.

Interest rates on loans Citi makes are typically based off or set at a spread over a benchmark interest rate and would likely decline or rise as benchmark rates decline or rise, respectively. For example, while a decline in interest rates would generally be expected to result in lower overall net interest income, it could improve Citi's funding costs. Although higher interest rates would generally be expected to

increase overall net interest income, higher rates could adversely affect funding costs, levels of deposits in its consumer and institutional businesses and certain business or product revenues. In addition, Citi's net interest income could be adversely affected due to a flattening (a lower spread between shorter-term versus longer-term interest rates) or longer lasting or more severe inversion (shorter-term interest rates exceeding longer-term interest rates) of the interest rate yield curve, as Citi typically pays interest on deposits based on shorter-term interest rates and earns money on loans based on longer-term interest rates. For additional information on Citi's interest rate risk, see "Managing Global Risk—Market Risk—Banking Book Interest Rate Risk" below. Additionally, Citi's balance sheet includes interest-rate sensitive fixed-rate assets such as U.S. Treasuries, U.S. agency securities and residential mortgages, among others, whose valuation would be adversely impacted in a higher-rate environment and/or whose hedging costs may increase.

Additional areas of uncertainty include, among others, geopolitical challenges, tensions and conflicts, including those related to Russia's war in Ukraine (see discussion below), as well as a persistent and/or escalating conflict in the Middle East, particularly if the conflict were to widen to involve additional combatants, countries or regions; economic and other geopolitical challenges related to China, including weak economic growth, related policy actions, challenges in the Chinese real estate sector, banking and credit markets, and tensions or conflicts between China and Taiwan and/or China and the U.S.; significant disruptions and volatility in financial markets, including foreign currency volatility and devaluations and continued strength in the U.S. dollar; protracted or widespread trade tensions; natural disasters; new pandemics, including new COVID-19 variants; and political polarization, election outcomes and the effects of divided government, such as with respect to any extended government shutdown in the U.S. For example, Citi's market-making businesses can suffer losses resulting from the widening of credit spreads due to unanticipated changes in financial markets. Moreover, adverse developments or downturns in one or more of the world's larger economies would likely have a significant impact on the global economy or the economies of other countries because of global financial and economic linkages.

Russia's war in Ukraine has caused supply shocks in energy, food and other commodities markets, worsened inflation, increased cybersecurity risks, increased the risk of recession in Europe and heightened geopolitical tensions. Actions by Russia, and any further measures taken by the U.S. or its allies, could continue to have negative impacts on regional and global energy and other commodities and financial markets and macroeconomic conditions, adversely impacting jurisdictions where Citi operates and has customers, clients or employees. Citi's remaining operations in Russia subject Citi to various other risks, among which are foreign currency volatility, including appreciations or devaluations; restrictions arising from retaliatory Russian laws and regulations on the conduct of its remaining businesses, including, without limitation, its provision to its customers of certain securities services; sanctions or asset freezes; and other deconsolidation events. In the event of a loss of control of AO Citibank, Citi would be required to write off its net investment

in the entity, recognize a CTA loss through earnings and recognize a loss on intercompany liabilities owed by AO Citibank to other Citi entities outside of Russia. In the sole event of a substantial liquidation, as opposed to a loss of control, Citi would be required to recognize the CTA loss through earnings and would evaluate its remaining net investment as circumstances evolve. For additional information about these risks, see the operational processes and systems, cybersecurity and emerging markets risk factors and “Managing Global Risk—Other Risks—Country Risk—Russia” below.

STRATEGIC RISKS

Citi’s Ability to Return Capital to Common Shareholders Substantially Depends on Regulatory Capital Requirements, Including the Results of the CCAR Process and Dodd-Frank Act Regulatory Stress Tests, and Other Factors.

Citi’s ability to return capital to its common shareholders consistent with its capital planning efforts and targets, whether through its common stock dividend or through a share repurchase program, substantially depends, among other things, on its regulatory capital requirements, including the annual recalibration of the Stress Capital Buffer (SCB), which is based upon the results of the CCAR process required by the FRB, and recalibration of the GSIB surcharge, as well as the supervisory expectations and assessments regarding individual institutions.

The FRB’s annual stress testing requirements are integrated into ongoing regulatory capital requirements. Citi’s SCB equals the maximum projected decline in its CET1 Capital ratio under the supervisory severely adverse scenario over a nine-quarter CCAR measurement period, plus four quarters of planned common stock dividends as a percentage of Citi’s risk-weighted assets, subject to a minimum requirement of 2.5%. The SCB is calculated by the FRB using its proprietary data and modeling of each firm’s results. Accordingly, Citi’s SCB may change annually, based on the supervisory stress test results, thus potentially resulting in variability in the calculation of Citi’s required regulatory CET1 Capital ratio under the Standardized Approach. On October 1, 2023, Citi’s required regulatory CET1 Capital ratio increased to 12.3% from 12% under the Standardized Approach, reflecting the increase in the SCB requirement to 4.3% from 4.0%. In addition, a breach of the SCB and other regulatory capital buffers may result in gradual limitations on capital distributions and discretionary bonus payments to executive officers. For additional information on the SCB, see “Capital Resources—Regulatory Capital Buffers” above.

Moreover, changes in regulatory capital rules, requirements or interpretations could materially increase Citi’s required regulatory capital. For example, the U.S. banking regulators have proposed a number of changes to the U.S. regulatory capital framework, including, but not limited to, significant revisions to the U.S. Basel III rules, known as the Basel III Endgame (capital proposal); changes to the method for calculating the GSIB surcharge; and changes to aspects of the total loss-absorbing capacity (TLAC) requirements. The capital proposal would replace the Advanced Approaches with a new Expanded Risk-based Approach for calculating risk-

weighted assets. Under the capital proposal, a single capital buffer, including the SCB, would apply to a firm’s risk-based capital ratios, regardless of whether the applicable ratios result from the Expanded Risk-based Approach or the Modified Standardized Approach. Additionally, the capital proposal would make various changes to the calculations of credit risk, market risk and operational risk components of risk-weighted assets (see “Capital Resources—Regulatory Capital Standards and Developments” above). All of these potential changes, if adopted as proposed, would likely materially impact Citi’s regulatory capital position and substantially increase Citi’s regulatory capital requirements, and thus adversely impact the extent to which Citi is able to return capital to shareholders.

Citi’s ability to return capital also depends on its results of operations and financial condition, including the capital impact related to its remaining divestitures, such as, among other things, any temporary capital impact from CTA losses (net of hedges) between transaction signings and closings (see the continued investments and the incorrect assumptions or estimates risk factors below); Citi’s effectiveness in planning, managing and calculating its level of regulatory capital and risk-weighted assets under both the Advanced Approaches and the Standardized Approach, as well as the Supplementary Leverage ratio (SLR); its implementation and maintenance of an effective capital planning process and management framework; forecasts of macroeconomic conditions; and deferred tax asset (DTA) utilization (see the ability to utilize DTA risk factor below). The FRB could also limit or prohibit capital actions, such as paying or increasing dividends or repurchasing common stock due to macroeconomic disruptions or events, some of which occurred for a period of time during the COVID-19 pandemic.

All firms subject to CCAR requirements, including Citi, will continue to be subject to a rigorous regulatory evaluation of capital planning practices and other reviews and examinations, including, but not limited to data quality, which is a key regulatory focus, governance, risk management and internal controls. For example, the FRB has stated that it expects capital adequacy practices to continue to evolve and to likely be determined by its yearly cross-firm review of capital plan submissions. Similarly, the FRB has indicated that, as part of its stated goal to continually evolve its annual stress testing requirements, several parameters of the annual stress testing process may continue to be altered, including the number and severity of the stress test scenarios, the FRB modeling of Citi’s balance sheet, pre-provision net revenue and stress losses, and the addition of components deemed important by the FRB. Additionally, Citi’s ability to return capital may be adversely impacted if a regulatory evaluation or examination results in negative findings regarding absolute capital levels or other aspects of Citi’s operations, including as a result of the imposition of additional capital buffers, limitations on capital distributions or otherwise. For information on limitations on Citi’s ability to return capital to common shareholders, as well as the CCAR process, supervisory stress test requirements and GSIB surcharge, see “Capital Resources—Overview” and “Capital Resources—Stress Testing Component of Capital Planning” above and the risk management risk factor below.

In December 2023, the FRB announced that it will maintain its current framework for calculating allowances on loans in the supervisory stress test through the 2024 stress test cycle, while continuing to evaluate appropriate future enhancements to this framework. The impacts on Citi's capital adequacy of any potential incorporation by the FRB of CECL into its supervisory stress tests in future stress test cycles, and of other potential regulatory changes in the FRB's stress testing methodologies, remain unclear. For additional information regarding the CECL methodology, including the transition provisions related to the adverse regulatory capital effects resulting from adoption of the CECL methodology, see "Capital Resources—Current Regulatory Capital Standards—Regulatory Capital Treatment—Modified Transition of the Current Expected Credit Losses Methodology" above and Note 1.

Although various uncertainties exist regarding the extent of, and the ultimate impact to Citi from, changes to regulatory capital, results from the FRB's stress testing and CCAR regimes, and regulatory evaluation or examination findings, these changes could increase the level of capital Citi is required or elects to hold, including as part of Citi's management buffer, thus potentially adversely impacting the extent to which Citi is able to return capital to shareholders.

Citi Must Continually Review, Analyze and Successfully Adapt to Ongoing Regulatory and Legislative Uncertainties and Changes in the U.S. and Globally.

Citi, its management and its businesses continue to face regulatory and legislative uncertainties and changes, both in the U.S. and globally. While the ongoing regulatory and legislative uncertainties and changes facing Citi are too numerous to list completely, examples include, but are not limited to (i) potential changes to various aspects of the U.S. regulatory capital framework and requirements applicable to Citi, including, among others, significant revisions to the U.S. Basel III rules, known as the Basel III Endgame (for information about the Basel III Endgame, see the capital return risk factor and "Capital Resources—Regulatory Capital Standards Developments" above); (ii) potential fiscal, monetary, tax, sanctions and other changes promulgated by the U.S. federal government and other governments, including potential changes in regulatory requirements relating to interest rate risk management; and (iii) rapidly evolving legislative and regulatory requirements and other government initiatives in the EU, the U.S. and globally related to climate change and other ESG areas that vary, and may conflict, across jurisdictions, including any new disclosure requirements (see the climate change and heightened regulatory scrutiny and ongoing interpretation of regulatory changes risk factors below). References to "regulatory" refer to both formal regulation and the views and expectations of Citi's regulators in their supervisory roles, which, as they change over time, can have a major impact. In particular, the U.S. regulators have indicated that the level of their expectations is increasing and prompt negative examination findings/ratings and enforcements actions are more likely.

For example, in February 2023, the Consumer Financial Protection Bureau (CFPB) proposed significant changes to the maximum amounts on credit card late fees, which, if adopted

as proposed, would reduce credit card fee revenues in Branded Cards and Retail Services in USPB. In addition, U.S. and international regulatory and legislative initiatives have not always been undertaken or implemented on a coordinated basis, and areas of divergence have developed and continue to develop with respect to their scope, interpretation, timing, structure or approach, leading to inconsistent or even conflicting requirements, including within a single jurisdiction.

Further, ongoing regulatory and legislative uncertainties and changes make Citi's long-term business, balance sheet and strategic budget planning difficult, subject to change and potentially more costly and may impact its results of operations. U.S. and other regulators globally have implemented and continue to discuss various changes to certain regulatory requirements, which would require ongoing assessment by management as to the impact to Citi, its businesses and business planning. Business planning must necessarily be based on possible or proposed rules or outcomes, which can change significantly upon finalization, or upon implementation or interpretive guidance from numerous regulatory bodies worldwide, and such guidance can change. Regulatory and legislative changes have also significantly increased Citi's compliance risks and costs (see the implementation and interpretation of regulatory changes risk factor below) and can adversely affect Citi's competitive position, as well as its businesses, results of operations and financial condition.

Citi's Ability to Achieve Its Objectives from Its Transformation, Organizational, Simplification and Other Strategic and Other Initiatives May Not Be as Successful as It Projects or Expects.

As part of its transformation initiatives, Citi continues to make significant investments to improve its risk and controls environment, modernize its data and technology infrastructure and further enhance safety and soundness (see "Executive Summary" above and the legal and regulatory proceedings risk factor below). Citi also continues to make business-led investments, as part of the execution of its strategic initiatives. For example, Citi has been making investments across the Company, including hiring front office colleagues in key strategic markets and businesses; enhancing product capabilities and platforms to grow key businesses, improve client digital experiences and add scalability; and implementing new capabilities and partnerships. These business-led investments are designed to grow revenues as well as result in retention and efficiency improvements.

Additionally, Citi has been pursuing overall simplification initiatives that include management and operating model changes and actions to enhance focus on clients and reduce expenses. Citi's simplification actions also include divestiture of the Mexico Consumer/SBMM operations and completing other exits and wind-downs in order to streamline Citi and assist in optimizing its allocation of resources. These overall simplification initiatives involve various execution challenges and may result in higher than expected expenses, litigation and regulatory scrutiny, CTA and other losses or other negative financial or strategic impacts, which could be material (for information about potential CTA impacts, see the capital

return risk factor above and the incorrect assumptions or estimates risk factor below).

Citi's multiyear transformation, as well as its simplification initiatives, involve significant complexities and uncertainties. In addition, there is inherent risk that Citi's transformation and simplification initiatives will not be as productive or effective as Citi expects, or at all. Conversely, failure to adequately invest in and upgrade Citi's technology and processes or properly implement its enterprise-wide simplification could result in Citi's inability to meet regulatory expectations, be sufficiently competitive, serve clients effectively and avoid disruptions to its businesses and operational errors (see the operational processes and systems and legal and regulatory proceedings risk factors below). Citi's ability to achieve expected returns and operational improvements depends, in part, on factors that it cannot control, including, among others, macroeconomic challenges and uncertainties; customer, client and competitor actions; and ongoing regulatory requirements or changes.

Citi's transformation, strategic and other initiatives may continue to evolve as its business strategies, the market environment and regulatory expectations change, which could make the initiatives more costly and more challenging to implement, and limit their effectiveness.

Climate Change Presents Various Financial and Non-Financial Risks to Citi and Its Customers and Clients.

Climate change presents both immediate and long-term risks to Citi and its customers and clients, with the risks expected to increase over time. Climate risks can arise from both physical risks (those risks related to the physical effects of climate change) and transition risks (risks related to regulatory, market, technological, stakeholder and legal changes from a transition to a low-carbon economy). Physical and transition risks can manifest themselves differently across Citi's risk categories in the short, medium and long terms.

Physical risks from climate change include acute risks, such as hurricanes, floods and droughts, as well as consequences of chronic changes in climate, such as rising sea levels, prolonged droughts and systemic changes to geographies and any resulting population migration. For example, physical risks could have adverse financial, operational and other impacts on Citi, both directly on its business and operations, and indirectly as a result of impacts to Citi's clients, customers, vendors and other counterparties. These impacts can include destruction, damage or impairment of owned or leased properties and other assets, destruction or deterioration of the value of collateral, such as real estate, disruptions to business operations and supply chains and reduced availability or increase in the cost of insurance. Physical risks can also impact Citi's credit risk exposures, for example, in its mortgage and commercial real estate lending businesses.

Transition risks may arise from changes in regulations or market preferences toward low-carbon industries or sectors, which in turn could have negative impacts on asset values, results of operations or the reputations of Citi and its customers and clients. For example, Citi's corporate credit exposures include oil and gas, power and other industries that may experience reduced demand for carbon-intensive products

due to the transition to a low-carbon economy. Failure to adequately consider transition risk in developing and executing on its business strategy could lead to a loss of market share, lower revenues and higher credit costs.

Transition risks also include potential increased operational, compliance and energy costs driven by government policies to promote decarbonization.

Moreover, increasing legislative and regulatory changes and uncertainties regarding climate-related risk management and disclosures are likely to result in increased regulatory, compliance, credit, reputational and other risks and costs for Citi. New regulations have been enacted and/or are expected in several jurisdictions, including the EU's Corporate Sustainability Reporting Directive (CSRD), the SEC climate-related disclosures that could require disclosure of climate-related information and the State of California's legislation enacted in October 2023 requiring broad disclosure of greenhouse gas emissions and other climate-related information largely beginning in 2026. In addition, Citi could face increased regulatory scrutiny and reputation and litigation risks as a result of its climate risk, sustainability and other ESG-related commitments and disclosures.

Even as some regulators seek to mandate additional disclosure of climate-related information, Citi's ability to comply with such requirements and conduct more robust climate-related risk analyses may be hampered by lack of information and reliable data. Data on climate-related risks is limited in availability, often based on estimated or unverified figures, collected and reported on a time-lag, and variable in quality. Modeling capabilities to analyze climate-related risks and interconnections are improving, but remain incomplete. U.S. and non-U.S. banking regulators and others are increasingly focusing on the issue of climate risk at financial institutions, both directly and with respect to their clients. For example, in October 2023, the FRB, FDIC and OCC jointly released principles that provide a high-level framework for the safe and sound management of exposures to climate-related financial risks, including physical and transition risks, for financial institutions with more than \$100 billion in assets.

Additionally, if Citi's response to climate change is perceived to be ineffective or insufficient or Citi is unable to achieve its objectives or commitments relating to climate change, its businesses, reputation, attractiveness to certain investors and efforts to recruit and retain employees may suffer. For example, Citi's approach to supporting client decarbonization in a gradual and orderly way, while promoting energy security, may lead to both continued exposure to carbon-intensive activity and increased reputation risks from stakeholders with divergent points of view. Citi also faces anti-ESG challenges from certain U.S. state and other governments that may impact its ability to conduct certain business within those jurisdictions.

For information on Citi's climate and other sustainability initiatives, see "Climate Change and Net Zero" below. For additional information on Citi's management of climate risk, see "Managing Global Risk—Strategic Risk—Climate Risk" below.

Citi's Ability to Utilize Its DTAs, and Thus Reduce the Negative Impact of the DTAs on Citi's Regulatory Capital, Will Be Driven by Its Ability to Generate U.S. Taxable Income.

At December 31, 2023, Citi's net DTAs were \$29.6 billion, net of a valuation allowance of \$3.6 billion, of which \$12.8 billion was deducted from Citi's CET1 Capital under the U.S. Basel III rules. Of this deducted amount, \$12.1 billion related to net operating losses, foreign tax credit and general business credit carry-forwards, with \$2.3 billion related to temporary differences in excess of the 10%/15% regulatory limitations, reduced by \$1.6 billion of deferred tax liabilities, primarily associated with goodwill and certain other intangible assets that were separately deducted from capital.

Citi's overall ability to realize its DTAs will primarily be dependent upon Citi's ability to generate U.S. taxable income in the relevant reversal periods. Failure to realize any portion of the net DTAs would have a corresponding negative impact on Citi's net income and financial returns.

The accounting treatment for realization of DTAs is complex and requires significant judgment and estimates regarding future taxable earnings in the jurisdictions in which the DTAs arise and available tax planning strategies. Forecasts of future taxable earnings will depend upon various factors, including, among others, macroeconomic conditions. In addition, any future increase in U.S. corporate tax rates could result in an increase in Citi's DTAs, which may subject more of Citi's DTAs to exclusion from regulatory capital.

Citi has not been and does not expect to be subject to the base erosion anti-abuse tax (BEAT), which, if applicable to Citi in any given year, would have a significantly adverse effect on both Citi's net income and regulatory capital.

For additional information on Citi's DTAs, including FTCs, see "Significant Accounting Policies and Significant Estimates—Income Taxes" below and Notes 1 and 10.

Citi's Interpretation or Application of the Complex Tax Laws to Which It Is Subject Could Differ from Those of Governmental Authorities, Which Could Result in Litigation or Examinations and the Payment of Additional Taxes, Penalties or Interest.

Citi is subject to various income-based tax laws of the U.S. and its states and municipalities, as well as the numerous non-U.S. jurisdictions in which it operates. These tax laws are inherently complex, and Citi must make judgments and interpretations about the application of these laws to its entities, operations and businesses.

For example, the Organization for Economic Cooperation and Development (OECD) Pillar 2 initiative contemplates a 15% global minimum tax with respect to earnings in each country. EU member states were required to adopt the OECD Pillar 2 rules in 2023, with an effective date of January 1, 2024 (unless an exception applied), and other non-U.S. countries have similarly adopted or are expected to adopt the rules. Under these rules, Citi will be required to pay a "top-up" tax to the extent that Citi's effective tax rate in any given country is below 15%. Beginning in 2024, countries that adopted the OECD Pillar 2 rules in 2023 can collect the top-up tax only with respect to earnings of entities in their jurisdiction or subsidiaries of such entities. Beginning in 2025, all countries

that have adopted the OECD Pillar 2 rules can collect a share of the top-up tax owed with respect to any member of the Pillar 2 multinational group. While Citi does not currently expect the rules to have a material impact on its earnings, many aspects of the application of the rules remain uncertain.

Additionally, Citi is subject to litigation or examinations with U.S. and non-U.S. tax authorities regarding non-income-based tax matters. While Citi has appropriately reserved for such matters where there is a probable loss, and has disclosed reasonably possible losses, the outcome of the matters may be different than Citi's expectations. Citi's interpretations or application of the tax laws, including with respect to withholding, stamp, service and other non-income taxes, could differ from that of the relevant governmental taxing authority, which could result in the requirement to pay additional taxes, penalties or interest, the reduction of certain tax benefits or the requirement to make adjustments to amounts recorded, which could be material. See Note 30 for additional information on litigation and examinations involving non-U.S. tax authorities.

A Deterioration in or Failure to Maintain Citi's Co-Branding or Private Label Credit Card Relationships Could Have a Negative Impact on Citi.

Citi has co-branding and private label relationships through its Branded Cards and Retail Services credit card businesses with various retailers and merchants, whereby in the ordinary course of business Citi issues credit cards to consumers, including customers of the retailers or merchants. The five largest relationships across both businesses in USPB constituted an aggregate of approximately 11% of Citi's revenues in 2023 (see "U.S. Personal Banking" above). Citi's co-branding and private label agreements often provide for shared economics between the parties and generally have a fixed term.

Competition among card issuers, including Citi, for these relationships is significant, and Citi may not be able to maintain such relationships on existing terms or at all. Citi's co-branding and private label relationships could also be negatively impacted by, among other things, the general economic environment, including the impacts of continued elevated interest rates and inflation, and lower economic growth rates, as well as a continuing risk of recession; changes in consumer sentiment, spending patterns and credit card usage behaviors; a decline in sales and revenues, partner store closures, any reduction in air and business travel, or other operational difficulties of the retailer or merchant; early termination due to a contractual breach or exercise of other early termination right; or other factors, including bankruptcies, liquidations, restructurings, consolidations or other similar events, whether due to a challenging macroeconomic environment or otherwise.

These events, particularly early termination and bankruptcies or liquidations, could negatively impact the results of operations or financial condition of Branded Cards, Retail Services or Citi as a whole, including as a result of loss of revenues, increased expenses, higher cost of credit, impairment of purchased credit card relationships and contract-related intangibles or other losses (see Note 17 for information on Citi's credit card related intangibles generally).

The Application of U.S. Resolution Plan Requirements May Pose a Greater Risk of Loss to Citi's Debt and Equity Securities Holders, and Citi's Inability in Its Resolution Plan Submissions to Address Any Shortcomings or Deficiencies or Guidance Could Subject Citi to More Stringent Capital, Leverage or Liquidity Requirements, or Restrictions on Its Growth, Activities or Operations, and Could Eventually Require Citi to Divest Assets or Operations.

Title I of the Dodd-Frank Act requires Citi to prepare and submit a plan to the FRB and the FDIC for the orderly resolution of Citigroup (the bank holding company) and its significant legal entities under the U.S. Bankruptcy Code in the event of future material financial distress or failure.

Under Citi's preferred "single point of entry" resolution plan strategy, only Citigroup, the parent holding company, would enter into bankruptcy, while Citigroup's material legal entities (as defined in the public section of its 2023 resolution plan, which can be found on the FRB's and FDIC's websites) would remain operational outside of any resolution or insolvency proceedings. As a result, Citigroup's losses and any losses incurred by its material legal entity subsidiaries would be imposed first on holders of Citigroup's equity securities and thereafter on its unsecured creditors, including holders of eligible long-term debt and other debt securities.

In addition, a wholly owned, direct subsidiary of Citigroup serves as a resolution funding vehicle (the IHC) to which Citigroup has transferred, and has agreed to transfer on an ongoing basis, certain assets. The obligations of Citigroup and of the IHC, respectively, under the amended and restated secured support agreement, are secured on a senior basis by the assets of Citigroup (other than shares in subsidiaries of the parent company and certain other assets), and the assets of the IHC, as applicable. As a result, claims of the operating material legal entities against the assets of Citigroup with respect to such secured assets are effectively senior to unsecured obligations of Citigroup. Citi's single point of entry resolution plan strategy and the obligations under the amended and restated secured support agreement may result in the recapitalization of and/or provision of liquidity to Citi's operating material legal entities, and the commencement of bankruptcy proceedings by Citigroup at an earlier stage of financial stress than might otherwise occur without such mechanisms in place.

In line with the FRB's TLAC rule, Citigroup's shareholders and unsecured creditors—including its unsecured long-term debt holders—would bear any losses resulting from Citigroup's bankruptcy. Accordingly, any value realized by holders of its unsecured long-term debt may not be sufficient to repay the amounts owed to such debt holders in the event of a bankruptcy or other resolution proceeding of Citigroup. For additional information on Citi's single point of entry resolution plan strategy and the IHC and secured support agreement, see "Managing Global Risk—Liquidity Risk" below.

On November 22, 2022, the FRB and FDIC issued feedback on the resolution plans filed on July 1, 2021 by the eight U.S. GSIBs, including Citi. The FRB and FDIC identified one shortcoming, but no deficiencies, in Citi's 2021 resolution plan. The shortcoming related to data integrity and data quality management issues, specifically, weaknesses in

Citi's processes and practices for producing certain data that could materially impact its resolution capabilities. If a shortcoming is not satisfactorily explained or addressed before, or in, the submission of the next resolution plan, the shortcoming may be found to be a deficiency in the next resolution plan (see discussion below). Citi submitted its 2023 resolution plan in June 2023. More generally, data continues to be a subject of regulatory focus, and Citi continues to work on enhancing its data availability and quality.

Under Title I, if the FRB and the FDIC jointly determine that Citi's resolution plan is not "credible" (which, although not defined, is generally understood to mean the regulators do not believe the plan is feasible or would otherwise allow Citi to be resolved in a way that protects systemically important functions without severe systemic disruption), or would not facilitate an orderly resolution of Citi under the U.S. Bankruptcy Code, and Citi fails to resubmit a resolution plan that remedies any identified deficiencies, Citi could be subjected to more stringent capital, leverage or liquidity requirements, or restrictions on its growth, activities or operations. If within two years from the imposition of any such requirements or restrictions Citi has still not remediated any identified deficiencies, then Citi could eventually be required to divest certain assets or operations. Any such restrictions or actions would negatively impact Citi's reputation, market and investor perception, operations and strategy.

Citi's Performance and Its Ability to Effectively Execute Its Transformation and Strategic and Other Initiatives Could Be Negatively Impacted if It Is Not Able to Hire and Retain Qualified Employees.

Citi's performance and the performance of its individual businesses largely depend on the talents and efforts of its diverse and highly qualified colleagues. Specifically, Citi's continued ability to compete in each of its lines of business, to manage its businesses effectively and to execute its transformation and strategic and other initiatives, including, for example, hiring front office colleagues to grow businesses or hiring colleagues to support Citi's transformation and strategic and other initiatives, depends on its ability to attract new colleagues and to retain and motivate its existing colleagues. If Citi is unable to continue to attract, retain and motivate highly qualified colleagues, Citi's performance, including its competitive position, the execution of its transformation and strategic and other initiatives and its results of operations could be negatively impacted.

Citi's ability to attract, retain and motivate colleagues depends on numerous factors, some of which are outside of Citi's control. For example, the competition for talent continues to be particularly intense due to factors such as low unemployment and changes in worker expectations, concerns and preferences, including an increased demand for remote work options and other job flexibility. Also, the banking industry generally is subject to more comprehensive regulation of employee compensation than other industries, including deferral and clawback requirements for incentive compensation, which can make it unusually challenging for Citi to compete in labor markets against businesses, including, for example, technology companies, that are not subject to

such regulation. In addition, in 2023 Citi announced plans to reduce management layers from 13 to a median of eight as part of organizational simplification initiatives that also involve significant reductions in functional roles, which could also impact its ability to attract and retain colleagues. Other factors that could impact its ability to attract, retain and motivate colleagues include, among other things, Citi's presence in a particular market or region, the professional and development opportunities, its reputation and its diversity. For information on Citi's colleagues and workforce management, see "Human Capital Resources and Management" below.

Citi Faces Increased Competitive Challenges, Including from Financial Services and Other Companies and Emerging Technologies.

Citi operates in an increasingly evolving and competitive business environment, which includes both financial and non-financial services firms, such as traditional banks, online banks, private credit and financial technology companies and others. These companies compete on the basis of, among other factors, size, reach, quality and type of products and services offered, price, technology and reputation. Certain competitors may be subject to different and, in some cases, less stringent legal and regulatory requirements, whether due to size, jurisdiction, entity type or other factors, placing Citi at a competitive disadvantage.

For example, Citi competes with other financial services companies in the U.S. and globally that have grown rapidly over the last several years or have developed and introduced new products and services. Potential mergers and acquisitions involving traditional financial services companies such as regional banks or credit card issuers, as well as networks and merchant acquirers, may also increase competition and impact Citi's ability to offer competitive pricing and rewards. Non-traditional financial services firms, such as private credit and financial technology companies, are less regulated and continue to expand their offerings of services traditionally provided by financial institutions. The growth of certain of these competitors has increased market and counterparty credit risks, particularly in a more challenging macroeconomic environment (see the risk factor on credit and concentrations of risk below). In addition, emerging technologies have the potential to intensify competition and accelerate disruption in the financial services industry. For example, despite difficulties and turmoil faced by the digital asset market in recent years, clients and investors have exhibited a sustained interest in digital assets. Financial services firms and other market participants have begun to offer services related to those assets. Citi may not be able to provide the same or similar services for legal or regulatory reasons, which may be exacerbated by rapidly evolving and conflicting regulatory requirements, and due to increased compliance and other risks. Further, changes in the payments space (e.g., instant and 24x7 payments) are accelerating, and, as a result, certain of Citi's products and services could become less competitive.

Increased competition and emerging technologies have required and could require Citi to change or adapt its products and services, as well as invest in and develop related infrastructure, to attract and retain customers or clients or to compete more effectively with competitors, including new

market entrants. Simultaneously, as Citi develops new products and services leveraging emerging technologies, new risks may emerge that, if not designed and governed adequately, may result in control gaps and in Citi operating outside of its risk appetite. For example, failure to strategically embrace the potential of artificial intelligence (AI) may result in a competitive disadvantage to Citi. At the same time, as a new technology, use of AI without sufficient controls, governance and risk management may result in increased risks across all of Citi's risk categories. As another example, instant and 24x7 payments products could be accompanied by challenges to forecasting and managing liquidity, as well as increased operational and compliance risks.

Moreover, Citi relies on third parties to support certain of its product and service offerings, which may put Citi at a disadvantage to competitors who may directly offer a broader array of products and services. Also, Citi's businesses, results of operations and reputation may suffer if any third party is unable to provide adequate support for such product and service offerings, whether due to operational incidents or otherwise (see the operational processes and systems, cybersecurity and emerging markets risk factors below).

To the extent that Citi is not able to compete effectively with financial services companies, including private credit and financial technology companies, and non-financial services firms, Citi could be placed at a competitive disadvantage, which could result in loss of customers and market share, and its businesses, results of operations and financial condition could suffer. For additional information on Citi's competitors, see the co-brand and private label cards and qualified colleagues risk factors above and "Supervision, Regulation and Other—Competition" below.

OPERATIONAL RISKS

A Failure or Disruption of Citi's Operational Processes or Systems Could Negatively Impact Its Reputation, Customers, Clients, Businesses or Results of Operations and Financial Condition.

Citi's global operations rely heavily on its technology systems and infrastructure, including the accurate, timely and secure processing, management, storage and transmission of data, including confidential transactions, and other information, as well as the monitoring of a substantial amount of data and complex transactions in real time. Citi obtains and stores an extensive amount of personal and client-specific information for its consumer and institutional customers and clients, and must accurately record and reflect their account transactions. Citi's operations must also comply with complex and evolving laws, regulations and heightened regulatory expectations in the countries in which it operates (see the implementation and interpretation of regulatory changes and legal proceedings risk factors below). With the evolving proliferation of new technologies and the increasing use of the internet, mobile devices and cloud services to conduct financial transactions and customers' and clients' increasing use of online banking and trading systems and other platforms, large global financial institutions such as Citi have been, and will continue to be, subject to an ever-increasing risk of operational loss, failure or disruption.

Although Citi has continued to upgrade its technology, including systems to automate processes and gain efficiencies, operational incidents are unpredictable and can arise from numerous sources, not all of which are fully within Citi's control. These include, among others, operational or execution failures, or deficiencies by third parties, including third parties that provide products or services to Citi (e.g., cloud service providers), other market participants or those that otherwise have an ongoing partnership or business relationship with Citi; deficiencies in processes or controls; inadequate management of data governance practices, data controls and monitoring mechanisms that may adversely impact internal or external reporting and decision-making; cyber or information security incidents (see the cybersecurity risk factor below); human error, such as manual transaction processing errors (e.g., erroneous payments to lenders or manual errors by traders that cause system and market disruptions or losses), which can be exacerbated by staffing challenges and processing backlogs; fraud or malice on the part of employees or third parties; insufficient (or limited) straight-through processing between legacy or bespoke systems and any failure to design and effectively operate controls that mitigate operational risks associated with those legacy or bespoke systems, leading to potential risk of errors and operating losses; accidental system or technological failure; electrical or telecommunication outages; failures of or cyber incidents involving computer servers or infrastructure, including cloud services; or other similar losses or damage to Citi's property or assets (see also the climate change risk factor above).

For example, operational incidents can arise as a result of failures by third parties with which Citi does business, such as failures by internet, mobile technology and cloud service providers or other vendors to adequately follow procedures or processes, safeguard their systems or prevent system disruptions or cyberattacks. Failure by Citi to develop, implement and operate a third-party risk management program commensurate with the level of risk, complexity and nature of its third-party relationships can also result in operational incidents. In addition, Citi has experienced and could experience further losses associated with manual transaction processing errors, including erroneous payments to lenders or manual errors by Citi traders that cause system and market disruptions and losses for Citi and its clients. Irrespective of the sophistication of the technology utilized by Citi, there will always be some room for human and other errors. In view of the large transactions in which Citi engages, such errors could result in significant losses. While Citi has change management processes in place to appropriately upgrade its operational processes and systems to ensure that any changes introduced do not adversely impact security and operational continuity, such change management can fail or be ineffective. Furthermore, when Citi introduces new products, systems or processes, new operational risks that may arise from those changes may not be identified, or adequate controls to mitigate the identified risks may not be appropriately implemented or operate as designed.

Incidents that impact information security, technology operations or other operational processes may cause disruptions and/or malfunctions within Citi's businesses (e.g., the temporary loss of availability of Citi's online banking

system or mobile banking platform), as well as the operations of its clients, customers or other third parties. In addition, operational incidents could involve the failure or ineffectiveness of internal processes or controls. Given Citi's global footprint and the high volume of transactions processed by Citi, certain failures, errors or actions may be repeated or compounded before they are discovered and rectified, which would further increase the consequences and costs.

Operational incidents could result in financial losses and other costs as well as misappropriation, corruption or loss of confidential and other information or assets, which could significantly negatively impact Citi's reputation, customers, clients, businesses or results of operations and financial condition. Cyber-related and other operational incidents can also result in legal and regulatory actions or proceedings, fines and other costs (see the legal and regulatory proceedings risk factor below).

For information on Citi's management of operational risk, see "Managing Global Risk—Operational Risk" below.

Citi's and Third Parties' Computer Systems and Networks Will Continue to Be Susceptible to an Increasing Risk of Continually Evolving, Sophisticated Cybersecurity Incidents That Could Result in the Theft, Loss, Non-Availability, Misuse or Disclosure of Confidential Client or Customer Information, Damage to Citi's Reputation, Additional Costs to Citi, Regulatory Penalties, Legal Exposure and Financial Losses.

Citi's computer systems, software and networks are subject to ongoing attempted cyberattacks, such as unauthorized access, loss or destruction of data (including confidential client information), account takeovers, disruptions of service, phishing, malware, ransomware, computer viruses or other malicious code and other similar events. These threats can arise from external parties, including cyber criminals, cyber terrorists, hacktivists (individuals or groups using cyberattacks to promote a political or social agenda) and nation-state actors, as well as insiders who knowingly or unknowingly engage in or enable malicious cyber activities. Citi develops its own software and relies on third-party applications and software, which are susceptible to vulnerability exploitations. Software leveraged in financial services and other industries continues to be impacted by an increasing number of zero-day vulnerabilities, thus increasing inherent cyber risk to Citi.

The increasing use of mobile and other digital banking platforms and services, cloud technologies and connectivity solutions to facilitate remote working for Citi's employees all increase Citi's exposure to cybersecurity risks. Citi is also susceptible to cyberattacks given, among other things, its size and scale, high-profile brand, global footprint and prominent role in the financial system, as well as the ongoing wind-down of its businesses in Russia (see the macroeconomic and geopolitical risk factor above and "Managing Global Risk—Other Risks—Country Risk—Russia" below). Additionally, Citi continues to operate in multiple jurisdictions in the midst of geopolitical unrest, including active conflicts in Ukraine and the Middle East, which could expose Citi to heightened risk of insider threat, politically motivated hacktivism or other cyber threats.

Citi continues to experience increased exposure to cyberattacks through third parties, in part because financial institutions are becoming increasingly interconnected with central agents, exchanges and clearing houses. Third parties with which Citi does business, as well as retailers and other third parties with which Citi's customers do business, and any such third parties' downstream service providers, also pose cybersecurity risks, particularly where activities of customers are beyond Citi's security and control systems. For example, Citi outsources certain functions, such as processing customer credit card transactions, uploading content on customer-facing websites and developing software for new products and services. These relationships allow for the storage and processing of customer information by third-party hosting of, or access to, Citi websites. This could lead to compromise or the potential to introduce vulnerable or malicious code, resulting in security breaches or business disruptions impacting Citi customers, employees or operations. While many of Citi's agreements with third parties include indemnification provisions, Citi may not be able to recover sufficiently, or at all, under these provisions to adequately offset any losses and other adverse impacts Citi may incur from third-party cyber incidents.

Citi and some of its third-party partners have been subjected to attempted and sometimes successful cyberattacks over the last several years, including (i) denial of service attacks, which attempt to interrupt service to clients and customers; (ii) hacking and malicious software installations intended to gain unauthorized access to information systems or to disrupt those systems and/or impact availability or privacy of confidential data, with objectives including, but not limited to, extortion payments or causing reputational damage; (iii) data breaches due to unauthorized access to customer account or other data; and (iv) malicious software attacks on client systems, in attempts to gain unauthorized access to Citi systems or client data under the guise of normal client transactions.

While Citi's monitoring and protection services have historically generally succeeded in detecting, thwarting and/or responding to attacks targeting its systems before they become significant, certain past incidents resulted in limited losses, as well as increases in expenditures to monitor against the threat of similar future cyber incidents. There can be no assurance that such cyber incidents will not occur again, and they could occur more frequently, via novel tactics, including leveraging of tools made possible by emerging technologies, and on a more significant scale. Despite the significant resources Citi allocates to implement, maintain, monitor and regularly upgrade its systems and networks with measures such as intrusion detection and prevention systems and firewalls to safeguard critical business applications, there is no guarantee that these measures or any other measures can provide sufficient security. Because the techniques used to initiate cyberattacks change frequently or, in some cases, are not recognized until launched or even later, Citi may be unable to implement effective preventive measures or otherwise proactively address these methods. In addition, cyber threats and cyberattack techniques change, develop and evolve rapidly, including from emerging technologies such as artificial intelligence, cloud computing and quantum

computing. Given the frequency and sophistication of cyberattacks, the determination of the severity and potential impact of a cyber incident may not become apparent for a substantial period of time following detection of the incident. Also, while Citi strives to implement measures to reduce the exposure resulting from outsourcing risks, such as performing security control assessments of third-party vendors and limiting third-party access to the least privileged level necessary to perform job functions, these measures cannot prevent all third-party related cyberattacks or data breaches. In addition, the risk of insider threat may be elevated in the near term due to Citi's overall simplification initiatives, including streamlining its global staff functions.

Cyber incidents can result in the disclosure of personal, confidential or proprietary customer, client or employee information; damage to Citi's reputation with its clients, other counterparties and the market; customer dissatisfaction; and additional costs to Citi, including expenses such as repairing or replacing systems, replacing customer payment cards, credit monitoring or adding new personnel or protection technologies. Cyber incidents can also result in regulatory penalties, loss of revenues, deposit flight, exposure to litigation and other financial losses, including loss of funds to both Citi and its clients and customers, and disruption to Citi's operational systems (see the operational processes and systems risk factor above). Moreover, the increasing risk of cyber incidents has resulted in increased legislative and regulatory action on cybersecurity, including, among other things, scrutiny of firms' cybersecurity protection services, laws and regulations to enhance protection of consumers' personal data and mandated disclosure on cybersecurity matters. For example, in July 2023, the SEC finalized new rules requiring timely disclosure of material cybersecurity incidents as well as other annual cyber-related disclosures (see "Managing Global Risk—Operational Risk—Cybersecurity Risk" below).

While Citi maintains insurance coverage that may, subject to policy terms and conditions including significant self-insured deductibles, cover certain aspects of cyber risks, such insurance coverage may be insufficient to cover all losses and may not take into account reputational harm, the costs of which are impossible to quantify.

For additional information about Citi's management of cybersecurity risk, see "Managing Global Risk—Operational Risk—Cybersecurity Risk" below.

Changes or Errors in Accounting Assumptions, Judgments or Estimates, or the Application of Certain Accounting Principles, Could Result in Significant Losses or Other Adverse Impacts.

U.S. GAAP requires Citi to use certain assumptions, judgments and estimates in preparing its financial statements, including, among other items, the estimate of the ACL; reserves related to litigation, regulatory and tax matters; valuation of DTAs; the fair values of certain assets and liabilities; and the assessment of goodwill and other assets for impairment. These assumptions, judgments and estimates are inherently limited because they involve techniques, including the use of historical data in many circumstances, that cannot anticipate every economic and financial outcome in the markets in which Citi operates, nor can they anticipate the

specifics and timing of such outcomes. For example, many models used by Citi include assumptions about correlation or lack thereof among prices of various asset classes or other market indicators that may not hold in times of market stress, limited liquidity or other unforeseen circumstances.

If Citi's assumptions, judgments or estimates underlying its financial statements are incorrect or differ from actual or subsequent events, Citi could experience unexpected losses or other adverse impacts, some of which could be significant. Citi could also experience declines in its stock price, be subject to legal and regulatory proceedings and incur fines and other losses. For additional information on the key areas for which assumptions and estimates are used in preparing Citi's financial statements, see "Significant Accounting Policies and Significant Estimates" below and Notes 1 and 16. For example, the CECL methodology requires that Citi provide reserves for a current estimate of lifetime expected credit losses for its loan portfolios and other financial assets, as applicable, at the time those assets are originated or acquired. This estimate is adjusted each period for changes in expected lifetime credit losses. Citi's ACL estimate depends upon its CECL models and assumptions; forecasted macroeconomic conditions, including, among other things, the U.S. unemployment rate and U.S. inflation-adjusted gross domestic product (real GDP); and the credit indicators, composition and other characteristics of Citi's loan portfolios and other applicable financial assets. These model assumptions and forecasted macroeconomic conditions will change over time, resulting in variability in Citi's ACL and, thus, impact its results of operations and financial condition, as well as regulatory capital due to the CECL phase-in (see the capital return risk factor above).

Moreover, Citi has incurred losses related to its foreign operations that are reported in the CTA components of *Accumulated other comprehensive income (loss) (AOCI)*. In accordance with U.S. GAAP, a sale, substantial liquidation or other deconsolidation event of any foreign operations, such as those related to Citi's remaining divestitures or legacy businesses, would result in reclassification of any foreign CTA component of *AOCI* related to that foreign operation, including related hedges and taxes, into Citi's earnings. For example, Citi could incur a significant loss on sale due to CTA losses related to any signing of a sale agreement for its remaining consumer banking divestitures (see the capital return and continued investments risk factors above). The majority of these losses would be regulatory capital neutral at closing. For additional information on Citi's accounting policy for foreign currency translation and its foreign CTA components of *AOCI*, see Notes 1 and 21.

Changes to Financial Accounting and Reporting Standards or Interpretations Could Have a Material Impact on How Citi Records and Reports Its Financial Condition and Results of Operations.

Periodically, the Financial Accounting Standards Board (FASB) issues financial accounting and reporting standards that govern key aspects of Citi's financial statements or interpretations thereof when those standards become effective, including those areas where Citi is required to make assumptions or estimates. Changes to financial accounting or

reporting standards or interpretations, whether promulgated or required by the FASB, the SEC, U.S. banking regulators or others, could present operational challenges and could also require Citi to change certain of the assumptions or estimates it previously used in preparing its financial statements, which could negatively impact how it records and reports its financial condition and results of operations generally and/or with respect to particular businesses. See Note 1 for additional information on Citi's accounting policies and changes in accounting, including the expected impacts on Citi's results of operations and financial condition.

If Citi's Risk Management and Other Processes, Strategies or Models Are Deficient or Ineffective, Citi May Incur Significant Losses and Its Regulatory Capital and Capital Ratios Could Be Negatively Impacted.

Citi utilizes a broad and diversified set of risk management and other processes and strategies, including the use of models in analyzing and monitoring the various risks Citi assumes in conducting its activities. For example, Citi uses models as part of its comprehensive stress testing initiatives across the Company. Citi also relies on data to aggregate, assess and manage various risk exposures. Management of these risks and the reliability of the data are made more challenging within a large, global financial institution, such as Citi, particularly due to complex, diverse and rapidly changing financial markets and conditions in which Citi operates. Unexpected losses can result from untimely, inaccurate or incomplete processes and data. As discussed below, in October 2020, Citigroup and Citibank entered into consent orders with the FRB and OCC that require Citigroup and Citibank to make improvements in various aspects of enterprise-wide risk management, compliance, data quality management and governance, and internal controls (see "Citi's Consent Order Compliance" above and the legal and regulatory proceedings risk factor below).

Citi's risk management and other processes, strategies and models are inherently limited because they involve techniques, including the use of historical data in many circumstances, assumptions and judgments that cannot anticipate every economic and financial outcome in the markets in which Citi operates, particularly given various macroeconomic, geopolitical and other challenges and uncertainties (see the macroeconomic challenges and uncertainties risk factor above), nor can they anticipate the specifics and timing of such outcomes. For example, many models used by Citi include assumptions about correlation or lack thereof among prices of various asset classes or other market indicators that may not necessarily hold in times of market stress, limited liquidity or other unforeseen circumstances, or identify changes in markets or client behaviors not yet inherent in historical data. Citi could incur significant losses, receive negative regulatory evaluation or examination findings or be subject to additional enforcement actions, and its regulatory capital, capital ratios and ability to return capital could be negatively impacted, if Citi's risk management and other processes, including its ability to manage and aggregate data in a timely and accurate manner, strategies or models are deficient or ineffective. For additional information, see the capital return risk factor above and the heightened regulatory

scrutiny and ongoing interpretation of regulatory changes risk factor below. Such deficiencies or ineffectiveness could also result in inaccurate financial, regulatory or risk reporting.

Moreover, Citi's Basel III regulatory capital models, including its credit, market and operational risk models, currently remain subject to ongoing regulatory review and approval, which may result in refinements, modifications or enhancements (required or otherwise) to these models. Citi is required to notify and obtain preapproval from both the OCC and FRB prior to implementing certain risk-weighted asset treatments, as well as certain model changes, resulting in a more challenging environment within which Citi must operate in managing its risk-weighted assets. Modifications or requirements resulting from these ongoing reviews, as well as any future changes or guidance provided by the U.S. banking regulators regarding the U.S. regulatory capital framework applicable to Citi, including, but not limited to, potential revisions to the U.S. Basel III rules, known as the Basel III Endgame (for information about the Basel III Endgame, see the capital return risk factor and "Capital Resources—Regulatory Capital Standards Developments" above), have resulted in, and could continue to result in, significant changes to Citi's risk-weighted assets. These changes can negatively impact Citi's capital ratios and its ability to meet its regulatory capital requirements.

CREDIT RISKS

Credit Risk and Concentrations of Risk Can Increase the Potential for Citi to Incur Significant Losses.

Citi has credit exposures to consumer, corporate and public sector borrowers and other counterparties in the U.S. and various countries and jurisdictions globally, including end-of-period consumer loans of \$389 billion and end-of-period corporate loans of \$300 billion at December 31, 2023. For additional information on Citi's corporate and consumer loan portfolios, see "Managing Global Risk—Corporate Credit" and "—Consumer Credit" below.

A default by or a significant downgrade in the credit ratings of a borrower or other counterparty, or a decline in the credit quality or value of any underlying collateral, exposes Citi to credit risk. Despite Citi's target client strategy, various macroeconomic, geopolitical, market and other factors, among other things, can increase Citi's credit risk and credit costs, particularly for vulnerable sectors, industries or countries (see the macroeconomic challenges and uncertainties and co-branding and private label credit card risk factors above and the emerging markets risk factor below). For example, a weakening of economic conditions can adversely affect borrowers' ability to repay their obligations, as well as result in Citi being unable to liquidate the collateral it holds or forced to liquidate the collateral at prices that do not cover the full amount owed to Citi. Citi is also a member of various central clearing counterparties and could incur financial losses as a result of defaults by other clearing members due to the requirements of clearing members to share losses.

Additionally, due to the interconnectedness among financial institutions, concerns about the creditworthiness of or defaults by a financial institution could spread to other financial market participants and result in market-wide losses and disruption.

For example, the failure of regional banks and other banking stresses in the first half of 2023 resulted in market volatility across the financial sector.

While Citi provides reserves for expected losses for its credit exposures, as applicable, such reserves are subject to judgments and estimates that could be incorrect or differ from actual future events. Under the CECL accounting standard, the ACL reflects expected losses, which has resulted in and could lead to additional volatility in the allowance and the provision for credit losses (including provisions for loans and unfunded lending commitments, and ACL builds for *Other assets*) as forecasts of economic conditions change. For additional information, see the incorrect assumptions or estimates and changes to financial accounting and reporting standards risk factors above. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below and Notes 1 and 16. For additional information on Citi's credit and country risk, see also each respective business's results of operations above, "Managing Global Risk—Credit Risk" and "Managing Global Risk—Other Risks—Country Risk" below and Notes 15 and 16.

Concentrations of risk to clients or counterparties engaged in the same or related industries or doing business in a particular geography, or to a particular product or asset class, especially credit and market risks, can also increase Citi's risk of significant losses. For example, Citi routinely executes a high volume of securities, trading, derivative and foreign exchange transactions with non-U.S. sovereigns and with counterparties in the financial services industry, including banks, insurance companies, investment banks, governments, central banks and other financial institutions. Moreover, Citi has indemnification obligations in connection with various transactions that expose it to concentrations of risk, including credit risk from hedging or reinsurance arrangements related to those obligations (see Note 28). A rapid deterioration of a large borrower or other counterparty or within a sector or country in which Citi has large exposures or indemnifications or unexpected market dislocations could lead to concerns about the creditworthiness of other borrowers or counterparties in a certain geography and in related or dependent industries, and such conditions could cause Citi to incur significant losses.

LIQUIDITY RISKS

Citi's Businesses, Results of Operations and Financial Condition Could Be Negatively Impacted if It Does Not Effectively Manage Its Liquidity.

As a large, global financial institution, adequate liquidity and sources of funding are essential to Citi's businesses. Citi's liquidity, sources of funding and costs of funding can be significantly and negatively impacted by factors it cannot control, such as general disruptions in the financial markets (e.g., the failure of regional banks and other banking stresses in the first half of 2023); changes in fiscal and monetary policies and regulatory requirements; negative investor perceptions of Citi's creditworthiness; deposit outflows or unfavorable changes in deposit mix; unexpected increases in cash or collateral requirements; credit ratings; and the consequent inability to monetize available liquidity resources.

In addition, Citi competes with other banks and financial institutions for both institutional and consumer deposits, which represent Citi's most stable and lowest cost source of long-term funding. The competition for deposits has continued to increase, including as a result of quantitative tightening by central banks, the current higher interest rate environment and fixed income alternatives for customer funds.

Further, Citi's costs to obtain and access wholesale funding are directly related to changes in interest and currency exchange rates and its credit spreads. Changes in Citi's credit spreads are driven by both external market factors and factors specific to Citi, such as negative views by investors of the financial services industry or Citi's financial prospects, and can be highly volatile. For additional information on Citi's primary sources of funding, see "Managing Global Risk—Liquidity Risk" below.

Citi's ability to obtain funding may be impaired and its cost of funding could also increase if other market participants are seeking to access the markets at the same time or to a greater extent than expected, or if market appetite for corporate debt securities declines, as is likely to occur in a liquidity stress event or other market crisis. Citi's ability to sell assets may also be impaired if other market participants are seeking to sell similar assets at the same time or a liquid market does not exist for such assets. Additionally, unexpected changes in client needs due to idiosyncratic events or market conditions could result in greater than expected drawdowns from off-balance sheet committed facilities. A sudden drop in market liquidity could also cause a temporary or protracted dislocation of capital markets activity. In addition, clearing organizations, central banks, clients and financial institutions with which Citi interacts may exercise the right to require additional collateral during challenging market conditions, which could further impair Citi's liquidity. If Citi fails to effectively manage its liquidity, its businesses, results of operations and financial condition could be negatively impacted.

Limitations on the payments that Citigroup Inc. receives from its subsidiaries could also impact its liquidity. As a holding company, Citigroup Inc. relies on interest, dividends, distributions and other payments from its subsidiaries to fund dividends as well as to satisfy its debt and other obligations. Several of Citi's U.S. and non-U.S. subsidiaries are or may be subject to capital adequacy or other liquidity, regulatory or contractual restrictions on their ability to provide such payments, including any local regulatory stress test requirements and inter-affiliate arrangements entered into in connection with Citigroup Inc.'s resolution plan. Citigroup Inc.'s broker-dealer and bank subsidiaries are subject to restrictions on their ability to lend or transact with affiliates, as well as restrictions on their ability to use funds deposited with them in brokerage or bank accounts to fund their businesses.

A bank holding company is also required by law to act as a source of financial and managerial strength for its subsidiary banks. As a result, the FRB may require Citigroup Inc. to commit resources to its subsidiary banks even if doing so is not otherwise in the interests of Citigroup Inc. or its shareholders or creditors, reducing the amount of funds available to meet its obligations.

A Ratings Downgrade Could Adversely Impact Citi's Funding and Liquidity.

The credit rating agencies, such as Fitch Ratings, Moody's Investors Service and S&P Global Ratings, continuously evaluate Citi and certain of its subsidiaries. Their ratings of Citi and its rated subsidiaries' long-term debt and short-term obligations are based on firm-specific factors, including the financial strength of Citi and such subsidiaries, as well as factors that are not entirely within the control of Citi and its subsidiaries, such as the agencies' proprietary rating methodologies and assumptions, potential impact from negative actions on U.S. sovereign ratings and conditions affecting the financial services industry and markets generally.

Citi and its subsidiaries may not be able to maintain their current respective ratings and outlooks. Rating downgrades could negatively impact Citi and its rated subsidiaries' ability to access the capital markets and other sources of funds as well as increase credit spreads and the costs of those funds. A ratings downgrade could also have a negative impact on Citi and its rated subsidiaries' ability to obtain funding and liquidity due to reduced funding capacity and the impact from derivative triggers, which could require Citi and its rated subsidiaries to meet cash obligations and collateral requirements or permit counterparties to terminate certain contracts. In addition, a ratings downgrade could have a negative impact on other funding sources such as secured financing and other margined transactions for which there may be no explicit triggers.

Furthermore, a credit ratings downgrade could have impacts that may not be currently known to Citi or are not possible to quantify. Some of Citi's counterparties and clients could have ratings limitations on their permissible counterparties, of which Citi may or may not be aware. Certain of Citi's corporate customers and trading counterparties, among other clients, could re-evaluate their business relationships with Citi and limit the trading of certain market instruments, and limit or withdraw deposits placed with Citi in response to ratings downgrades. Changes in customer and counterparty behavior could impact not only Citi's funding and liquidity but also the results of operations of certain Citi businesses. For additional information on the potential impact of a reduction in Citi's or Citibank's credit ratings, see "Managing Global Risk—Liquidity Risk" below.

COMPLIANCE RISKS

Significantly Heightened Regulatory Expectations and Scrutiny in the U.S. and Globally and Ongoing Interpretation and Implementation of Regulatory and Legislative Requirements and Changes Have Increased Citi's Compliance, Regulatory and Other Risks and Costs.

Large financial institutions, such as Citi, face significantly heightened regulatory expectations and scrutiny in the U.S. and globally, including with respect to, among other things, governance, infrastructure, data and risk management practices and controls. These regulatory expectations extend to their employees and agents and also include, among other things, those related to customer and client protection, market practices, anti-money laundering, increasingly complex sanctions and disclosure regimes and various regulatory

reporting requirements. U.S. financial institutions also face increased expectations and scrutiny in the wake of the failures of several regional banks and other banking stresses in the first half of 2023. In addition, Citi is continually required to interpret and implement extensive and frequently changing regulatory and legislative requirements in the U.S. and other jurisdictions in which it does business, which may overlap or conflict across jurisdictions, resulting in substantial compliance, regulatory and other risks and costs.

A failure to comply with these expectations and requirements, even if inadvertent, or resolve any identified deficiencies in a timely and sufficiently satisfactory manner to regulators, could result in increased regulatory oversight; material restrictions, including, among others, imposition of additional capital buffers and limitations on capital distributions; enforcement proceedings; penalties; and fines (see the capital return risk factor above and legal and regulatory proceedings risk factor below).

Over the past several years, Citi has been required to implement a large number of regulatory and legislative changes, including new regulatory or legislative requirements or regimes, across its businesses and functions, and these changes continue. The changes themselves may be complex and subject to interpretation, and result in changes to Citi's businesses. In addition, the changes require continued substantial technology and other investments. In some cases, Citi's implementation of a regulatory or legislative requirement is occurring simultaneously with changing or conflicting regulatory guidance from multiple jurisdictions (including various U.S. states) and regulators, legal challenges or legislative action to modify or repeal existing rules or enact new rules.

Examples of regulatory or legislative changes that have resulted in increased compliance risks and costs include (i) the U.S. regulatory capital framework and requirements, which have continued to evolve (see the capital return risk factor and "Capital Resources" above); (ii) various laws relating to the limitation of cross-border data movement and/or collection and use of customer information, including data localization and protection and privacy laws, which also can conflict with or increase compliance complexity with respect to other laws, including anti-money laundering laws; and (iii) the EU's Corporate Sustainability Reporting Directive, which may overlap but also diverge from climate-related disclosure requirements expected to come into effect in other jurisdictions, including in the U.S. In addition, certain U.S. regulatory agencies and states and non-U.S. authorities have prioritized issues of social, economic and racial justice, and are in the process of considering ways in which these issues can be mitigated, including through rulemaking, supervision and other means, even while certain U.S. state and other governments are pursuing and signaling challenges that may conflict with corporate ESG initiatives.

Citi Is Subject to Extensive Legal and Regulatory Proceedings, Examinations, Investigations, Consent Orders and Related Compliance Efforts and Other Inquiries That Could Result in Large Monetary Penalties, Supervisory or Enforcement Orders, Business Restrictions, Limitations on

Dividends, Changes to Directors and/or Officers and Collateral Consequences Arising from Such Outcomes.

At any given time, Citi is a party to a significant number of legal and regulatory proceedings and is subject to numerous governmental and regulatory examinations. Additionally, Citi remains subject to governmental and regulatory investigations, consent orders (see discussion below) and related compliance efforts, and other inquiries. Citi could also be subject to enforcement proceedings and negative regulatory evaluation or examination findings not only because of violations of laws and regulations, but also due to failures, as determined by its regulators, to have adequate policies and procedures, or to remedy deficiencies on a timely basis (see also the capital return and resolution plan risk factors above). Citi's regulators have broad powers and discretion under their prudential and supervisory authority, and have pursued active inspection and investigatory oversight.

As previously disclosed, the October 2020 FRB and OCC consent orders require Citigroup and Citibank to implement extensive targeted action plans and submit quarterly progress reports on a timely and sufficient basis detailing the results and status of improvements relating principally to various aspects of enterprise-wide risk management, compliance, data quality management and governance, and internal controls. These improvements will result in continued significant investments by Citi during 2024 and beyond, as an essential part of Citi's broader transformation efforts to enhance its risk, controls, data and finance infrastructure and compliance. There can be no assurance that such improvements will be implemented in a manner satisfactory, in both timing and sufficiency, to the FRB and OCC.

Although there are no restrictions on Citi's ability to serve its clients, the OCC consent order requires Citibank to obtain prior approval of any significant new acquisition, including any portfolio or business acquisition, excluding ordinary course transactions. Moreover, the OCC consent order provides that the OCC has the right to assess future civil money penalties or take other supervisory and/or enforcement actions. Such actions by the OCC could include imposing business restrictions, including possible limitations on the declaration or payment of dividends and changes in directors and/or senior executive officers. More generally, the OCC and/or the FRB could take additional enforcement or other actions if the regulatory agency believes that Citi has not met regulatory expectations regarding compliance with the consent orders. For additional information regarding the consent orders, see "Citi's Consent Order Compliance" above.

The global judicial, regulatory and political environment has generally been challenging for large financial institutions, which have been subject to increased regulatory scrutiny. The complexity of the federal and state regulatory and enforcement regimes in the U.S., coupled with the global scope of Citi's operations, also means that a single event or issue may give rise to a large number of overlapping investigations and regulatory proceedings, either by multiple federal and state agencies and authorities in the U.S. or by multiple regulators and other governmental entities in foreign jurisdictions, as well as multiple civil litigation claims in multiple jurisdictions. Violations of law by other financial institutions may also result in regulatory scrutiny of Citi. Responding to regulatory

inquiries and proceedings can be time consuming and costly, and divert management attention from Citi's businesses.

U.S. and non-U.S. regulators have been increasingly focused on the culture of financial services firms, including Citi, as well as "conduct risk," a term used to describe the risks associated with behavior by employees and agents, including third parties, that could harm clients, customers, employees or the integrity of the markets, such as improperly creating, selling, marketing or managing products and services or improper incentive compensation programs with respect thereto, failures to safeguard a party's personal information, or failures to identify and manage conflicts of interest.

In addition to the greater focus on conduct risk, the general heightened scrutiny and expectations from regulators could lead to investigations and other inquiries, as well as remediation requirements, regulatory restrictions, structural changes, more regulatory or other enforcement proceedings, civil litigation and higher compliance and other risks and costs. For additional information, see the capital return and heightened regulatory scrutiny and ongoing interpretation of regulatory changes risk factors above. Further, while Citi takes numerous steps to prevent and detect conduct by employees and agents that could potentially harm clients, customers, employees or the integrity of the markets, such behavior may not always be deterred or prevented.

Moreover, the severity of the remedies sought in legal and regulatory proceedings to which Citi is subject has remained elevated. For example, U.S. and certain non-U.S. governmental entities have increasingly brought criminal actions against, or have sought and obtained criminal guilty pleas or deferred prosecution agreements from, financial institutions and individual employees. These types of actions by U.S. and other governments may, in the future, have significant collateral consequences for Citi, including loss of customers and business, operational loss, and the inability to offer certain products or services and/or operate certain businesses. Citi may be required to accept or be subject to similar types of criminal remedies, consent orders, sanctions, substantial fines and penalties, remediation and other financial costs or other requirements in the future, including for matters or practices not yet known to Citi, any of which could materially and negatively affect Citi's businesses, business practices, financial condition or results of operations, require material changes in Citi's operations or cause Citi substantial reputational harm.

Additionally, many large claims—both private civil and regulatory—asserted against Citi are highly complex, slow to develop and may involve novel or untested legal theories. The outcome of such proceedings is difficult to predict or estimate until late in the proceedings. Although Citi establishes accruals for its legal and regulatory matters according to accounting requirements, Citi's estimates of, and changes to, these accruals involve significant judgment and may be subject to significant uncertainty, and the amount of loss ultimately incurred in relation to those matters may be substantially higher than the amounts accrued (see the incorrect assumptions or estimates risk factor above). In addition, certain settlements are subject to court approval and may not be approved. For further information on Citi's legal and regulatory proceedings, see Note 30.

OTHER RISKS

Citi's Emerging Markets Presence Subjects It to Various Risks as well as Increased Compliance and Regulatory Risks and Costs.

During 2023, emerging markets revenues accounted for approximately 40% of Citi's total revenues (Citi generally defines emerging markets as countries in Latin America, Asia (other than Japan, Australia and New Zealand), and central and Eastern Europe, the Middle East and Africa). Citi's presence in the emerging markets subjects it to various risks.

Emerging market risks include, among others, limitations or unavailability of hedges on foreign investments; foreign currency volatility, including devaluations and strength in the U.S. dollar; sustained elevated interest rates and quantitative tightening; elevated inflation and hyperinflation; foreign exchange controls, including an inability to access indirect foreign exchange mechanisms; macroeconomic, geopolitical and domestic political challenges, uncertainties and volatility, including with respect to Russia (see the macroeconomic and geopolitical risk factor above and "Managing Global Risk—Other Risks—Country Risk—Russia" and "—Ukraine" below); cyberattacks; restrictions arising from retaliatory laws and regulations; sanctions or asset freezes; sovereign debt volatility; fluctuations in commodity prices; election outcomes; regulatory changes, including potential conflicts among regulations with other jurisdictions where Citi does business; limitations on foreign investment; sociopolitical instability; civil unrest; crime, corruption and fraud; nationalization or loss of licenses; potential criminal charges; closure of branches or subsidiaries; and confiscation of assets; and these risks can be exacerbated in the event of a deterioration in the relationship between the U.S. and an emerging market country.

For example, Citi operates in several countries that have, or have had in the past, strict capital controls, currency controls and/or sanctions, such as Argentina and Russia, that limit its ability to convert local currency into U.S. dollars and/or transfer funds outside of those countries. For instance, Citi may need to record additional translation losses due to currency controls in Argentina (see "Managing Global Risk—Other Risks—Country Risk—Argentina" below). Moreover, Citi may need to record additional reserves for expected losses for its credit exposures based on the transfer risk associated with exposures outside the U.S., driven by safety and soundness considerations under U.S. banking law (see "Managing Global Risk—Other Risks—Country Risk—Argentina" and "—Russia" and "Significant Accounting Policies and Significant Estimates" below).

In addition, political turmoil and instability; geopolitical challenges, tensions and conflicts (including those related to Russia's war in Ukraine as well as a persistent and/or escalating conflict in the Middle East); terrorism; and other instabilities have occurred in various regions and emerging market countries across the globe, which impact Citi's businesses, results of operations and financial conditions in affected countries and have required, and may continue to require, management time and attention and other resources, such as managing the impact of sanctions and their effect on Citi's operations in certain emerging market countries. For

additional information, see the macroeconomic challenges and uncertainties risk factor above.

CLIMATE CHANGE AND NET ZERO

Introduction

This section summarizes Citi's Operational Footprint goals and Net Zero commitment.

Citi's annual ESG Report provides information on a broad set of ESG-related efforts. The upcoming Citi Climate Report, formerly named the Task Force on Climate-Related Financial Disclosures (TCFD) Report, provides information on Citi's continued progress to manage climate risk and its Net Zero plan, including information on financed emissions and 2030 interim emissions reduction targets.

For information regarding Citi's management of climate risk, see "Managing Global Risk—Strategic Risk—Climate Risk" below.

ESG and Climate-Related Governance

Citi's Board of Directors (Board) provides oversight of Citi's management activities (see "Managing Global Risk—Risk Governance" below).

- The Nomination, Governance and Public Affairs Committee of the Board provides oversight and receives updates on Citi's environmental and social policies and commitments.
- The Risk Management Committee of the Board provides oversight of Citi's Risk Management Framework and risk culture and reviews Citi's key risk policies and frameworks, including receiving climate risk-related updates.
- The Audit Committee of the Board provides oversight of controls and procedures pertaining to the ESG-related metrics and related disclosures in Citi's SEC filed reports and group-level voluntary ESG reporting, as well as management's evaluation of the effectiveness of Citi's disclosure controls and procedures for group-level ESG reporting.

Additionally, Citi's ESG Council consists of senior members of the management team and certain subject matter experts who provide oversight of Citi's ESG goals and activities.

Sustainable Finance

Citi's Sustainable Finance Goal, as previously disclosed, supports a combination of environmental and social finance activities. Delivering on the sustainable finance goal is an integrated effort across the organization with products and service offerings across multiple lines of business.

Net Zero Emissions by 2050

As previously disclosed, Citi has committed to achieving net zero greenhouse gas (GHG) emissions associated with its financing by 2050, and net zero GHG emissions for its own operations by 2030; both are significant targets given the size and breadth of Citi's lending portfolios, businesses and operational footprint.

Citi's Net Zero plan includes:

- Net Zero Metrics and Target Setting:* Calculate metrics and assess targets for carbon-intensive sectors
- Client Engagement and Assessment:* Seek to understand client GHG emissions and transition plans and advise on capacity building
- Risk Management:* Assess climate risk exposure across Citi's lending portfolios and review client carbon reduction progress, with ongoing review and refining of Citi's risk appetite and thresholds and policies related to Climate Risk Management
- Clean Technology and Transition Finance:* Support existing and, where possible, new technologies to accelerate commercialization and provide transition advisory and finance products and services
- Portfolio Management:* Active portfolio management of Citi financings to align with net zero targets, including considerations of transition measures taken by clients
- Public Policy and Regulatory Engagement:* Contribute to an enabling public policy and regulatory environment which is essential to stimulating demand for clean technologies and helping ensure a responsible transition

Progress on Citi's Net Zero plan:

- Citi has published interim 2030 emissions targets for six loan portfolios: auto manufacturing, commercial real estate (North America), energy, power, steel and thermal coal mining.
- Citi has developed a client transition assessment process to help internal teams better understand the alignment of clients' strategies with transition or decarbonization pathways applicable to their respective sectors. In 2022–2023, Citi completed the initial assessment process for energy and power clients, and in 2023 began the transition assessment process for auto manufacturing and steel clients. The assessment process focuses on clients with material emissions relative to each sector's baseline emission profiles.

Operational Footprint Goals

Citi measures progress against operational footprint goals, which include efforts to reduce the environmental impact of its facilities through reductions in emissions, energy, water consumption and waste generation. Citi's efforts to integrate sustainable practices include sustainable building certifications, renewable electricity sourcing, employee engagement and seeking opportunities for efficiency in business travel. In 2023, Citi made progress toward these goals by increasing on-site solar generation, promoting initiatives on waste diversion and recycling, mapping weather-

related risk at its facilities and employing carbon-reduction techniques for building renovations.

Additional Information

For additional information on Citi's environmental and social policies and priorities, click on "Our Impact" on Citi's website at www.citigroup.com. For information on Citi's ESG and Sustainability (including climate change) governance, see Citi's 2024 Annual Meeting Proxy Statement to be filed with the SEC in March 2024.

Citi's climate reporting and any other ESG-related reports and information included elsewhere on Citi's website are not incorporated by reference into, and do not form any part of, this 2023 Annual Report on Form 10-K.

HUMAN CAPITAL RESOURCES AND MANAGEMENT

Citi strives to deliver to its full potential by focusing on its strategic priority of attracting and retaining highly qualified and motivated colleagues. Citi seeks to enhance the competitive strength of its workforce through the following efforts:

- Continuously innovating its efforts to recruit, train, develop, compensate, promote and engage colleagues
- Actively seeking and listening to diverse perspectives at all levels of the organization
- Optimizing transparency concerning workforce goals to promote accountability, credibility and effectiveness in achieving those goals
- Providing compensation programs that are competitive in the market and aligned to strategic objectives

The following table presents the geographic distribution of Citi's colleagues by segment or component and gender:

Segment or component ⁽¹⁾ (in thousands)	North America	International ⁽²⁾	Total ⁽³⁾	Women ⁽⁴⁾	Men ⁽⁴⁾	Unspecified ⁽⁴⁾
Services	4	20	24	52.4 %	47.6 %	— %
Markets	3	7	10	38.9	61.1	—
Banking	3	6	9	43.2	56.8	0.01
USPB	21	—	21	65.3	34.7	—
Wealth	6	8	14	49.9	50.1	—
All Other, including Legacy Franchises, Operations and Technology, and Global Staff Functions	54	107	161	47.8	52.2	—
Total	91	148	239	49.4 %	50.6 %	0.01 %

(1) Colleague distribution is based on assigned region, which may not reflect where the colleague physically resides.

(2) Mexico is included in International.

(3) Part-time colleagues represented less than 0.9% of Citi's global workforce.

(4) Information regarding gender is self-identified by colleagues.

In 2023, Citi undertook significant changes to simplify the Company and accelerate the progress it is making in executing its strategy. As previously disclosed, Citi aligned its organizational structure to its business strategy—making the Company more client centric and agile, speeding up decision-making, improving productivity to deliver efficiency and driving increased accountability across the organization. Citi is aligned around five businesses—*Services, Markets, Banking, USPB and Wealth*—focusing on a streamlined client organization to strengthen how Citi delivers for clients across the Company and around the globe.

Workforce Size and Distribution

As of December 31, 2023, Citi employed approximately 239,000 colleagues in over 90 countries. The Company's workforce is constantly evolving and developing, benefiting from a strong mix of internal and external hiring into new and existing positions. In 2023, Citi welcomed over 38,000 new colleagues in addition to 44,600 roles filled by colleagues through internal mobility and promotions. Citi also sustains connections with former colleagues through its Alumni Network, and in 2023 hired more than 3,000 "returnees" back to Citi.

Driving a Culture of Excellence and Accountability

Citi continues to embark on a talent and culture transformation to drive a culture of excellence and accountability that is supported by strong risk and controls management.

Citi's Leadership Principles of "taking ownership, delivering with pride and succeeding together" have been reinforced through a behavioral science-led campaign, referred to as Citi's New Way, that reinforces the key working habits that support Citi's leadership culture.

Citi's performance management approach also emphasizes the Leadership Principles through a four-pillar system, evaluating colleagues against financial performance, risk and controls, and client and franchise goals as well as how colleagues deliver from a leadership perspective. The performance management and incentive compensation processes and associated policies and frameworks have enhanced accountability through increased rigor and consistency, in particular for risk and controls.

The culture shift is supported by changes in the way Citi identifies, assesses, develops and promotes talent, particularly at senior levels of the Company. Citi promotes a new class of managing directors each year. This is a testament to these individuals' performance and commitment to living the Leadership Principles and instilling them throughout their teams and the entire company. Further, all potential successors to Executive Management Team roles are evaluated by the Board and are now subject to a risk and controls assessment.

Diversity, Equity and Inclusion

Citigroup's Board is committed to ensuring that the Board and Citi's Executive Management Team are composed of individuals whose backgrounds reflect the diversity of Citi's employees, customers and other stakeholders. In addition, Citi has continued its efforts to support its globally diverse workforce, including, among other things, taking actions with respect to pay equity, setting aspirational representation goals and the use of diverse slates and hiring panels in recruiting.

Citi's commitment to diversity, equity and inclusion continues to reflect a workforce that represents the clients it serves globally from all walks of life, backgrounds and origins. Understanding that diversity fuels the Company's culture and business success, Citi's 2025 aspirational representation goals are embedded in its business strategy. Having aspirational goals across all levels—from early career through senior leadership roles—will help ensure Citi not only has diverse talent in leadership roles but will also help build a diverse talent pipeline for the future.

The Company constantly strives to ensure Citi remains a great place to work, where people can thrive professionally and personally. In 2023, Citi increased its unique Inclusion Network membership by 23.8% and added 15 new global Inclusion Network chapters. The Company launched the Allyship 365 initiative, focused on cultivating allyship year round and educating colleagues on its diversity, equity and inclusion efforts.

Citi values pay transparency and has taken significant action to provide both managers and colleagues with greater clarity around Citi's compensation philosophy. Citi has introduced market-based salary structures and bonus opportunity guidelines in various countries worldwide, and

posts salary ranges on all external U.S. job postings, which aligns with strategic objectives of pay equity and transparency. Citi also raised its U.S. minimum wage in 2022, the second broad-based increase in less than two years.

In addition, Citi has focused on measuring and addressing pay equity within the organization:

- In 2018, Citi was the first major U.S. financial institution to publicly release the results of a pay equity review comparing its compensation of women to that of men, as well as U.S. minorities to U.S. non-minorities. Since 2018, Citi has continued to be transparent about pay equity, including disclosing its unadjusted or "raw" pay gap for both women and U.S. minorities. The raw gap measures the difference in median compensation. The existence of Citi's raw pay gap reflects a need to increase representation of women and U.S. minorities in senior and higher-paying roles.
- In 2023, due to its organizational and management simplification initiatives, Citi paused its annual pay equity analysis, as the Company continues the process of aligning roles to its new organizational structure. Citi looks forward to resuming routine pay equity reviews once that work is complete.
- For historical context, Citi's 2022 pay equity review determined that on an adjusted basis, women globally are paid on average more than 99% of what men are paid at Citi, and that there was not a statistically significant difference in adjusted compensation for U.S. minorities and non-minorities.
- Citi's 2022 raw pay gap analysis showed that the median pay for women globally was 78% of the median for men, up from 74% in 2021 and 2020. The median pay for U.S. minorities was more than 97% of the median for non-minorities, which was up from just above 96% in 2021 and 94% in 2020.

Workforce Development

Citi's numerous programmatic offerings aim to reinforce its culture and values, foster understanding of compliance requirements and develop competencies required to deliver excellence to its clients. Citi encourages career growth and development by offering broad and diverse opportunities to colleagues, including the following:

- Citi provides a range of internal development and rotational programs to colleagues at all levels, including an extensive leadership curriculum, allowing the opportunity to build the skills needed to transition to supervisory and managerial roles. Citi's tuition assistance program further enables colleagues in North America to pursue their educational goals.
- Citi continues to focus on internal talent development and aims to provide colleagues with career growth opportunities. Of the 44,600 mobility opportunities filled in 2023, 14% were open roles applied for and filled by internal candidates, and 38% were filled by colleagues who applied for, and were promoted into, new opportunities. These opportunities are particularly important as Citi focuses on providing career paths for its

internal talent base as part of its efforts to increase organic growth within the organization.

- Citi enabled Development Plans for colleagues of all levels. Last year, more than 100,000 employees completed a plan, setting a roadmap for how they can achieve their career aspirations.

Well-being and Benefits

Citi is proud to provide a wide range of benefits that support its colleagues' mental, emotional, physical and financial well-being through various life stages and events. Citi is focused on providing equitable benefits that are designed to attract, engage and retain colleagues.

Citi has significantly enhanced mental well-being programs by offering free, accessible counseling sessions for colleagues and their family members, as well as offering an online tool so that all colleagues around the globe can easily find their local Employee Assistance Programs and resources. Citi offers instructor-led mental health training for people managers to equip them in supporting their team members.

Citi also continues to value the importance of physical well-being—providing employees in several office locations and countries access to onsite medical care clinics, fitness centers, subsidized gym memberships and virtual fitness programs. Citi continues to make modern telemedicine programs increasingly available to colleagues and their family members through programs like Sword Health's digital physical therapy, which rolled out in the U.S. in 2022.

In 2023, one year after the Company became the first major U.S. bank to publicly embrace a flexible, hybrid work model, Citi fully implemented it across the organization. Most of Citi's colleagues now work in hybrid roles, working remotely up to two days a week. How We Work provides the majority of colleagues with the ability to balance the demands of their home lives with the work commitments that are necessary for success. The program includes three role designations for colleagues globally: Resident, Hybrid or Remote. The implementation and continuation of this program differentiates Citi from other financial organizations with respect to flexible working arrangements. By embracing a flexible model of work, Citi has focused on keeping its approach consistent and aligned with its values and priorities.

For additional information about Citi's human capital management initiatives and goals, see Citi's 2022 ESG Report available at www.citigroup.com. The 2022 ESG Report and other information included elsewhere on Citi's Investor Relations website are not incorporated by reference into, and do not form any part of, this 2023 Annual Report on Form 10-K.

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(1) For additional information regarding certain credit risk, market risk and other quantitative and qualitative information, refer to Citi's Pillar 3 Basel III Advanced Approaches Disclosures, as required by the rules of the Federal Reserve Board, on Citi's Investor Relations website.

MANAGING GLOBAL RISK

Overview

For Citi, effective risk management is of primary importance to its overall operations. Accordingly, Citi has established an Enterprise Risk Management (ERM) Framework to ensure that all of Citi's risks are managed appropriately and consistently across the Company and at an aggregate, enterprise-wide level. Citi's culture drives a strong risk and control environment, and is at the heart of the ERM Framework, underpinning the way Citi conducts business. The activities that Citi engages in, and the risks those activities generate, must be consistent with Citi's Mission and Value Proposition (see below) and the key Leadership Principles that support it, as well as Citi's risk appetite. As discussed above, Citi also continues its efforts to comply with the FRB and OCC consent orders, relating principally to various aspects of risk management, compliance, data quality management and governance, and internal controls (see "Citi's Consent Order Compliance" and "Risk Factors—Compliance Risks" above).

Under Citi's Mission and Value Proposition, which was developed by its senior leadership and distributed throughout the Company, Citi strives to serve its clients as a trusted partner by responsibly providing financial services that enable growth and economic progress while earning and maintaining the public's trust by constantly adhering to the highest ethical standards. As such, Citi asks all colleagues to ensure that their decisions pass three tests: they are in Citi's clients' best interests, create economic value and are always systemically responsible.

As discussed in "Human Capital Resources and Management" above, Citi has designed Leadership Principles that represent the qualities, behaviors and expectations all employees must exhibit to deliver on Citi's mission of enabling growth and economic progress. The Leadership Principles inform Citi's ERM Framework and contribute to creating a culture that drives client, control and operational excellence. Citi colleagues share a common responsibility to uphold these Leadership Principles and hold themselves to the highest standards of ethics and professional behavior in dealing with Citi's clients, business colleagues, shareholders, communities and each other.

Citi's ERM Framework details the principles used to support effective enterprise-wide risk management across the end-to-end risk management lifecycle. The ERM Framework covers the risk management roles and responsibilities of the Citigroup Board of Directors (the Board), Citi's Executive Management Team (see "Risk Governance—Executive Management Team" below) and employees across the lines of defense. The underlying pillars of the framework encompass:

- *Culture*—the core principles and behaviors that underpin a strong culture of risk awareness, in line with Citi's Mission and Value Proposition, and Leadership Principles;
- *Governance*—the committee structure and reporting arrangements that support the appropriate oversight of risk management activities at the Board and Executive Management Team levels and establishes Citi's Lines of Defense model;

- *Risk Management*—the end-to-end risk management cycle including the identification, measurement, monitoring, controlling and reporting of all risks including top, material, growing, idiosyncratic and emerging risks, and aggregated to an enterprise-wide level; and
- *Enterprise Programs*—the key risk management programs performed across the risk management lifecycle for all risk categories.

Each of these pillars is underpinned by supporting capabilities covering people, infrastructure and tools that are in place to enable the execution of the ERM Framework.

Citi's approach to risk management requires that its risk-taking be consistent with its risk appetite. Risk appetite is the aggregate level of risk that Citi is willing to tolerate in order to achieve its strategic objectives and business plan. Risk limits and thresholds represent allocations of Citi's risk appetite to businesses and risk categories. Concentration risks are controlled through a subset of these limits and thresholds.

Citi's risks are generally categorized and summarized as follows:

- *Credit risk* is the risk of loss resulting from the decline in credit quality (or downgrade risk) or failure of a borrower, counterparty, third party or issuer to honor its financial or contractual obligations.
- *Liquidity risk* is the risk that Citi will not be able to efficiently meet both expected and unexpected current and future cash flow and collateral needs without adversely affecting either daily operations or financial conditions of Citi. Risk may be exacerbated by the inability of the Company to access funding sources or monetize assets and the composition of liability funding and liquid assets.
- *Market risk (Trading and Non-Trading)*: Market risk of trading portfolios is the risk of loss arising from changes in the value of Citi's assets and liabilities resulting from changes in market variables, such as interest rates, equity and commodity prices, foreign exchange rates or credit spreads. Market risk of non-trading portfolios is the impact of adverse changes in market variables such as interest rates, foreign exchange rates, credit spreads and equity prices on Citi's net interest income, economic value of equity, or *AOCI*.
- *Operational risk* is the risk of loss resulting from inadequate or failed internal processes, people and systems, or from external events. It includes legal risk, which is the risk of loss (including litigation costs, settlements and regulatory fines) resulting from Citi's failure to comply with laws, regulations, prudent ethical standards or contractual obligations in any aspect of Citi's business, but excludes strategic and reputation risks (see below).
- *Compliance risk* is the risk to current or projected financial condition and resilience arising from violations of laws, rules or regulations, or from non-conformance with prescribed practices, internal policies and procedures or ethical standards.
- *Reputation risk* is the risk to current or projected financial conditions and resilience from negative opinion held by

stakeholders. This risk may impair Citi's competitiveness by affecting its ability to establish new relationships or services or continue servicing existing relationships.

- *Strategic risk* is the risk of a sustained impact (not episodic impact) to Citi's core strategic objectives as measured by impacts on anticipated earnings, market capitalization or capital, arising from the external factors affecting the Company's operating environment; as well as the risks associated with defining the strategy and executing the strategy, which are identified, measured and managed as part of the Strategic Risk Framework at the Enterprise Level.

Citi uses a lines of defense model as a key component of its ERM Framework to manage its risks. As discussed below, the lines of defense model brings together risk-taking, risk oversight and risk assurance under one umbrella and provides an avenue for risk accountability of the first line of defense, a construct for effective challenge by the second line of defense (Independent Risk Management and Independent Compliance Risk Management), and empowers independent risk assurance by the third line of defense (Internal Audit). In addition, the lines of defense model includes organizational units tasked with supporting a strong control environment ("enterprise support functions"). The first, second and third lines of defense, along with enterprise support functions, have distinct roles and responsibilities and are empowered to perform relevant risk management processes and responsibilities in order to manage Citi's risks in a consistent and effective manner.

First Line of Defense: Front Line Units and Front Line Unit Activities

Citi's first line of defense owns the risks and associated controls inherent in, or arising from, the execution of its business activities and is responsible for identifying, measuring, monitoring, controlling and reporting those risks consistent with Citi's strategy, Mission and Value Proposition, Leadership Principles and risk appetite.

Front line units are responsible and held accountable for managing the risks associated with their activities within the boundaries set by independent risk management. They are also responsible for designing and implementing effective internal controls and maintaining processes for managing their risk profile, including through risk mitigation, so that it remains consistent with Citi's established risk appetite.

Front line unit activities are considered part of the first line of defense and are subject to the oversight and challenge of independent risk management.

The first line of defense is composed of Citi's operating segments (i.e., *Services, Markets, Banking, U.S. Personal Banking, Wealth*), as well as Client, Legacy Franchises and certain corporate functions (i.e., Chief Operating Office, Enterprise Services and Public Affairs, Finance, Operations and Technology). In addition, the first line of defense includes the front line unit activities of other organizational units. Front line units may also include enterprise support units and/or conduct enterprise support activities—see "Enterprise Support Functions" below.

Second Line of Defense: Independent Risk Management

Independent risk management units are independent of the first line of defense. They are responsible for overseeing the risk-taking activities of the first line of defense and challenging the first line of defense in the execution of its risk management responsibilities. They are also responsible for independently identifying, measuring, monitoring, controlling and reporting aggregate risks and for setting standards for the management and oversight of risk. Independent risk management is composed of Independent Risk Management (IRM) and Independent Compliance Risk Management (ICRM), which are led by the Group Chief Risk Officer (CRO) and Group Chief Compliance Officer (CCO) who have unrestricted access to the Board and its Risk Management Committee to facilitate the ability to execute their specific responsibilities pertaining to escalation to the Board.

Independent Risk Management

The IRM organization sets risk and control standards for the first line of defense and actively manages and oversees aggregate credit, market (trading and non-trading), liquidity, strategic, operational and reputation risks across Citi, including risks that span categories, such as concentration risk, country risk and climate risk.

IRM is organized to align to risk categories, legal entities/regions and Company-wide, cross-risk functions or processes. Each of these units reports to a member of the Risk Management Executive Council, who are all direct reports to the Citigroup CRO.

Independent Compliance Risk Management

The ICRM organization actively oversees compliance risk across Citi, sets compliance standards for the first line of defense to manage compliance risk and promotes business conduct and activity that is consistent with Citi's Mission and Value Proposition and the compliance risk appetite. Citi's objective is to embed an enterprise-wide compliance risk management framework and culture that identifies, measures, monitors, controls and escalates compliance risk across Citi.

ICRM is aligned by product line, function and geography to provide compliance risk management advice and credible challenge on day-to-day matters and strategic decision-making for key initiatives. ICRM also has program-level Enterprise Compliance units responsible for setting standards and establishing priorities for program-related compliance efforts. The CCO reports to Citi's General Counsel and ICRM is organizationally part of the Global Legal Affairs & Compliance group. In addition, the CCO has matrix reporting into the CRO and is part of the Risk Management Executive Council.

Third Line of Defense: Internal Audit

Internal Audit is independent of the first line, second line and enterprise support functions. The role of Internal Audit is to provide independent, objective, reliable, valued and timely assurance to the Board, its Audit Committee, Citi senior management and regulators over the effectiveness of governance, risk management and controls that mitigate current and evolving risks and enhance the control culture within Citi. The Citi Chief Auditor manages Internal Audit

and reports functionally to the Chair of the Citi Audit Committee and administratively to the Citi Chief Executive Officer. The Citi Chief Auditor has unrestricted access to the Board and the Board Audit Committee to address risks and issues identified through Internal Audit's activities.

Enterprise Support Functions

Enterprise support functions engage in activities that support safety and soundness across Citi. These functions provide advisory services and/or design, implement, maintain and oversee Company-wide programs that support Citi in maintaining an effective control environment.

Enterprise support functions are composed of Human Resources and Global Legal Affairs and Compliance (exclusive of ICRM, which is part of the second line of defense). Front line units may also include enterprise support units and/or conduct enterprise support activities (e.g., the Controllers Group within Finance).

Enterprise support functions, units and activities are subject to the relevant Company-wide independent oversight processes specific to the risks for which they are accountable (e.g., operational risk, compliance risk, reputation risk).

Risk Governance

Citi's ERM Framework encompasses risk management processes to address risks undertaken by Citi through identification, measurement, monitoring, controlling and reporting of all risks. The ERM Framework integrates these processes with appropriate governance to complement Citi's commitment to maintaining strong and consistent risk management practices.

Board Oversight

The Board is responsible for oversight of Citi and holds the Executive Management Team accountable for implementing the ERM Framework and meeting strategic objectives within Citi's risk appetite.

Executive Management Team

The Citigroup CEO directs and oversees the day-to-day management of Citi as delegated by the Board of Directors. The CEO leads the Company through the Executive Management Team and provides oversight of group activities, both directly and through authority delegated to committees established to oversee the management of risk, to ensure continued alignment with Citi's risk strategy.

Board and Executive Management Committees

The Board executes its responsibilities either directly or through its committees. The Board has delegated authority to the following Board standing committees to help fulfill its oversight and risk management responsibilities:

- *Risk Management Committee (RMC)*: assists the Board in fulfilling its responsibility with respect to (i) oversight of Citi's risk management framework and risk culture, including the significant policies and practices used in managing credit, market (trading and non-trading), liquidity, strategic, operational, compliance, reputation and certain other risks, including those pertaining to

capital management, and (ii) oversight of the Global Risk Review—credit, capital and collateral review functions.

- *Audit Committee*: provides oversight of Citi's financial and regulatory reporting and internal control risk, as well as Internal Audit and Citi's external independent accountants.
- *Compensation, Performance Management and Culture Committee*: provides oversight of compensation of Citi's employees and Citi management's sustained focus on fostering a principled culture of sound ethics, responsible conduct and accountability within the organization.
- *Nomination, Governance and Public Affairs Committee*: responsible for (i) identifying individuals qualified to become Board members and recommending to the Board the director nominees for the next annual meeting of stockholders, (ii) leading the Board in its annual review of the Board's performance, (iii) recommending to the Board directors for each committee for appointment by the Board, (iv) reviewing the Company's policies and programs that relate to public issues of significance to the Company and the public at large, including but not limited to Environmental, Social and Corporate Governance (ESG) matters and (v) reviewing the Company's relationships with external constituencies and issues that impact the Company's reputation, and advising management as to its approach to each.
- *Technology Committee*: assists the Board in fulfilling its responsibility with respect to oversight of (i) the planning and execution of Citigroup's technology, strategy and operating plan, (ii) the development of Citi's target state operating model and architecture, including the incorporation of Global Business Services, (iii) technology-based risk management, including risk management framework, risk appetite and risk exposures of the Company, (iv) resource and talent planning of the Technology function and (v) the Company's third-party management policies, practices and standards that relate to Technology.

In addition to the above, the Board has established the following ad hoc committee:

- *Transformation Oversight Committee*: provides oversight of the actions of Citi's management to develop and execute a transformation of Citi's risk and control environment pursuant to the FRB and OCC consent orders (see "Citi's Consent Order Compliance" above).

The Citigroup CEO has established four standing committees that cover the primary risks to which Citi (i.e., Group) is exposed. These consist of:

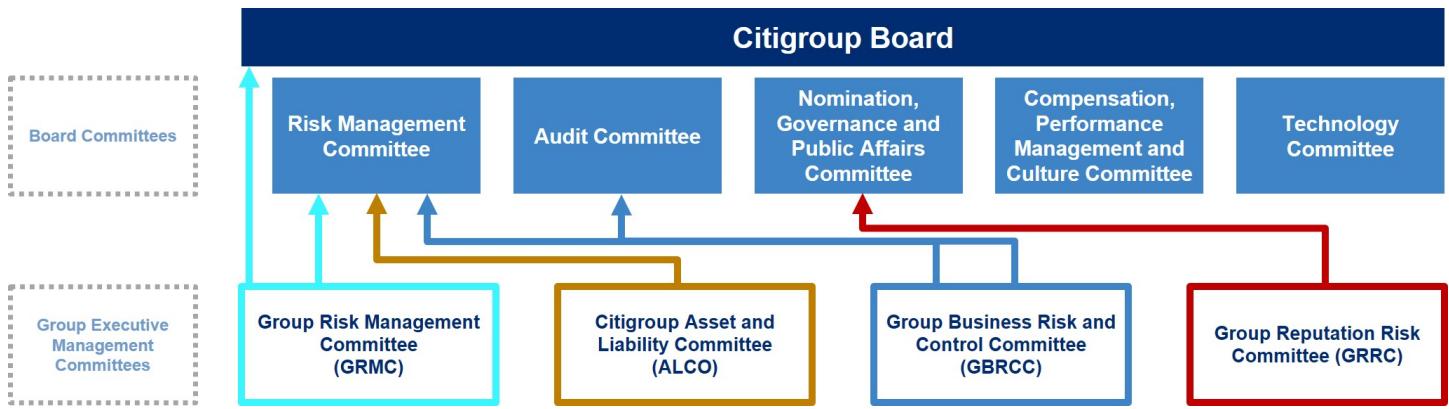
- *Group Risk Management Committee (GRMC)*: the primary senior executive level committee responsible for (i) overseeing the execution of Citigroup's ERM Framework, (ii) monitoring Citi's risk profile at an aggregate level inclusive of individual risk categories, (iii) ensuring that Citi's risk profile remains consistent with its approved risk appetite and (iv) discussing material and emerging risk issues facing the Company. The Committee also provides comprehensive Group-wide coverage of all

risk categories, including Credit Risk, Market Risk (trading) and Strategic Risk.

- *Citigroup Asset and Liability Committee (ALCO)*: responsible for governance over management's Liquidity Risk and Market Risk (non-trading) management and for monitoring and influencing the balance sheet, investment securities and capital management activities of Citigroup.
- *Group Business Risk and Control Committee (GBRCC)*: provides governance oversight of Citi's Compliance and Operational Risks.
- *Group Reputation Risk Committee (GRRC)*: provides governance oversight for Reputation Risk management across Citi.

In addition to the Executive Management committees listed above, management may establish ad-hoc committees in response to regulatory feedback or to manage additional activities when deemed necessary.

The figure below illustrates the reporting lines between the Board and Executive Management committees:



CREDIT RISK

Overview

Credit risk is the risk of loss resulting from the decline in credit quality of a client, customer or counterparty (or downgrade risk) or the failure of a borrower, counterparty, third party or issuer to honor its financial or contractual obligations. Credit risk is one of the most significant risks Citi faces as an institution (see “Risk Factors—Credit Risks” above). Credit risk arises in many of Citigroup’s business activities, including:

- consumer, commercial and corporate lending;
- capital markets derivative transactions;
- structured finance; and
- securities financing transactions (repurchase and reverse repurchase agreements, and securities loaned and borrowed).

Credit risk also arises from clearing and settlement activities, when Citi transfers an asset in advance of receiving its counter-value or advances funds to settle a transaction on behalf of a client. Concentration risk, within credit risk, is the risk associated with having credit exposure concentrated within a specific client, industry, region or other category.

Citi has an established framework in place for managing credit risk across all businesses that includes a defined risk appetite, credit limits and credit policies. Citi’s credit risk management framework also includes policies and procedures to manage problem exposures.

To manage concentration risk, Citi has in place a framework consisting of industry limits, single-name concentrations for each business and across Citigroup and a specialized product limit framework.

Credit exposures are generally reported in notional terms for accrual loans, reflecting the value at which the loans as well as other off-balance sheet commitments are carried on the Consolidated Balance Sheet. Credit exposure arising from capital markets activities is generally expressed as the current mark-to-market, net of margin, reflecting the net value owed to Citi by a given counterparty.

The credit risk associated with Citi’s credit exposures is a function of the idiosyncratic creditworthiness of the obligor, as well as the terms and conditions of the specific obligation. Citi assesses the credit risk associated with its credit exposures on a regular basis through its allowance for credit losses (ACL) process (see “Significant Accounting Policies and Significant Estimates—Allowance for Credit Losses” below and Notes 1 and 16), as well as through regular stress testing at the company, business, geography and product levels. These stress-testing processes typically estimate potential incremental credit costs that would occur as a result of either downgrades in the credit quality or defaults of the obligors or counterparties. See Note 15 for additional information on Citi’s credit risk management.

Loans

The table below details the average loans, by business and/or segment, and the total Citigroup end-of-period loans for each of the periods indicated:

	<i>In billions of dollars</i>	4Q23	3Q23	4Q22
Services	\$ 83	\$ 83	\$ 78	
Markets	115	108	111	
Banking	87	87	96	
USPB				
Branded Cards	\$ 107	\$ 103	\$ 95	
Retail Services	52	50	48	
Retail Banking	43	43	37	
Total USPB	\$ 202	\$ 196	\$ 180	
Wealth	\$ 150	\$ 151	\$ 150	
All Other⁽¹⁾	\$ 38	\$ 37	\$ 38	
Total Citigroup loans (AVG)	\$ 675	\$ 662	\$ 653	
Total Citigroup loans (EOP)	\$ 689	\$ 666	\$ 657	

(1) See footnote 2 to the table in “Credit Risk—Consumer Credit—Consumer Credit Portfolio” below.

End-of-period loans increased 5% year-over-year, largely reflecting growth in cards in *USPB*. End-of-period loans increased 3% sequentially.

On an average basis, loans increased 3% year-over-year and 2% sequentially. The year-over-year increase was largely due to growth in *USPB*, *Services* and *Markets*, partially offset by a decline in *Banking*.

As of the fourth quarter of 2023, average loans for:

- *USPB* increased 12% year-over-year, driven by growth in Branded Cards, Retail Banking and Retail Services.
- *Wealth* were largely unchanged.
- *Services* increased 6% year-over-year, primarily driven by strong demand for working capital loans in TTS in North America and internationally.
- *Markets* increased 4% year-over-year, reflecting increased client demand in warehouse lending.
- *Banking* decreased 9% year-over-year, primarily driven by capital optimization efforts.

CORPORATE CREDIT

Consistent with its overall strategy, Citi's corporate clients are typically corporations that value the depth and breadth of Citi's global network. Citi aims to establish relationships with these clients whose needs encompass multiple products, including cash management and trade services, foreign exchange, lending, capital markets and M&A advisory.

Corporate Credit Portfolio

The following table details Citi's corporate credit portfolio within *Services, Markets, Banking* and the Mexico SBMM component of *All Other—Legacy Franchises* (excluding loans carried at fair value and loans held-for-sale), and before consideration of collateral or hedges, by remaining tenor for the periods indicated:

In billions of dollars	December 31, 2023				September 30, 2023				December 31, 2022			
	Due within 1 year	Greater than 1 year but within 5 years		Total exposure	Due within 1 year	Greater than 1 year but within 5 years		Total exposure	Due within 1 year	Greater than 1 year but within 5 years		Total exposure
		Greater than 5 years	Total			Greater than 5 years	Total			Greater than 5 years	Total	
Direct outstandings (on-balance sheet) ⁽¹⁾	\$ 132	\$ 122	\$ 39	\$ 293	\$ 125	\$ 118	\$ 38	\$ 281	\$ 135	\$ 122	\$ 27	\$ 284
Unfunded lending commitments (off-balance sheet) ⁽²⁾	134	268	18	420	144	259	19	422	140	256	10	406
Total exposure	\$ 266	\$ 390	\$ 57	\$ 713	\$ 269	\$ 377	\$ 57	\$ 703	\$ 275	\$ 378	\$ 37	\$ 690

(1) Includes drawn loans, overdrafts, bankers' acceptances and leases.

(2) Includes unused commitments to lend, letters of credit and financial guarantees.

Portfolio Mix—Geography and Counterparty

Citi's corporate credit portfolio is diverse across geography and counterparty. The following table presents the percentage of this portfolio by region based on Citi's internal management geography:

	December 31, 2023	September 30, 2023	December 31, 2022
North America	56 %	56 %	56 %
International	44	44	44
Total	100 %	100 %	100 %

The maintenance of accurate and consistent risk ratings across the corporate credit portfolio facilitates the comparison of credit exposure across all lines of business, geographic regions and products. Counterparty risk ratings reflect an estimated probability of default for a counterparty, and internal risk ratings are derived by leveraging validated statistical models and scorecards in combination with consideration of factors specific to the obligor or market, such as management experience, competitive position, regulatory environment and commodity prices. Facility risk ratings are assigned that reflect the probability of default of the obligor and factors that affect the loss given default of the facility, such as support or collateral. Internal obligor ratings that generally correspond to BBB and above are considered investment grade, while those below are considered non-investment grade.

The following table presents the corporate credit portfolio by facility risk rating as a percentage of the total corporate credit portfolio:

	Total exposure		
	December 31, 2023	September 30, 2023	December 31, 2022
AAA/AA/A	50 %	49 %	50 %
BBB	33	34	34
BB/B	16	15	14
CCC or below	1	2	2
Total	100 %	100 %	100 %

Note: Total exposure includes direct outstandings and unfunded lending commitments.

In addition to the obligor and facility risk ratings assigned to all exposures, Citi may classify exposures in the corporate credit portfolio. These classifications are consistent with Citi's interpretation of the U.S. banking regulators' definition of criticized exposures, which may categorize exposures as special mention, substandard, doubtful or loss.

Risk ratings and classifications are reviewed regularly and adjusted as appropriate. The credit review process incorporates quantitative and qualitative factors, including financial and non-financial disclosures or metrics, idiosyncratic events or changes to the competitive, regulatory or macroeconomic environment.

Citi believes the corporate credit portfolio to be appropriately rated and classified as of December 31, 2023. Citi has taken action to adjust internal ratings and classifications of exposures as both the macroeconomic environment and obligor-specific factors have changed, particularly where additional stress has been seen.

As obligor risk ratings are downgraded, the probability of default increases. Downgrades of obligor risk ratings tend to result in a higher provision for credit losses. In addition, appetite per obligor is reduced consistent with the ratings, and downgrades may result in the purchase of additional credit derivatives or other risk/structural mitigants to hedge the incremental credit risk, or may result in Citi's seeking to reduce exposure to an obligor or an industry sector. Citi will continue to review exposures to ensure that the appropriate probability of default is incorporated into all risk assessments.

See Note 15 for additional information on Citi's corporate credit portfolio.

Portfolio Mix—Industry

Citi's corporate credit portfolio is diversified by industry. The following table details the allocation of Citi's total corporate credit portfolio by industry:

	Total exposure		
	December 31, 2023	September 30, 2023	December 31, 2022
Transportation and industrials	21 %	21 %	20 %
Technology, media and telecom	12	12	12
Banks and finance companies ⁽¹⁾	12	10	10
Consumer retail	11	12	11
Real estate	10	10	10
Commercial	8	8	8
Residential	2	2	2
Power, chemicals, metals and mining	8	9	9
Energy and commodities	7	7	7
Health	5	5	6
Insurance	4	4	4
Public sector	3	3	3
Asset managers and funds	3	3	5
Financial markets infrastructure	3	3	2
Other industries	1	1	1
Total	100 %	100 %	100 %

(1) As of the periods in the table, Citi had less than 1% exposure to securities firms. See corporate credit portfolio by industry, below.

The following table details Citi's corporate credit portfolio by industry as of December 31, 2023:

In millions of dollars	Total credit exposure	Non-investment grade						Selected metrics		
		Funded ⁽¹⁾	Unfunded	Investment grade	Non-criticized	Criticized performing	Criticized non-performing ⁽²⁾	30 days or more past due and accruing	Net credit losses (recoveries)	Credit derivative hedges ⁽³⁾
Transportation and industrials	\$ 149,429	\$ 59,917	\$ 89,512	\$ 118,380	\$ 26,345	\$ 4,469	\$ 235	\$ 125	\$ 39	\$ (7,060)
Autos ⁽⁴⁾	49,443	22,843	26,600	43,008	5,376	999	60	7	19	(2,304)
Transportation	28,448	11,996	16,452	21,223	6,208	952	65	3	5	(1,185)
Industrials	71,538	25,078	46,460	54,149	14,761	2,518	110	115	15	(3,571)
Technology, media and telecom	84,409	29,832	54,577	67,077	13,637	3,212	483	112	56	(5,546)
Banks and finance companies	83,512	52,569	30,943	74,364	7,768	1,277	103	7	37	(638)
Consumer retail	81,799	33,548	48,251	63,017	15,259	3,342	181	130	57	(5,360)
Real estate	72,827	51,660	21,167	61,226	7,084	3,602	915	69	31	(608)
Commercial	54,843	35,058	19,785	43,340	7,042	3,602	859	69	31	(608)
Residential	17,984	16,602	1,382	17,886	42	—	56	—	—	—
Power, chemicals, metals and mining	59,572	19,004	40,568	46,551	10,098	2,696	227	36	4	(4,884)
Power	24,535	5,220	19,315	20,967	3,200	209	159	1	4	(2,280)
Chemicals	21,963	8,287	13,676	16,418	3,888	1,613	44	34	1	(2,019)
Metals and mining	13,074	5,497	7,577	9,166	3,010	874	24	1	(1)	(585)
Energy and commodities⁽⁵⁾	46,290	12,606	33,684	40,081	5,528	543	138	5	(15)	(3,090)
Health	36,230	9,135	27,095	30,099	4,871	1,098	162	16	22	(3,023)
Insurance	27,216	2,390	24,826	25,580	1,607	29	—	7	—	(4,516)
Public sector	24,736	12,621	12,115	21,845	2,399	479	13	36	15	(1,092)
Asset managers and funds	19,681	4,232	15,449	17,826	1,723	112	20	4	—	(65)
Financial markets infrastructure	18,705	156	18,549	18,705	—	—	—	—	—	(7)
Securities firms	1,737	734	1,003	870	822	45	—	2	—	(2)
Other industries⁽⁶⁾	6,992	4,480	2,512	5,079	1,629	257	27	45	4	(6)
Total	\$ 713,135	\$ 292,884	\$ 420,251	\$ 590,700	\$ 98,770	\$ 21,161	\$ 2,504	\$ 594	\$ 250	\$ (35,897)

(1) Funded excludes loans carried at fair value of \$7.3 billion at December 31, 2023.

(2) Includes non-accrual loan exposures and related criticized unfunded exposures.

(3) Represents the amount of purchased credit protection in the form of derivatives to economically hedge funded and unfunded exposures. Of the \$35.9 billion of purchased credit protection, \$33.7 billion represents the total notional amount of purchased credit derivatives on individual reference entities. The remaining \$2.2 billion represents the first loss tranche of portfolios of purchased credit derivatives with a total notional of \$16.7 billion, where the protection seller absorbs the first loss on the referenced loan portfolios.

(4) Autos total credit exposure includes securitization financing facilities secured by auto loans and leases, extended mainly to the finance company subsidiaries of global auto manufacturers, bank subsidiaries and independent auto finance companies, of approximately \$16.9 billion (\$10.6 billion in funded, with 100% rated investment grade) as of December 31, 2023.

(5) In addition to this exposure, Citi has energy-related exposure within the public sector (e.g., energy-related state-owned entities) and the transportation and industrials sector (e.g., off-shore drilling entities) included in the table above. As of December 31, 2023, Citi's total exposure to these energy-related entities was approximately \$4.9 billion, of which approximately \$2.5 billion consisted of direct outstanding funded loans.

(6) Includes \$0.6 billion and \$0.1 billion of funded and unfunded exposure at December 31, 2023, respectively, primarily related to commercial credit card delinquency-managed loans.

Exposure to Commercial Real Estate

As of December 31, 2023, Citi's total credit exposure to commercial real estate (CRE) was \$66 billion, including \$8 billion of exposure related to office buildings. This total CRE exposure consisted of approximately \$55 billion related to corporate clients, included in the real estate category in the table above, and approximately \$11 billion related to *Wealth* clients that is not in the table above as they are not considered corporate exposures.

In addition, as of December 31, 2023, approximately 80% of Citi's total CRE exposure was rated investment grade and more than 77% was to borrowers in the U.S.

As of December 31, 2023, the ACLL attributed to the total funded CRE exposure (including the Private Bank) was approximately 1.49%, and there were \$759 million of non-accrual CRE loans.

The following table details Citi's corporate credit portfolio by industry as of December 31, 2022:

In millions of dollars	Total credit exposure	Non-investment grade						Selected metrics		
		Funded ⁽¹⁾	Unfunded	Investment grade	Non-criticized	Criticized performing	Criticized non-performing ⁽²⁾	30 days or more past due and accruing	Net credit losses (recoveries)	Credit derivative hedges ⁽³⁾
Transportation and industrials	\$ 139,225	\$ 57,271	\$ 81,954	\$ 109,197	\$ 19,697	\$ 9,850	\$ 481	\$ 403	\$ —	\$ (8,459)
Autos ⁽⁴⁾	47,482	21,995	25,487	40,795	5,171	1,391	125	52	—	(3,084)
Transportation	24,843	10,374	14,469	18,078	3,156	3,444	165	57	(30)	(1,270)
Industrials	66,900	24,902	41,998	50,324	11,370	5,015	191	294	30	(4,105)
Technology, media and telecom	81,211	28,931	52,280	65,386	12,308	3,308	209	169	11	(6,050)
Banks and finance companies	65,623	42,276	23,347	57,368	5,718	2,387	150	266	65	(1,113)
Consumer retail	78,255	32,687	45,568	60,215	14,830	2,910	300	195	28	(5,395)
Real estate	70,676	48,539	22,137	63,023	4,722	2,881	50	138	2	(739)
Commercial	54,139	34,112	20,027	46,670	4,716	2,703	50	96	2	(739)
Residential	16,537	14,427	2,110	16,353	6	178	—	42	—	—
Power, chemicals, metals and mining	59,404	18,326	41,078	47,395	10,466	1,437	106	226	34	(5,063)
Power	22,718	4,827	17,891	18,822	3,325	512	59	129	(3)	(2,306)
Chemicals	23,147	7,765	15,382	19,033	3,534	564	16	55	30	(2,098)
Metals and mining	13,539	5,734	7,805	9,540	3,607	361	31	42	7	(659)
Energy and commodities ⁽⁵⁾	46,309	13,069	33,240	38,918	6,076	1,200	115	180	11	(3,852)
Health	41,836	8,771	33,065	36,954	3,737	978	167	84	7	(2,855)
Insurance	29,932	4,417	25,515	29,090	801	41	—	44	—	(3,884)
Public sector	23,705	11,736	11,969	20,663	2,084	956	2	77	4	(1,633)
Asset managers and funds	35,983	13,162	22,821	34,431	1,492	60	—	95	—	(759)
Financial markets infrastructure	8,742	60	8,682	8,672	70	—	—	—	—	(18)
Securities firms	1,462	569	893	625	678	157	2	2	—	(2)
Other industries ⁽⁶⁾	7,374	4,217	3,157	4,842	2,245	238	49	19	16	(8)
Total	\$ 689,737	\$ 284,031	\$ 405,706	\$ 576,779	\$ 84,924	\$ 26,403	\$ 1,631	\$ 1,898	\$ 178	\$ (39,830)

(1) Funded excludes loans carried at fair value of \$5.1 billion at December 31, 2022.

(2) Includes non-accrual loan exposures and related criticized unfunded exposures.

(3) Represents the amount of purchased credit protection in the form of derivatives to economically hedge funded and unfunded exposures. Of the \$39.8 billion of purchased credit protection, \$36.6 billion represents the total notional amount of purchased credit derivatives on individual reference entities. The remaining \$3.2 billion represents the first loss tranche of portfolios of purchased credit derivatives with a total notional of \$27.6 billion, where the protection seller absorbs the first loss on the referenced loan portfolios.

(4) Autos total credit exposure includes securitization financing facilities secured by auto loans and leases, extended mainly to the finance company subsidiaries of global auto manufacturers, bank subsidiaries and independent auto finance companies, of approximately \$17.4 billion (\$10.3 billion in funded, with more than 99% rated investment grade) at December 31, 2022.

(5) In addition to this exposure, Citi has energy-related exposure within the public sector (e.g., energy-related state-owned entities) and the transportation and industrials sector (e.g., off-shore drilling entities) included in the table above. As of December 31, 2022, Citi's total exposure to these energy-related entities was approximately \$4.7 billion, of which approximately \$2.4 billion consisted of direct outstanding funded loans.

(6) Includes \$0.6 billion and \$0.1 billion of funded and unfunded exposure at December 31, 2022, respectively, primarily related to commercial credit card delinquency-managed loans.

Credit Risk Mitigation

As part of its overall risk management activities, Citigroup uses credit derivatives, both partial and full term, and other risk mitigants to economically hedge portions of the credit risk in its corporate credit portfolio, in addition to outright asset sales. In advance of the expiration of partial-term economic hedges, Citi will determine, among other factors, the economic feasibility of hedging the remaining life of the instrument. The results of the mark-to-market and any realized gains or losses on credit derivatives are reflected primarily in *Principal transactions* in the Consolidated Statement of Income.

At December 31, 2023, September 30, 2023 and December 31, 2022, *Banking* had economic hedges on the corporate credit portfolio of \$35.9 billion, \$36.0 billion and \$39.8 billion, respectively. Citi's expected credit loss model used in the calculation of its ACL does not include the favorable impact of credit derivatives and other mitigants that are marked-to-market. In addition, the reported amounts of direct outstandings and unfunded lending commitments in the tables above do not reflect the impact of these hedging transactions. The credit protection was economically hedging underlying *Banking* corporate credit portfolio exposures with the following risk rating distribution:

Rating of Hedged Exposure

	December 31, 2023	September 30, 2023	December 31, 2022
AAA/AA/A	45 %	45 %	39 %
BBB	44	43	45
BB/B	10	10	12
CCC or below	1	2	4
Total	100 %	100 %	100 %

Loan Maturities and Fixed/Variable Pricing of Corporate Loans

In millions of dollars at December 31, 2023	Due within 1 year	Over 1 year but within 5 years	Over 5 years but within 15 years	Over 15 years	Total
Corporate loans					
In North America offices⁽¹⁾					
Commercial and industrial loans	\$ 25,045	\$ 34,304	\$ 1,602	\$ 57	\$ 61,008
Financial institutions	17,435	21,388	424	146	39,393
Mortgage and real estate ⁽²⁾	7,908	4,185	4,736	984	17,813
Installment and other	9,461	12,947	775	152	23,335
Lease financing	—	227	—	—	227
Total	\$ 59,849	\$ 73,051	\$ 7,537	\$ 1,339	\$ 141,776
In offices outside North America⁽¹⁾					
Commercial and industrial loans	\$ 69,811	\$ 18,128	\$ 5,425	\$ 38	\$ 93,402
Financial institutions	18,449	6,577	907	210	26,143
Mortgage and real estate ⁽²⁾	2,639	3,600	888	70	7,197
Installment and other	16,081	7,960	1,337	2,529	27,907
Lease financing	6	26	16	—	48
Governments and official institutions	632	670	1,630	667	3,599
Total	\$ 107,618	\$ 36,961	\$ 10,203	\$ 3,514	\$ 158,296
Corporate loans, net of unearned income⁽³⁾⁽⁴⁾	\$ 167,467	\$ 110,012	\$ 17,740	\$ 4,853	\$ 300,072
Loans at fixed interest rates⁽⁵⁾					
Commercial and industrial loans	\$ 6,636	\$ 883	\$ 17		
Financial institutions	3,363	62	12		
Mortgage and real estate ⁽²⁾	1,311	4,531	846		
Other ⁽⁶⁾	4,792	170	7		
Lease financing	240	—	—		
Total	\$ 16,342	\$ 5,646	\$ 882		
Loans at floating or adjustable interest rates⁽⁴⁾					
Commercial and industrial loans	\$ 45,796	\$ 6,144	\$ 78		
Financial institutions	24,602	1,269	344		
Mortgage and real estate ⁽²⁾	6,474	1,093	208		
Other ⁽⁶⁾	16,785	3,572	3,341		
Lease financing	13	16	—		
Total	\$ 93,670	\$ 12,094	\$ 3,971		
Total fixed/variable pricing of corporate loans with maturities due after one year, net of unearned income⁽³⁾⁽⁴⁾	\$ 110,012	\$ 17,740	\$ 4,853		

(1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America. The classification between offices in North America and outside North America is based on the domicile of the booking unit. The differences between the domicile of the booking unit and the domicile of the managing unit are not material.

(2) Loans secured primarily by real estate.

(3) Corporate loans are net of unearned income of (\$917) million. Unearned income on corporate loans primarily represents loan origination fees, net of certain direct origination costs, that are deferred and recognized as *Interest income* over the lives of the related loans.

(4) Excludes \$93 million of unallocated portfolio layer cumulative basis adjustments at December 31, 2023.

(5) Based on contractual terms. Repricing characteristics may effectively be modified from time to time using derivative contracts. See Note 24.

(6) Other includes installment and other and loans to government and official institutions.

CONSUMER CREDIT

Citi's consumer credit risk management framework is designed for a variety of environments. Underwriting and portfolio management policies are calibrated based on risk-return trade-offs by product and segment and changes are made based on performance against benchmarks as well as environmental stress. As warranted, Citi adjusts underwriting criteria to address consumer credit risks and macroeconomic challenges and uncertainties.

USPB provides credit cards, mortgages, personal loans, small business banking and retail banking, and *Wealth* offers wealth management lending and other products globally that range from the affluent to ultra-high net worth customer segments through the Private Bank, Wealth at Work and Citigold. *USPB*'s retail banking products include a generally prime portfolio built through well-defined lending parameters within Citi's risk appetite framework.

Consumer Credit Portfolio

The following table presents Citi's quarterly end-of-period consumer loans⁽¹⁾:

In billions of dollars	4Q22	1Q23	2Q23	3Q23	4Q23
<i>USPB</i>					
Branded Cards	\$ 100.2	\$ 97.1	\$ 103.0	\$ 105.2	\$ 111.1
Retail Services	50.5	48.4	50.0	50.5	53.6
Retail Banking	37.1	39.2	41.5	43.1	44.4
Mortgages ⁽²⁾	33.4	35.3	37.4	38.8	39.9
Personal, small business and other	3.7	3.9	4.1	4.3	4.5
Total	\$ 187.8	\$ 184.7	\$ 194.5	\$ 198.8	\$ 209.1
<i>Wealth</i>⁽³⁾⁽⁴⁾					
Mortgages ⁽²⁾	\$ 84.0	\$ 85.2	\$ 87.0	\$ 88.8	\$ 89.9
Margin lending ⁽⁵⁾	28.9	29.3	29.6	28.7	29.4
Personal, small business and other ⁽⁶⁾	31.7	31.0	29.4	28.5	27.2
Cards	4.6	4.4	4.5	4.6	5.0
Total	\$ 149.2	\$ 149.9	\$ 150.5	\$ 150.6	\$ 151.5
All Other—Legacy Franchises					
Mexico Consumer (excludes Mexico SBMM)	\$ 14.8	\$ 16.3	\$ 17.8	\$ 17.8	\$ 18.7
Asia Consumer ⁽⁷⁾	13.3	10.0	9.1	8.0	7.4
Legacy Holdings Assets ⁽⁸⁾	3.0	2.8	2.7	2.5	2.5
Total	\$ 31.1	\$ 29.1	\$ 29.6	\$ 28.3	\$ 28.6
Total consumer loans	\$ 368.1	\$ 363.7	\$ 374.6	\$ 377.7	\$ 389.2

(1) End-of-period loans include interest and fees on credit cards.

(2) See Note 15 for details on loan-to-value ratios for the portfolios and FICO scores for the U.S. portfolio.

(3) Consists of \$101.6 billion, \$101.1 billion, \$99.5 billion, \$98.9 billion and \$98.2 billion of loans in North America as of December 31, 2023, September 30, 2023, June 30, 2023, March 31, 2023 and December 31, 2022, respectively. For additional information on the credit quality of the *Wealth* portfolio, see Note 15.

(4) Consists of \$49.9 billion, \$49.5 billion, \$51.0 billion, \$51.0 billion and \$51.0 billion of loans outside North America as of December 31, 2023, September 30, 2023, June 30, 2023, March 31, 2023 and December 31, 2022, respectively.

(5) At December 31, 2023, includes approximately \$24 billion of classifiably managed loans fully collateralized by eligible financial assets and securities that have experienced very low historical net credit losses (NCLs). Approximately 85% of the classifiably managed portion of these loans are investment grade.

(6) At December 31, 2023, includes approximately \$22 billion of classifiably managed loans. Approximately 87% of these loans are fully collateralized (consisting primarily of commercial real estate and limited partner capital commitments in private equity) and have experienced very low historical net credit losses (NCLs). Approximately 85% of the classifiably managed portion of these loans are investment grade.

(7) Asia Consumer loan balances, reported within All Other—Legacy Franchises, include the four remaining Asia Consumer loan portfolios: Korea, Poland, China and Russia.

(8) Primarily consists of certain North America consumer mortgages.

All Other—Legacy Franchises also provides such products in its remaining markets through Mexico Consumer and Asia Consumer (Korea, Poland, China and Russia).

For information on changes to Citi's consumer loans, see "Credit Risk—Loans" above.

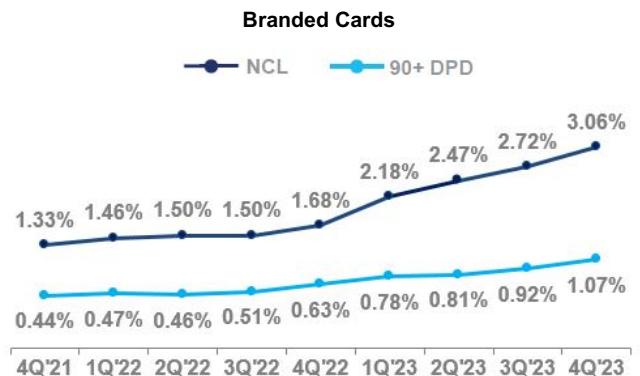
Consumer Credit Trends



As indicated above, *USPB* provides card products through Branded Cards and Retail Services, and mortgages and home equity, small business and personal consumer loans through Citi's Retail Banking network. Retail Banking is concentrated in six major U.S. metropolitan areas. *USPB* also provides mortgages through correspondent channels.

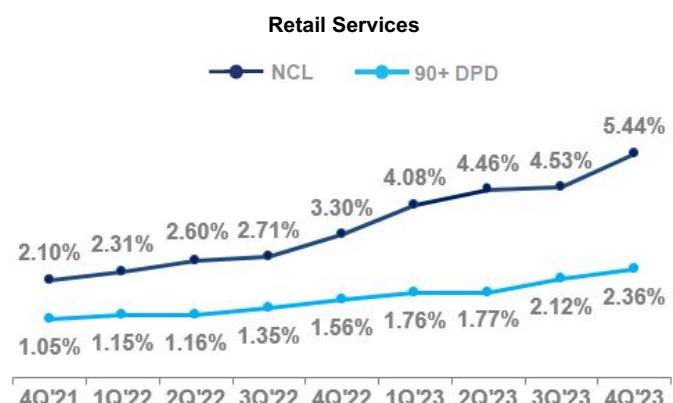
As of December 31, 2023, approximately 79% of *USPB* EOP loans consisted of Branded Cards and Retail Services card loans, which generally drives the overall credit performance of *USPB*, as U.S. cards net credit losses represented approximately 96% of total *USPB* net credit losses for the fourth quarter of 2023. As of December 31, 2023, Branded Cards represented 67% of total U.S. cards EOP loans and Retail Services represented 33% of U.S. cards EOP loans.

As presented in the chart above, the fourth quarter of 2023 net credit loss rate and 90+ days past due delinquency rate in *USPB* increased quarter-over-quarter and year-over-year, largely driven by a continued increase in net flow rates, primarily reflecting normalization to pre-pandemic levels in Branded Cards and Retail Services as well as the impact of macroeconomic pressures related to the higher inflationary and interest rate environment. Citi expects the net credit loss rate for both Branded Cards and Retail Services to continue to rise above pre-pandemic levels and, on a full-year basis, peak in 2024. The higher net credit losses expectation is already reflected in the Company's ACL on loans for outstanding balances at December 31, 2023.



USPB's Branded Cards portfolio includes proprietary and co-branded cards.

As presented in the chart above, the fourth quarter of 2023 net credit loss rate and 90+ days past due delinquency rate in Branded Cards increased quarter-over-quarter and year-over-year, largely driven by a continued increase in net flow rates, primarily reflecting normalization to pre-pandemic levels as well as the impact of macroeconomic pressures related to the higher inflationary and interest rate environment.



USPB's Retail Services partners directly with more than 20 retailers and dealers to offer private label and co-branded cards. Retail Services' target market focuses on select industry segments such as home improvement, specialty retail, consumer electronics and fuel. Retail Services continually evaluates opportunities to add partners within target industries that have strong loyalty, lending or payment programs and growth potential.

As presented in the chart above, the fourth quarter of 2023 net credit loss rate and 90+ days past due delinquency rate in Retail Services increased quarter-over-quarter and year-over-year, largely driven by a continued increase in net flow rates, primarily reflecting normalization to pre-pandemic levels as well as the impact of macroeconomic pressures related to the higher inflationary and interest rate environment.

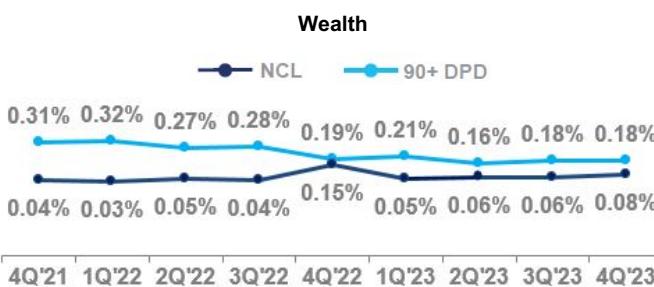
For additional information on cost of credit, loan delinquency and other information for Citi's cards portfolios, see each respective business's results of operations above and Note 15.



USPB's Retail Banking portfolio consists primarily of consumer mortgages (including home equity) and unsecured lending products, such as small business loans and personal loans. The portfolio is generally delinquency managed, where Citi evaluates credit risk based on FICO scores, delinquencies and the value of underlying collateral. The consumer mortgages in this portfolio have historically been extended to high credit quality customers, generally with loan-to-value ratios that are less than or equal to 80% on first and second mortgages. For additional information, see “Loan-to-Value (LTV) Ratios” in Note 15.

As presented in the chart above, the net credit loss rate in Retail Banking for the fourth quarter of 2023 was broadly stable quarter-over-quarter and increased year-over-year, primarily driven by the growth and seasoning of personal loans.

The 90+ days past due delinquency rate was broadly stable quarter-over-quarter and decreased year-over-year, primarily driven by lower delinquencies in U.S. mortgages.



As indicated above, **Wealth** provides consumer mortgages, margin lending, cards and other lending products to customer segments that range from affluent to ultra-high net worth through the Private Bank, Wealth at Work and Citigold. These customer segments represent a target market that is characterized by historically low default rates and delinquencies and includes loans that are delinquency managed or classifiably managed. The delinquency-managed portfolio consists primarily of mortgages, margin lending and cards.

As of December 31, 2023, approximately \$46 billion, or 30%, of the portfolio was classifiably managed and primarily consisted of margin lending, commercial real estate, subscription credit finance and other lending programs. These classifiably managed loans are primarily evaluated for credit

risk based on their internal risk rating, of which 85% is rated investment grade. While the delinquency rate in the chart above is calculated only for the delinquency-managed portfolio, the net credit loss rate is calculated using net credit losses for both the delinquency and classifiably managed portfolios.

As presented in the chart above, the net credit loss rate and 90+ days past due delinquency rate in **Wealth** for the fourth quarter of 2023 were broadly stable quarter-over-quarter and year-over-year. The low net credit loss and the 90+ days past due delinquency rates continued to reflect the strong credit profiles of the portfolios.



Mexico Consumer operates in Mexico through Citibanamex and provides credit cards, consumer mortgages and small business and personal loans. Mexico Consumer serves a more mass-market segment in Mexico and focuses on developing multiproduct relationships with customers.

As presented in the chart above, the fourth quarter of 2023 net credit loss rate in Mexico Consumer increased quarter-over-quarter and year-over-year, primarily driven by the ongoing normalization of loss rates from post-pandemic lows.

The 90+ days past due delinquency rate was relatively stable quarter-over-quarter and year-over-year.

For additional information on cost of credit, loan delinquency and other information for Citi's consumer loan portfolios, see each respective business's results of operations above and Note 15.

U.S. Cards FICO Distribution

The following tables present the current FICO score distributions for Citi's Branded Cards and Retail Services portfolios based on end-of-period receivables. FICO scores are updated monthly for substantially all of the portfolio and on a quarterly basis for the remaining portfolio.

Branded Cards

FICO distribution⁽¹⁾	Dec. 31, 2023	Sept. 30, 2023	Dec. 31, 2022
> 760	46 %	46 %	48 %
680–760	38	39	38
< 680	16	15	14
Total	100 %	100 %	100 %

Retail Services

FICO distribution⁽¹⁾	Dec. 31, 2023	Sept. 30, 2023	Dec. 31, 2022
> 760	27 %	26 %	27 %
680–760	41	42	42
< 680	32	32	31
Total	100 %	100 %	100 %

- (1) The FICO bands in the tables are consistent with general industry peer presentations.

The FICO distribution of both card portfolios declined slightly during 2023, primarily reflecting the normalization in net credit loss and delinquency rates. The FICO distribution continued to reflect strong underlying credit quality of the portfolios. See Note 15 for additional information on FICO scores.

Additional Consumer Credit Details

Consumer Loan Delinquencies Amounts and Ratios

	EOP loans ⁽¹⁾ December 31,	90+ days past due ⁽²⁾			30–89 days past due ⁽²⁾		
		December 31,	December 31,		December 31,	December 31,	
In millions of dollars, except EOP loan amounts in billions	2023	2023	2022	2021	2023	2022	2021
USPB⁽³⁾⁽⁴⁾							
Total	\$ 209.1	\$ 2,635	\$ 1,578	\$ 1,069	\$ 2,563	\$ 1,720	\$ 1,130
Ratio		1.26 %	0.84 %	0.64 %	1.23 %	0.92 %	0.68 %
Cards ⁽⁴⁾							
Total	164.7	2,461	1,415	871	2,293	1,511	947
Ratio		1.49 %	0.94 %	0.65 %	1.39 %	1.00 %	0.71 %
Branded Cards	111.1	1,194	629	389	1,143	693	408
Ratio		1.07 %	0.63 %	0.44 %	1.03 %	0.69 %	0.46 %
Retail Services	53.6	1,267	786	482	1,150	818	539
Ratio		2.36 %	1.56 %	1.05 %	2.15 %	1.62 %	1.17 %
Retail Banking ⁽³⁾	44.4	174	163	198	270	209	183
Ratio		0.40 %	0.45 %	0.62 %	0.62 %	0.57 %	0.57 %
Wealth delinquency-managed loans ⁽⁵⁾	\$ 105.3	\$ 191	\$ 186	\$ 281	\$ 312	\$ 317	\$ 323
Ratio		0.18 %	0.19 %	0.31 %	0.30 %	0.32 %	0.35 %
Wealth classifiably managed loans ⁽⁶⁾	\$ 46.2	N/A	N/A	N/A	N/A	N/A	N/A
<i>All Other</i>							
Total	\$ 28.6	\$ 407	\$ 389	\$ 613	\$ 384	\$ 335	\$ 546
Ratio		1.43 %	1.26 %	1.06 %	1.35 %	1.09 %	0.94 %
Mexico Consumer	18.7	252	190	183	252	186	173
Ratio		1.35 %	1.28 %	1.38 %	1.35 %	1.26 %	1.30 %
Asia Consumer ⁽⁷⁾⁽⁸⁾	7.4	51	49	209	59	70	285
Ratio		0.69 %	0.37 %	0.51 %	0.80 %	0.53 %	0.69 %
Legacy Holdings Assets (consumer) ⁽⁹⁾	2.5	104	150	221	73	79	88
Ratio		4.52 %	5.56 %	6.31 %	3.17 %	2.93 %	2.51 %
Total Citigroup consumer	\$ 389.2	\$ 3,233	\$ 2,153	\$ 1,963	\$ 3,259	\$ 2,372	\$ 1,999
Ratio		0.94 %	0.68 %	0.62 %	0.95 %	0.75 %	0.63 %

(1) End-of-period (EOP) loans include interest and fees on credit cards.

(2) The ratios of 90+ days past due and 30–89 days past due are calculated based on EOP loans, net of unearned income.

(3) The 90+ days past due and 30–89 days past due and related ratios for Retail Banking exclude loans guaranteed by U.S. government-sponsored agencies since the potential risk of loss predominantly resides with the U.S. government-sponsored agencies. The amounts excluded for loans 90+ days past due and (EOP loans) were \$63 million (\$0.5 billion), \$89 million (\$0.6 billion) and \$185 million (\$1.1 billion) at December 31, 2023, 2022 and 2021, respectively. The amounts excluded for loans 30–89 days past due (the 30–89 days past due EOP loans have the same adjustments as the 90+ days past due EOP loans) were \$73 million, \$70 million and \$74 million at December 31, 2023, 2022 and 2021, respectively. The EOP loans in the table include the guaranteed loans.

(4) The 90+ days past due balances for Branded Cards and Retail Services are generally still accruing interest. Citi's policy is generally to accrue interest on credit card loans until 180 days past due, unless notification of bankruptcy filing has been received earlier.

(5) Excludes EOP classifiably managed Private Bank loans. These loans are not included in the delinquency numerator, denominator and ratios.

(6) These loans are evaluated for non-accrual status and write-off primarily based on their internal risk classification and not solely on their delinquency status, and therefore delinquency metrics are excluded from this table. As of December 31, 2023, 2022 and 2021, 85%, 96% and 94% of Wealth classifiably managed loans were rated investment grade. For additional information on the credit quality of the *Wealth* portfolio, including classifiably managed portfolios, see "Consumer Credit Trends" above.

(7) Asia Consumer includes delinquencies and loans in Poland and Russia for all periods presented and in Bahrain for 2021 only.

(8) Citi has entered into agreements to sell certain Asia Consumer banking businesses. Accordingly, the loans of these businesses have been reclassified as HFS in *Other assets* on the Consolidated Balance Sheet, and hence the loans and related delinquencies and ratios are not included in this table. The reclassifications commenced as follows: Bahrain, India, Indonesia, Malaysia, Taiwan, Thailand and Vietnam in 1Q22 (Bahrain, Malaysia and Thailand closed in 4Q22; India and Vietnam closed in 1Q23; Taiwan closed in 3Q23; and Indonesia closed in 4Q23); Australia in 3Q21 (closed in 2Q22); and the Philippines in 4Q21 (closed in 3Q22). In addition, a portfolio was reclassified to HFS in the first quarter of 2023 and subsequently sold in the second quarter of 2023. See Note 2.

- (9) The 90+ days past due and 30–89 days past due and related ratios exclude U.S. mortgage loans that are primarily related to U.S. mortgages guaranteed by U.S. government-sponsored agencies since the potential risk of loss predominantly resides with the U.S. agencies. The amounts excluded for 90+ days past due and (EOP loans) were \$67 million (\$0.2 billion), \$90 million (\$0.3 billion) and \$138 million (\$0.4 billion) at December 31, 2023, 2022 and 2021, respectively. The amounts excluded for loans 30–89 days past due (the 30–89 days past due EOP loans have the same adjustments as the 90+ days past due EOP loans) were \$36 million, \$37 million and \$35 million at December 31, 2023, 2022 and 2021, respectively. The EOP loans in the table include the guaranteed loans.

N/A Not applicable

Consumer Loan Net Credit Losses and Ratios

<i>In millions of dollars, except average loan amounts in billions</i>	Average loans⁽¹⁾	Net credit losses⁽²⁾		
		2023	2022	2021
USPB				
Total	\$ 192.6	\$ 5,234	\$ 2,918	\$ 2,939
<i>Ratio</i>		2.72 %	1.71 %	1.85 %
Cards				
Total	151.5	4,981	2,640	2,828
<i>Ratio</i>		3.29 %	1.95 %	2.28 %
Branded Cards	101.6	2,664	1,384	1,659
<i>Ratio</i>		2.62 %	1.54 %	2.05 %
Retail Services	49.9	2,317	1,256	1,169
<i>Ratio</i>		4.64 %	2.74 %	2.71 %
Retail Banking	41.1	253	278	111
<i>Ratio</i>		0.62 %	0.79 %	0.32 %
Wealth	\$ 150.1	\$ 98	\$ 103	\$ 122
<i>Ratio</i>		0.07 %	0.07 %	0.08 %
All Other—Legacy Franchises (managed basis)⁽³⁾				
Total	\$ 29.2	\$ 861	\$ 746	\$ 1,454
<i>Ratio</i>		2.95 %	2.16 %	2.13 %
Mexico Consumer	17.0	682	476	920
<i>Ratio</i>		4.01 %	3.50 %	6.87 %
Asia Consumer (managed basis) ⁽³⁾⁽⁴⁾⁽⁵⁾	9.5	198	316	616
<i>Ratio</i>		2.08 %	1.82 %	1.24 %
Legacy Holdings Assets (consumer)	2.7	(19)	(46)	(82)
<i>Ratio</i>		(0.70)%	(1.35)%	(1.53)%
Reconciling Items ⁽³⁾		\$ (6)	\$ (156)	\$ (6)
Total Citigroup	\$ 371.9	\$ 6,187	\$ 3,611	\$ 4,509
<i>Ratio</i>		1.66 %	1.02 %	1.20 %

(1) Average loans include interest and fees on credit cards.

(2) The ratios of net credit losses are calculated based on average loans, net of unearned income.

(3) All Other (managed basis) excludes divestiture-related impacts (Reconciling Items) related to (i) Citi's divestitures of its Asia Consumer businesses and (ii) the planned divestiture of Mexico consumer banking and small business and middle-market banking within Legacy Franchises. The Reconciling Items are fully reflected in the various line items in Citi's Consolidated Statement of Income. See "All Other—Divestiture-Related Impacts (Reconciling Items)" below.

(4) Asia Consumer also includes NCLs and average loans in Poland and Russia for all periods presented and in Bahrain for 2021 only.

(5) Approximately \$25 million, \$155 million and \$6 million in NCLs relating to certain Asia Consumer businesses classified as held-for-sale in *Other assets* and *Other liabilities* on the Consolidated Balance Sheet were recorded as a reduction in revenue (*Other revenue*) in 2023, 2022 and 2021, respectively. Accordingly, these NCLs are not included in this table. See footnote 3 to this table.

Loan Maturities and Fixed/Variable Pricing of Consumer Loans

Loan Maturities

In millions of dollars at December 31, 2023	Due within 1 year	Greater than 1 year but within 5 years	Greater than 5 years but within 15 years	Greater than 15 years	Total
In North America offices					
Residential first mortgages	\$ 3	\$ 281	\$ 3,017	\$ 105,410	\$ 108,711
Home equity loans	5	27	1,519	2,041	3,592
Credit cards ⁽¹⁾	163,563	1,157	—	—	164,720
Personal, small business and other	31,202	4,673	222	38	36,135
Total	\$ 194,773	\$ 6,138	\$ 4,758	\$ 107,489	\$ 313,158
In offices outside North America					
Residential mortgages	\$ 1,179	\$ 273	\$ 4,073	\$ 20,901	\$ 26,426
Credit cards ⁽¹⁾	14,184	49	—	—	14,233
Personal, small business and other	27,508	7,159	214	499	35,380
Total	\$ 42,871	\$ 7,481	\$ 4,287	\$ 21,400	\$ 76,039
Total Consumer	\$ 237,644	\$ 13,619	\$ 9,045	\$ 128,889	\$ 389,197

(1) Credit card loans with maturities greater than one year represent loan modifications to borrowers experiencing financial difficulty and are at fixed interest rates.

Fixed/Variable Pricing

In millions of dollars at December 31, 2023	Due within 1 year	Greater than 1 year but within 5 years	Greater than 5 years but within 15 years	Greater than 15 years	Total
Loans at fixed interest rates					
Residential first mortgages	\$ 460	\$ 366	\$ 2,620	\$ 70,126	\$ 73,572
Home equity loans	5	25	272	85	387
Credit cards ⁽¹⁾	50,435	1,206	—	—	51,641
Personal, small business and other	13,185	8,869	376	366	22,796
Total	\$ 64,085	\$ 10,466	\$ 3,268	\$ 70,577	\$ 148,396
Loans at floating or adjustable interest rates					
Residential first mortgages	\$ 722	\$ 188	\$ 4,470	\$ 56,185	\$ 61,565
Home equity loans	—	2	1,247	1,956	3,205
Credit cards ⁽¹⁾	127,312	—	—	—	127,312
Personal, small business and other	45,525	2,963	60	171	48,719
Total	\$ 173,559	\$ 3,153	\$ 5,777	\$ 58,312	\$ 240,801
Total Consumer	\$ 237,644	\$ 13,619	\$ 9,045	\$ 128,889	\$ 389,197

(1) Credit card loans with maturities greater than one year represent loan modifications to borrowers experiencing financial difficulty and are at fixed interest rates.

ADDITIONAL CONSUMER AND CORPORATE CREDIT DETAILS

Loans Outstanding

<i>In millions of dollars</i>	December 31,				
	2023	2022	2021	2020	2019
Consumer loans					
In North America offices ⁽¹⁾					
Residential first mortgages ⁽²⁾	\$ 108,711	\$ 96,039	\$ 83,361	\$ 83,956	\$ 78,664
Home equity loans ⁽²⁾	3,592	4,580	5,745	7,890	10,174
Credit cards	164,720	150,643	133,868	130,385	149,163
Personal, small business and other	36,135	37,752	40,713	39,259	36,548
Total	\$ 313,158	\$ 289,014	\$ 263,687	\$ 261,490	\$ 274,549
In offices outside North America ⁽¹⁾					
Residential mortgages ⁽²⁾	\$ 26,426	\$ 28,114	\$ 37,889	\$ 42,817	\$ 40,467
Credit cards	14,233	12,955	17,808	22,692	25,909
Personal, small business and other	35,380	37,984	57,150	59,475	60,013
Total	\$ 76,039	\$ 79,053	\$ 112,847	\$ 124,984	\$ 126,389
Consumer loans, net of unearned income⁽³⁾	\$ 389,197	\$ 368,067	\$ 376,534	\$ 386,474	\$ 400,938
Corporate loans					
In North America offices ⁽¹⁾					
Commercial and industrial	\$ 61,008	\$ 56,176	\$ 48,364	\$ 53,930	\$ 52,229
Financial institutions	39,393	43,399	49,804	39,390	38,782
Mortgage and real estate ⁽²⁾	17,813	17,829	15,965	16,522	13,696
Installment and other	23,335	23,767	20,143	17,362	22,219
Lease financing	227	308	415	673	1,290
Total	\$ 141,776	\$ 141,479	\$ 134,691	\$ 127,877	\$ 128,216
In offices outside North America ⁽¹⁾					
Commercial and industrial	\$ 93,402	\$ 93,967	\$ 102,735	\$ 103,234	\$ 112,332
Financial institutions	26,143	21,931	22,158	25,111	28,176
Mortgage and real estate ⁽²⁾	7,197	4,179	4,374	5,277	4,325
Installment and other	27,907	23,347	22,812	24,034	21,273
Lease financing	48	46	40	65	95
Governments and official institutions	3,599	4,205	4,423	3,811	4,128
Total	\$ 158,296	\$ 147,675	\$ 156,542	\$ 161,532	\$ 170,329
Corporate loans, net of unearned income, excluding portfolio layer cumulative basis adjustments⁽⁴⁾	\$ 300,072	\$ 289,154	\$ 291,233	\$ 289,409	\$ 298,545
Unallocated portfolio layer cumulative basis adjustments	93	—	—	—	—
Corporate loans, net of unearned income⁽⁴⁾	\$ 300,165	\$ 289,154	\$ 291,233	\$ 289,409	\$ 298,545
Total loans—net of unearned income	\$ 689,362	\$ 657,221	\$ 667,767	\$ 675,883	\$ 699,483
Allowance for credit losses on loans (ACLL)	(18,145)	(16,974)	(16,455)	(24,956)	(12,783)
Total loans—net of unearned income and ACLL	\$ 671,217	\$ 640,247	\$ 651,312	\$ 650,927	\$ 686,700
ACLL as a percentage of total loans—net of unearned income⁽⁵⁾	2.66 %	2.60 %	2.49 %	3.73 %	1.84 %
ACLL for consumer loan losses as a percentage of total consumer loans—net of unearned income⁽⁵⁾	3.97 %	3.84 %	3.73 %	5.22 %	2.51 %
ACLL for corporate loan losses as a percentage of total corporate loans—net of unearned income⁽⁵⁾	0.93 %	1.01 %	0.85 %	1.69 %	0.93 %

- (1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America. The classification of corporate loans between offices in North America and outside North America is based on the domicile of the booking unit. The difference between the domicile of the booking unit and the domicile of the managing unit is not material.
- (2) Loans secured primarily by real estate.

- (3) Consumer loans are net of unearned income of \$802 million, \$712 million, \$629 million, \$692 million and \$732 million at December 31, 2023, 2022, 2021, 2020 and 2019, respectively. Unearned income on consumer loans primarily represents loan origination fees, net of certain direct origination costs, that are deferred and recognized as *Interest income* over the lives of the related loans.
- (4) Corporate loans include Mexico SBMM loans and are net of unearned income of \$(917) million, \$(797) million, \$(770) million, \$(787) million and \$(763) million at December 31, 2023, 2022, 2021, 2020 and 2019, respectively. Unearned income on corporate loans primarily represents loan origination fees, net of certain direct origination costs, that are deferred and recognized as *Interest income* over the lives of the related loans.
- (5) Because loans carried at fair value do not have an ACLL, they are excluded from the ACLL ratio calculation.

Details of Credit Loss Experience

<i>In millions of dollars</i>	2023	2022	2021	2020	2019
Allowance for credit losses on loans (ACLL) at beginning of year	\$ 16,974	\$ 16,455	\$ 24,956	\$ 12,783	\$ 12,315
Adjustments to opening balance:					
Financial instruments—TDRs and vintage disclosures ⁽¹⁾	(352)	—	—	—	—
Financial instruments—credit losses (CECL) ⁽²⁾	—	—	—	4,201	—
Variable post-charge-off third-party collection costs ⁽³⁾	—	—	—	(443)	—
Adjusted ACLL at beginning of year	\$ 16,622	\$ 16,455	\$ 24,956	\$ 16,541	\$ 12,315
Provision for credit losses on loans (PCLL)					
Consumer	\$ 7,665	\$ 4,128	\$ (1,159)	\$ 12,222	\$ 7,788
Corporate	121	617	(1,944)	3,700	430
Total	\$ 7,786	\$ 4,745	\$ (3,103)	\$ 15,922	\$ 8,218
Gross credit losses on loans					
Consumer					
In U.S. offices	\$ 6,339	\$ 3,944	\$ 4,076	\$ 6,141	\$ 6,590
In offices outside the U.S.	1,214	934	2,144	2,146	2,316
Corporate					
Commercial and industrial, and other					
In U.S. offices	129	110	228	466	213
In offices outside the U.S.	119	81	259	409	196
Loans to financial institutions					
In U.S. offices	4	—	1	14	—
In offices outside the U.S.	36	80	1	12	3
Mortgage and real estate					
In U.S. offices	31	—	10	71	23
In offices outside the U.S.	9	7	1	4	—
Total	\$ 7,881	\$ 5,156	\$ 6,720	\$ 9,263	\$ 9,341
Gross recoveries on loans					
Consumer					
In U.S. offices	\$ 1,124	\$ 1,045	\$ 1,215	\$ 1,094	\$ 988
In offices outside the U.S.	242	222	496	482	504
Corporate					
Commercial and industrial, and other					
In U.S. offices	38	44	57	34	15
In offices outside the U.S.	37	46	54	27	58
Loans to financial institutions					
In U.S. offices	—	6	2	—	—
In offices outside the U.S.	—	3	1	14	—
Mortgage and real estate					
In U.S. offices	—	—	—	—	8
In offices outside the U.S.	3	1	—	1	—
Total	\$ 1,444	\$ 1,367	\$ 1,825	\$ 1,652	\$ 1,573
Net credit losses on loans (NCLs)					
In U.S. offices	\$ 5,341	\$ 2,959	\$ 3,041	\$ 5,564	\$ 5,815

In offices outside the U.S.	1,096	830	1,854	2,047	1,953
Total	\$ 6,437	\$ 3,789	\$ 4,895	\$ 7,611	\$ 7,768
Other—net ⁽⁴⁾⁽⁵⁾⁽⁶⁾⁽⁷⁾⁽⁸⁾⁽⁹⁾	\$ 174	\$ (437)	\$ (503)	\$ 104	\$ 18
Allowance for credit losses on loans (ACLL) at end of year	\$ 18,145	\$ 16,974	\$ 16,455	\$ 24,956	\$ 12,783
ACLL as a percentage of EOP loans ⁽¹⁰⁾	2.66 %	2.60 %	2.49 %	3.73 %	1.84 %
Allowance for credit losses on unfunded lending commitments (ACLUC) ⁽¹¹⁾⁽¹²⁾	\$ 1,728	\$ 2,151	\$ 1,871	\$ 2,655	\$ 1,456
Total ACLL and ACLUC	\$ 19,873	\$ 19,125	\$ 18,326	\$ 27,611	\$ 14,239
Net consumer credit losses on loans	\$ 6,187	\$ 3,611	\$ 4,509	\$ 6,711	\$ 7,414
As a percentage of average consumer loans	1.66 %	1.02 %	1.20 %	1.77 %	1.94 %
Net corporate credit losses on loans	\$ 250	\$ 178	\$ 386	\$ 900	\$ 354
As a percentage of average corporate loans	0.09 %	0.06 %	0.13 %	0.29 %	0.12 %
ACLL by type at end of year⁽¹³⁾					
Consumer	\$ 15,431	\$ 14,119	\$ 14,040	\$ 20,180	\$ 10,056
Corporate	2,714	2,855	2,415	4,776	2,727
Total	\$ 18,145	\$ 16,974	\$ 16,455	\$ 24,956	\$ 12,783

- (1) On January 1, 2023, Citi adopted Accounting Standards Update (ASU) 2022-02, *Financial Instruments—Credit Losses (Topic 326): TDRs and Vintage Disclosures*. The ASU eliminated the accounting and disclosure requirements for TDRs, including the requirement to measure the ACLL for TDRs using a discounted cash flow (DCF) approach. On January 1, 2023, Citi recorded a \$352 million decrease in the *Allowance for loan losses*, along with a \$290 million after-tax increase to *Retained earnings*. See Note 1.
- (2) On January 1, 2020, Citi adopted Accounting Standards Codification (ASC) 326, *Financial Instruments—Credit Losses (CECL)*. The ASC introduces a new credit loss methodology requiring earlier recognition of credit losses while also providing additional disclosure about credit risk. On January 1, 2020, Citi recorded a \$4.1 billion, or an approximate 29%, pretax increase in the *Allowance for credit losses*, along with a \$3.1 billion after-tax decrease in *Retained earnings* and a deferred tax asset increase of \$1.0 billion. This transition impact reflects (i) a \$4.9 billion build to the consumer ACL due to longer estimated tenors than under the incurred loss methodology under prior U.S. GAAP, net of recoveries, and (ii) a \$0.8 billion decrease to the corporate ACL due to shorter remaining tenors, incorporation of recoveries and use of more specific historical loss data based on an increase in portfolio segmentation across industries and geographies.
- (3) Citi had a change in accounting related to its variable post-charge-off third-party collection costs that was recorded as an adjustment to its January 1, 2020 opening allowance for credit losses on loans of \$443 million.
- (4) Includes all adjustments to the allowance for credit losses, such as changes in the allowance from acquisitions, dispositions, securitizations, FX translation, purchase accounting adjustments, etc.
- (5) 2023 includes an approximate \$175 million increase related to FX translation.
- (6) 2022 includes an approximate \$350 million reclassification related to the announced sales of Citi's consumer banking businesses in Thailand, India, Malaysia, Taiwan, Indonesia, Bahrain and Vietnam. Also includes a decrease of approximately \$100 million related to FX translation.
- (7) 2021 includes an approximate \$280 million reclassification related to Citi's agreement to sell its Australia consumer banking business and an approximate \$90 million reclassification related to Citi's agreement to sell its Philippines consumer banking business. Those ACLL were reclassified to *Other assets* during 2021. 2021 also includes a decrease of approximately \$134 million related to FX translation.
- (8) 2020 includes reductions of approximately \$4 million related to the transfer to HFS of various real estate loan portfolios. In addition, 2020 includes an increase of approximately \$97 million related to FX translation.
- (9) 2019 includes reductions of approximately \$42 million related to the sale or transfer to HFS of various loan portfolios. In addition, 2019 includes a reduction of approximately \$60 million related to FX translation.
- (10) December 31, 2023, 2022, 2021, 2020 and 2019 exclude \$7.6 billion, \$5.4 billion, \$6.1 billion, \$6.9 billion and \$4.1 billion, respectively, of loans that are carried at fair value.
- (11) Represents additional credit reserves recorded as *Other liabilities* on the Consolidated Balance Sheet.
- (12) 2020 corporate ACLUC includes a non-provision transfer of \$68 million, representing reserves on performance guarantees. The reserves on these contracts were reclassified out of the ACL on unfunded lending commitments and into *Other liabilities*.
- (13) Beginning in 2020, under CECL, the ACLL represents management's estimate of expected credit losses in the portfolio and troubled debt restructurings. See "Significant Accounting Policies and Significant Estimates." Attribution of the ACLL is made for analytical purposes only and the entire ACLL is available to absorb credit losses in the overall portfolio. Prior to 2020, the ACLL represented management's estimate of probable losses inherent in the portfolio, as well as probable losses related to large individually evaluated impaired loans and TDRs.

Allowance for Credit Losses on Loans (ACLL)

The following tables detail information on Citi's ACLL, loans and coverage ratios:

<i>In billions of dollars</i>	December 31, 2023		
	ACLL	EOP loans, net of unearned income	ACLL as a % of EOP loans ⁽¹⁾
Consumer			
North America cards ⁽²⁾	\$ 12.6	\$ 164.7	7.7 %
North America mortgages ⁽³⁾	0.2	112.0	0.2
North America other ⁽³⁾	0.7	36.2	1.9
International cards	0.9	14.2	6.3
International other ⁽³⁾	1.0	61.8	1.6
Total⁽¹⁾	\$ 15.4	\$ 388.9	4.0 %
Corporate			
Commercial and industrial	\$ 1.7	\$ 151.5	1.1 %
Financial institutions	0.3	65.1	0.5
Mortgage and real estate	0.6	24.9	2.4
Installment and other	0.1	51.3	0.2
Total⁽¹⁾	\$ 2.7	\$ 292.9	0.9 %
Loans at fair value⁽¹⁾		N/A \$ 7.6	N/A
Total Citigroup	\$ 18.1	\$ 689.4	2.7 %

<i>In billions of dollars</i>	December 31, 2022		
	ACLL	EOP loans, net of unearned income	ACLL as a % of EOP loans ⁽¹⁾
Consumer			
North America cards ⁽²⁾	\$ 11.4	\$ 150.6	7.6 %
North America mortgages ⁽³⁾	0.5	100.4	0.5
North America other ⁽³⁾	0.6	37.8	1.6
International cards	0.8	13.0	6.2
International other ⁽³⁾	0.8	66.0	1.2
Total⁽¹⁾	\$ 14.1	\$ 367.8	3.8 %
Corporate			
Commercial and industrial	\$ 1.9	\$ 147.8	1.3 %
Financial institutions	0.4	64.9	0.6
Mortgage and real estate	0.4	21.9	1.8
Installment and other	0.2	49.4	0.4
Total⁽¹⁾	\$ 2.9	\$ 284.0	1.0 %
Loans at fair value⁽¹⁾		N/A \$ 5.4	N/A
Total Citigroup	\$ 17.0	\$ 657.2	2.6 %

(1) Excludes loans carried at fair value, since they do not have an ACLL and are excluded from the ACLL ratio calculation.

(2) Includes both Branded Cards and Retail Services. As of December 31, 2023, the \$12.6 billion of ACLL represented approximately 25 months of coincident net credit loss coverage (based on 4Q23 NCLs). As of December 31, 2023, Branded Cards ACLL as a percentage of EOP loans was 6.0% and Retail Services ACLL as a percentage of EOP loans was 11.1%. As of December 31, 2022, the \$11.4 billion of ACLL represented approximately 43 months of coincident net credit loss coverage (based on 4Q22 NCLs). The decrease in the coincident coverage ratio at December 31, 2023 was primarily due to the higher levels of NCLs in 4Q23 versus 4Q22. As of December 31, 2022, Branded Cards ACLL as a percentage of EOP loans was 6.2% and Retail Services ACLL as a percentage of EOP loans was 10.3%.

(3) Includes residential mortgages, retail loans and personal, small business and other loans, including those extended through the Private Bank network.

N/A Not applicable

The following table details Citi's corporate credit ACLL by industry exposure:

<i>In millions of dollars, except percentages</i>	December 31, 2023		
	Funded exposure ⁽¹⁾	ACLL	ACLL as a % of funded exposure
Transportation and industrials	\$ 59,917	\$ 453	0.8 %
Banks and finance companies	52,569	179	0.3
Real estate ⁽²⁾	51,660	663	1.3
Commercial	35,058	599	1.7
Residential	16,602	64	0.4
Consumer retail	33,548	282	0.8
Technology, media and telecom	29,832	376	1.3
Power, chemicals, metals and mining	19,004	270	1.4
Public sector	12,621	102	0.8
Energy and commodities	12,606	166	1.3
Health	9,135	72	0.8
Asset managers and funds	4,232	36	0.9
Insurance	2,390	14	0.6
Securities firms	734	23	3.1
Financial markets infrastructure	156	—	—
Other industries ⁽³⁾	4,480	78	1.7
Total⁽⁴⁾	\$ 292,884	\$ 2,714	0.9 %

(1) Funded exposure excludes loans carried at fair value of \$7.3 billion that are not subject to ACLL under the CECL standard.

(2) As of December 31, 2023, the portion of the ACLL attributed to the total funded CRE exposure (including the Private Bank) was approximately 1.49%.

(3) Includes \$0.6 billion of funded exposure at December 31, 2023, primarily related to commercial credit card delinquency-managed loans.

(4) As of December 31, 2023, the ACLL above reflects coverage of 0.3% of funded investment-grade exposure and 2.9% of funded non-investment-grade exposure.

The following table details Citi's corporate credit ACLL by industry exposure:

<i>In millions of dollars, except percentages</i>	December 31, 2022		
	Funded exposure ⁽¹⁾	ACLL	ACLL as a % of funded exposure
Transportation and industrials	\$ 57,271	\$ 699	1.2 %
Banks and finance companies	42,276	225	0.5
Real estate	48,539	500	1.0
Commercial	34,112	428	1.3
Residential	14,427	72	0.5
Consumer retail	32,687	358	1.1
Technology, media and telecom	28,931	330	1.1
Power, chemicals, metals and mining	18,326	288	1.6
Public sector	11,736	58	0.5
Energy and commodities	13,069	188	1.4
Health	8,771	81	0.9
Asset managers and funds	13,162	38	0.3
Insurance	4,417	11	0.2
Securities firms	569	11	1.9
Financial markets infrastructure	60	—	—
Other industries ⁽²⁾	4,217	68	1.6
Total⁽³⁾	\$ 284,031	\$ 2,855	1.0 %

(1) Funded exposure excludes loans carried at fair value of \$5.1 billion that are not subject to ACLL under the CECL standard.

(2) Includes \$0.6 billion of funded exposure at December 31, 2022, primarily related to commercial credit card delinquency-managed loans.

(3) As of December 31, 2022, the ACLL above reflects coverage of 0.4% of funded investment-grade exposure and 3.0% of funded non-investment-grade exposure.

Non-Accrual Loans and Assets

There is a certain amount of overlap among non-accrual loans and assets. The following summary provides a general description of each category:

- Corporate and consumer (including commercial banking) non-accrual status is based on the determination that payment of interest or principal is doubtful.
- A corporate loan may be classified as non-accrual and still be current on principal and interest payments under the terms of the loan structure. Citi's corporate non-accrual loans were \$1.9 billion, \$2.0 billion and \$1.1 billion as of December 31, 2023, September 30, 2023 and December 31, 2022, respectively.
- Consumer non-accrual status is generally based on aging, i.e., the borrower has fallen behind on payments.
- Consumer mortgage loans, other than Federal Housing Administration (FHA)-insured loans, are classified as non-accrual within 60 days of notification that the borrower has filed for bankruptcy. In addition, home equity loans are classified as non-accrual if the related residential first mortgage loan is 90 days or more past due.
- U.S. Branded Cards and Retail Services are not included because, under industry standards, credit card loans accrue interest until such loans are charged off, which typically occurs at 180 days of contractual delinquency.

Non-Accrual Loans

The table below summarizes Citigroup's non-accrual loans as of the periods indicated. Non-accrual loans may still be current on interest payments. In situations where Citi reasonably expects that only a portion of the principal owed will ultimately be collected, all payments received are reflected as a reduction of principal and not as interest income. For all other non-accrual loans, cash interest receipts are generally recorded as revenue.

<i>In millions of dollars</i>	December 31,				
	2023	2022	2021	2020	2019
Corporate non-accrual loans⁽¹⁾⁽²⁾⁽³⁾					
North America ⁽⁴⁾	\$ 978	\$ 138	\$ 510	\$ 1,486	\$ 1,082
International	904	984	1,043	1,560	942
Total	\$ 1,882	\$ 1,122	\$ 1,553	\$ 3,046	\$ 2,024
Corporate non-accrual loans⁽¹⁾⁽²⁾⁽³⁾					
Banking	\$ 799	\$ 757	\$ 1,166	\$ 2,595	\$ 1,565
Services	103	153	70	79	113
Markets ⁽⁴⁾	791	13	85	193	179
Mexico SBMM	189	199	232	179	167
Total	\$ 1,882	\$ 1,122	\$ 1,553	\$ 3,046	\$ 2,024
Consumer non-accrual loans⁽¹⁾					
USPB	\$ 291	\$ 282	\$ 344	\$ 456	\$ 269
Wealth	288	259	336	494	174
Asia Consumer ⁽⁵⁾	22	30	209	296	267
Mexico Consumer	479	457	524	774	632
Legacy Holdings Assets (consumer)	235	289	413	602	638
Total	\$ 1,315	\$ 1,317	\$ 1,826	\$ 2,622	\$ 1,980
Total non-accrual loans	\$ 3,197	\$ 2,439	\$ 3,379	\$ 5,668	\$ 4,004

- (1) Corporate loans are placed on non-accrual status based on a review by Citigroup's risk officers. Corporate non-accrual loans may still be current on interest payments. With limited exceptions, the following practices are applied for consumer loans: consumer loans, excluding credit cards and mortgages, are placed on non-accrual status at 90 days past due and are charged off at 120 days past due; residential mortgage loans are placed on non-accrual status at 90 days past due and written down to net realizable value at 180 days past due. Consistent with industry conventions, Citigroup generally accrues interest on credit card loans until such loans are charged off, which typically occurs at 180 days contractual delinquency. As such, the non-accrual loan disclosures do not include credit card loans. The balances above represent non-accrual loans within *Corporate loans* and *Consumer loans* on the Consolidated Balance Sheet.
- (2) Approximately 50%, 50%, 56%, 64% and 44% of Citi's corporate non-accrual loans remain current on interest and principal payments at December 31, 2023, 2022, 2021, 2020 and 2019, respectively.
- (3) The December 31, 2023 total corporate non-accrual loans represented 0.63% of total corporate loans.
- (4) The increase at December 31, 2023 was primarily related to two commercial real estate loans.
- (5) Asia Consumer includes balances in Poland and Russia for all periods presented and in Bahrain for December 31, 2021, 2020 and 2019.

Modified Loans to Borrowers Experiencing Financial Difficulty

On January 1, 2023, Citi adopted ASU 2022-02, which eliminated the accounting and disclosure requirements for TDRs (see Note 1). See Note 15 for information on loan modifications during the year ended December 31, 2023.

The changes in Citigroup's non-accrual loans were as follows:

In millions of dollars	Year ended December 31, 2023			Year ended December 31, 2022		
	Corporate	Consumer	Total	Corporate	Consumer	Total
Non-accrual loans at beginning of year	\$ 1,122	\$ 1,317	\$ 2,439	\$ 1,553	\$ 1,826	\$ 3,379
Additions	2,103	1,702	3,805	2,123	1,374	3,497
Sales and transfers to HFS	(110)	(22)	(132)	(21)	(240)	(261)
Returned to performing	(141)	(315)	(456)	(378)	(408)	(786)
Paydowns/settlements	(819)	(476)	(1,295)	(1,814)	(585)	(2,399)
Charge-offs	(264)	(851)	(1,115)	(260)	(598)	(858)
Other	(9)	(40)	(49)	(81)	(52)	(133)
Ending balance	\$ 1,882	\$ 1,315	\$ 3,197	\$ 1,122	\$ 1,317	\$ 2,439

The table below summarizes Citigroup's other real estate owned (OREO) assets. OREO is recorded on the Consolidated Balance Sheet within *Other assets*. This represents the carrying value of all real estate property acquired by foreclosure or other legal proceedings when Citi has taken possession of the collateral:

In millions of dollars	December 31,					
	2023	2022	2021	2020	2019	
OREO						
North America	\$ 17	\$ 10	\$ 15	\$ 19	\$ 39	
International	19	5	12	24	22	
Total OREO	\$ 36	\$ 15	\$ 27	\$ 43	\$ 61	
Non-accrual assets						
Corporate non-accrual loans	\$ 1,882	\$ 1,122	\$ 1,553	\$ 3,046	\$ 2,024	
Consumer non-accrual loans	1,315	1,317	1,826	2,622	1,980	
Non-accrual loans (NAL)	\$ 3,197	\$ 2,439	\$ 3,379	\$ 5,668	\$ 4,004	
OREO	\$ 36	\$ 15	\$ 27	\$ 43	\$ 61	
Non-accrual assets (NAA)	\$ 3,233	\$ 2,454	\$ 3,406	\$ 5,711	\$ 4,065	
NAL as a percentage of total loans	0.46 %	0.37 %	0.51 %	0.84 %	0.52 %	
NAA as a percentage of total assets	0.13	0.10	0.15	0.25	0.21	
ACLL as a percentage of NAL ⁽¹⁾	568	696	487	440	319	

(1) The ACLL includes the allowance for Citi's credit card portfolios and purchased credit-deteriorated loans, while the non-accrual loans exclude credit card balances (with the exception of certain international portfolios) and, prior to 2020, include purchased credit-deteriorated loans as these continue to accrue interest until charge-off.

LIQUIDITY RISK

Overview

Adequate and diverse sources of funding and liquidity are essential to Citi's businesses. Funding and liquidity risks arise from several factors, many of which are mostly or entirely outside of Citi's control, such as disruptions in the financial markets, changes in key funding sources, credit spreads, changes in Citi's credit ratings and macroeconomic, geopolitical and other conditions. For additional information, see "Risk Factors—Liquidity Risks" above.

Citi's funding and liquidity management objectives are aimed at (i) funding its existing asset base, (ii) growing its core businesses, (iii) maintaining sufficient liquidity, structured appropriately, so that Citi can operate under a variety of adverse circumstances, including potential Company-specific and/or market liquidity events in varying durations and severity, and (iv) satisfying regulatory requirements, including, but not limited to, those related to resolution planning (see "Resolution Plan" and "Total Loss-Absorbing Capacity (TLAC)" below). Citigroup's primary liquidity objectives are established by entity, and in aggregate, across two major categories:

- Citibank (including Citibank Europe plc, Citibank Singapore Ltd. and Citibank (Hong Kong) Ltd.); and
- Citi's non-bank and other entities, including the parent holding company (Citigroup Inc.), Citi's primary intermediate holding company (Citicorp LLC), Citi's broker-dealer subsidiaries (including Citigroup Global Markets Inc., Citigroup Global Markets Limited and Citigroup Global Markets Japan Inc.) and other bank and non-bank subsidiaries that are consolidated into Citigroup (including Citibanamex).

At an aggregate Citigroup level, Citi's goal is to maintain sufficient funding in amount and tenor to fully fund customer assets and to provide an appropriate amount of cash and high-quality liquid assets (as discussed below), even in times of stress, in order to meet its payment obligations as they come due. The liquidity risk management framework provides that, in addition to the aggregate requirements, certain entities be self-sufficient or net providers of liquidity, including in conditions established under their designated stress tests.

Citi's primary funding sources include (i) corporate and consumer deposits via Citi's bank subsidiaries, including Citibank, N.A. (Citibank), (ii) long-term debt (primarily senior and subordinated debt) mainly issued by Citigroup Inc., as the parent, and Citibank, and (iii) stockholders' equity. These sources may be supplemented by short-term borrowings, primarily in the form of secured funding transactions.

Citi's funding and liquidity framework, working in concert with overall asset/liability management, helps ensure that there is sufficient liquidity and tenor in the overall liability structure (including funding products) of the Company relative to the liquidity requirements of Citi's assets. This reduces the

risk that liabilities will become due before assets mature or are monetized. The Company holds excess liquidity, primarily in the form of high-quality liquid assets (HQLA), as presented in the table below.

Citi's liquidity is managed centrally by Corporate Treasury, in conjunction with regional and in-country treasurers with oversight provided by Independent Risk Management and various Asset & Liability Committees (ALCOs) at the individual entity, region, country and business levels. Pursuant to this approach, Citi's HQLA are managed with emphasis on asset/liability management and entity-level liquidity adequacy throughout Citi.

Citi's CRO and CFO co-chair Citigroup's ALCO, which includes Citi's Treasurer and other senior executives. The ALCO sets the strategy of the liquidity portfolio and monitors portfolio performance (see "Risk Governance—Board and Executive Management Committees" above). Significant changes to portfolio asset allocations are approved by the ALCO. Citi also has other ALCOs, which are established at various organizational levels to ensure appropriate oversight for individual entities, countries, franchise businesses and regions, serving as the primary governance committees for managing Citi's balance sheet and liquidity.

As a supplement to ALCO, Citi's Funding and Liquidity Risk Committee (FLRC) is focused on funding and liquidity risk matters. The FLRC reviews and discusses the funding and liquidity risk profile of, as well as risk management practices for, Citigroup and Citibank and reports its findings and recommendations to each relevant ALCO as appropriate.

Liquidity Monitoring and Measurement

Stress Testing

Liquidity stress testing is performed for each of Citi's major entities, operating subsidiaries and countries. Stress testing and scenario analyses are intended to quantify the potential impact of an adverse liquidity event on the balance sheet and liquidity position, in order to have sufficient liquidity on hand to manage through such an event. These scenarios include assumptions about significant changes in key funding sources, market triggers (such as credit ratings), potential uses of funding and macroeconomic, geopolitical and other conditions. These conditions include expected and stressed market conditions as well as Company-specific events.

Liquidity stress tests are performed to ascertain potential mismatches between liquidity sources and uses over a variety of time horizons and over different stressed conditions. To monitor the liquidity of an entity, these stress tests and potential mismatches are calculated on a daily basis.

Given the range of potential stresses, Citi maintains contingency funding plans on a consolidated basis and for individual entities. These plans specify a wide range of readily available actions for a variety of adverse market conditions or idiosyncratic stresses.

High-Quality Liquid Assets (HQLA)

In billions of dollars	Citibank			Citi non-bank and other entities			Total		
	Dec. 31, 2023	Sept. 30, 2023	Dec. 31, 2022	Dec. 31, 2023	Sept. 30, 2023	Dec. 31, 2022	Dec. 31, 2023	Sept. 30, 2023	Dec. 31, 2022
Available cash	\$ 200.6	\$ 203.1	\$ 241.2	\$ 5.6	\$ 5.4	\$ 4.3	\$ 206.2	\$ 208.5	\$ 245.5
U.S. sovereign	131.6	134.2	130.0	74.3	79.3	68.7	205.9	213.5	198.7
U.S. agency/agency MBS	51.0	48.5	46.3	3.1	3.6	4.0	54.1	52.1	50.3
Foreign government debt ⁽¹⁾	76.0	74.3	59.1	18.0	19.9	19.4	94.0	94.2	78.5
Other investment grade	0.2	0.3	1.7	0.1	0.7	0.5	0.3	1.0	2.2
Total HQLA (AVG)	\$ 459.4	\$ 460.4	\$ 478.3	\$ 101.1	\$ 108.9	\$ 96.9	\$ 560.5	\$ 569.3	\$ 575.2

Note: The amounts in the table above are presented on an average basis. For securities, the amounts represent the liquidity value that potentially could be realized and, therefore, exclude any securities that are encumbered and incorporate any haircuts applicable under the U.S. LCR rule. The table above incorporates various restrictions that could limit the transferability of liquidity between legal entities, including Section 23A of the Federal Reserve Act.

- (1) Foreign government debt includes securities issued or guaranteed by foreign sovereigns, agencies and multilateral development banks. Foreign government debt securities are held largely to support local liquidity requirements and Citi's local franchises and principally include government bonds from Japan, Korea, Mexico, India and Hong Kong.

The table above includes average amounts of HQLA held at Citigroup's operating entities that are eligible for inclusion in the calculation of Citigroup's consolidated Liquidity Coverage ratio (LCR), pursuant to the U.S. LCR rules. These amounts include the HQLA needed to meet the minimum requirements at these entities as well as any amounts in excess of these minimums that are available to be transferred to other entities within Citigroup. Citigroup's average HQLA decreased quarter-over-quarter as of the fourth quarter of 2023, primarily driven by a reduction in average unsecured debt.

As of December 31, 2023, Citigroup had approximately \$965 billion of available liquidity resources to support client and business needs, including end-of-period HQLA (\$562 billion); additional unencumbered HQLA, including excess liquidity held at bank entities that is non-transferable to other entities within Citigroup (\$232 billion); and unused borrowing capacity from available assets not already accounted for within Citi's HQLA to support additional advances from the Federal Home Loan Bank (FHLB) and the Federal Reserve Bank discount window (\$171 billion).

Short-Term Liquidity Measurement: Liquidity Coverage Ratio (LCR)

In addition to internal 30-day liquidity stress testing performed for Citi's major entities, operating subsidiaries and countries, Citi also monitors its liquidity by reference to the LCR.

The LCR is calculated by dividing HQLA by estimated net outflows assuming a stressed 30-day period, with the net outflows determined by standardized stress outflow and inflow rates prescribed in the LCR rule. The outflows are partially offset by contractual inflows from assets maturing within 30 days. Similar to outflows, the inflows are calculated based on prescribed factors to various asset categories, such as retail loans as well as unsecured and secured wholesale lending. The minimum LCR requirement is 100%.

The table below details the components of Citi's LCR calculation and HQLA in excess of net outflows for the periods indicated:

In billions of dollars	Dec. 31, 2023	Sept. 30, 2023	Dec. 31, 2022
HQLA	\$ 560.5	\$ 569.3	\$ 575.2
Net outflows	482.7	485.3	489.0
LCR	116 %	117 %	118 %
HQLA in excess of net outflows	\$ 77.8	\$ 84.0	\$ 86.2

Note: The amounts are presented on an average basis.

As of December 31, 2023, Citigroup's average LCR decreased from the quarter ended September 30, 2023. The decrease was primarily driven by the reduction in average HQLA.

In addition, considering Citi's total available liquidity resources at quarter end of \$965 billion, Citi maintained approximately \$482 billion of excess liquidity above the stressed average net outflow of approximately \$483 billion, shown in the LCR table above.

Long-Term Liquidity Measurement: Net Stable Funding Ratio (NSFR)

As previously disclosed, the U.S. banking agencies adopted a rule to assess the availability of a bank's stable funding against a required level.

In general, a bank's available stable funding includes portions of equity, deposits and long-term debt, while its required stable funding will be based on the liquidity characteristics of its assets, derivatives and commitments. Standardized weightings are required to be applied to the various asset and liability classes. The ratio of available stable funding to required stable funding is required to be greater than 100%.

For the quarter ended December 31, 2023, Citigroup's consolidated NSFR was compliant with the rule. Refer to Citi's U.S. NSFR Disclosure report covering December 31, 2023 and September 30, 2023 on its website for additional information.

Select Balance Sheet Items

This section provides details of select liquidity-related assets and liabilities reported on Citigroup's Consolidated Balance Sheet on an average and end-of-period basis.

Cash and Investments

The table below details average and end-of-period *Cash and due from banks*, *Deposits with banks* (collectively cash) and *Investment securities*. Citi's investment portfolio consists largely of highly liquid U.S. Treasury, U.S. agency and other sovereign bonds, with an aggregate duration of less than three years. At December 31, 2023, Citi's EOP cash and *Investment securities* comprised approximately 32% of Citigroup's total assets:

<i>In billions of dollars</i>	4Q23	3Q23	4Q22
Cash and due from banks	\$ 27	\$ 27	\$ 30
Deposits with banks	252	260	306
Investment securities	516	509	519
Total Citigroup cash and investment securities (AVG)	\$ 795	\$ 796	\$ 855
Total Citigroup cash and investment securities (EOP)	\$ 780	\$ 763	\$ 869

Deposits

The table below details the average deposits, by business and/or segment, and the total Citigroup end-of-period deposits for each of the periods indicated:

<i>In billions of dollars</i>	4Q23	3Q23	4Q22
Services	\$ 802	\$ 796	\$ 825
TTS	680	676	694
Securities Services	122	120	131
Markets and Banking	24	25	23
USPB	105	110	111
Wealth	312	311	320
All Other—Legacy Franchises	49	52	50
All Other—Corporate/Other	28	21	32
Total Citigroup deposits (AVG)	\$ 1,320	\$ 1,315	\$ 1,361
Total Citigroup deposits (EOP)	\$ 1,309	\$ 1,274	\$ 1,366

End-of-period deposits decreased 4% year-over-year, largely due to a reduction in *Services* reflecting quantitative tightening, and a reduction in *USPB* and *Wealth* reflecting a shift of deposits to higher-yielding products. End-of-period deposits increased 3% sequentially.

On an average basis, deposits declined 3% year-over-year and were largely unchanged sequentially.

As of the fourth quarter of 2023, average deposits for:

- *Services* decreased 3% year-over-year, while TTS and Securities Services decreased 2% and 7%, respectively. These declines reflected the impact of quantitative tightening that more than offset deposits from new client acquisitions and deepening of relationships with existing clients.
- *USPB* decreased 5% year-over-year, driven by the transfer of relationships and the associated deposits to *Wealth*.
- *Wealth* decreased 3% year-over-year, reflecting the continued mix shift of deposits to higher-yielding investments on Citi's platform, partially offset by the benefits of the transfer of certain relationships and the associated deposit balances from *USPB*.

Long-Term Debt

Long-term debt (generally defined as debt with original maturities of one year or more) represents the most significant component of Citi's funding for the Citigroup parent company and Citi's non-bank subsidiaries and is a supplementary source of funding for the bank entities.

Weighted-Average Maturity (WAM)

The following table presents Citigroup and its affiliates' (including Citibank) WAM of unsecured long-term debt issued with a remaining life greater than one year:

<i>WAM in years</i>	Dec. 31, 2023	Sept. 30, 2023	Dec. 31, 2022
Unsecured debt	7.5	7.4	7.6
Non-bank benchmark debt	7.0	7.1	7.4
Customer-related debt	8.6	8.2	8.1
TLAC-eligible debt	8.6	8.7	9.0

The WAM is calculated based on the contractual maturity of each security. For securities that are redeemable prior to maturity where the option is not held by the issuer, the WAM is calculated based on the earliest date an option becomes exercisable.

Long-Term Debt Outstanding

The following table presents Citi's end-of-period total long-term debt outstanding for each of the dates indicated:

<i>In billions of dollars</i>	Dec. 31, 2023	Sept. 30, 2023	Dec. 31, 2022
Non-bank⁽¹⁾			
Benchmark debt:			
Senior debt	\$ 110.3	\$ 110.3	\$ 117.5
Subordinated debt	24.9	24.5	22.5
Trust preferred	1.6	1.6	1.6
Customer-related debt	110.1	106.4	101.1
Local country and other ⁽²⁾	8.0	8.5	7.8
Total non-bank	\$ 254.9	\$ 251.3	\$ 250.5
Bank			
FHLB borrowings	\$ 11.5	\$ 8.5	\$ 7.3
Securizations ⁽³⁾	6.7	5.2	7.6
Citibank benchmark senior debt	10.1	7.6	2.6
Local country and other ⁽²⁾	3.4	3.2	3.6
Total bank	\$ 31.7	\$ 24.5	\$ 21.1
Total long-term debt	\$ 286.6	\$ 275.8	\$ 271.6

Note: Amounts represent the current value of long-term debt on Citi's Consolidated Balance Sheet that, for certain debt instruments, includes consideration of fair value, hedging impacts and unamortized discounts and premiums.

- (1) Non-bank includes long-term debt issued to third parties by the parent holding company (Citigroup) and Citi's non-bank subsidiaries (including broker-dealer subsidiaries) that are consolidated into Citigroup. As of December 31, 2023, non-bank included \$92.6 billion of long-term debt issued by Citi's broker-dealer and other subsidiaries that are consolidated into Citigroup. Certain Citigroup consolidated hedging activities are also included in this line.
- (2) Local country and other includes debt issued by Citi's affiliates in support of their local operations. Within non-bank, certain secured financing is also included.
- (3) Predominantly credit card securitizations, primarily backed by Branded Cards receivables.

Citi's total long-term debt outstanding increased 6% year-over-year, largely driven by issuance of customer-related debt at the non-bank entities, as well as increased senior benchmark debt and FHLB borrowings at the bank. The increase was partially offset by a decline in senior benchmark debt at the non-bank entities. Sequentially, long-term debt outstanding also increased 4%, largely driven by an increase in customer-related debt at the non-bank entities and increased FHLB borrowings and benchmark senior debt at the bank.

As part of its liability management, Citi has considered, and may continue to consider, opportunities to redeem or repurchase its long-term debt pursuant to open market purchases, tender offers or other means. Such redemptions and repurchases help reduce Citi's overall funding costs. During 2023, Citi redeemed or repurchased an aggregate of approximately \$32.0 billion of its outstanding long-term debt.

Long-Term Debt Issuances and Maturities

The table below details Citi's long-term debt issuances and maturities (including repurchases and redemptions) during the periods presented:

In billions of dollars	2023		2022		2021	
	Maturities	Issuances	Maturities	Issuances	Maturities	Issuances
Non-bank						
Benchmark debt:						
Senior debt	\$ 10.2	\$ —	\$ 15.4	\$ 27.3	\$ 17.6	\$ 15.4
Subordinated debt	1.3	3.2	0.9	—	—	—
Trust preferred	—	—	0.1	—	—	—
Customer-related debt	42.1	40.1	27.0	65.1	31.2	48.7
Local country and other	3.1	3.9	2.8	3.5	3.3	3.6
Total non-bank	\$ 56.7	\$ 47.2	\$ 46.2	\$ 95.9	\$ 52.1	\$ 67.7
Bank						
FHLB borrowings	\$ 4.3	\$ 8.5	\$ 5.3	\$ 7.3	\$ 5.7	\$ —
Securitizations	2.4	1.5	2.1	0.2	6.1	—
Citibank benchmark senior debt	—	7.5	0.9	—	9.8	—
Local country and other	1.6	1.1	2.6	1.3	1.2	2.9
Total bank	\$ 8.3	\$ 18.6	\$ 10.9	\$ 8.8	\$ 22.8	\$ 2.9
Total	\$ 65.0	\$ 65.8	\$ 57.1	\$ 104.7	\$ 74.9	\$ 70.6

The table below details Citi's aggregate long-term debt maturities (including repurchases and redemptions) in 2023, as well as its aggregate expected remaining long-term debt maturities by year as of December 31, 2023:

In billions of dollars	Maturities								Total	
	2023	2024	2025	2026	2027	2028	Thereafter			
Non-bank										
Benchmark debt:										
Senior debt	\$ 10.2	\$ 5.5	\$ 12.0	\$ 24.2	\$ 7.1	\$ 15.2	\$ 46.3	\$ 110.3		
Subordinated debt	1.3	1.0	5.0	2.4	3.7	2.0	10.8	24.9		
Trust preferred	—	—	—	—	—	—	1.6	1.6		
Customer-related debt	42.1	26.2	17.2	10.0	9.6	8.2	38.9	110.1		
Local country and other	3.1	1.3	1.8	0.6	0.1	1.0	3.2	8.0		
Total non-bank	\$ 56.7	\$ 34.0	\$ 36.0	\$ 37.2	\$ 20.5	\$ 26.4	\$ 100.8	\$ 254.9		
Bank										
FHLB borrowings	\$ 4.3	\$ 7.0	\$ 4.5	\$ —	\$ —	\$ —	\$ —	\$ 11.5		
Securitizations	2.4	1.1	3.1	—	0.8	1.0	0.7	6.7		
Citibank benchmark senior debt	—	2.6	2.5	2.5	—	2.5	—	10.1		
Local country and other	1.6	1.1	0.3	0.7	—	0.2	1.1	3.4		
Total bank	\$ 8.3	\$ 11.8	\$ 10.4	\$ 3.2	\$ 0.8	\$ 3.7	\$ 1.8	\$ 31.7		
Total long-term debt	\$ 65.0	\$ 45.8	\$ 46.4	\$ 40.4	\$ 21.3	\$ 30.1	\$ 102.6	\$ 286.6		

Resolution Plan

Citigroup is required under Title I of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act) and the rules promulgated by the FDIC and Federal Reserve Board (FRB) to periodically submit a plan for Citi's rapid and orderly resolution under the U.S. Bankruptcy Code in the event of material financial distress or failure. Citigroup will alternate between submitting a full resolution plan and a targeted resolution plan on a biennial cycle.

Under Citi's preferred "single point of entry" resolution plan strategy, only Citigroup, the parent holding company, would enter into bankruptcy, while Citigroup's material legal entities (as defined in the public section of its 2023 resolution plan, which can be found on the FRB's and FDIC's websites) would remain operational outside of any resolution or insolvency proceedings. Citigroup's resolution plan has been designed to minimize the risk of systemic impact to the U.S. and global financial systems, while maximizing the value of the bankruptcy estate for the benefit of Citigroup's creditors, including its unsecured long-term debt holders.

In addition, in line with the FRB's total loss-absorbing capacity (TLAC) rule, Citigroup's shareholders and unsecured creditors—including its unsecured long-term debt holders—bear any losses resulting from Citigroup's bankruptcy. Accordingly, any value realized by holders of its unsecured long-term debt may not be sufficient to repay the amounts owed to such debt holders in the event of a bankruptcy or other resolution proceeding of Citigroup.

The FDIC has also indicated that it was developing a single point of entry strategy to implement the Orderly Liquidation Authority under Title II of the Dodd-Frank Act, which provides the FDIC with the ability to resolve a firm when it is determined that bankruptcy would have serious adverse effects on financial stability in the U.S.

As previously disclosed, in response to feedback received from the FRB and FDIC, Citigroup took the following actions:

- (i) Citicorp LLC (Citicorp), an existing wholly owned subsidiary of Citigroup, was established as an intermediate holding company (an IHC) for certain of Citigroup's operating material legal entities;
- (ii) Citigroup executed an inter-affiliate agreement with Citicorp, Citigroup's operating material legal entities and certain other affiliated entities pursuant to which Citicorp is required to provide liquidity and capital support to Citigroup's operating material legal entities in the event that Citigroup were to enter bankruptcy proceedings (Citi Support Agreement);
- (iii) pursuant to the Citi Support Agreement:
 - Citigroup made an initial contribution of assets, including certain high-quality liquid assets and inter-affiliate loans (Contributable Assets), to Citicorp, and Citicorp became the business-as-usual funding vehicle for Citigroup's operating material legal entities;
 - Citigroup will be obligated to continue to transfer Contributable Assets to Citicorp over time, subject to certain amounts retained by Citigroup to, among other things, meet Citigroup's near-term cash needs;
 - in the event of a Citigroup bankruptcy, Citigroup will be required to contribute most of its remaining assets to Citicorp; and
- (iv) the obligations of both Citigroup and Citicorp under the Citi Support Agreement, as well as the Contributable Assets, are secured pursuant to a security agreement.

Total Loss-Absorbing Capacity (TLAC)

U.S. GSIBs are required to maintain minimum levels of TLAC and eligible LTD, each set by reference to the GSIB's consolidated risk-weighted assets (RWA) and total leverage exposure. The intended purpose of the requirements is to facilitate the orderly resolution of U.S. GSIBs under the U.S. Bankruptcy Code and Title II of the Dodd-Frank Act. For additional information, including Citi's TLAC and LTD amounts and ratios, see "Capital Resources—Current Regulatory Capital Standards" above.

SECURED FUNDING TRANSACTIONS AND SHORT-TERM BORROWINGS

Citi supplements its primary sources of funding with short-term financings that generally include (i) secured funding transactions consisting of securities loaned or sold under agreements to repurchase, i.e., repos, and (ii) to a lesser extent, short-term borrowings consisting of commercial paper and borrowings from the FHLB and other market participants.

Secured Funding Transactions

Secured funding is primarily accessed through Citi's broker-dealer subsidiaries, with a smaller portion executed through Citi's bank entities to efficiently fund both (i) secured lending activity and (ii) a portion of the securities inventory held in the context of market making and customer activities. Secured funding transactions are predominantly collateralized by government debt securities. Generally, changes in the level of Citi's secured funding are primarily due to fluctuations in secured lending activity in the matched book (as described below) and changes in securities inventory. In order to maintain reliable funding under a wide range of market conditions, Citi manages risks related to its secured funding by establishing secured funding limits and conducting daily stress tests that account for risks related to capacity, tenor, haircut, collateral type, counterparty and client actions.

Secured funding of \$269 billion as of December 31, 2023 increased 33% year-over-year and 5% sequentially, largely driven by additional financing to support increases in trading-related assets within Citi's broker-dealer subsidiaries. As of the quarter ended December 31, 2023, on an average basis, secured funding was \$288 billion. The portion of secured funding in the broker-dealer subsidiaries that funds secured lending is commonly referred to as "matched book" activity and is primarily secured by high-quality liquid securities such as U.S. Treasury securities, U.S. agency securities and foreign government debt securities. Other "matched book" activity is secured by less liquid securities, including equity securities, corporate bonds and asset-backed securities, the tenor of which is generally equal to or longer than the tenor of the corresponding assets. As indicated above, the remaining portion of secured funding is used to fund securities inventory held in the context of market making and customer activities.

Short-Term Borrowings

Citi's short-term borrowings of \$37 billion as of the fourth quarter of 2023 decreased 20% year-over-year, reflecting lower commercial paper issuances at the broker-dealer subsidiaries, as Citi continues to diversify its funding profile, and decreased 1% sequentially, driven by normal business activity (see Note 18 for further information on Citigroup's and its affiliates' outstanding short-term borrowings).

CREDIT RATINGS

Citigroup's funding and liquidity, funding capacity, ability to access capital markets and other sources of funds, the cost of these funds and its ability to maintain certain deposits are partially dependent on its credit ratings.

The table below presents the ratings for Citigroup and Citibank as of December 31, 2023. While not included in the table below, the long-term and short-term ratings of Citigroup Global Markets Holding Inc. (CGMHI) were A+/F1 at Fitch Ratings, A2/P-1 at Moody's Investors Service and A/A-1 at S&P Global Ratings as of December 31, 2023.

Ratings as of December 31, 2023

	Citigroup Inc.			Citibank, N.A.		
	Long-term	Short-term	Outlook	Long-term	Short-term	Outlook
Fitch Ratings (Fitch)	A	F1	Stable	A+	F1	Stable
Moody's Investors Service (Moody's)	A3	P-2	Stable	Aa3	P-1	Stable
S&P Global Ratings (S&P)	BBB+	A-2	Stable	A+	A-1	Stable

Potential Impacts of Ratings Downgrades

Ratings downgrades by Fitch, Moody's or S&P could negatively impact Citigroup's and/or Citibank's funding and liquidity due to reduced funding capacity, including derivative triggers, which could take the form of cash obligations and collateral requirements.

The following information is provided for the purpose of analyzing the potential funding and liquidity impact to Citigroup and Citibank of a hypothetical simultaneous ratings downgrade across all three major rating agencies. This analysis is subject to certain estimates, estimation methodologies, judgments and uncertainties. Uncertainties include potential ratings limitations that certain entities may have with respect to permissible counterparties, as well as general subjective counterparty behavior. For example, certain corporate customers and markets counterparties could re-evaluate their business relationships with Citi and limit transactions in certain contracts or market instruments with Citi. Changes in counterparty behavior could impact Citi's funding and liquidity, as well as the results of operations of certain of its businesses. The actual impact to Citigroup or Citibank is unpredictable and may differ materially from the potential funding and liquidity impacts described below. For additional information on the impact of credit rating changes on Citi and its applicable subsidiaries, see "Risk Factors—Liquidity Risks" above.

Citigroup Inc. and Citibank—Potential Derivative Triggers

As of December 31, 2023, Citi estimates that a hypothetical one-notch downgrade of the senior debt/long-term rating of Citigroup Inc. across all three major rating agencies could impact Citigroup's funding and liquidity due to derivative triggers by approximately \$0.2 billion, compared to \$0.3 billion as of September 30, 2023. Other funding sources, such as secured financing transactions and other margin requirements, for which there are no explicit triggers, could also be adversely affected.

As of December 31, 2023, Citi estimates that a hypothetical one-notch downgrade of the senior debt/long-term rating of Citibank across all three major rating agencies could impact Citibank's funding and liquidity due to derivative triggers by approximately \$0.3 billion, compared to \$0.4 billion as of September 30, 2023. Other funding sources, such as secured financing transactions and other margin requirements, for which there are no explicit triggers, could also be adversely affected.

In total, as of December 31, 2023, Citi estimates that a one-notch downgrade of Citigroup Inc. and Citibank across all three major rating agencies could result in increased aggregate cash obligations and collateral requirements of approximately \$0.5 billion, compared to \$0.7 billion as of September 30, 2023 (see also Note 20). As detailed under "High-Quality Liquid Assets (HQLA)" above, Citigroup has various liquidity resources available to its bank and non-bank entities in part as a contingency for the potential events described above.

In addition, a broad range of mitigating actions are currently included in Citigroup's and Citibank's contingency funding plans. For Citigroup, these mitigating factors include, but are not limited to, accessing surplus funding capacity from existing clients, tailoring levels of secured lending and adjusting the size of select trading books and collateralized borrowings at certain Citibank subsidiaries. Mitigating actions available to Citibank include, but are not limited to, selling or financing highly liquid government securities, tailoring levels of secured lending, adjusting the size of select trading assets, reducing loan originations and renewals, raising additional deposits or borrowing from the FHLB or central banks. Citi believes these mitigating actions could substantially reduce the funding and liquidity risk, if any, of the potential downgrades described above.

Citibank—Additional Potential Impacts

In addition to the above derivative triggers, Citi believes that a potential downgrade of Citibank's senior debt/long-term rating across any of the three major rating agencies could also have an adverse impact on the commercial paper/short-term rating of Citibank. Citibank has provided liquidity commitments to consolidated asset-backed commercial paper conduits, primarily in the form of asset purchase agreements. As of December 31, 2023, Citibank had liquidity commitments of approximately \$11.0 billion to consolidated asset-backed commercial paper conduits, unchanged from December 31, 2022 (see Note 23).

In addition to the above-referenced liquidity resources of certain Citibank entities, Citibank could reduce the funding and liquidity risk, if any, of the potential downgrades described above through mitigating actions, including repricing or reducing certain commitments to commercial paper conduits. In the event of the potential downgrades described above, Citi believes that certain corporate customers could re-evaluate their deposit relationships with Citibank. This re-evaluation could result in clients adjusting their discretionary deposit levels or changing their depository institution, which could potentially reduce certain deposit levels at Citibank. However, Citi could choose to adjust pricing, offer alternative deposit products to its existing customers or seek to attract deposits from new customers, in addition to the mitigating actions referenced above.

MARKET RISK

Overview

Market risk is the potential for losses arising from changes in the value of Citi's assets and liabilities resulting from changes in market variables such as interest rates, foreign exchange rates, equity prices, commodity prices and credit spreads, as well as their implied volatilities. Market risk arises from both Citi's trading and non-trading portfolios. For additional information on market risk and market risk management at Citi, see "Risk Factors" above.

Each business is required to establish, with approval from Citi's market risk management, a market risk limit framework for identified risk factors that clearly defines approved risk profiles and is within the parameters of Citi's overall risk appetite. These limits are monitored by the Risk organization, including various regional, legal entity and business Risk Management committees, Citi's country and business Asset & Liability Committees and the Citigroup Risk Management and Asset & Liability Committees. In all cases, the businesses are ultimately responsible for the market risks taken and for remaining within their defined limits.

MARKET RISK OF NON-TRADING PORTFOLIOS

Market risk from non-trading portfolios stems predominantly from the potential impact of changes in interest rates and foreign exchange rates on Citi's net interest income and on Citi's *Accumulated other comprehensive income (loss) (AOCI)* from its investment securities portfolios. Market risk from non-trading portfolios also includes the potential impact of changes in foreign exchange rates on Citi's capital invested in foreign currencies.

Banking Book Interest Rate Risk

For interest rate risk purposes, Citi's non-trading portfolios are referred to as the Banking Book. Management of interest rate risk in the Banking Book is governed by Citi's Non-Trading Market Risk Policy. Management's Asset & Liability Committee (ALCO) establishes Citi's risk appetite and related limits for interest rate risk in the Banking Book, which are subject to approval by Citigroup's Board of Directors. Corporate Treasury is responsible for the day-to-day management of Citi's Banking Book interest rate risk as well as periodically reviewing it with the ALCO. Citi's Banking Book interest rate risk management is also subject to independent oversight from the second line of defense team reporting to the Chief Risk Officer.

Changes in interest rates impact Citi's net income, *AOCI* and CET1. These changes primarily affect Citi's Banking Book through net interest income, due to a variety of risk factors, including:

- Differences in timing and amounts of the maturity or repricing of assets, liabilities and off-balance sheet instruments;
- Changes in the level and/or shape of interest rate curves;
- Client behavior in response to changes in interest rates (e.g., mortgage prepayments, deposit betas); and
- Changes in the maturity of instruments resulting from changes in the interest rate environment.

As part of their ongoing activities, Citi's businesses generate interest rate-sensitive positions from their client-facing products, such as loans and deposits. The component of this interest rate risk that can be hedged is transferred via Citi's funds transfer pricing process to Corporate Treasury.

Corporate Treasury uses various tools to manage the total interest rate risk position within the established risk appetite and target Citi's desired risk profile, including its investment securities portfolio, company-issued debt and interest rate derivatives.

In addition, Citi uses multiple metrics to measure its Banking Book interest rate risk. Interest Rate Exposure (IRE) is a key metric that analyzes the impact of a range of scenarios on Citi's Banking Book net interest income and certain other interest rate-sensitive income versus a base case. IRE does not represent a forecast of Citi's net interest income.

The scenarios, methodologies and assumptions used in this analysis are periodically evaluated and enhanced in response to changes in the market environment, changes in Citi's balance sheet composition, enhancements in Citi's modeling and other factors.

Since the third quarter of 2022, Citi has employed enhanced IRE methodologies and changes to certain assumptions. The changes included, among other things, assumptions around the projected balance sheet and revisions to the treatment of certain business contributions (notably accrual positions in the *Markets* businesses). These changes resulted in a higher impact to Citi's net interest income over a 12-month period.

Under the enhanced methodology, Citi utilizes the most recent quarter-end balance sheet, assuming no changes to its composition and size over the forecasted horizon (holding the balance sheet static). The forecasts incorporate expectations and assumptions of deposit pricing, loan spreads and mortgage prepayment behavior implied by the interest rate curves in each scenario. The base case scenario reflects the market-implied forward interest rates, and sensitivity scenarios assume instantaneous shocks to the base case. The forecasts do not assume Citi takes any risk-mitigating actions in response to changes in the interest rate environment. Certain interest rates are subject to flooring assumptions in downward rate scenarios. Deposit pricing sensitivities (i.e., deposit betas) are informed by historical and expected behavior. Actual deposit pricing could differ from the assumptions used in these forecasts.

Citi's IRE analysis primarily reflects the impacts from the following Banking Book assets and liabilities: loans, client deposits, Citi's deposits with other banks, investment securities, long-term debt, any related interest rate hedges and the funds transfer pricing of positions in total trading and credit portfolio value at risk (VAR). It excludes impacts from any positions that are included in total trading and credit portfolio VAR.

In addition to IRE, Citi analyzes economic value sensitivity (EVS) as a longer-term interest rate risk metric. EVS is a net present value (NPV)-based measure of the lifetime cash flows of Citi's Banking Book. It estimates the interest rate sensitivity of the Banking Book's economic value from longer-term assets being potentially funded with shorter-term liabilities, or vice versa. Citi manages EVS within risk

limits approved by Citigroup's Board of Directors that are aligned with Citi's risk appetite.

Interest Rate Risk of Investment Portfolios—Impact on *AOCI*

Citi also measures the potential impacts of changes in interest rates on the value of its *AOCI*, which can in turn impact Citi's common equity and tangible common equity. This will impact Citi's CET1 and other regulatory capital ratios. Citi seeks to manage its exposure to changes in the market level of interest rates, while limiting the potential impact on its *AOCI* and regulatory capital position.

AOCI at risk is managed as part of the Company-wide interest rate risk position. *AOCI* at risk considers potential changes in *AOCI* (and the corresponding impact on the CET1 Capital ratio) relative to Citi's capital generation capacity.

Citi uses 100 basis point (bps) shocks in each scenario to reflect its net interest income sensitivity to unanticipated changes in market interest rates, as potential monetary policy decisions and changes in economic conditions may be reflected in current market-implied forward rates. The following table presents the 12-month estimated impact to Citi's net interest income, *AOCI* and the CET1 Capital ratio, each assuming an unanticipated parallel instantaneous 100 bps increase in interest rates:

In millions of dollars, except as otherwise noted

	Dec. 31, 2023	Sept. 30, 2023	Dec. 31, 2022
Parallel interest rate shock +100 bps			
Interest rate exposure⁽¹⁾⁽²⁾			
U.S. dollar	\$ (33)	\$ 82	\$ 186
All other currencies	\$ 1,219	1,214	1,650
Total	\$ 1,186	1,296	1,836
As a percentage of average interest-earning assets	0.05 %	0.06 %	0.08 %
Estimated initial negative impact to <i>AOCI</i> (after-tax) ⁽²⁾	\$ (829)	\$ (807)	\$ (1,102)
Estimated initial impact on CET1 Capital ratio (bps) from <i>AOCI</i> scenario	(12)	(12)	(10)

(1) Excludes trading book and fair value option banking book portfolios and replaces them with the associated transfer pricing.

(2) Includes the effect of changes in interest rates on *AOCI* related to investment securities, cash flow hedges and pension liability adjustments.

The All other currencies of \$1,219 billion as of December 31, 2023 in the table above includes the impact from the following top six non-U.S. dollar currencies, which represents approximately 50% of the total non-U.S. dollar currency impact: approximately \$0.2 billion from the Japanese yen, and approximately \$0.1 billion each from the Indian rupee, Singapore dollar, Korean won, Swiss franc and Chinese yuan. These impacts per currency are generally in the same direction (estimated positive impact in the +100 bps shock scenario) and not offsetting.

Citi's balance sheet is asset sensitive (assets reprice faster than liabilities), resulting in higher net interest income in increasing interest rate scenarios. The estimated impact to Citi's net interest income in a 100 bps upward rate shock scenario as of December 31, 2023 decreased quarter-over-quarter and year-over-year, primarily reflecting the net impact of lower expected gains due to U.S. dollar interest rate moves that have already been realized and changes in Citi's balance sheet. At progressively higher interest rate levels, the marginal net interest income benefit is lower, as Citi assumes it will pass on a larger share of rate changes to depositors (i.e., higher betas), further reducing Citi's IRE sensitivity. Currency-specific interest rate changes and balance sheet factors may drive quarter-to-quarter volatility in Citi's estimated IRE.

In a 100 bps upward rate shock scenario, Citi expects that the approximate \$0.8 billion initial negative impact to *AOCI* could potentially be offset in shareholders' equity through the expected recovery of the impact on *AOCI* through accretion of Citi's investment portfolio and expected net interest income benefit over a period of approximately four months.

Scenario Analysis

The following table presents the estimated impact to Citi's net interest income, *AOCI* and CET1 Capital ratio (on a fully implemented basis) under six different scenarios of changes in interest rates for the U.S. dollar and all other currencies in which Citi has invested capital as of December 31, 2023. The 100 bps downward rate scenarios are impacted by the low level of interest rates in several countries and the assumption that market interest rates, as well as rates paid to depositors and charged to borrowers, do not fall below zero (i.e., the "flooring assumption"). The interest rate scenarios are also impacted by convexity related to mortgage products and deposit pricing.

<i>In millions of dollars, except as otherwise noted</i>	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
Overnight rate change (bps)	100	100	—	—	(100)	(100)
10-year rate change (bps)	100	—	100	(100)	—	(100)
Interest rate exposure						
U.S. dollar	\$ (33)	\$ (112)	\$ 109	\$ (79)	\$ (343)	\$ (448)
All other currencies ⁽¹⁾	1,219	1,039	183	(180)	(936)	(1,104)
Total	\$ 1,186	\$ 927	\$ 292	\$ (259)	\$ (1,279)	\$ (1,552)
Estimated initial impact to <i>AOCI</i> (after-tax) ⁽²⁾	\$ (829)	\$ (1,157)	\$ 296	\$ (592)	\$ 1,147	\$ 538
Estimated initial impact to CET1 Capital ratio (bps) from <i>AOCI</i> scenario	(12)	(10)	(3)	1	10	11

Note: Each scenario assumes that the rate change will occur instantaneously. Changes in interest rates for maturities between the overnight rate and the 10-year rate are interpolated. The interest rate exposure in the table above assumes no change in deposit size or mix from the baseline forecast included in the different interest scenarios presented. As a result, in higher interest rate scenarios, customer activity resulting in a shift from non-interest-bearing and low interest rate deposit products to higher-yielding deposits would reduce the expected benefit to net interest income. Conversely, in lower interest rate scenarios, customer activity resulting in a shift from higher-yielding deposits to non-interest-bearing and low interest rate deposit products would reduce the expected decrease to net interest income.

- (1) Scenario 1 includes the impact from the following top six non-U.S. dollar currencies, which represents approximately 50% of the total non-U.S. dollar currency impact: approximately \$0.2 billion from the Japanese yen, and approximately \$0.1 billion each from the Indian rupee, Singapore dollar, Korean won, Swiss franc and Chinese yuan. These impacts per currency are generally in the same direction (estimated positive impact in the +100 bps shock scenario) and not offsetting.
- (2) Includes the effect of changes in interest rates on *AOCI* related to investment securities, cash flow hedges and pension liability adjustments.

As presented in the table above, the estimated impact to Citi's net interest income is larger under Scenario 2 than Scenario 3, as Citi's Banking Book has relatively higher interest rate exposure to the short end of the yield curve. For U.S. dollars, exposure to downward rate shocks is larger in magnitude than to upward rate shocks. This is because of the lower benefit to net interest income from Citi's deposit base at higher rate levels, as well as the prepayment effects on mortgage loans and mortgage-backed securities. For other non-U.S. dollar currencies, exposure to downward rate shocks is smaller in magnitude as a result of Citi's flooring assumption, given low rate levels for certain non-U.S. dollar currencies.

The magnitude of the impact to *AOCI* is greater under Scenario 2 compared to Scenario 3. This is because the combination of changes to Citi's investment portfolio, partially offset by changes related to Citi's pension liabilities, results in a net position that is more sensitive to rates at shorter- and intermediate-term maturities.

Changes in Foreign Exchange Rates—Impacts on *AOCI* and Capital

As of December 31, 2023, Citi estimates that an unanticipated parallel instantaneous 5% appreciation of the U.S. dollar against all of the other currencies in which Citi has invested capital could reduce Citi's tangible common equity (TCE) by approximately \$1.7 billion, or 1.0%, as a result of changes to Citi's CTA in *AOCI*, net of hedges. This impact would be primarily due to changes in the value of the Mexican peso, Euro, Singapore dollar and Indian rupee.

This impact is also before any mitigating actions Citi may take, including ongoing management of its foreign currency translation exposure. Specifically, as currency movements change the value of Citi's net investments in foreign currency-denominated capital, these movements also change the value of Citi's risk-weighted assets denominated in those currencies.

This, coupled with Citi's foreign currency hedging strategies, such as foreign currency borrowings, foreign currency forwards and other currency hedging instruments, lessens the impact of foreign currency movements on Citi's CET1 Capital ratio. Changes in these hedging strategies, as well as hedging costs, divestitures and tax impacts, can further affect the actual impact of changes in foreign exchange rates on Citi's capital compared to an unanticipated parallel shock, as described above.

The effect of Citi's ongoing management strategies with respect to quarterly changes in foreign exchange rates, and the quarterly impact of these changes on Citi's TCE and CET1 Capital ratio, are presented in the table below. See Note 21 for additional information on the changes in *AOCI*.

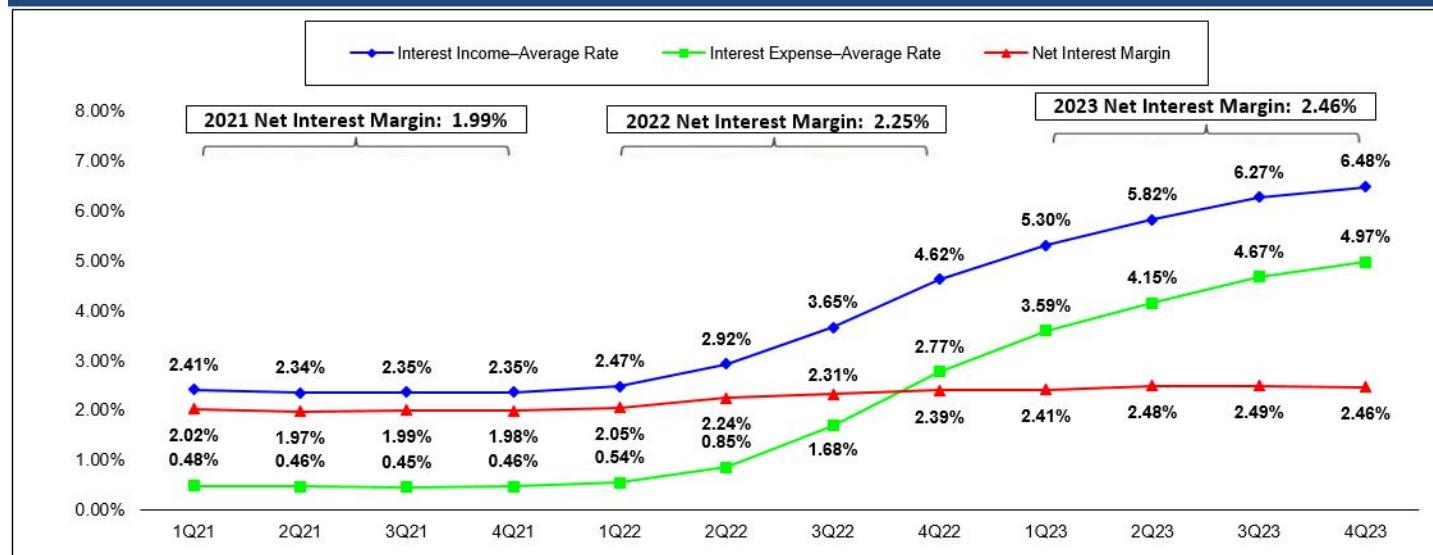
In millions of dollars, except as otherwise noted

	For the quarter ended		
	Dec. 31, 2023	Sept. 30, 2023	Dec. 31, 2022
Change in FX spot rate ⁽¹⁾	3.2 %	(2.5)%	4.0 %
Change in TCE due to FX translation, net of hedges	\$ 960	\$ (1,314)	\$ 1,193
As a percentage of TCE	0.6 %	(0.8)%	0.8 %
Estimated impact to CET1 Capital ratio (on a fully implemented basis) due to changes in FX translation, net of hedges (bps)	1	(1)	(3)

(1) FX spot rate change is a weighted average based on Citi's quarterly average GAAP capital exposure to foreign countries.

Interest Income/Expense and Net Interest Margin (NIM)

Average Rates—Interest Income, Interest Expense and Net Interest Margin



In millions of dollars, except as otherwise noted	2023	2022	2021	Change 2023 vs. 2022	Change 2022 vs. 2021
Interest income ⁽¹⁾	\$133,359	\$ 74,573	\$ 50,667	79 %	47 %
Interest expense ⁽²⁾	78,358	25,740	7,981	204	223
Net interest income, taxable equivalent basis ⁽¹⁾	\$ 55,001	\$ 48,833	\$ 42,686	13 %	14 %
Interest income—average rate ⁽³⁾	5.97 %	3.43 %	2.36 %	254 bps	107 bps
Interest expense—average rate	4.35	1.48	0.46	287 bps	102 bps
Net interest margin ⁽³⁾⁽⁴⁾	2.46	2.25	1.99	21 bps	26 bps
Interest rate benchmarks					
Two-year U.S. Treasury note—average rate	4.58 %	2.99 %	0.27 %	159 bps	272 bps
10-year U.S. Treasury note—average rate	3.96	2.95	1.45	101 bps	150 bps
10-year vs. two-year spread	(62) bps	(4) bps	118 bps		

(1) *Interest income* and *Net interest income* include the taxable equivalent adjustments primarily related to the tax-exempt bond portfolio and certain tax-advantaged loan programs of \$101 million, \$165 million and \$192 million for 2023, 2022 and 2021, respectively.

(2) Interest expense associated with certain hybrid financial instruments, which are classified as *Long-term debt* and accounted for at fair value, is reported together with any changes in fair value as part of *Principal transactions* in the Consolidated Statement of Income and is therefore not reflected in *Interest expense* in the table above.

(3) The average rate on interest income and net interest margin reflects the taxable equivalent gross-up adjustment. See footnote 1 above.

(4) Citi's NIM is calculated by dividing net interest income by average interest-earning assets.

Non-Markets Net Interest Income

In millions of dollars	2023	2022	2021
Net interest income—taxable equivalent basis ⁽¹⁾ per above	\$ 55,001	\$ 48,833	\$ 42,686
Markets net interest income—taxable equivalent basis ⁽¹⁾	7,267	5,828	6,153
Non-Markets net interest income—taxable equivalent basis ⁽¹⁾	\$ 47,734	\$ 43,005	\$ 36,533

(1) *Interest income* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.

Citi's net interest income in the fourth quarter of 2023 was \$13.8 billion, on both a reported and taxable equivalent basis, an increase of \$0.6 billion versus the prior year, primarily driven by *Markets* (up approximately \$0.4 billion) and non-*Markets* (up approximately \$0.1 billion). The increase in *Markets* net interest income was primarily driven by Fixed Income. The increase in non-*Markets* primarily reflected higher interest rates and growth in U.S. cards interest-earning balances, partially offset by a reduction from the exited markets and continued wind-downs in *All Other*—Legacy Franchises. Citi's net interest margin was 2.46% on a taxable equivalent basis in the fourth quarter of 2023, a decrease of three basis points from the prior quarter, largely driven by higher deposit costs, partially offset by higher *Markets* net interest margin.

Citi's net interest income for 2023 increased 13%, or approximately \$6.2 billion, to \$54.9 billion (\$55.0 billion on a taxable equivalent basis) versus the prior year. The increase was primarily due to an increase in non-*Markets* net interest income, largely reflecting higher interest rates and higher loan balances in *USPB*. In 2023, Citi's net interest margin increased to 2.46% on a taxable equivalent basis, compared to 2.25% in 2022, primarily driven by higher interest rates and a mix-shift in balances.

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Additional Interest Rate Details

Average Balances and Interest Rates—Assets⁽¹⁾⁽²⁾⁽³⁾

Taxable Equivalent Basis

In millions of dollars, except rates	Average balance			Interest income			% Average rate		
	2023	2022	2021	2023	2022	2021	2023	2022	2021
Assets									
Deposits with banks⁽⁴⁾	\$ 287,518	\$ 262,504	\$ 298,319	\$ 11,238	\$ 4,515	\$ 577	3.91 %	1.72 %	0.19 %
Securities borrowed and purchased under agreements to resell⁽⁵⁾									
In U.S. offices	\$ 171,307	\$ 188,672	\$ 172,716	\$ 13,194	\$ 3,933	\$ 385	7.70 %	2.08 %	0.22 %
In offices outside the U.S. ⁽⁴⁾	189,548	164,675	149,944	13,693	3,221	667	7.22	1.96	0.44
Total	\$ 360,855	\$ 353,347	\$ 322,660	\$ 26,887	\$ 7,154	\$ 1,052	7.45 %	2.02 %	0.33 %
Trading account assets⁽⁶⁾⁽⁷⁾									
In U.S. offices	\$ 187,318	\$ 142,146	\$ 140,215	\$ 8,808	\$ 4,005	\$ 2,653	4.70 %	2.82 %	1.89 %
In offices outside the U.S. ⁽⁴⁾	144,684	132,046	151,722	5,652	3,422	2,718	3.91	2.59	1.79
Total	\$ 332,002	\$ 274,192	\$ 291,937	\$ 14,460	\$ 7,427	\$ 5,371	4.36 %	2.71 %	1.84 %
Investments									
In U.S. offices									
Taxable	\$ 335,975	\$ 355,012	\$ 322,884	\$ 8,903	\$ 5,642	\$ 3,547	2.65 %	1.59 %	1.10 %
Exempt from U.S. income tax	11,502	11,742	12,296	454	424	437	3.95	3.61	3.55
In offices outside the U.S. ⁽⁴⁾	164,923	150,968	152,940	8,978	5,210	3,498	5.44	3.45	2.29
Total	\$ 512,400	\$ 517,722	\$ 488,120	\$ 18,335	\$ 11,276	\$ 7,482	3.58 %	2.18 %	1.53 %
Consumer loans⁽⁸⁾									
In U.S. offices	\$ 293,476	\$ 268,910	\$ 253,184	\$ 30,127	\$ 23,127	\$ 19,810	10.27 %	8.60 %	7.82 %
In offices outside the U.S. ⁽⁴⁾	78,420	86,497	121,794	6,737	5,264	6,598	8.59	6.09	5.42
Total	\$ 371,896	\$ 355,407	\$ 374,978	\$ 36,864	\$ 28,391	\$ 26,408	9.91 %	7.99 %	7.04 %
Corporate loans⁽⁸⁾									
In U.S. offices	\$ 136,065	\$ 139,906	\$ 132,957	\$ 7,561	\$ 5,417	\$ 4,213	5.56 %	3.87 %	3.17 %
In offices outside the U.S. ⁽⁴⁾	153,111	158,008	160,101	13,507	7,528	4,911	8.82	4.76	3.07
Total	\$ 289,176	\$ 297,914	\$ 293,058	\$ 21,068	\$ 12,945	\$ 9,124	7.29 %	4.35 %	3.11 %
Total loans⁽⁸⁾									
In U.S. offices	\$ 429,541	\$ 408,816	\$ 386,141	\$ 37,688	\$ 28,544	\$ 24,023	8.77 %	6.98 %	6.22 %
In offices outside the U.S. ⁽⁴⁾	231,531	244,505	281,895	20,244	12,792	11,509	8.74	5.23	4.08
Total	\$ 661,072	\$ 653,321	\$ 668,036	\$ 57,932	\$ 41,336	\$ 35,532	8.76 %	6.33 %	5.32 %
Other interest-earning assets⁽⁹⁾									
Total interest-earning assets	\$ 81,431	\$ 112,549	\$ 75,876	\$ 4,507	\$ 2,865	\$ 653	5.53 %	2.55 %	0.86 %
Non-interest-earning assets ⁽⁶⁾	\$ 2,235,278	\$ 2,173,635	\$ 2,144,948	\$ 133,359	\$ 74,573	\$ 50,667	5.97 %	3.43 %	2.36 %
Total assets	\$ 2,442,233	\$ 2,396,023	\$ 2,347,709						

- (1) *Interest income* and *Net interest income* include the taxable equivalent adjustments primarily related to the tax-exempt bond portfolio and certain tax-advantaged loan programs of \$101 million, \$165 million and \$192 million for 2023, 2022 and 2021, respectively.
- (2) Interest rates and amounts include the effects of risk management activities associated with the respective asset categories.
- (3) Monthly or quarterly averages have been used by certain subsidiaries where daily averages are unavailable.
- (4) Average rates reflect prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.
- (5) Average volumes of securities borrowed or purchased under agreements to resell are reported net pursuant to ASC 210-20-45. However, *Interest revenue* excludes the impact of ASC 210-20-45.
- (6) The fair value carrying amounts of derivative contracts are reported net, pursuant to ASC 815-10-45, in *Non-interest-earning assets* and *Other non-interest-bearing liabilities*.
- (7) *Interest expense* on *Trading account liabilities* of *Services*, *Markets* and *Banking* is reported as a reduction of *Interest income*. *Interest income* and *Interest expense* on cash collateral positions are reported in *Interest on Trading account assets* and *Trading account liabilities*, respectively.
- (8) Net of unearned income. Includes cash-basis loans.
- (9) Includes assets from businesses held-for-sale (see Note 2) and *Brokerage receivables*.

Average Balances and Interest Rates—Liabilities and Equity, and Net Interest Income⁽¹⁾⁽²⁾⁽³⁾

Taxable Equivalent Basis

In millions of dollars, except rates	Average balance			Interest expense			% Average rate		
	2023	2022	2021	2023	2022	2021	2023	2022	2021
Liabilities									
Deposits									
In U.S. offices ⁽⁴⁾	\$ 594,588	\$ 572,394	\$ 532,466	\$ 20,602	\$ 5,986	\$ 1,084	3.46 %	1.05 %	0.20 %
In offices outside the U.S. ⁽⁵⁾	536,749	516,329	557,207	15,698	5,573	1,812	2.92	1.08	0.33
Total	\$ 1,131,337	\$ 1,088,723	\$ 1,089,673	\$ 36,300	\$ 11,559	\$ 2,896	3.21 %	1.06 %	0.27 %
Securities loaned and sold under agreements to repurchase⁽⁶⁾									
In U.S. offices	\$ 168,319	\$ 112,771	\$ 136,955	\$ 13,152	\$ 2,816	\$ 676	7.81 %	2.50 %	0.49 %
In offices outside the U.S. ⁽⁵⁾	93,962	94,936	93,744	8,287	1,639	336	8.82	1.73	0.36
Total	\$ 262,281	\$ 207,707	\$ 230,699	\$ 21,439	\$ 4,455	\$ 1,012	8.17 %	2.14 %	0.44 %
Trading account liabilities⁽⁷⁾⁽⁸⁾									
In U.S. offices	\$ 47,394	\$ 52,166	\$ 47,871	\$ 1,806	\$ 697	\$ 109	3.81 %	1.34 %	0.23 %
In offices outside the U.S. ⁽⁵⁾	71,476	70,102	67,739	1,621	740	373	2.27	1.06	0.55
Total	\$ 118,870	\$ 122,268	\$ 115,610	\$ 3,427	\$ 1,437	\$ 482	2.88 %	1.18 %	0.42 %
Short-term borrowings and other interest-bearing liabilities⁽⁹⁾									
In U.S. offices	\$ 90,000	\$ 95,054	\$ 69,683	\$ 6,661	\$ 2,161	\$ (27)	7.40 %	2.27 %	(0.04) %
In offices outside the U.S. ⁽⁵⁾	36,061	55,133	26,133	777	327	148	2.15	0.59	0.57
Total	\$ 126,061	\$ 150,187	\$ 95,816	\$ 7,438	\$ 2,488	\$ 121	5.90 %	1.66 %	0.13 %
Long-term debt⁽¹⁰⁾									
In U.S. offices	\$ 161,650	\$ 166,063	\$ 186,522	\$ 9,544	\$ 5,625	\$ 3,384	5.90 %	3.39 %	1.81 %
In offices outside the U.S. ⁽⁵⁾	2,524	3,592	4,282	210	176	86	8.32	4.90	2.01
Total	\$ 164,174	\$ 169,655	\$ 190,804	\$ 9,754	\$ 5,801	\$ 3,470	5.94 %	3.42 %	1.82 %
Total interest-bearing liabilities	\$ 1,802,723	\$ 1,738,540	\$ 1,722,602	\$ 78,358	\$ 25,740	\$ 7,981	4.35 %	1.48 %	0.46 %
Demand deposits in U.S. offices	\$ 111,581	\$ 135,725	\$ 98,414						
Other non-interest-bearing liabilities ⁽⁷⁾	320,042	322,151	324,643						
Total liabilities	\$ 2,234,346	\$ 2,196,416	\$ 2,145,659						
Citigroup stockholders' equity	\$ 207,207	\$ 199,088	\$ 201,360						
Noncontrolling interests	680	519	690						
Total equity	\$ 207,887	\$ 199,607	\$ 202,050						
Total liabilities and stockholders' equity	\$ 2,442,233	\$ 2,396,023	\$ 2,347,709						
Net interest income as a percentage of average interest-earning assets⁽¹¹⁾									
In U.S. offices	\$ 1,314,455	\$ 1,272,222	\$ 1,244,182	\$ 27,222	\$ 28,802	\$ 26,404	2.07 %	2.26 %	2.12 %
In offices outside the U.S. ⁽⁶⁾	920,823	901,412	900,766	27,779	20,031	16,282	3.02	2.22	1.81
Total	\$ 2,235,278	\$ 2,173,634	\$ 2,144,948	\$ 55,001	\$ 48,833	\$ 42,686	2.46 %	2.25 %	1.99 %

(1) *Interest income* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.

(2) Interest rates and amounts include the effects of risk management activities associated with the respective liability categories.

(3) Monthly or quarterly averages have been used by certain subsidiaries where daily averages are unavailable.

(4) Consists of other time deposits and savings deposits. Savings deposits are made up of insured money market accounts, NOW accounts and other savings deposits.

(5) Average rates reflect prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.

(6) Average volumes of securities sold under agreements to repurchase are reported net pursuant to ASC 210-20-45. However, *Interest expense* excludes the impact of ASC 210-20-45.

(7) The fair value carrying amounts of derivative contracts are reported net, pursuant to ASC 815-10-45, in *Non-interest-earning assets* and *Other non-interest-bearing liabilities*.

(8) *Interest expense* on *Trading account liabilities* of *Services*, *Markets* and *Banking* is reported as a reduction of *Interest income*. *Interest income* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.

- (9) Includes *Brokerage payables*.
 (10) Excludes hybrid financial instruments and beneficial interests in consolidated VIEs that are classified as *Long-term debt*, as the changes in fair value for these obligations are recorded in *Principal transactions*.
 (11) Includes allocations for capital and funding costs based on the location of the asset.

Analysis of Changes in Interest Revenue⁽¹⁾⁽²⁾⁽³⁾

	2023 vs. 2022			2022 vs. 2021		
	Increase (decrease) due to change in:			Increase (decrease) due to change in:		
	Average balance	Average rate	Net change	Average balance	Average rate	Net change
<i>In millions of dollars</i>						
Deposits with banks⁽³⁾	\$ 468	\$ 6,255	\$ 6,723	\$ (77)	\$ 4,015	\$ 3,938
Securities borrowed and purchased under agreements to resell						
In U.S. offices	\$ (394)	\$ 9,655	\$ 9,261	\$ 39	\$ 3,509	\$ 3,548
In offices outside the U.S. ⁽³⁾	556	9,916	10,472	72	2,482	2,554
Total	\$ 162	\$ 19,571	\$ 19,733	\$ 111	\$ 5,991	\$ 6,102
Trading account assets⁽⁴⁾						
In U.S. offices	\$ 1,547	\$ 3,256	\$ 4,803	\$ 37	\$ 1,315	\$ 1,352
In offices outside the U.S. ⁽³⁾	354	1,876	2,230	(388)	1,092	704
Total	\$ 1,901	\$ 5,132	\$ 7,033	\$ (351)	\$ 2,407	\$ 2,056
Investments⁽¹⁾						
In U.S. offices	\$ (334)	\$ 3,625	\$ 3,291	\$ 404	\$ 1,678	\$ 2,082
In offices outside the U.S. ⁽³⁾	520	3,248	3,768	(46)	1,758	1,712
Total	\$ 186	\$ 6,873	\$ 7,059	\$ 358	\$ 3,436	\$ 3,794
Consumer loans (net of unearned income)⁽⁵⁾						
In U.S. offices	\$ 2,244	\$ 4,756	\$ 7,000	\$ 1,277	\$ 2,040	\$ 3,317
In offices outside the U.S. ⁽³⁾	(529)	2,002	1,473	(2,078)	744	(1,334)
Total	\$ 1,715	\$ 6,758	\$ 8,473	\$ (801)	\$ 2,784	\$ 1,983
Corporate loans (net of unearned income)⁽⁵⁾						
In U.S. offices	\$ (153)	\$ 2,297	\$ 2,144	\$ 230	\$ 974	\$ 1,204
In offices outside the U.S. ⁽³⁾	(240)	6,219	5,979	(65)	2,682	2,617
Total	\$ (393)	\$ 8,516	\$ 8,123	\$ 165	\$ 3,656	\$ 3,821
Loans (net of unearned income)⁽⁵⁾						
In U.S. offices	\$ 2,091	\$ 7,053	\$ 9,144	\$ 1,507	\$ 3,014	\$ 4,521
In offices outside the U.S. ⁽³⁾	(769)	8,221	7,452	(2,143)	3,426	1,283
Total	\$ 1,322	\$ 15,274	\$ 16,596	\$ (636)	\$ 6,440	\$ 5,804
Other interest-earning assets⁽⁶⁾						
Total interest income	\$ 3,070	\$ 55,716	\$ 58,786	\$ (157)	\$ 24,063	\$ 23,906

- (1) *Interest income* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.
 (2) Rate/volume variance is allocated based on the percentage relationship of changes in volume and changes in rate to the total net change.
 (3) Changes in average rates reflect changes in prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.
 (4) *Interest expense* on *Trading account liabilities* of *Services*, *Markets* and *Banking* is reported as a reduction of *Interest income*. *Interest income* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.
 (5) Includes cash-basis loans.
 (6) Includes *Brokerage receivables*.

Analysis of Changes in Interest Expense and Net Interest Income⁽¹⁾⁽²⁾⁽³⁾

In millions of dollars	2023 vs. 2022			2022 vs. 2021		
	Increase (decrease) due to change in:			Increase (decrease) due to change in:		
	Average balance	Average rate	Net change	Average balance	Average rate	Net change
Deposits						
In U.S. offices	\$ 241	\$ 14,375	\$ 14,616	\$ 87	\$ 4,815	\$ 4,902
In offices outside the U.S. ⁽³⁾	229	9,896	10,125	(142)	3,903	3,761
Total	\$ 470	\$ 24,271	\$ 24,741	\$ (55)	\$ 8,718	\$ 8,663
Securities loaned and sold under agreements to repurchase						
In U.S. offices	\$ 1,942	\$ 8,394	\$ 10,336	\$ (140)	\$ 2,280	\$ 2,140
In offices outside the U.S. ⁽³⁾	(17)	6,665	6,648	4	1,299	1,303
Total	\$ 1,925	\$ 15,059	\$ 16,984	\$ (136)	\$ 3,579	\$ 3,443
Trading account liabilities⁽⁴⁾						
In U.S. offices	\$ (69)	\$ 1,178	\$ 1,109	\$ 11	\$ 577	\$ 588
In offices outside the U.S. ⁽³⁾	15	866	881	13	354	367
Total	\$ (54)	\$ 2,044	\$ 1,990	\$ 24	\$ 931	\$ 955
Short-term borrowings and other interest-bearing liabilities⁽⁵⁾						
In U.S. offices	\$ (121)	\$ 4,621	\$ 4,500	\$ (6)	\$ 2,194	\$ 2,188
In offices outside the U.S. ⁽³⁾	(148)	598	450	172	7	179
Total	\$ (269)	\$ 5,219	\$ 4,950	\$ 166	\$ 2,201	\$ 2,367
Long-term debt						
In U.S. offices	\$ (153)	\$ 4,072	\$ 3,919	\$ (407)	\$ 2,648	\$ 2,241
In offices outside the U.S. ⁽³⁾	(63)	97	34	(16)	106	90
Total	\$ (216)	\$ 4,169	\$ 3,953	\$ (423)	\$ 2,754	\$ 2,331
Total interest expense	\$ 1,856	\$ 50,762	\$ 52,618	\$ (424)	\$ 18,183	\$ 17,759
Net interest income	\$ 1,215	\$ 4,953	\$ 6,168	\$ 267	\$ 5,880	\$ 6,147

(1) *Interest income* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.

(2) Rate/volume variance is allocated based on the percentage relationship of changes in volume and changes in rate to the total net change.

(3) Changes in average rates reflect changes in prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.

(4) *Interest expense* on *Trading account liabilities* of *Services*, *Markets* and *Banking* is reported as a reduction of *Interest income*. *Interest income* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.

(5) Includes *Brokerage payables*.

MARKET RISK OF TRADING PORTFOLIOS

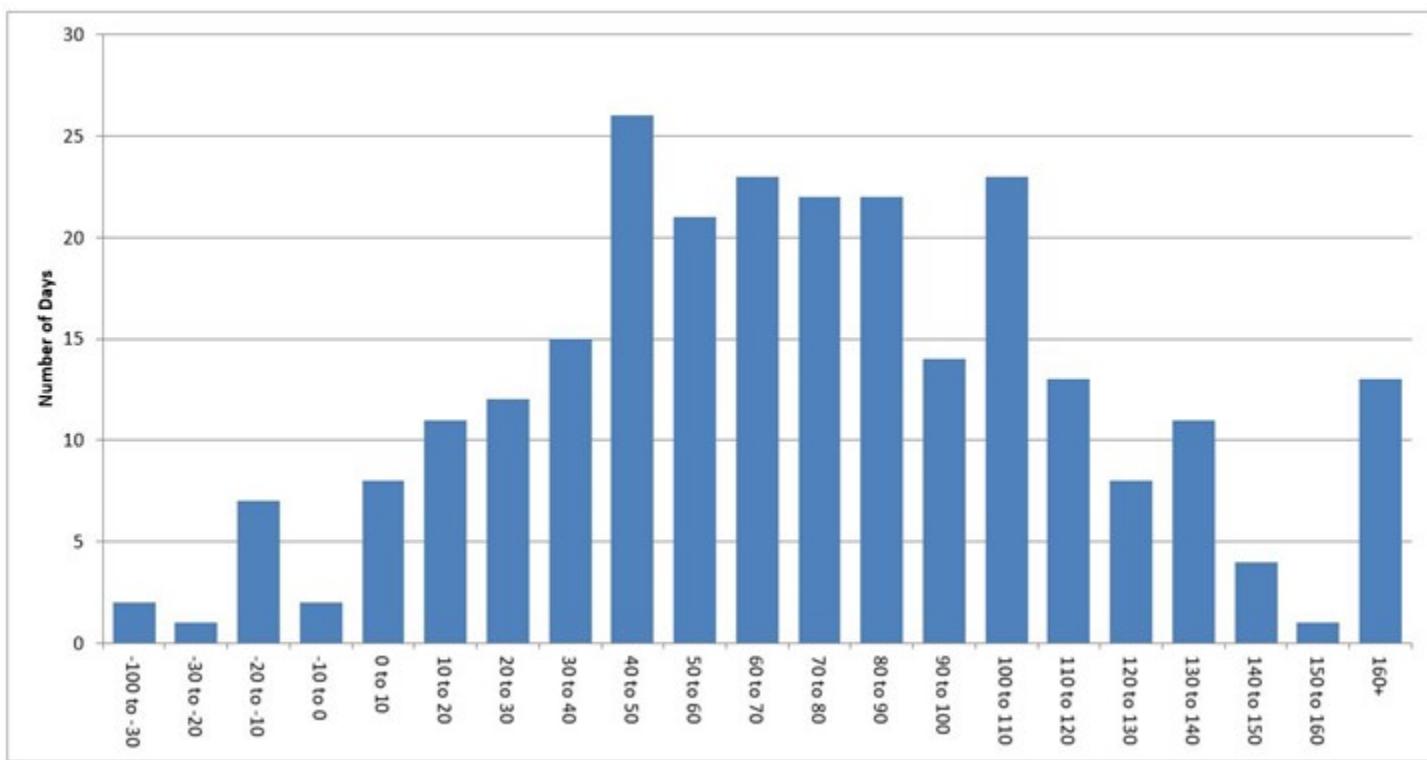
Trading portfolios include positions resulting from market-making activities, hedges of certain available-for-sale (AFS) debt securities, the CVA relating to derivative counterparties and all associated hedges, fair value option loans and hedges of the loan portfolio within capital markets origination.

The market risk of Citi's trading portfolios is monitored using a combination of quantitative and qualitative measures, including, but not limited to, factor sensitivities, value at risk (VAR) and stress testing. Each trading portfolio across Citi's businesses has its own market risk limit framework encompassing these measures and other controls, including trading mandates, new product approval, permitted product lists and pre-trade approval for larger, more complex and less liquid transactions. These controls enable the monitoring and management of Citi's top market risks.

The following chart of total daily trading-related revenue (loss) captures trading volatility and shows the number of days in which revenues for Citi's trading businesses fell within particular ranges. Trading-related revenue includes trading, net interest and other revenue associated with Citi's trading businesses. It excludes DVA, FVA and CVA adjustments incurred due to changes in the credit quality of counterparties, as well as any associated hedges of that CVA. In addition, it excludes fees and other revenue associated with capital markets origination activities. Trading-related revenues are driven by both customer flows and the changes in valuation of the trading inventory. As presented in the chart below, positive trading-related revenue was achieved for 94.6% of the trading days in 2023.

Daily Trading-Related Revenue (Loss)⁽¹⁾—12 Months Ended December 31, 2023

In millions of dollars



(1) Reflects the effects of asymmetrical accounting for economic hedges of certain AFS debt securities. Specifically, the change in the fair value of hedging derivatives is included in trading-related revenue, while the offsetting change in the fair value of hedged AFS debt securities is included in AOCI and not reflected above.

Factor Sensitivities

Factor sensitivities are expressed as the change in the value of a position for a defined change in a market risk factor, such as a change in the value of a U.S. Treasury Bond for a one-basis-point change in interest rates. Citi's Global Market Risk function, within the Independent Risk Management organization, works to ensure that factor sensitivities are calculated, monitored and limited for all material risks taken in the trading portfolios.

Value at Risk (VAR)

VAR estimates, at a 99% confidence level, the potential decline in the value of a position or a portfolio under normal market conditions assuming a one-day holding period. VAR statistics, which are based on historical data, can be materially different across firms due to differences in portfolio composition, VAR methodologies and model parameters. As a result, Citi believes VAR statistics can be used more effectively as indicators of trends in risk-taking within a firm, rather than as a basis for inferring differences in risk-taking across firms.

Citi uses a single, independently approved Monte Carlo simulation VAR model (see "VAR Model Review and Validation" below), which has been designed to capture

material risk sensitivities (such as first- and second-order sensitivities of positions to changes in market prices) of various asset classes/risk types (such as interest rate, credit spread, foreign exchange, equity and commodity risks). Citi's VAR includes positions that are measured at fair value; it does not include investment securities classified as AFS or HTM. See Note 14 for information on these securities.

Citi believes its VAR model is conservatively calibrated to incorporate fat-tail scaling and the greater of short-term (approximately the most recent month) and long-term (18 months for commodities and three years for others) market volatility. The Monte Carlo simulation involves approximately 550,000 market factors, making use of approximately 480,000 time series, with sensitivities updated daily, volatility parameters updated intra-monthly and correlation parameters updated monthly. The conservative features of the VAR calibration contribute an approximate 30% add-on to what would be a VAR estimated under the assumption of stable and perfectly, normally distributed markets.

As presented in the table below, Citi's average trading VAR increased \$12 million from 2022 to 2023, mainly due to increased market volatility. Citi's average trading and credit portfolio VAR decreased \$6 million from 2022 to 2023.

Year-end and Average Trading VAR and Trading and Credit Portfolio VAR

<i>In millions of dollars</i>	December 31, 2023	2023 Average	December 31, 2022	2022 Average
Interest rate	\$ 121	\$ 119	\$ 130	\$ 100
Credit spread	59	69	78	74
Covariance adjustment ⁽¹⁾	(47)	(50)	(45)	(49)
Fully diversified interest rate and credit spread ⁽²⁾	\$ 133	\$ 138	\$ 163	\$ 125
Foreign exchange	134	33	20	31
Equity	38	26	27	27
Commodity	19	31	32	41
Covariance adjustment ⁽¹⁾	(132)	(93)	(94)	(101)
Total trading VAR—all market risk factors, including general and specific risk (excluding credit portfolios)⁽²⁾	\$ 192	\$ 135	\$ 148	\$ 123
Specific risk-only component ⁽³⁾	\$ (6)	\$ (7)	\$ (4)	\$ (2)
Total trading VAR—general market risk factors only (excluding credit portfolios)	\$ 198	\$ 142	\$ 152	\$ 125
Incremental impact of the credit portfolio ⁽⁴⁾	\$ 10	\$ 13	\$ 30	\$ 31
Total trading and credit portfolio VAR	\$ 202	\$ 148	\$ 178	\$ 154

- (1) Covariance adjustment (also known as diversification benefit) equals the difference between the total VAR and the sum of the VARs tied to each risk type. The benefit reflects the fact that the risks within individual and across risk types are not perfectly correlated and, consequently, the total VAR on a given day will be lower than the sum of the VARs relating to each risk type. The determination of the primary drivers of changes to the covariance adjustment is made by an examination of the impact of both model parameter and position changes.
- (2) The total trading VAR includes mark-to-market and certain fair value option trading positions with the exception of hedges of the loan portfolio, fair value option loans and all CVA exposures. Available-for-sale and accrual exposures are not included.
- (3) The specific risk-only component represents the level of equity and fixed income issuer-specific risk embedded in VAR.
- (4) The credit portfolio is composed of mark-to-market positions associated with non-trading business units, the CVA relating to derivative counterparties, all associated CVA hedges and market sensitivity FVA hedges. FVA and DVA are not included. The credit portfolio also includes hedges of the loan portfolio, fair value option loans and hedges of the leveraged finance pipeline within capital markets origination.

The table below provides the range of market factor VARs associated with Citi's total trading VAR, inclusive of specific risk:

	2023		2022	
	Low	High	Low	High
<i>In millions of dollars</i>				
Interest rate	\$ 85	\$ 186	\$ 45	\$ 165
Credit spread	54	88	59	108
Fully diversified interest rate and credit spread	\$ 105	\$ 211	\$ 72	\$ 183
Foreign exchange	12	134	12	98
Equity	3	88	12	44
Commodity	17	47	27	104
Total trading	\$ 99	\$ 214	\$ 78	\$ 168
Total trading and credit portfolio	111	225	110	226

Note: No covariance adjustment can be inferred from the above table as the high and low for each market factor will be from different close-of-business dates.

The following table provides the VAR for *Markets*, excluding the CVA relating to derivative counterparties, hedges of CVA, fair value option loans and hedges to the loan portfolio:

<i>In millions of dollars</i>	Dec. 31, 2023
Total—all market risk factors, including general and specific risk	\$ 191
Average—during year	\$ 132
High—during year	211
Low—during year	96

VAR Model Review and Validation

Generally, Citi's VAR review and model validation process entails reviewing the model framework, major assumptions and implementation of the mathematical algorithm. In addition, product-specific back-testing on portfolios is periodically completed as part of the ongoing model performance monitoring process and reviewed with Citi's U.S. banking regulators. Furthermore, Regulatory VAR back-testing (as described below) is performed against buy-and-hold profit and loss on a monthly basis for multiple sub-portfolios across the organization (trading desk level and total Citigroup) and the results are shared with U.S. banking regulators.

Material VAR model and assumption changes must be independently validated within Citi's Independent Risk Management organization. All model changes, including those for the VAR model, are validated by the model validation group within Citi's Model Risk Management. In the event of significant model changes, parallel model runs are undertaken prior to implementation. In addition, significant model and assumption changes are subject to the periodic reviews and approval by Citi's U.S. banking regulators.

Citi uses the same independently validated VAR model for both Regulatory VAR and Risk Management VAR (i.e., total trading and total trading and credit portfolios VARs) and, as such, the model review and validation process for both purposes is as described above.

Regulatory VAR, which is calculated in accordance with Basel III, differs from Risk Management VAR because certain positions included in Risk Management VAR are not eligible

for market risk treatment in Regulatory VAR. The composition of Risk Management VAR is discussed under "Value at Risk" above. The applicability of the VAR model for positions eligible for market risk treatment under U.S. regulatory capital rules is periodically reviewed and approved by Citi's U.S. banking regulators.

In accordance with Basel III, Regulatory VAR includes all trading book-covered positions and all foreign exchange and commodity exposures. Pursuant to Basel III, Regulatory VAR excludes positions that fail to meet the intent and ability to trade requirements and are therefore classified as non-trading book and categories of exposures that are specifically excluded as covered positions. Regulatory VAR excludes CVA on derivative instruments and DVA on Citi's own fair value option liabilities. CVA hedges are excluded from Regulatory VAR and included in credit risk-weighted assets as computed under the Advanced Approaches for determining risk-weighted assets.

Regulatory VAR Back-Testing

In accordance with Basel III, Citi is required to perform back-testing to evaluate the effectiveness of its Regulatory VAR model. Regulatory VAR back-testing is the process in which the daily one-day VAR, at a 99% confidence interval, is compared to the buy-and-hold profit and loss (i.e., the profit and loss impact if the portfolio is held constant at the end of the day and re-priced the following day). Buy-and-hold profit and loss represents the daily mark-to-market profit and loss attributable to price movements in covered positions from the close of the previous business day. Buy-and-hold profit and loss excludes realized trading revenue, net interest, fees and commissions, intra-day trading profit and loss and changes in reserves.

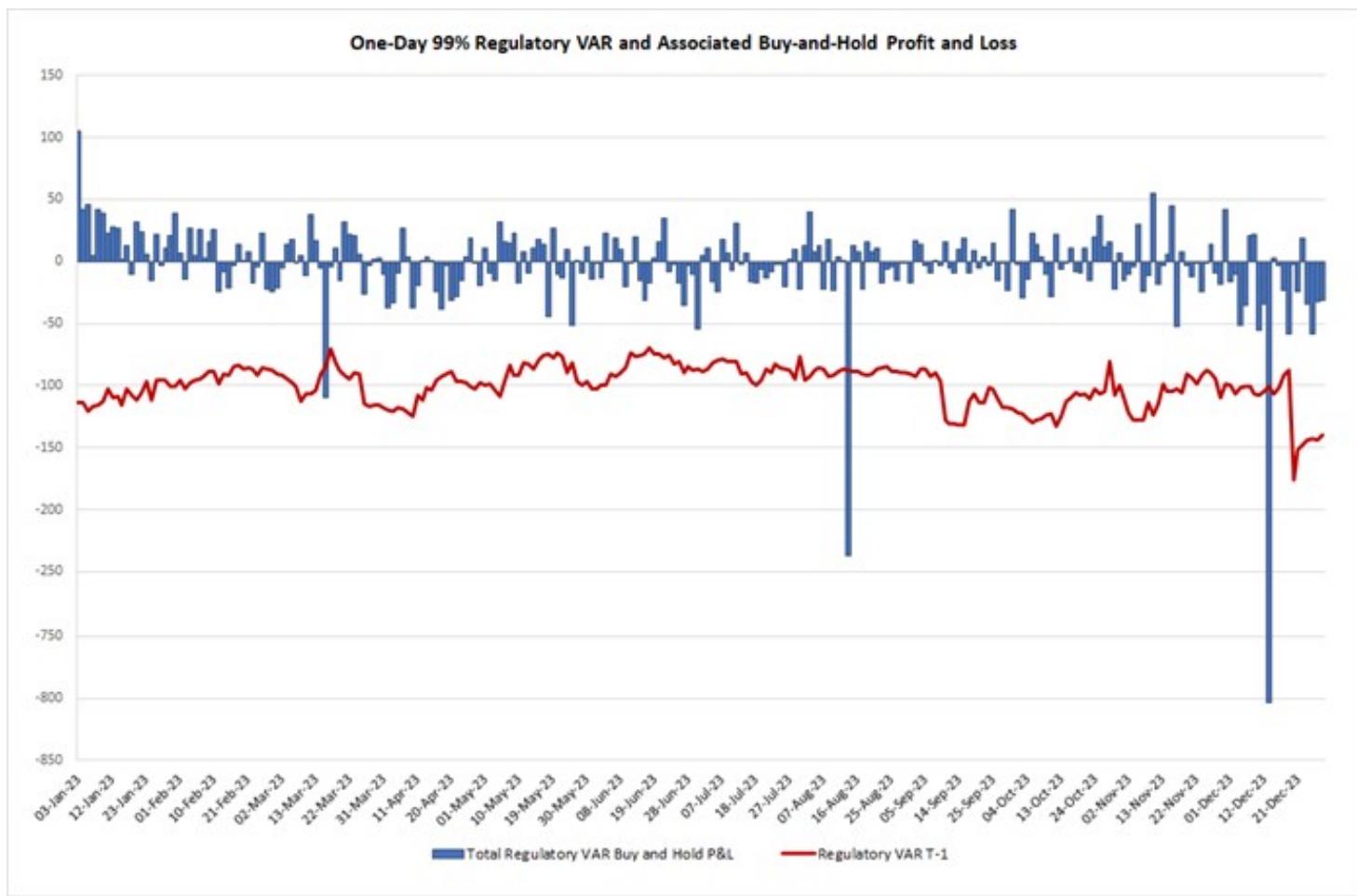
Based on a 99% confidence level, Citi would expect two to three days in any one year where buy-and-hold losses exceed the Regulatory VAR. Given the conservative calibration of Citi's VAR model (as a result of taking the greater of short- and long-term volatilities and fat-tail scaling of volatilities), Citi would expect fewer exceptions under normal and stable market conditions. Periods of unstable market conditions could increase the number of back-testing exceptions.

The following graph presents the daily buy-and-hold profit and loss associated with Citi's covered positions compared to Citi's one-day Regulatory VAR during 2023. During 2023, three back-testing exceptions were observed at the Citigroup level.

The difference between the 47.7% of days with buy-and-hold gains for Regulatory VAR back-testing and the 94.6% of days with trading, net interest and other revenue associated with Citi's trading businesses, presented in the histogram of daily trading-related revenue below, reflects, among other things, that a significant portion of Citi's trading-related revenue is not generated from daily price movements on these positions and exposures, as well as differences in the portfolio composition of Regulatory VAR and Risk Management VAR.

Regulatory Trading VAR and Associated Buy-and-Hold Profit and Loss⁽¹⁾⁽²⁾—12 Months Ended December 31, 2023

In millions of dollars



- (1) Buy-and-hold profit and loss, as defined by the banking regulators under Basel III, represents the daily mark-to-market revenue movement attributable to the trading position from the close of the previous business day. Buy-and-hold profit and loss excludes realized trading revenue and net interest intra-day trading profit and loss on new and terminated trades, as well as changes in reserves. Therefore, it is not comparable to the trading-related revenue presented in the chart of daily trading-related revenue above.
- (2) The loss values for mid-August and mid-December 2023 were driven by the devaluation of the Argentine peso.

Stress Testing

Citi performs market risk stress testing on a regular basis to estimate the impact of extreme market movements. It is performed on individual positions and trading portfolios, as well as in aggregate, inclusive of multiple trading portfolios. Citi's market risk management, after consultations with the businesses, develops both systemic and specific stress scenarios, reviews the output of periodic stress testing exercises and uses the information to assess the ongoing appropriateness of exposure levels and limits. Citi uses two complementary approaches to market risk stress testing across all major risk factors (i.e., equity, foreign exchange, commodity, interest rate and credit spreads): top-down systemic stresses and bottom-up business-specific stresses. Systemic stresses are designed to quantify the potential impact of extreme market movements on an institution-wide basis, and are constructed using both historical periods of market stress and projections of adverse economic scenarios. Business-specific stresses are designed to probe the risks of particular portfolios and market segments, especially those risks that are not fully captured in VAR and systemic stresses.

The systemic stress scenarios and business-specific stress scenarios at Citi are used in several reports reviewed by senior management and also to calculate internal risk capital for trading market risk, as well as enable the monitoring and managing of Citi's top market risks.

In general, changes in market values are defined over a one-year horizon. For the most liquid positions and market factors, changes in market values are defined over a shorter two-month horizon. The limited set of positions and market factors whose market value changes are defined over a two-month horizon are those that in management's judgment have historically remained very liquid during financial crises, even as the trading liquidity of most other positions and market factors materially declined.

OPERATIONAL RISK

Overview

Operational risk is the risk of loss resulting from inadequate or failed internal processes or systems, including human error or misjudgment, or from external events. This includes legal risk, which is the risk of loss (including litigation costs, settlements and regulatory fines) resulting from the failure of Citi to comply with laws, regulations, prudent ethical standards and contractual obligations in any aspect of its businesses, but excludes strategic and reputation risks. Citi also recognizes the impact of operational risk on the reputation risk associated with Citi's business activities.

Operational risk is inherent in Citi's global business activities, as well as related support functions, and can result in losses. Citi maintains a comprehensive Company-wide risk taxonomy to classify operational risks that it faces using standardized definitions across Citi's Operational Risk Management Framework (see discussion below). This taxonomy also supports regulatory requirements and expectations inclusive of those related to U.S. Basel III, Comprehensive Capital Analysis and Review (CCAR), Heightened Standards for Large Financial Institutions and Dodd-Frank Act Stress Testing (DFAST).

Citi manages operational risk consistent with the overall framework described in "Managing Global Risk—Overview" above. Citi's goal is to keep operational risk at appropriate levels relative to the characteristics of its businesses, the markets in which it operates, its capital and liquidity and the competitive, economic and regulatory environment. This includes effectively managing operational risk and maintaining or reducing operational risk exposures within Citi's operational risk appetite.

Citi's Independent Operational Risk Management group has established a global Operational Risk Management Framework with policies and practices for identification, measurement, monitoring, managing and reporting operational risks and the overall operating effectiveness of the internal control environment. As part of this framework, Citi has defined its operational risk appetite and established a manager's control assessment (MCA) process for self-identification of significant operational risks, assessment of the performance of key controls and mitigation of residual risk above acceptable levels.

Each Citi operating segment must implement operational risk processes consistent with the requirements of this framework. This includes:

- understanding the operational risks they are exposed to;
- designing controls to mitigate identified risks;
- establishing key indicators;
- monitoring and reporting whether the operational risk exposures are in or out of their operational risk appetite;
- having processes in place to bring operational risk exposures within acceptable levels;
- periodically estimating and aggregating the operational risks they are exposed to; and
- ensuring that sufficient resources are available to actively improve the operational risk environment and mitigate emerging risks.

Citi considers operational risks that result from the introduction of new or changes to existing products, or result from significant changes in its organizational structures, systems, processes and personnel.

Citi has a governance structure for the oversight of operational risk exposures through Business Risk and Controls Committees (BRCCs), which are focused at the group, business or function, or geography level. BRCCs provide channels to inform senior management about operational risk exposures, control issues and operational risk events, and allow them to take and document decisions around the mitigation, remediation or acceptance of operational risk exposures.

In addition, Independent Risk Management, including the Operational Risk Management group, works proactively with Citi's businesses and functions to drive a strong and embedded operational risk management culture and framework across Citi. The Operational Risk Management group actively challenges business and functions implementation of the Operational Risk Management Framework requirements and the quality of operational risk management practices and outcomes.

Information about businesses' key operational risks, historical operational risk losses and the control environment is reported by each major business segment and functional area. Citi's operational risk profile and related information is summarized and reported to senior management, as well as to the Audit and Risk Committees of Citi's Board of Directors by the Head of Operational Risk Management.

Operational risk is measured through Operational Risk Capital and Operational Risk Regulatory Capital for the Advanced Approaches under Basel III. Projected operational risk losses under stress scenarios are estimated as a required part of the FRB's CCAR process.

For additional information on Citi's operational risks, see "Risk Factors—Operational Risks" above.

Cybersecurity Risk

Overview

Cybersecurity risk is the business risk associated with the threat posed by a cyberattack, cyber breach or the failure to protect Citi's most vital business information assets or operations, resulting in a financial or reputational loss (see the operational processes and systems and cybersecurity risk factors in "Risk Factors—Operational Risks" above). With an evolving threat landscape, ever-increasing sophistication of threat actor tactics, techniques and procedures, ongoing and emerging geopolitical conflicts, and the use of new technologies, including those enabled by artificial intelligence and machine learning capabilities, to conduct financial transactions, Citi and its clients, customers and third parties (and fourth parties, etc.) continue to be at risk from cyberattacks and information security incidents. Citi leverages a threat-focused, defense-in-depth strategy that ensures that multiple controls work in tandem against various threats to increase the likelihood that malicious activity will be prevented, detected and mitigated.

Citi has a mature cybersecurity threat identification and management program that relies on an industry-aligned defense-in-depth approach, including an internal cybersecurity intelligence center, participation in industry and government information-sharing programs, vulnerability assessment and scanning tools, intrusion detection and prevention systems, security incident and event management systems, firewalls, penetration testing, adversary emulation exercises, data management (including classification, encryption at rest and in transit, and access management), multi-factor authentication requirements and other logical, physical and technical controls designed to prevent, deter, mitigate and respond to cybersecurity threats.

Citi's cyber and information security program is supported by comprehensive governance, including policies, standards and procedures that dictate requirements and best practices around various topics, including, but not limited to, third-party risk management, data management, asset management, information security practices, security incident management, and regulatory and disclosure compliance. Citi's Chief Information Security Office's risks and controls are measured against its Cybersecurity Risk Appetite Statement, which was initially approved by the Risk Management Committee of the Board of Directors and is reapproved

annually by Citi's Risk Committee, chaired by Citi's Chief Risk Officer. Citi's Cybersecurity Risk Appetite Statement leverages key risk indicators to establish enterprise risk tolerance and define risk management strategy with respect to cyber and information security. Further, Citi actively participates in financial industry, government and cross-sector knowledge-sharing groups to enhance individual and collective cybersecurity preparedness and resilience.

Cybersecurity Risk Management and Governance

Citi's technology and cybersecurity risk management program is built on Citi's three lines of defense, each of which is integrated into Citi's overall risk management systems and processes.

Citi's Chief Information Security Office, which is led by Citi's Chief Information Security Officer (CISO), serves as the first line of defense. This office provides frontline business, operational and technical controls and capabilities to (1) protect against cybersecurity risks, and (2) respond to cyber incidents and data breaches. Citi manages cybersecurity threats through its state-of-the-art fusion centers, which serve as central commands for monitoring and coordinating responses to cyber threats.

Citi's Chief Information Security Office is responsible for application and infrastructure defense and security controls, performing vulnerability assessments and third-party information security assessments (including cybersecurity risk assessments associated with Citi's use of products and services from vendors and other third-party providers), employee awareness and training programs and security incident management. In each case, the enterprise information security team works in coordination with a network of information security officers who are embedded within Citi's global businesses and functions, consistent with Citi's philosophy that all Citi stakeholders have a responsibility in managing cyber and information security risks.

Citi's Technology and Cyber Compliance and Operational Risk Office (TCCORO) serves as the second line of defense. This office independently evaluates and challenges Citi's risk mitigation practices and capabilities, from a fused operational risk and compliance lens. It functions as a joint second line of defense and in accordance with Citi's Cybersecurity Risk Appetite Statement. TCCORO also advises first line partners in CISO, supporting enterprise-wide efforts to proactively identify and remediate cybersecurity risks before they materialize as incidents that negatively affect business operations.

To address evolving cybersecurity risks and corresponding regulations, TCCORO monitors cybersecurity legal and regulatory requirements, identifies and defines emerging risks, executes strategic cybersecurity threat assessments, performs new product and initiative reviews, performs data management risk oversight and conducts cybersecurity risk assurance reviews (inclusive of third-party assessments). In addition, this office oversees and challenges metrics related to cybersecurity and technology and ensures they remain aligned with Citi's overall operational risk management framework to effectively track, identify and manage risk. TCCORO presents an independent viewpoint on enterprise cybersecurity risk posture, and oversees CISO's

cybersecurity risk identification, measurement and enterprise-wide governance of cybersecurity risk.

Internal Audit serves as Citi's third line of defense and provides independent assurance to the Audit Committee of the Board on the effectiveness of controls operated by the first and second lines of defense to manage cybersecurity risk.

Citi recognizes the risks associated with outsourcing services to, sharing data with, and/or technologically interacting with third parties. Citi has built a robust third-party information security risk management program that governs third-party engagements from selection, to the establishment of legal agreements that govern the relationship, to ongoing monitoring through the duration of the relationship. Third-party risk management includes contractual requirements around data and cybersecurity, vulnerability assessments, third-party information security assessments performed at intervals determined by risk, governance to manage end-of-life and end-of-vendor-support risks, and third-party incident response protocols.

Management Governance

Citi's Head of Operations and Technology (O&T), who reports directly to Citi's CEO, has overall responsibility for Citi's first line of defense cyber and information security and technology programs. Citi's Head of O&T has over 40 years of experience in financial services and technology focused roles, including prior positions at Citi as a regional Chief Information Officer, Head of Technology for Citi's former Institutional Clients Group and Head of Securities and Banking Operations and Technology. For additional information, see "Corporate Information—Executive Officers" below.

Citi's CISO, who reports directly to Citi's Head of O&T, has primary responsibility to assess and manage Citi's material risks from cybersecurity threats. Citi's CISO has decades of experience in managing cybersecurity risks from prior roles as Deutsche Bank's Chief Security Officer, the Chief Information Officer for the Central Intelligence Agency and the Chief Information Officer for the U.S. Intelligence Community. The CISO is supported by a team of subject matter experts in security operations, network architecture, cyber and information security governance and cybersecurity operations. Citi's Chief Information Security Office employs approximately 3,400 individuals to manage its operations.

Citi's Chief Technology Officer (CTO), who also reports directly to Citi's Head of O&T, has primary responsibility for technology policy, innovation enablement and strategy. Citi's CTO has decades of subject matter experience in financial services and technology from previously leading the Engineering and Architecture Services group at J.P. Morgan Chase, and serving as the Chief Technology Officer at Deutsche Bank and the Chief Information Officer for Sales, Research and Securities Data Services at Goldman Sachs.

Multiple management committees and functions also support Citi's cyber and information security management.

Citi's Information Security Risk Committee (ISRC) governs enterprise-level risk tolerance, including cybersecurity risk. This committee serves as the most senior cyber and information security forum within Citi and is supported by other committees/forums described below. The committee is

co-chaired by Citi's Chief Risk Officer and Head of O&T and meets at least quarterly. In addition, the committee oversees risk tolerance determinations, reviews emerging threats and their business impacts, commits to appropriate resource levels and investments and supports the continual improvement of the cyber and information security management programs across all of Citi's businesses and geographies.

The Chief Information Officer Committee (CIOC), which consists of, among others, the Head of O&T, Citi's Co-Chief Information Officers (who report to the Head of O&T), the CISO, and the Head of TCCORO (who reports both to Citi's Head of Operational Risk within the Risk Organization and its Head of Global Functions Compliance within the Global Legal and Compliance Organization), serves as an escalation forum for items requiring the attention of technology senior management, including approval of policies, and reports items requiring further escalation to the Technology Committee of the Board of Directors, as appropriate.

The Information Security Risk Operating Committee (ISROC) is chaired by the CISO and comprises senior members of the Chief Information Security Office and representatives from partner organizations. This committee sets the direction and prioritization for the implementation of the cyber and information security program across Citi. The committee reports and escalates to the CIOC, including for intermediary review and approval of policies escalated from the Information Technology Policy Council (see below). Any actions constituting risk exceptions are escalated to the ISRC.

The Security Architecture Council, which reports to the ISROC, is an oversight and decision-making body focused on ensuring that the target level of security architectural maturity is attained. This council is co-chaired by two representatives from the security architecture and cybersecurity services organizations.

Citi's Information Technology Policy Council provides a centralized review to oversee consistency in the formation of information technology policies and standards. This counsel maintains oversight of policy document requirements to ensure that information technology policy documents meet Citi's objectives as established internally and are in line with laws and regulations as identified and communicated by ICRM.

In addition, Citi regularly engages third parties globally to assess, audit and/or exercise Citi's cyber and information security program, which is ISO-27001 certified. ISO-27001 is an international standard for information security management systems. Citi is regulated by bodies across the globe that also regularly examine and audit Citi's cyber and information security program against local laws, regulations and industry best practices.

Board Governance

Citi's Board of Directors and its committees provide oversight of senior management's efforts to mitigate cybersecurity risk and respond to cybersecurity incidents. Citi's Board includes members with cybersecurity expertise and experience.

Citi's full Board is briefed annually on cybersecurity risks and receives updates as needed on Citi's cyber and information security program, including changes to the threat landscape and a roadmap for progress around addressing

related risks. Additionally, Citi's Board participates in cybersecurity exercises to improve preparedness to address cybersecurity incidents.

The Board's Technology Committee receives quarterly updates from the Chief Information Security Office on the cybersecurity threat landscape, regulatory landscape, posture, and strategy and engages in discussions throughout the year with senior management and subject matter experts on the effectiveness of Citi's overall cybersecurity program.

The Board's Risk Management Committee (RMC) approved a standalone Cybersecurity Risk Appetite Statement against which Citi's performance is measured quarterly. In addition, the RMC oversees Citi's risk profile, which includes cybersecurity risk, and monitors whether Citi is operating within its cybersecurity risk appetite under its mandate to review key operational risks, including steps taken by management to control such risks.

In the event of a potentially material cybersecurity incident impacting Citi, the Board would be made aware of such incident via lines of communication that run from the Chief Information Security Office to senior management and also to the Board. This contemporaneous reporting on significant cyber events includes information and discussion around incident response, legal obligations (including disclosure), and outreach and notification to regulators and customers when needed.

For additional information on the Board's oversight of cybersecurity risk management, see Citi's upcoming 2024 Annual Meeting Proxy Statement to be filed with the SEC in March 2024.

COMPLIANCE RISK

Compliance risk is the risk to current or projected financial condition and resilience arising from violations of laws, rules or regulations, or from non-conformance with prescribed practices, internal policies and procedures or ethical standards. Compliance risk exposes Citi to fines, civil money penalties, payment of damages and the voiding of contracts. Compliance risk can result in diminished reputation, harm to Citi's customers, limited business opportunities and lessened expansion potential. It encompasses the risk of noncompliance with all laws and regulations, as well as prudent ethical standards and some contractual obligations. It could also include exposure to litigation (known as legal risk) from all aspects of traditional and non-traditional banking.

Citi seeks to operate with integrity, maintain strong ethical standards and adhere to applicable policies and regulatory and legal requirements. Citi must maintain and execute a proactive Compliance Risk Management (CRM) Framework (as set forth in the CRM Policy) that is designed to manage compliance risk effectively across Citi, with a view to fundamentally strengthen the compliance risk management culture across the lines of defense taking into account Citi's risk governance framework and regulatory requirements.

Independent Compliance Risk Management's (ICRM) primary objectives are to:

- Drive and embed a culture of compliance and control throughout Citi;
- Maintain and oversee an integrated CRM Framework that facilitates enterprise-wide compliance with local, national or cross-border laws, rules or regulations, Citi's internal policies, standards and procedures and relevant standards of conduct;
- Assess compliance risks and issues across product lines, functions and geographies, supported by globally consistent systems and compliance risk management processes; and
- Provide compliance risk data aggregation and reporting capabilities.

Citi carries out its objectives and fulfills its responsibilities through the CRM Framework, which is composed of the following integrated key activities, to holistically manage compliance risk:

- Management of Citi's compliance with laws, rules and regulations by identifying and analyzing changes, assessing the impact, and implementing appropriate policies, processes and controls;
- Developing and providing compliance training to ensure colleagues are aware of and understand the key laws, rules and regulations;
- Monitoring the Compliance Risk Appetite, which is articulated through qualitative compliance risk statements describing Citi's appetite for certain types of risk and quantitative measures to monitor the Company's compliance risk exposure;
- Executing Compliance Risk Assessments, the results of which inform Compliance Risk Monitoring and testing of compliance risks and controls in assessing conformance with laws, rules, regulations and internal policies; and
- Issue identification, escalation and remediation to drive accountability, including measurement and reporting of compliance risk metrics against established thresholds in support of the CRM Policy and Compliance Risk Appetite.

To anticipate, control and mitigate compliance risk, Citi has established the CRM Policy to achieve standardization and centralization of methodologies and processes, and to enable more consistent and comprehensive execution of compliance risk management.

Citi has a commitment, as well as an obligation, to identify, assess and mitigate compliance risks associated with its businesses and functions. ICRM is responsible for oversight of Citi's CRM Policy, while all businesses and global control functions are responsible for managing their compliance risks and operating within the Compliance Risk Appetite.

As discussed above, Citi is working to address the FRB and OCC consent orders, which include improvements to Citi's CRM Framework and its enterprise-wide application (see "Citi's Consent Order Compliance" above).

REPUTATION RISK

Citi's reputation is a vital asset in building trust, and Citi is diligent in enhancing and protecting its reputation with its key stakeholders. To support this, Citi has developed a reputation risk framework. Under this framework, Citigroup and Citibank, N.A. have implemented a risk appetite statement and related key indicators to monitor corporate activities and operations relative to Citi's risk appetite. The framework also requires that business segments escalate potential material reputation risks that require review or mitigation through the applicable business Management Forum or Group Reputation Risk Committee.

The Group Reputation Risk Committee and Management Forums, which are composed of Citi's senior executives, govern the process by which material reputation risks are identified, measured, monitored, controlled, escalated and reported. The Group Reputation Risk Committee and Management Forums determine the appropriate actions to be taken in line with risk appetite and regulatory expectations, while promoting a culture of risk awareness and high standards of integrity and ethical behavior across the Company, consistent with Citi's Mission and Value Proposition. The Group Reputation Risk Committee may escalate reputation risks to the Nomination, Governance and Public Affairs Committee or other appropriate committee of the Citigroup Board of Directors.

Every Citi employee is responsible for safeguarding Citi's reputation, guided by Citi's Code of Conduct. Colleagues are expected to exercise sound judgment and common sense in decisions and actions. They are also expected to promptly escalate all issues that present material reputation risk in line with policy.

STRATEGIC RISK

As discussed above, strategic risk is the risk of a sustained impact (not episodic impact) to Citi's core strategic objectives as measured by impacts on anticipated earnings, market capitalization or capital, arising from external factors affecting the Company's operating environment, as well as the risks associated with defining and executing the strategy, which are identified, measured and managed as part of the Strategic Risk Framework at the Enterprise Level.

In this context, external factors affecting Citi's operating environment are the economic conditions, geopolitical/political landscape, industry/competitive landscape, customer/client behavior, regulatory/legislative environment and trends related to investors/shareholders. Material strategic risks that Citi is monitoring include the impacts of an extended period of high inflation and interest rates, as well as macroeconomic uncertainties driven by low global growth and geopolitical issues including the Middle East conflict, the Russia–Ukraine war and U.S.–China tensions. Heightened regulatory requirements, specifically with regard to capital as well as climate-related transition risk, remain in focus. In addition to external factors affecting Citi's operating environment, Citi also monitors risks related to the execution of its strategy, with heightened focus on delivering the transformation of its risk and control environment pursuant to the FRB and OCC consent orders.

Citi's Executive Management Team is responsible for the development and execution of Citi's strategy. This strategy is translated into forward-looking plans (collectively Citi's Strategic Plan) that are then cascaded across the organization. Citi's Strategic Plan is presented to the Board on an annual basis, and is aligned with risk appetite thresholds and includes a risk assessment as required by internal frameworks. It is also aligned with limit requirements for capital allocation. Governance and oversight of strategic risk is facilitated by internal committees on a group-wide basis.

Citi works to ensure that strategic risks are adequately considered and addressed across its various risk management activities, and that strategic risks are assessed in the context of Citi's risk appetite. Citi conducts a top-down, bottom-up risk identification process to identify risks, including strategic risks. Business segments undertake a quarterly risk identification process to systematically identify and document all material risks faced by Citi. Independent Risk Management oversees the risk identification process through regular reviews and coordinates identification and monitoring of top risks. In addition, Citi performs a quarterly Risk Assessment of the Plan (RAOP) and continuously monitors risks associated with its execution of strategy. Independent Risk Management also manages strategic risk by monitoring risk appetite thresholds in conjunction with its Global Strategic Risk Committee, which is part of the governance structure that Citi has in place to manage its strategic risks.

For additional information on Citi's strategic risks, see "Risk Factors—Strategic Risks" above.

Climate Risk

Climate change presents immediate and long-term risks to Citi and its clients and customers, with the risks expected to increase over time. Climate risk refers to the risk of loss arising from climate change and comprises both physical risk and transition risk.

Climate risk is an overarching risk that can act as a driver of other categories of risk, such as credit risk from obligors exposed to high climate risk, strategic risks if Citi fails to consider transition risk in client selection, reputational risk from increased stakeholder concerns about financing or failing to finance high-carbon industries and operational risk from physical risks to Citi's facilities. Citi's focus on climate risk continues to advance, driven by materiality of strategic, reputation and financial risk considerations. Citi continues to make progress toward embedding these considerations into its overarching risk management approach. For additional information on climate risk, see "Risk Factors—Strategic Risks" above.

Citi continues to develop globally consistent principles and approaches for managing climate risk across the Company through the implementation of its Climate Risk Management Framework (Climate RMF). The Climate RMF provides information on the governance, roles and responsibilities, and principles to support the identification, measurement, monitoring, controlling and reporting of climate risks. Through this implementation, climate risk is being embedded into relevant policies and processes over time.

Citi continues to enhance its methodologies for quantifying how climate risks could impact the individual credit profiles of its clients across various sectors. Citi has developed and embedded sector-specific climate risk assessments in its credit underwriting process for certain sectors that Citi has identified as higher climate risk. Such climate risk assessments are designed to incorporate publicly available client disclosures and data from third-party providers and facilitate conversations with clients on their most material climate risks and management plans for adaptation and mitigation. This helps Citi better understand its clients' businesses and climate-related risks and support their financial needs. Citi's Net Zero plan implementation is leading to the further integration of climate risk discussions into client engagement and client selection.

Citi also reviews factors related to climate risk under its Environmental and Social Risk Management (ESRM) Policy, which includes a focus on climate risk related to financed projects and clients in certain sectors. Considering the credit risk of stranded assets, as well as the reputational risks, Citi's ESRM Policy describes sector approaches to certain high-carbon sectors, including thermal coal mining and power.

Furthermore, Citi continues to participate in financial industry initiatives and develop and pilot methodologies and approaches for measuring and assessing the potential financial risks of climate change, including scenario analysis. Citi also continues to monitor regulatory developments on climate risk and sustainable finance and actively engage with regulators on these topics.

For additional information about sustainability and other ESG matters at Citi, see "Climate Change and Net Zero" above.

OTHER RISKS

LIBOR Transition Risk

As previously disclosed, the USD LIBOR bank panel ended on June 30, 2023. The overnight and 12-month USD LIBOR settings have permanently ceased, and the Financial Conduct Authority is requiring ICE Benchmark Administration to continue publishing one-, three- and six-month USD LIBOR settings using a synthetic methodology, which is based on the relevant CME Term SOFR Reference Rate plus the respective ISDA fixed spread adjustment. These synthetic settings are expected to cease on September 30, 2024. As previously disclosed, as of June 30, 2023, Citi transitioned nearly all of its USD LIBOR-referencing contracts to SOFR plus a credit spread adjustment. There remain a de minimis number of unremediated USD LIBOR-referencing contracts that are temporarily utilizing synthetic LIBOR, and Citi is continuing to focus on remediating these remaining contracts.

Country Risk

Top 25 Country Exposures

The following table presents Citi's top 25 exposures by country (excluding the U.S.) as of December 31, 2023. (Including the U.S., Citi's top 25 exposures by country would represent approximately 99% of Citi's exposure to all countries as of December 31, 2023.)

For purposes of the table, loan amounts are reflected in the country where the loan is booked, which is generally based on the domicile of the borrower. For example, a loan to a Chinese subsidiary of a Switzerland-based corporation will generally be categorized as a loan in China. In addition, Citi has developed regional booking centers in certain countries, most significantly in the United Kingdom (U.K.) and Ireland,

in order to more efficiently serve its corporate customers. As an example, with respect to the U.K., only 39% of corporate loans presented in the table below are to U.K. domiciled entities (42% for unfunded commitments), with the balance of the loans predominately to European domiciled counterparties. Approximately 90% of the total U.K. funded loans and 88% of the total U.K. unfunded commitments were investment grade as of December 31, 2023.

Trading account assets and investment securities are generally categorized based on the domicile of the issuer of the security or the underlying reference entity. For additional information on the assets included in the table, see the footnotes to the table below.

In billions of dollars	Services, Markets and Banking loans	Wealth loans ⁽¹⁾	Legacy Franchises loans	Loans transferred to HFS ⁽⁷⁾	Other funded ⁽²⁾	Unfunded ⁽³⁾	Net MTM on derivatives/ repos ⁽⁴⁾	Total hedges (on loans and CVA) ⁽⁵⁾	Investment securities ⁽⁵⁾	Trading account assets ⁽⁶⁾	Total as of 4Q23	Total as of 3Q23	Total as of 4Q22	Total as a % of Citi as of 4Q23
United Kingdom	\$ 38.8	\$ 5.2	\$ —	\$ —	\$ 1.5	\$ 39.1	\$ 15.5	\$ (5.3)	\$ 6.7	\$ 3.3	\$104.8	\$ 97.2	\$ 88.5	5.9 %
Mexico	9.9	0.1	27.1	—	0.3	8.8	6.2	(3.5)	22.0	1.5	72.4	69.2	61.2	4.0
Ireland	15.6	—	—	—	0.3	35.3	0.1	(0.2)	—	0.6	51.7	49.0	47.4	2.9
Hong Kong	8.8	19.4	—	—	0.2	4.5	1.6	(0.6)	9.8	0.5	44.2	44.2	48.3	2.5
Singapore	10.0	18.6	—	—	0.4	7.4	1.1	(0.6)	5.8	1.0	43.7	42.3	45.2	2.4
Brazil	13.7	—	—	—	0.1	3.1	8.1	(1.1)	6.6	2.8	33.3	32.8	28.7	1.9
India	6.9	—	—	—	0.6	3.6	1.4	(0.6)	9.3	1.2	22.4	22.3	25.3	1.3
Germany	0.4	—	—	—	—	7.3	5.9	(4.1)	8.2	3.8	21.5	17.4	22.6	1.2
China	5.7	—	0.4	0.3	0.6	1.3	0.7	(1.4)	8.0	3.3	18.9	18.6	20.7	1.1
South Korea	3.1	—	5.4	—	0.1	1.5	0.7	(0.7)	7.8	0.5	18.4	20.9	23.7	1.0
United Arab Emirates	7.6	1.5	—	—	0.2	4.3	0.4	(0.3)	3.7	(0.1)	17.3	16.4	17.4	1.0
Poland	3.1	—	1.5	—	—	3.3	1.1	(0.2)	6.2	0.1	15.1	13.0	15.6	0.8
Australia	8.4	0.4	—	—	0.1	5.7	0.5	(1.2)	0.6	0.5	15.0	16.5	14.4	0.8
Japan	1.7	—	—	—	—	3.8	3.6	(1.9)	4.6	2.6	14.4	15.9	19.0	0.8
Canada	1.5	1.5	—	—	0.1	6.1	1.4	(2.2)	3.2	2.7	14.3	16.5	15.2	0.8
Jersey	2.0	2.7	—	—	—	6.7	0.1	(0.1)	0.2	—	11.6	12.1	15.9	0.6
Malaysia	1.2	—	—	—	0.1	0.8	0.1	(0.1)	3.1	0.1	5.3	5.3	5.4	0.3
Czech Republic	0.7	—	—	—	—	0.8	2.9	(0.1)	0.9	—	5.2	4.5	4.0	0.3
Luxembourg	—	0.9	—	—	—	—	0.5	(0.4)	4.0	0.1	5.1	4.9	4.7	0.3
Indonesia	2.1	—	—	—	—	0.5	0.5	(0.1)	1.4	0.1	4.5	6.1	5.9	0.3
Taiwan	3.6	—	—	—	—	0.5	0.3	(0.2)	0.2	—	4.4	5.4	13.8	0.2
South Africa	1.4	—	—	—	—	0.7	0.1	(0.2)	2.4	—	4.4	4.6	4.4	0.2
Philippines	0.6	—	—	—	0.1	0.2	1.6	(0.3)	2.1	—	4.3	5.2	5.0	0.2
Italy	0.9	—	—	—	—	2.2	1.8	(1.9)	—	1.0	4.0	3.5	2.4	0.2
Thailand	1.1	—	—	—	—	0.4	—	—	2.1	0.1	3.7	3.4	4.2	0.2
Total as a % of Citi's total exposure														31.2 %
Total as a % of Citi's non-U.S. total exposure														91.7 %

- (1) Wealth loans reflect funded loans, including those related to the Private Bank, net of unearned income. As of December 31, 2023, Private Bank loans in the table above totaled \$19.3 billion, concentrated in Singapore (\$5.4 billion), the U.K. (\$5.2 billion) and Hong Kong (\$3.8 billion).
- (2) Other funded includes other direct exposures such as accounts receivable and investments accounted for under the equity method.
- (3) Unfunded exposure includes unfunded corporate lending commitments, letters of credit and other contingencies.
- (4) Net mark-to-market (MTM) counterparty risk on OTC derivatives and securities lending/borrowing transactions (repos). Exposures are net of collateral and inclusive of CVA. Also includes margin loans.

- (5) Investment securities include debt securities AFS, recorded at fair market value, and debt securities HTM, recorded at amortized cost.
- (6) Trading account assets are on a net basis and include issuer risk on cash products and derivative exposure where the underlying reference entity/issuer is located in that country.
- (7) December 31, 2023, September 30, 2023 and December 31, 2022 include *All Other*—Legacy Franchises loans reclassified to HFS as a result of Citi’s agreement to sell its consumer banking business in each applicable country. See “*All Other*—Legacy Franchises” above and Note 2.

Russia

Overview

In Russia, Citi’s remaining operations are conducted through *Services, Markets, Banking* and *All Other*—Legacy Franchises. Citi continues to monitor the war in Ukraine, related sanctions and economic conditions and continues to mitigate its Russia exposures and risks as appropriate.

As part of previously disclosed plans, Citi ended nearly all of the institutional banking services it offered in Russia, with the remaining services only those necessary to fulfill its remaining legal and regulatory obligations. In addition, Citi significantly reduced its *All Other*—Legacy Franchises consumer loan portfolio in Russia (reported as part of Asia Consumer), largely due to loan portfolio sales and its entry into a credit card referral agreement with a Russian bank.

Citi has ceased soliciting any new business or new clients in Russia. Citi will continue to manage its existing legal and regulatory commitments and obligations, as well as support its employees, during this period. For additional information on Citi’s wind-down of its Russia operations, see “Citi’s Wind-Down of Its Russia Operations” below.

For additional information about Citi’s risks related to its Russia exposures, see “Risk Factors—Market-Related Risks,” “—Operational Risks” and “—Other Risks” above.

Impact of Russia’s Invasion of Ukraine on Citi’s Businesses

Russia-related Balance Sheet Exposures

Citi’s remaining domestic operations in Russia are conducted through a subsidiary of Citibank, AO Citibank, which uses the Russian ruble as its functional currency.

The following table summarizes Citi’s exposures related to its Russia operations:

<i>In billions of U.S. dollars</i>	December 31, 2023	September 30, 2023	December 31, 2022	Change 4Q23 vs. 3Q23
Loans	\$ 0.1	\$ 0.2	\$ 0.6	\$ (0.1)
Investment securities ⁽¹⁾	0.4	0.4	1.1	—
Net MTM on derivatives/repos ⁽²⁾	1.4	1.2	1.4	0.2
Total hedges (on loans and CVA)	—	(0.1)	(0.1)	0.1
Unfunded ⁽³⁾	—	—	0.1	—
Trading accounts assets	—	—	—	—
Country risk exposure	\$ 1.9	\$ 1.7	\$ 3.1	\$ 0.2
Cash on deposit and placements ⁽⁴⁾	0.7	0.6	2.4	0.1
Deposit Insurance Agency ⁽⁵⁾	3.9	3.5	—	0.4
National Settlements Depository ⁽⁵⁾	—	—	1.8	—
Total third-party exposure⁽⁶⁾	\$ 6.5	\$ 5.8	\$ 7.3	\$ 0.7
Additional exposures to Russian counterparties that are not held by the Russian subsidiary	0.1	0.1	0.2	—
Total Russia exposure⁽⁷⁾	\$ 6.6	\$ 5.9	\$ 7.5	\$ 0.7

- (1) Investment securities include debt securities AFS, recorded at fair market value, primarily local government debt securities.
- (2) Reverse repurchase agreements are gross of collateral and are included in net MTM on derivatives/repos in the table above, as netting of collateral for Russia-related reverse repurchase agreements was removed in the second quarter of 2022. This removal was due to the inability to conclude, with a well-founded basis, the enforceability of contractual rights in the Russian legal system in the event of a counterparty default, given the geopolitical uncertainty caused by the war in Ukraine.
- (3) Unfunded exposure consists of unfunded corporate lending commitments, letters of credit and other contingencies.
- (4) Cash on deposit and placements are primarily with the Central Bank of Russia and foreign financial institutions.
- (5) Represents dividends received by Citi in its role as custodian for investor clients in Russia, which Citi is required by local regulation to hold at the Deposit Insurance Agency (DIA). Citi is unable to remit these funds to clients due to restrictions imposed by the Russian government. In accordance with a Central Bank of Russia regulatory requirement, all balances in the National Settlements Depository were transferred to the DIA in the second quarter of 2023.
- (6) The majority of AO Citibank’s third-party exposures was funded with the dividends under footnote 5 and domestic deposit liabilities from both corporate and personal banking clients.
- (7) Citigroup’s CTA loss included in its *AOCI* related to its indirect subsidiary, AO Citibank, is excluded from the above table, because the CTA loss is not held in AO Citibank and would be recognized in Citigroup’s earnings only upon either the substantial liquidation or a loss of control of AO Citibank. Citi has separately described these risks in “Deconsolidation Risk” below.

During the fourth quarter of 2023, Citi's Russia-related exposures increased by \$0.7 billion, as presented in the table above. The increase in exposure was driven by a \$0.4 billion appreciation of the ruble against the U.S. dollar (USD) as well as dividend inflows during the quarter, received from Russian corporations on behalf of Citi's clients. The dividend inflows were partially offset by deposit outflows and tax payments to local authorities. Approximately 71% of Citi's remaining exposures in Russia are corporate dividends that Citi cannot remit to its clients due to restrictions imposed by the Russian government, of which \$3.9 billion is held with the Deposit Insurance Agency as of December 31, 2023.

Citi's net investment in Russia was approximately \$0.2 billion as of December 31, 2023 (down from \$1.0 billion as of September 30, 2023). The decline was due to a reserve build related to increases in transfer risk associated with exposures in Russia driven by safety and soundness considerations under U.S. banking law (see "Significant Accounting Policies and Significant Estimates" below).

Citi hedges its ruble/USD spot FX exposure in *AOCI* through the purchase of FX derivatives. The ongoing mark-to-market of the hedging derivatives is also reported in *AOCI*. When the ruble depreciates against the USD, the USD equivalent value of Citigroup's investment in AO Citibank also declines. This change in value is offset by the change in value of the hedging instrument (FX derivative). Going forward, Citi may record devaluations on its net ruble-denominated assets in earnings, without the benefit from a change in the fair value of derivative positions used to economically hedge the exposures.

Earnings and Other Impacts on Citi's Businesses

Services, Markets, Banking, USPB and All Other results have been impacted by various macroeconomic factors and volatilities, including Russia's invasion of Ukraine and its direct and indirect impact on the European and global economies. For a broader discussion of these factors and volatilities on Citi's businesses, see "Executive Summary" and each business's results of operations above.

As of December 31, 2023, Citigroup's ACL included a \$0.1 billion remaining credit reserve for Citi's direct Russian counterparties (unchanged from September 30, 2023). This balance does not include the additional reserves to transfer risk for exposures in Russia.

Citi's Wind-Down of Its Russia Operations

In August 2022, Citi disclosed its decision to wind down its Russia consumer, local commercial and institutional banking businesses, including actively pursuing portfolio sales. In connection with this wind-down, Citi has incurred approximately \$63 million to-date in charges, largely from restructuring, vendor termination fees and other related charges. Citi expects to incur an additional approximate \$58 million in estimated charges (approximately \$2 million in *Services, Markets and Banking* and \$56 million in *All Other*, excluding the impact from any portfolio sales). This estimate was revised down during the fourth quarter of 2023 from \$85 million at September 30, 2023. For additional information about Citi's continued efforts to reduce its operations and exposure in Russia, see "Risk Factors" above and Note 2.

Deconsolidation Risk

Citi's remaining operations in Russia subject it to various risks, including, among others, foreign currency volatility, including appreciation or devaluation; restrictions arising from retaliatory Russian laws and regulations on the conduct of its business; sanctions or asset freezes; or other deconsolidation events (see "Risk Factors—Other Risks" above). Examples of triggers that may result in deconsolidation of AO Citibank include voluntary or forced sale of ownership or loss of control due to actions of relevant governmental authorities, including expropriation (i.e., the entity becomes subject to the complete control of a government, court, administrator, trustee or regulator); revocation of banking license; and loss of ability to elect a board of directors or appoint members of senior management. As of December 31, 2023, Citi continued to consolidate AO Citibank because none of the deconsolidation factors were triggered.

In the event Citi deems there is a loss of control, for example, through expropriation of AO Citibank, Citi's foreign entity in Russia, Citi would be required to (i) write off the net investment of approximately \$0.2 billion (compared to \$1.0 billion as of September 30, 2023), (ii) recognize a CTA loss of approximately \$1.6 billion (unchanged from September 30, 2023) through earnings, and (iii) recognize a loss of \$0.6 billion (unchanged from September 30, 2023) on intercompany liabilities owed by AO Citibank to other Citi entities outside Russia. In the sole event of a substantial liquidation, as opposed to a loss of control, Citi would be required to recognize the CTA loss of approximately \$1.6 billion through earnings and would evaluate its remaining net investment as circumstances evolve.

Citi as Paying Agent for Russia-related Clients

Citi serves or served as paying agent on bonds issued by various entities in Russia, including Russian corporate clients. Citi's role as paying agent is administrative. In this role, Citi acts as an agent of its client, the bond issuer, receiving interest and principal payments from the bond issuer and then making payments to international central securities depositories (e.g., Depository Trust Company, Euroclear, Clearstream). The international central securities depositories (ICSDs) make payments to those participants or account holders (e.g., broker-dealers) that have clients who are investors in the applicable bonds (i.e., bondholders). As a paying agent, Citi generally does not have information about the identity of the bondholders. Citi may be exposed to risks due to its responsibilities for receiving and processing payments on behalf of its clients as a result of sanctions or other governmental requirements and prohibitions. To mitigate operational and sanctions risks, Citi has established policies, procedures and controls for client relationships and payment processing to help ensure compliance with U.S., U.K., EU and other jurisdictions' sanctions laws.

These processes may require Citi to delay or withhold the processing of payments as a result of sanctions on the bond issuer. Citi is also prevented from making payments to accounts on behalf of bondholders should the ICSDs disclose to Citi the presence of sanctioned bondholders. In both instances, Citi is generally required to segregate, restrict or

block the funds until applicable sanctions are lifted or the payment is otherwise authorized under applicable law.

Reputational Risks

Citi has continued its efforts to enhance and protect its reputation with its colleagues, clients, customers, investors, regulators and the public. Citi's response to the war in Ukraine, including any action or inaction, may have a negative impact on Citi's reputation with some or all of these parties.

For example, Citi is exposed to reputational risk as a result of its remaining presence in Russia and association with Russian individuals or entities, whether subject to sanctions or not, including Citi's inability to support its global clients in Russia, which could adversely affect its broader client relationships and businesses; current involvement in transactions or supporting activities involving Russian assets or interests; failure to correctly interpret and apply laws and regulations, including those related to sanctions; perceived misalignment of Citi's actions to its stated strategy in Russia; and the reputational impact from Citi's activity and engagement with Ukraine or with non-Russian clients exiting their Russia businesses.

While Citi announced its intention to wind down its businesses in Russia, Citi will continue to manage those operations during the wind-down process and will be required to maintain certain limited operations to fulfill its remaining legal and regulatory obligations. Also, sanctions and sanctions compliance are highly complex and may change over time and result in increased operational risk. Failure to fully comply with relevant sanctions or the application of sanctions where they should not be applied may negatively impact Citi's reputation. In addition, Citi currently performs services for, conducts business with or deals in non-sanctioned Russian-owned businesses and Russian assets. This has attracted, and will likely continue to attract, negative attention, despite the previously disclosed plan to wind down nearly all its activities in the country, cessation of new business and client originations, and reduction of other exposures.

Citi's continued presence or divestiture of businesses in Russia could also increase its susceptibility to cyberattacks that could negatively impact its relationships with clients and customers, harm its reputation, increase its compliance costs and adversely affect its business operations and results of operations. For additional information on operational and cyber risks, see "Risk Factors—Operational Risks" above.

Board's Role in Overseeing Related Risks

The Citi Board of Directors (Board) and the Board's Risk Management Committee (RMC) and its other Committees have received and continue to receive regular reports from senior management regarding the war in Ukraine and its impact on Citi's operations in Russia, Ukraine and elsewhere, as well as the war's broader geopolitical, macroeconomic and reputational impacts. The reports to the Board and its Committees from senior management who represent the impacted businesses and the International region, Independent Risk Management, Finance, Independent Compliance Risk Management, including those individuals responsible for sanctions compliance, and Human Resources, have included detailed information regarding financial impacts, impacts on

capital, cybersecurity, strategic considerations, sanctions compliance, employee assistance and reputational risks, enabling the Board and its Committees to properly exercise their oversight responsibilities. In addition, senior management has also provided updates to Citi's Executive Management Team and the Board, outside of formal meetings, regarding Citi's Russia-related risks, including with respect to cybersecurity matters.

Ukraine

Citi has continued to operate in Ukraine throughout the war through its *Services*, *Markets* and *Banking* businesses, serving the local subsidiaries of multinationals, along with local financial institutions and the public sector. Citi employs approximately 230 people in Ukraine and their safety is Citi's top priority. All of Citi's domestic operations in Ukraine are conducted through a subsidiary of Citibank, which uses the Ukrainian hryvnia as its functional currency. As of December 31, 2023, Citi had \$1.5 billion of direct exposures related to Ukraine, unchanged from September 30, 2023.

Argentina

Citi operates in Argentina through its *Services*, *Markets* and *Banking* businesses. As of December 31, 2023, Citi's net investment in its Argentine operations was approximately \$1.0 billion (compared to \$1.9 billion at September 30, 2023). Citi uses the U.S. dollar (USD) as the functional currency for its operations in countries such as Argentina that are deemed highly inflationary in accordance with GAAP. Citi therefore records the impact of exchange rate fluctuations on its net Argentine peso (ARS)-denominated assets directly in earnings. Citi uses Argentina's official market exchange rate to remeasure its net ARS-denominated assets into USD. As of December 31, 2023, the official ARS exchange rate was 808.48, which devalued by 57% against the USD during the fourth quarter of 2023.

The decline in Citi's net investment in Argentina during the fourth quarter of 2023 was primarily a result of approximately \$880 million in translation losses in revenues due to devaluation of the ARS (approximately \$1.9 billion in aggregate translation losses in revenues for full-year 2023, compared to approximately \$820 million for full-year 2022). The decline in the net investment was also due to reserve builds in the quarter related to increases in transfer risk associated with exposures in Argentina driven by safety and soundness considerations under U.S. banking law. These reductions in the net investment were partially offset by aggregate other net income, consisting of net interest income in Argentina, and interest earned on the net investment, of which a significant portion is invested at high local overnight rates in Argentina.

The Central Bank of Argentina has continued to maintain certain capital and currency controls that generally restrict Citi's ability to access USD in Argentina and remit earnings from its Argentine operations. Citi's net investment in Argentina will therefore continue to be exposed to additional foreign currency translation losses to the extent it is denominated in ARS and is unable to be remitted or exchanged. Furthermore, the capital and currency controls have resulted in indirect foreign exchange mechanisms that

some Argentine entities may use to obtain USD, generally at rates that are significantly higher than Argentina's official exchange rate. Citibank Argentina is precluded from accessing these alternative mechanisms, and under U.S. GAAP, these exchange mechanisms cannot be used to re-measure Citi's net monetary assets into USD. If Argentina's official exchange rate further converges with the approximate rate implied by the indirect foreign exchange mechanisms, Citi could incur additional translation losses on its net investment in Argentina. Accordingly, Citi seeks to reduce its overall ARS exposure in Argentina while complying with local capital and currency exposure limitations.

Of the \$1.0 billion net investment in Argentina as of December 31, 2023, Citi's net ARS exposure was approximately \$0.4 billion. The net ARS exposure is reduced as a result of Citi holding approximately \$100 million of USD-denominated loans as well as approximately \$500 million of certain local government bonds that are indexed to the higher of the USD exchange rate or the local inflation index. If Citi had not invested in such instruments to reduce its ARS exposure, Citi would have recognized additional translation losses during the fourth quarter of 2023. Given current economic conditions and the local capital, currency and regulatory limitations, Citi cannot guarantee the availability or effectiveness of such mechanisms to reduce its ARS exposure in the future.

In addition to reducing the ARS exposure, Citi also seeks to economically hedge the exposure to the extent possible and prudent using non-deliverable forward (NDF) derivative instruments that are primarily executed outside of Argentina. As of December 31, 2023, the international NDF market had very limited liquidity, resulting in Citi's inability to economically hedge its remaining net ARS exposure. Accordingly, and to the extent that Citi does not execute NDF contracts for this unhedged exposure in the future, Citi would record devaluations on its net ARS-denominated assets in earnings, without any benefit from a change in the fair value of derivative positions used to economically hedge the exposure. Citi cannot predict the availability of hedging instruments in the future nor can it predict changes in foreign exchange rates and the resulting impact on earnings.

Citi continually evaluates its economic exposure to its Argentine counterparties and reserves for changes in credit risk and records mark-to-market adjustments for relevant market risks associated with its Argentine assets. Citi believes it has established an appropriate ACL on its Argentine loans, and appropriate fair value adjustments on Argentine assets and liabilities measured at fair value, for credit and sovereign risks under U.S. GAAP as of December 31, 2023. For additional information on Citi's emerging markets risks, including those related to its Argentine exposures, see "Risk Factors—Strategic Risks" above.

FFIEC—Cross-Border Claims on Third Parties and Local Country Assets

Citi's cross-border disclosures are presented below, based on the country exposure bank regulatory reporting guidelines of the Federal Financial Institutions Examination Council (FFIEC). The following summarizes some of the key FFIEC reporting guidelines:

- Amounts are based on the domicile of the ultimate obligor, counterparty, collateral (only including qualifying liquid collateral), issuer or guarantor, as applicable (e.g., a security recorded by a Citi U.S. entity but issued by the U.K. government is considered U.K. exposure; a loan recorded by a Citi Mexico entity to a customer domiciled in Mexico where the underlying collateral is held in Germany is considered German exposure).
- Amounts do not consider the benefit of collateral received for secured financing transactions (i.e., repurchase agreements, reverse repurchase agreements and securities loaned and borrowed) and are reported based on notional amounts.
- Netting of derivative receivables and payables, reported at fair value, is permitted, but only under a legally binding netting agreement with the same specific counterparty, and does not include the benefit of margin received or hedges.
- Credit default swaps (CDS) are included based on the gross notional amount sold and purchased and do not include any offsetting CDS on the same underlying entity.
- Loans are reported without the benefit of hedges.

Given the requirements noted above, Citi's FFIEC cross-border exposures and total outstandings tend to fluctuate, in some cases significantly, from period to period. As an example, because total outstandings under FFIEC guidelines do not include the benefit of margin or hedges, market volatility in interest rates, foreign exchange rates and credit spreads may cause significant fluctuations in the level of total outstandings, all else being equal.

The tables below present each country whose total outstandings exceeded 0.75% of total Citigroup assets:

	December 31, 2023										
	Cross-border claims on third parties and local country assets										
In billions of dollars	Banks (a)	Public (a)	NBFIs ⁽¹⁾ (a)	Other (corporate and households) (a)	Trading assets ⁽²⁾ (included in (a))	Short-term claims ⁽²⁾ (included in (a))	Total outstanding ⁽³⁾ (sum of (a))	Commitments and guarantees ⁽⁴⁾	Credit derivatives purchased ⁽⁵⁾	Credit derivatives sold ⁽⁵⁾	
Cayman Islands	\$ —	\$ —	\$ 153.3	\$ 9.4	\$ 5.2	\$ 129.3	\$ 162.7	\$ 28.6	\$ 1.5	\$ 1.5	
United Kingdom	5.5	23.8	43.7	19.5	11.9	59.8	92.5	29.9	63.2	62.4	
Japan	29.8	29.6	19.9	8.3	16.3	61.1	87.6	12.8	14.1	11.9	
Mexico	3.1	32.8	11.8	36.2	2.9	45.1	83.9	27.1	5.9	4.7	
Germany	3.7	39.8	16.1	8.6	10.7	46.2	68.2	24.0	42.3	40.7	
France	17.2	11.2	22.7	7.6	11.0	42.4	58.7	67.4	53.9	53.0	
Singapore	1.9	18.7	8.8	17.1	1.6	38.6	46.5	17.9	0.9	0.8	
Hong Kong	2.5	13.1	3.3	21.3	3.8	35.1	40.2	12.0	1.8	1.6	
South Korea	5.3	17.2	4.9	12.2	7.7	30.7	39.6	9.5	5.8	4.8	
Brazil	3.5	15.5	4.3	15.3	7.0	29.4	38.6	2.5	4.8	5.0	
China	5.6	18.7	2.7	10.7	13.3	31.5	37.7	5.0	7.0	6.4	
India	1.9	15.7	4.9	8.8	4.4	23.8	31.3	3.7	1.0	0.7	
Canada	3.5	12.7	7.6	5.0	5.0	23.7	28.8	11.2	5.4	4.8	
Netherlands	3.9	11.1	3.9	6.8	4.6	21.1	25.7	8.7	26.7	27.0	
Australia	5.4	7.4	9.0	3.3	4.0	21.2	25.1	5.4	2.9	2.7	
Ireland	0.1	3.7	14.3	3.5	2.3	20.4	21.6	7.5	2.7	2.6	
Switzerland	4.9	9.2	1.1	5.2	2.6	17.3	20.4	7.9	15.6	15.0	

	December 31, 2022										
	Cross-border claims on third parties and local country assets										
In billions of dollars	Banks (a)	Public (a)	NBFIs ⁽¹⁾ (a)	Other (corporate and households) (a)	Trading assets ⁽²⁾ (included in (a))	Short-term claims ⁽²⁾ (included in (a))	Total outstanding ⁽³⁾ (sum of (a))	Commitments and guarantees ⁽⁴⁾	Credit derivatives purchased ⁽⁵⁾	Credit derivatives sold ⁽⁵⁾	
United Kingdom	\$ 4.9	\$ 31.7	\$ 59.9	\$ 16.2	\$ 11.4	\$ 82.4	\$ 112.7	\$ 24.3	\$ 79.3	\$ 77.8	
Cayman Islands	—	—	99.8	9.8	6.1	70.3	109.6	18.4	0.2	0.2	
Japan	35.4	40.0	17.2	6.9	17.0	71.4	99.5	15.6	13.6	11.9	
Germany	4.9	48.3	39.6	6.7	8.3	55.9	99.5	24.1	50.8	48.8	
Mexico	2.9	31.1	11.4	29.0	3.9	40.8	74.4	22.0	6.4	5.2	
France	9.9	10.9	35.6	7.7	10.3	52.4	64.1	68.8	66.2	62.8	
Singapore	2.1	22.6	6.5	16.2	2.3	40.5	47.4	15.7	1.2	1.0	
South Korea	4.6	17.7	6.4	15.3	4.2	34.8	44.0	11.2	6.4	5.6	
Hong Kong	0.7	14.9	3.5	20.6	4.1	33.7	39.7	13.7	1.5	1.3	
China	3.1	18.8	1.9	13.2	8.3	31.2	37.0	5.8	8.9	8.6	
Brazil	2.4	14.5	2.8	14.4	5.8	25.1	34.1	3.4	5.5	5.1	
India	1.4	13.5	6.7	12.7	2.6	24.2	34.3	8.8	1.4	1.2	
Canada	6.6	13.3	7.4	4.0	4.0	23.4	31.3	11.6	6.8	6.8	
Australia	3.0	13.2	8.7	3.4	5.7	24.2	28.3	5.0	3.5	3.1	
Netherlands	3.9	10.6	5.8	4.6	4.0	19.1	24.9	9.2	31.8	31.0	
Switzerland	2.1	13.7	1.1	4.7	2.0	18.5	21.6	8.8	19.4	19.2	
Ireland	0.1	3.6	13.0	4.3	2.7	19.8	21.0	6.8	2.7	2.6	
Taiwan	0.6	5.6	1.4	12.7	2.2	16.4	20.3	12.9	—	—	

(1) Non-bank financial institutions.

(2) Included in total outstanding.

(3) Total outstanding includes cross-border claims on third parties, as well as local country assets. Cross-border claims on third parties include cross-border loans, securities, deposits with banks and other monetary assets, as well as net revaluation gains on foreign exchange and derivative products.

(4) Commitments (not included in total outstanding) include legally binding cross-border letters of credit and other commitments and contingencies as defined by the FFIEC guidelines. The FFIEC definition of commitments includes commitments to local residents to be funded with local currency liabilities originated within the country.

(5) Credit default swaps (CDS) are not included in total outstanding.

SIGNIFICANT ACCOUNTING POLICIES AND SIGNIFICANT ESTIMATES

This section contains a summary of Citi's most significant accounting policies. Note 1 contains a summary of all of Citigroup's significant accounting policies. These policies, as well as estimates made by management, are integral to the presentation of Citi's results of operations and financial condition. While all of these policies require a certain level of management judgment and estimates, this section highlights and discusses the significant accounting policies that require management to make highly difficult, complex or subjective judgments and estimates at times regarding matters that are inherently uncertain and susceptible to change (see also "Risk Factors—Operational Risks" above). Management has discussed each of these significant accounting policies, the related estimates and its judgments with the Audit Committee of the Citigroup Board of Directors.

Valuations of Financial Instruments

Citigroup holds debt and equity securities, derivatives, retained interests in securitizations, investments in private equity and other financial instruments. A portion of these assets and liabilities is reflected at fair value on Citi's Consolidated Balance Sheet as *Trading account assets*, *Available-for-sale securities* and *Trading account liabilities*.

Citi purchases securities under agreements to resell (reverse repos or resale agreements) and sells securities under agreements to repurchase (repos), a substantial portion of which is carried at fair value. In addition, certain loans, short-term borrowings, long-term debt and deposits, as well as certain securities borrowed and loaned positions that are collateralized with cash, are carried at fair value. Citigroup holds its investments, trading assets and liabilities, and resale and repurchase agreements on Citi's Consolidated Balance Sheet to meet customer needs and to manage liquidity needs, interest rate risks and private equity investing.

When available, Citi generally uses quoted market prices to determine fair value and classifies such items within Level 1 of the fair value hierarchy established under ASC 820-10, *Fair Value Measurement*. If quoted market prices are not available, fair value is based on internally developed valuation models that use, where possible, current market-based or independently sourced market parameters, such as interest rates, currency rates and option volatilities. Such models are often based on a discounted cash flow analysis. In addition, items valued using such internally generated valuation techniques are classified according to the lowest level input or value driver that is significant to the valuation. Thus, an item may be classified under the fair value hierarchy as Level 3 even though there may be some significant inputs that are readily observable.

Citi is required to exercise subjective judgments relating to the applicability and functionality of internal valuation models, the significance of inputs or drivers to the valuation of an instrument and the degree of illiquidity and subsequent lack of observability in certain markets. The fair value of these instruments is reported on Citi's Consolidated Balance Sheet with the changes in fair value recognized in either the Consolidated Statement of Income or in *AOCI*.

Losses on available-for-sale securities whose fair values are less than the amortized cost, where Citi intends to sell the security or could more-likely-than-not be required to sell the security prior to recovery, are recognized in earnings. Where Citi does not intend to sell the security nor could more-likely-than-not be required to sell the security, any portion of the loss that is attributable to credit is recognized as an allowance for credit losses with a corresponding provision for credit losses, and the remainder of the loss is recognized in *AOCI*. Such losses are capped at the difference between the fair value and amortized cost of the security.

For equity securities carried at cost or under the measurement alternative, decreases in fair value below the carrying value are recognized as impairment in the Consolidated Statement of Income. Moreover, for certain equity method investments, decreases in fair value are only recognized in earnings in the Consolidated Statement of Income if such decreases are judged to be an other-than-temporary impairment (OTTI). Assessing if the fair value impairment is temporary is also inherently judgmental.

The fair value of financial instruments incorporates the effects of Citi's own credit risk and the market view of counterparty credit risk, the quantification of which is also complex and judgmental. For additional information on Citi's fair value analysis, see Notes 1, 6, 26 and 27.

Citi's Allowance for Credit Losses (ACL)

The table below presents Citi's allowance for credit losses on loans (ACLL) and total ACL as of the fourth quarter of 2023. For information on the drivers of Citi's ACL build in the fourth quarter of 2023, see below. See Note 1 for additional information on Citi's accounting policy on accounting for credit losses under ASC Topic 326, *Financial Instruments—Credit Losses; Current Expected Credit Losses (CECL)*.

In millions of dollars	Balance Dec. 31, 2022	ACL						ACLL/EOP loans Dec. 31, 2023 ⁽²⁾	
		Build (release)					2023 FX/ Other ⁽¹⁾		
		1Q23	2Q23	3Q23	4Q23	2023			
Services	\$ 356	\$ (72)	\$ (14)	\$ 6	\$ 127	\$ 47	\$ (6)	\$ 397	
Markets	633	63	(24)	124	41	204	(18)	819	
Banking	1,726	(66)	(112)	(29)	(163)	(370)	(2)	1,354	
Legacy Franchises corporate (Mexico SBMM)	140	(10)	(2)	1	1	(10)	14	144	
Total corporate ACLL	\$ 2,855	\$ (85)	\$ (152)	\$ 102	\$ 6	\$ (129)	\$ (12)	\$ 2,714 0.93 %	
U.S. cards ⁽²⁾	\$ 11,393	\$ 536	\$ 276	\$ 128	\$ 466	\$ 1,406	\$ (173)	\$ 12,626 7.67 %	
Retail Banking	447	40	27	(14)	5	58	(29)	476	
Total USPB	\$ 11,840	\$ 576	\$ 303	\$ 114	\$ 471	\$ 1,464	\$ (202)	\$ 13,102	
Wealth	883	(69)	30	(19)	(27)	(85)	(30)	768	
All Other consumer—managed basis ⁽³⁾	1,396	10	79	(20)	91	160	5	1,561	
Reconciling Items ⁽³⁾	—	3	(3)	2	(63)	(61)	61	—	
Total consumer ACLL	\$ 14,119	\$ 520	\$ 409	\$ 77	\$ 472	\$ 1,478	\$ (166)	\$ 15,431 3.97 %	
Total ACLL	\$ 16,974	\$ 435	\$ 257	\$ 179	\$ 478	\$ 1,349	\$ (178)	\$ 18,145 2.66 %	
Allowance for credit losses on unfunded lending commitments (ACLU ⁽⁴⁾)	\$ 2,151	\$ (194)	\$ (96)	\$ (54)	\$ (81)	\$ (425)	\$ 2	\$ 1,728	
Total ACLL and ACLU⁽⁴⁾ (EOP)	\$ 19,125	\$ 241	\$ 161	\$ 125	\$ 397	\$ 924	\$ (176)	\$ 19,873	
Other ⁽⁴⁾	243	408	145	53	1,132	1,738	(98)	1,883	
Total ACL	\$ 19,368	\$ 649	\$ 306	\$ 178	\$ 1,529	\$ 2,662	\$ (274)	\$ 21,756	

- (1) Includes a decrease of \$352 million from the adoption of ASU 2022-02 related to the recognition and measurement of TDRs under the modified retrospective approach related to USPB, Wealth and All Other consumer loans as of January 1, 2023. See Notes 1 and 15.
- (2) As of December 31, 2023, in USPB, Branded Cards ACLL/EOP loans was 6.0% and Retail Services ACLL/EOP loans was 11.1%.
- (3) All Other (managed basis) excludes divestiture-related impacts (Reconciling Items) related to (i) Citi's divestitures of its Asia Consumer businesses and (ii) the planned divestiture of Mexico consumer banking and small business and middle-market banking within Legacy Franchises. The Reconciling Items are fully reflected in the various line items in Citi's Consolidated Statement of Income. These items in the table above represent the 2023 quarterly ACL builds (releases) only. See "All Other—Divestiture-Related Impacts (Reconciling Items)" above.
- (4) Includes ACL on Other assets and Held-to-maturity debt securities. The ACL on Other assets includes ACL related to transfer risk associated with exposures outside the U.S. for safety and soundness considerations under U.S. banking law.

Citi's reserves for expected credit losses on funded loans and for unfunded lending commitments, standby letters of credit and financial guarantees are reflected on the Consolidated Balance Sheet in the *Allowance for credit losses on loans* (ACLL) and *Other liabilities* (for Allowance for credit losses on unfunded lending commitments (ACLU⁽⁴⁾)), respectively. In addition, Citi's reserves for expected credit losses on other financial assets carried at amortized cost, including held-to-maturity securities, reverse repurchase agreements, securities borrowed, deposits with banks and other financial receivables are reflected in *Other assets*. These reserves, together with the ACLL and ACLU⁽⁴⁾, are referred to as the ACL. Changes in the ACL are reflected as *Provision for credit losses* in the Consolidated Statement of Income for each reporting period. Citi's ability to estimate expected credit losses over the reasonable and supportable (R&S) period is

based on the ability to forecast economic activity over a R&S timeframe. The R&S forecast period for consumer and corporate loans is eight quarters.

The ACL is composed of quantitative and qualitative management adjustment components. The quantitative component uses three forward-looking macroeconomic forecast scenarios—base, upside and downside. The qualitative management adjustment component reflects risks and certain economic conditions not fully captured in the quantitative component. Both the quantitative and qualitative components are further discussed below.

Quantitative Component

Citi estimates expected credit losses for its quantitative component using (i) its comprehensive internal data on loss and default history, (ii) internal credit risk ratings, (iii) external credit bureau and rating agencies information and (iv) R&S forecasts of macroeconomic conditions.

For its consumer and corporate portfolios, Citi's expected credit losses are determined primarily by utilizing models that consider the borrowers' probability of default (PD), loss given default (LGD) and exposure at default (EAD). The loss likelihood and severity models used for estimating expected credit losses are sensitive to changes in macroeconomic variables, including housing prices, unemployment rate and real GDP, and cover a wide range of geographic, industry, product and business segments.

In addition, Citi's models determine expected credit losses based on leading credit indicators, including loan delinquencies, changes in portfolio size, default frequency, risk ratings and loss recovery rates, as well as other credit trends.

Qualitative Component

The qualitative management adjustment component includes risks that are not fully captured in the quantitative component. These may include but are not limited to portfolio characteristics, idiosyncratic events, factors not within historical loss data or the economic forecast, uncertainty in the credit environment and other factors as required by banking supervisory guidance for the ACL. The primary examples of these are the following:

- Transfer risk associated with exposures outside the U.S. for certain safety and soundness considerations under U.S. banking law
- Potential impacts on vulnerable industries and regions due to emerging macroeconomic risks and uncertainties, including those related to potential global recession, inflation, interest rates, commodity prices and geopolitical tensions
- Normalization of portfolio performance and consumer behavior from low losses as a result of government stimulus and market liquidity during the COVID-19 pandemic

As of the fourth quarter of 2023, Citi's qualitative component of the ACL increased quarter-over-quarter. The increase was primarily driven by increases in transfer risk associated with exposures outside the U.S. for safety and soundness considerations under U.S. banking law, and more specifically, with cross-border and cross-currency exposures in Argentina, based on prevailing economic trends, currency devaluation and geopolitical risk that may impact Argentina's ability to sustain external debt service, and in Russia for the prolonged political and economic instability. These increases were partially offset by releases of COVID-19-related uncertainty reserves, as the portfolio delinquencies and losses continue to increase, reaching pre-pandemic losses and as risks are captured in the quantitative component of the ACL.

Macroeconomic Variables

As further discussed below, Citi considers a multitude of global macroeconomic variables for the base, upside and downside probability-weighted macroeconomic scenario forecasts it uses to estimate the quantitative component of the ACL. Citi's forecasts of the U.S. unemployment rate and U.S. real GDP growth rate represent the key macroeconomic variables that most significantly affect its estimate of the ACL.

The tables below present Citi's forecasted quarterly average U.S. unemployment rate and year-over-year U.S. real GDP growth rate used in determining the base macroeconomic forecast for Citi's ACL for each quarterly reporting period from 4Q22 to 4Q23:

U.S. unemployment	Quarterly average			8-quarter average ⁽¹⁾
	1Q24	3Q24	1Q25	
Citi forecast at 4Q22	4.6 %	4.5 %	4.4 %	4.4 %
Citi forecast at 1Q23	4.5	4.5	4.4	4.3
Citi forecast at 2Q23	4.3	4.5	4.4	4.3
Citi forecast at 3Q23	4.1	4.3	4.3	4.2
Citi forecast at 4Q23	4.0	4.3	4.3	4.2

(1) Represents the average unemployment rate for the rolling, forward-looking eight quarters in the forecast horizon.

U.S. real GDP	Year-over-year growth rate ⁽¹⁾		
	Full year	2023	2024
Citi forecast at 4Q22	0.3 %	1.5 %	2.2 %
Citi forecast at 1Q23	1.0	1.0	2.0
Citi forecast at 2Q23	1.3	0.7	2.0
Citi forecast at 3Q23	2.1	1.0	2.0
Citi forecast at 4Q23	2.4	1.4	1.7

(1) The year-over-year growth rate is the percentage change in the real (inflation adjusted) GDP level.

Under the base macroeconomic forecast as of 4Q23, U.S. real GDP growth is expected to decline during 2024, while the unemployment rate is expected to increase modestly over the eight-quarter forecast horizon, broadly returning to pre-pandemic levels.

Scenario Weighting

Citi's ACL is estimated using three probability-weighted macroeconomic scenarios—base, upside and downside. The macroeconomic scenario weights are estimated using a statistical model, which, among other factors, takes into consideration key macroeconomic drivers of the ACL, severity of the scenario and other macroeconomic uncertainties and risks. Citi evaluates scenario weights on a quarterly basis.

Citi's downside scenario incorporates more adverse macroeconomic assumptions than the base scenario. For example, compared to the base scenario, Citi's downside scenario reflects a recession, including an elevated average U.S. unemployment rate of 6.8% over the eight-quarter R&S period, with a peak difference of 3.2% in the second quarter of 2025. The downside scenario also reflects a year-over-year

U.S. real GDP contraction in 2024 of 1.9%, with a peak quarter-over-quarter difference to the base scenario of 1.2% in the first quarter of 2024.

Citi's ACL is sensitive to the various macroeconomic scenarios that drive the quantitative component of expected credit losses, due to changes in the length and severity of forecasted economic variables or events in the respective scenarios. To demonstrate this sensitivity, Citi applied 100% weight to the downside scenario as of December 31, 2023 to reflect the most severe economic deterioration forecast in the multiple macroeconomic scenarios. Citi's downside scenario incorporates more adverse macroeconomic assumptions than the weighted scenario assumptions; therefore, applying a 100% downside scenario weight would result in a hypothetical increase in the ACL of approximately \$5.2 billion related to lending exposures, except for loans individually evaluated for credit losses and other financial assets carried at amortized cost.

This analysis does not incorporate any impacts or changes to the qualitative component of the ACL. These factors could change the outcome of the sensitivity analysis based on historical experience and current conditions at the time of the assessment. Given the uncertainty inherent in macroeconomic forecasting, Citi continues to believe that its ACL estimate based on a three probability-weighted macroeconomic scenario approach combined with the qualitative component remains appropriate as of December 31, 2023.

4Q23 Changes in the ACL

As further discussed below, Citi's ending ACL balance for the fourth quarter of 2023 was \$21.8 billion, compared to \$20.2 billion as of September 30, 2023. The net build of \$1.5 billion is primarily related to (i) an approximate \$1.3 billion build for increases in transfer risk associated with exposures in Argentina and Russia (see "ACL on Other Financial Assets" below), and (ii) an approximate \$0.5 billion build for growth in card balances in *USPB*. Citi believes its analysis of the ACL reflects the forward view of the economic environment as of December 31, 2023. See Note 16 for additional information.

Consumer Allowance for Credit Losses on Loans

Citi's consumer ACL is largely driven by U.S. cards (Branded Cards and Retail Services) in *USPB*. Citi's total consumer ACL build was \$0.5 billion in the fourth quarter of 2023, primarily driven by growth in U.S. cards balances, resulting in a December 31, 2023 ACL balance of \$15.4 billion, or 3.97% of total funded consumer loans.

For U.S. cards, the level of reserves relative to total funded loans decreased to 7.67% as of December 31, 2023, due to seasonal improvement, compared to 7.81% at September 30, 2023. For the remaining consumer exposures, the level of reserves relative to total funded loans was 1.25% at December 31, 2023, compared to 1.24% at September 30, 2023.

Corporate Allowance for Credit Losses on Loans

Citi had a corporate ACL build of less than \$0.1 billion in the fourth quarter of 2023. The build was primarily driven by loan growth and was mainly offset by releases related to reserves for specific risks and uncertainties impacting

vulnerable industries and regions. The ACLL reserve balance remained at \$2.7 billion, or 0.93% of total funded corporate loans as of December 31, 2023.

ACLUC

Citi had an ACLUC release of \$0.1 billion in the fourth quarter of 2023, which decreased the ACLUC reserve balance, included in *Other liabilities*, to \$1.7 billion. The release was primarily driven by releases related to reserves for specific risks and uncertainties impacting vulnerable industries and regions.

ACL on Other Financial Assets

Citi's ending ACL balance on other financial assets carried at amortized cost for the fourth quarter of 2023 was \$1.9 billion, compared to \$0.8 billion as of September 30, 2023. The net build of \$1.1 billion was primarily related to increases in transfer risk associated with exposures outside the U.S., driven by safety and soundness considerations under U.S. banking law, and more specifically, to cross-border and cross-currency exposures in Argentina, based on prevailing economic trends, currency devaluation and geopolitical risk that may impact Argentina's ability to sustain external debt service, and in Russia for the prolonged political and economic instability. See Note 16 for additional information.

Regulatory Capital Impact

Citi elected the modified CECL transition provision for regulatory capital purposes provided by the U.S. banking agencies' final rule. Accordingly, the Day One regulatory capital effects resulting from the adoption of CECL, as well as the ongoing adjustments for 25% of the change in CECL-based allowances in each quarter between January 1, 2020 and December 31, 2021, started to be phased in on January 1, 2022 and will be fully reflected in Citi's regulatory capital as of January 1, 2025.

See Notes 1 and 16 for a further description of the ACL and related accounts.

Goodwill

Citi tests for goodwill impairment annually as of October 1 (the annual test) and conducts interim assessments between annual tests if an event occurs or circumstances change that would more-likely-than-not reduce the fair value of a reporting unit below its carrying amount. These events or circumstances include, among other things, a significant adverse change in the business climate, a decision to sell or dispose of all or a significant portion of a reporting unit or a sustained decrease in Citi's stock price.

As of December 31, 2023, Citigroup's activities were conducted through the reportable operating segments: *Services, Markets, Banking, USPB* and *Wealth*, with the remaining operations recorded in *All Other*, which includes activities not assigned to a specific operating segment as well as discontinued operations. Goodwill impairment testing is performed at the level below the operating segment (referred to as a reporting unit).

Citi performed its annual goodwill impairment test as of October 1, 2023, which resulted in no impairment of any of Citi's reporting units' goodwill.

Citi utilizes allocated tangible common equity as a proxy for the carrying value of its reporting units for purposes of goodwill impairment testing. The allocated equity in the reporting units is determined based on the capital the business would require if it were operating as a standalone entity, incorporating sufficient capital to be in compliance with both current and expected regulatory capital requirements, including capital for specifically identified goodwill and intangible assets. The capital allocated to the reporting units is incorporated into the annual budget process, which is approved by Citi's Board of Directors.

Goodwill impairment testing involves management judgment, requiring an assessment of whether the carrying value of a reporting unit can be supported by its fair value using widely accepted valuation techniques, such as the market approach (earnings multiples and/or transaction multiples) and/or the income approach (discounted cash flow (DCF) method). In applying these methodologies, Citi utilizes a number of factors, including actual operating results, future business plans, economic projections and market data.

Similar to 2022, Citi engaged an independent valuation specialist in 2023 to assist in Citi's valuation of all the reporting units, primarily employing both the income and market approach to determine the fair value of the reporting units. The income approach utilized discount rates that Citi believes adequately reflected the risk and uncertainty in the financial markets in the internally generated cash flow projections. The market approach utilizes observable market data from comparable publicly traded companies, such as price-to-earnings or price-to-tangible book value ratios, to estimate a reporting unit's fair value. Management uses judgment in the selection of comparable companies and includes those with the most similar business activities.

The income approach employs a capital asset pricing model in estimating the discount rate. Since none of the Company's reporting units are publicly traded, individual reporting unit fair value determinations cannot be directly correlated to Citigroup's common stock price. The sum of the fair values of the reporting units exceeded the overall market capitalization of Citi as of October 1, 2023. However, Citi believes that it is not meaningful to reconcile the sum of the fair values of the Company's reporting units to its market capitalization due to several factors. The market capitalization of Citigroup reflects the execution risk in a transaction involving Citigroup due to its size. However, the individual reporting units' fair values are not subject to the same level of execution risk or a business model that is as global. In addition, the market capitalization of Citigroup does not include consideration of the individual reporting unit's control premium.

As discussed in Note 3, effective in the fourth quarter of 2023, as part of its organizational simplification, Citi made changes to its management structure, which resulted in changes in its operating segments and reporting units to reflect how the CEO, who is the chief operating decision maker, manages the Company, including allocating resources and measuring performance.

The reorganization of Citi's segment structure, including the change of management, and the business realignment between *Banking* and *Markets* were identified as triggering events for purposes of goodwill impairment testing. Consistent with the requirements of ASC 350, additional interim goodwill impairment tests were performed as of December 13, 2023, which resulted in no impairment during the fourth quarter. Additionally, goodwill was reallocated from *Banking* to *Markets* related to the business realignment based on their relative fair values using the valuation performed as of the effective date of the reorganization. No additional triggering events were identified and no goodwill was impaired during 2023.

Based on the fourth-quarter assessments, the results of the impairment tests showed that the fair values of Citi's reporting units exceeded their carrying values for all reporting units. The impairment tests results also showed that the fair value of the Mexico Consumer/SBMM reporting unit as a percentage of its carrying value was 106%, with the carrying value including approximately \$1.1 billion of goodwill. For each of the remaining reporting units, fair value exceeded carrying value by at least 10%.

While the inherent risk related to uncertainty is embedded in the key assumptions used in the valuations of the reporting units, the economic and business environments continue to evolve as Citi's management implements its organizational simplification. If management's future estimates of key economic and market assumptions were to differ from its current assumptions, Citi could potentially experience material goodwill impairment charges in the future. See Notes 1 and 17 for additional information on goodwill, including the changes in the goodwill balance year-over-year and the segments' goodwill balances as of December 31, 2023.

Litigation Accruals

See the discussion in Note 30 for Citi's policies on establishing accruals for litigation and regulatory contingencies.

Income Taxes

Overview

Citi is subject to the income tax laws of the U.S., its states and local municipalities and the non-U.S. jurisdictions in which Citi operates. These tax laws are complex and are subject to differing interpretations by the taxpayer and the relevant governmental taxing authorities. Disputes over interpretations of the tax laws may be subject to review and adjudication by the court systems of the various tax jurisdictions or may be settled with the taxing authority upon audit.

In establishing a provision for income tax expense, Citi must make judgments and interpretations about the application of these inherently complex tax laws. Citi must also make estimates about when in the future certain items will affect taxable income in the various tax jurisdictions, both domestic and foreign. Deferred taxes are recorded for the future consequences of events that have been recognized in the financial statements or tax returns, based on enacted tax laws and rates. Deferred tax assets (DTAs) are recognized subject to management's judgment that realization is more-likely-

than-not. For example, if it is more-likely-than-not that a carry-forward would expire unused, Citi would set up a valuation allowance against that DTA. Citi has established valuation allowances as described below.

As a result of the Tax Cuts and Jobs Act (Tax Reform), beginning in 2018, Citi is taxed on income generated by its U.S. operations at a federal tax rate of 21%. The effect on Citi's state tax rate is dependent upon how and when the individual states that have not yet addressed the federal tax law changes choose to adopt the various new provisions of the U.S. Internal Revenue Code.

Citi's non-U.S. branches and subsidiaries are subject to tax at their local tax rates. Non-U.S. branches also continue to be subject to U.S. taxation. The impact of this on Citi's earnings depends on the level of branch pretax income, the local branch tax rate, and allocations of overall domestic loss (ODL) and expenses for U.S. tax purposes to branch earnings. Citi expects no residual U.S. tax on such earnings. With respect to non-U.S. subsidiaries, dividends from these subsidiaries will be excluded from U.S. taxation. While the majority of Citi's non-U.S. subsidiary earnings are classified as global intangible low-taxed income (GILTI), Citi expects no material residual U.S. tax on such earnings based on its non-U.S. subsidiaries' local tax rates, which exceed, on average, the effective 13.125% GILTI tax rate. Finally, Citi does not expect the base erosion anti-abuse tax (BEAT) to affect its tax provision.

On January 4, 2022, final FTC regulations were published in the Federal Register, which eliminate the creditability of foreign taxes paid in certain situations. These include countries that do not align with U.S. tax principles in significant part and for services performed outside the recipient country. In 2023, the IRS announced that the effective date of these regulations was deferred until the IRS gives notice otherwise. The impact on Citi's effective tax rate is not expected to be material.

The Inflation Reduction Act was signed into law on August 16, 2022. The Act includes a new corporate alternative minimum tax (AMT) and a 1% excise tax on stock buybacks, both effective January 1, 2023. The corporate AMT is a 15% minimum tax on financial statement income after adjusting for foreign taxes paid. Corporate AMT paid in one year is creditable against regular corporate tax liability in future years. Citi does not expect to pay material amounts of corporate AMT given its profitability and tax profile.

The 1% excise tax is a non-deductible tax on the fair market value of stock repurchased in the taxable year, reduced by the fair market value of any stock issued in the same year. See Note 11 for the 2023 impact on earnings per share related to the excise tax.

Deferred Tax Assets and Valuation Allowances (VA)

At December 31, 2023, Citi had net DTAs of \$29.6 billion. In the fourth quarter of 2023, Citi's DTAs increased by \$1.3 billion, primarily as a result of the geographic mix of earnings. On a full-year basis, Citi's DTAs increased by \$1.9 billion from \$27.7 billion at December 31, 2022.

Of Citi's total net DTAs of \$29.6 billion as of December 31, 2023, \$12.8 billion, primarily related to tax carry-forwards, was deducted in calculating Citi's regulatory capital.

Net DTAs arising from temporary differences are deducted from regulatory capital if in excess of the 10%/15% limitations (see "Capital Resources" above). For the quarter and year ended December 31, 2023, Citi had \$2.3 billion of disallowed temporary difference DTAs (included in the \$12.8 billion above). The remaining \$16.8 billion of net DTAs as of December 31, 2023 was not deducted in calculating regulatory capital pursuant to Basel III standards and was appropriately risk weighted under those rules.

Citi's total VA at December 31, 2023 was \$3.6 billion, an increase of \$1.2 billion from \$2.4 billion at December 31, 2022. The increase was primarily driven by the generation of current-year FTCs in the branch basket. Citi's VA of \$3.6 billion is composed of \$1.9 billion on its FTC branch basket carry-forwards, \$1.2 billion on its U.S. residual DTA related to its non-U.S. branches, \$0.4 billion on local non-U.S. DTAs and \$0.1 billion on state net operating loss carry-forwards.

As stated above with regard to the impact of non-U.S. branches on Citi's earnings, the level of branch pretax income, the local branch tax rate, and the allocations of ODL and expenses for U.S. tax purposes to the branch basket are the main factors in determining the branch VA. The allocated ODL was affected by reduced taxable income generated in the current year.

Recognized FTCs comprised approximately \$1.2 billion of Citi's DTAs as of December 31, 2023, compared to approximately \$1.9 billion as of December 31, 2022. The decrease in FTCs year-over-year was primarily due to current-year usage. The FTC carry-forward period represents the most time-sensitive component of Citi's DTAs.

Citi had an ODL of approximately \$7 billion at December 31, 2023, which allows Citi to elect a percentage between 50% and 100% of future years' domestic source income to be reclassified as foreign source income. (See Note 10 for a description of the ODL.)

The majority of Citi's U.S. federal net operating loss carry-forward and all of its New York State and City net operating loss carry-forwards are subject to a carry-forward period of 20 years. This provides enough time to fully utilize the net DTAs pertaining to these existing net operating loss carry-forwards. This is due to Citi's forecast of sufficient U.S. taxable income and the continued taxation of Citi's non-U.S. income by New York State and City.

Although realization is not assured, Citi believes that the realization of its recognized net DTAs of \$29.6 billion at December 31, 2023 is more-likely-than-not, based on management's expectations as to future taxable income in the jurisdictions in which the DTAs arise, as well as available tax planning strategies (as defined in ASC Topic 740, *Income Taxes*). Citi has concluded that it has the necessary positive evidence to support the realization of its net DTAs after taking its VAs into consideration.

See Note 10 for additional information on Citi's income taxes, including its income tax provision, tax assets and liabilities and a tabular summary of Citi's net DTAs balance as of December 31, 2023 (including the FTCs and applicable expiration dates of the FTCs). For information on Citi's ability to use its DTAs, see "Risk Factors—Strategic Risks" above and Note 10.

Accounting Changes

See Note 1 for a discussion of changes in accounting standards.

DISCLOSURE CONTROLS AND PROCEDURES

Citi's disclosure controls and procedures are designed to ensure that information required to be disclosed under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, including without limitation that information required to be disclosed by Citi in its SEC filings is accumulated and communicated to management, including the Chief Executive Officer (CEO) and Chief Financial Officer (CFO), as appropriate, to allow for timely decisions regarding required disclosure.

Citi's Disclosure Committee assists the CEO and CFO in their responsibilities to design, establish, maintain and evaluate the effectiveness of Citi's disclosure controls and procedures. The Disclosure Committee is responsible for, among other things, the oversight, maintenance and implementation of the disclosure controls and procedures, subject to the supervision and oversight of the CEO and CFO.

Citi's management, with the participation of its CEO and CFO, has evaluated the effectiveness of Citigroup's disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934) as of December 31, 2023. Based on that evaluation, the CEO and CFO have concluded that at that date Citigroup's disclosure controls and procedures were effective.

MANAGEMENT'S ANNUAL REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Citi's management is responsible for establishing and maintaining adequate internal control over financial reporting. Citi's internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of its financial reporting and the preparation of financial statements for external reporting purposes in accordance with U.S. generally accepted accounting principles. Citi's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of Citi's assets, (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles and that Citi's receipts and expenditures are made only in accordance with authorizations of Citi's management and directors, and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of Citi's assets that could have a material effect on its financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect all misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

Citi's management assessed the effectiveness of Citigroup's internal control over financial reporting as of December 31, 2023 based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control—Integrated Framework (2013)*. Based on this assessment, management has concluded that, as of December 31, 2023, Citi's internal control over financial reporting was effective. In addition, there were no changes in Citi's internal control over financial reporting during the fiscal quarter ended December 31, 2023 that materially affected, or are reasonably likely to materially affect, Citi's internal control over financial reporting.

The effectiveness of Citi's internal control over financial reporting as of December 31, 2023 has been audited by KPMG LLP, Citi's independent registered public accounting firm, as stated in their report below, which expressed an unqualified opinion on the effectiveness of Citi's internal control over financial reporting as of December 31, 2023.

FORWARD-LOOKING STATEMENTS

Certain statements in this report, including but not limited to statements included within the Management's Discussion and Analysis of Financial Condition and Results of Operations, are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. In addition, Citigroup also may make forward-looking statements in its other documents filed with or furnished to the SEC, and its management may make forward-looking statements orally to analysts, investors, representatives of the media and others.

Generally, forward-looking statements are not based on historical facts but instead represent Citigroup's and its management's beliefs regarding future events. Such statements may be identified by words such as believe, expect, anticipate, intend, estimate, may increase, may fluctuate, target and illustrative, and similar expressions or future or conditional verbs such as will, should, would and could.

Such statements are based on management's current expectations and are subject to risks, uncertainties and changes in circumstances. Actual results of operations and financial conditions, including capital and liquidity, may differ materially from those included in these statements due to a variety of factors, including without limitation (i) the precautionary statements included within the "Executive Summary" and each business's discussion and analysis of its results of operations and (ii) the factors listed and described under "Risk Factors" above.

Any forward-looking statements made by or on behalf of Citigroup speak only as to the date they are made, and Citi does not undertake to update forward-looking statements to reflect the impact of circumstances or events that arise after the date that the forward-looking statements were made.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM



To the Stockholders and Board of Directors
Citigroup Inc.:

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated balance sheets of Citigroup Inc. and subsidiaries (the Company) as of December 31, 2023 and December 31, 2022, the related consolidated statements of income, comprehensive income, changes in stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2023, and the related notes (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and December 31, 2022, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2023, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023 based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying management's annual report on internal controls over financial reporting. Our responsibility is to express an opinion on the Company's consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially

challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Assessment of the fair value of certain Level 3 assets and liabilities measured on a recurring basis

As described in Notes 1, 26 and 27 to the consolidated financial statements, the Company's assets and liabilities recorded at fair value on a recurring basis were \$896.8 billion, net and \$347.6 billion, net, respectively, at December 31, 2023. The Company estimated the fair value of Level 3 assets and liabilities measured on a recurring basis (\$12.7 billion and \$48.0 billion, respectively, at December 31, 2023) utilizing various valuation techniques with one or more significant inputs or significant value drivers being unobservable including, but not limited to, complex internal valuation models, alternative pricing procedures or comparables analysis and discounted cash flows. We identified the assessment of the measurement of fair value for certain Level 3 assets and liabilities recorded at fair value on a recurring basis as a critical audit matter. A high degree of effort, including specialized skills and knowledge, and subjective and complex auditor judgment was involved in the assessment of the Level 3 fair values due to measurement uncertainty. Specifically, the assessment encompassed the evaluation of the fair value methodology, including methods, models and significant assumptions used to estimate fair value. Significant assumptions include proxy data, forecast data, the extrapolation and interpolation of proxy data, forecast data, and historic data as well as certain model assumptions. The assessment also included an evaluation of the conceptual soundness and performance of the valuation models. The following are the primary procedures we performed to address this critical audit matter. We involved valuation professionals with specialized skills and knowledge who assisted in evaluating the design and testing the operating effectiveness of certain internal controls related to the Company's Level 3 fair value measurements including controls over:

- valuation methodologies, including significant assumptions
- independent price verification
- evaluating that significant model assumptions reflected those which a market participant would use to determine an exit price in the current market environment
- the valuation models used were mathematically accurate and appropriate to value the financial instruments and
- relevant information used within the Company's models that was reasonably available was considered in the fair value determination.

We evaluated the Company's methodology for compliance with U.S. generally accepted accounting principles. We involved valuation professionals with specialized skills and knowledge who assisted in developing an independent fair value estimate for a selection of certain Level 3 assets and liabilities recorded at fair value on a recurring basis based on independently developed valuation models and assumptions, as applicable, using market data sources we determined to be relevant and reliable and compared our independent expectation to the Company's fair value measurements.

Assessment of the allowance for credit losses collectively evaluated for impairment

As described in Notes 1 and 16 to the consolidated financial statements, the Company's allowance for credit losses was \$19.9 billion as of December 31, 2023, which includes the allowance related to loans and unfunded lending commitments collectively evaluated for impairment (the collective ACCLL). The expected credit losses for the quantitative component of the collective ACCLL is the product of multiplying the probability of default (PD), loss given default (LGD), and exposure at default (EAD) for consumer and corporate loans. The credit loss factors applied are determined based on three macroeconomic scenarios (base, downside and upside) multiplied by their respective scenario weights, which take into consideration both internal and external forecasted macroeconomic variables over a reasonable and supportable period. After the reasonable and supportable forecast period, the Company reverts over the reversion period to the long-term average for the forecasted economic variables and losses based on historical observations over multiple economic cycles. The qualitative component considers idiosyncratic events and the uncertainty of forward-looking economic scenarios not captured in the quantitative models. For consumer U.S. credit cards, the Company utilizes the payment rate approach to determine the payments needed to pay off the end-of-period balance. This approach incorporates payment rate curves and is used to estimate EAD. Reserves for unconditionally cancelable accounts are based on the expected life of the balance as of the evaluation date and do not include undrawn commitments that are unconditionally cancelable. In addition, the models used for consumer U.S. credit card loans take into account leading credit indicators. For corporate loans, the models consider the credit quality as measured by risk ratings and economic factors.

We identified the assessment of the collective ACCLL, specifically the quantitative component for the consumer U.S. credit cards and corporate portfolios, and the qualitative component for the corporate portfolio as a critical audit matter. Auditing the assessment involved significant measurement uncertainty requiring complex auditor judgment, and specialized skills and knowledge as well as experience in the industry. Our assessment encompassed the evaluation of the various components of the collective ACCLL methodology, including the methods and models used to estimate the PD, LGD, and EAD and

certain key assumptions and inputs for the Company's quantitative and qualitative components. The key assumptions and inputs for consumer U.S. credit card loans encompass loan delinquencies, certain credit indicators, such as FICO scores, and expected life as well as the reasonable and supportable forecasts for key economic variables. The key economic variables include U.S. unemployment (UER) and U.S. housing prices (HPI), which are utilized by the models. The key assumptions and inputs for corporate loans encompass risk ratings, credit conversion factor for unfunded lending commitments, and reasonable and supportable forecast for key economic variables. The key economic variables include U.S. real gross domestic product (GDP) and UER, which are utilized by the model. The key assumptions and inputs for the qualitative component for corporate loan portfolios include potential impacts on vulnerable industries and regions due to emerging macroeconomic risks and uncertainty including those related to potential global recession, inflation, interest rates, commodity prices, and geopolitical tensions. The assessment also included an evaluation of the conceptual soundness and performance of the PD, LGD, and EAD models. In addition, auditor judgment was required to evaluate the sufficiency of audit evidence obtained.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's measurement of the collective ACLL estimate, including controls over the:

- approval of the collective ACLL methodologies
- determination of the key assumptions and inputs used to estimate the quantitative and qualitative components of the collective ACLL
- performance monitoring of the PD, LGD, and EAD models.

We evaluated the Company's process to develop the collective ACLL estimate by testing certain sources of data and assumptions that the Company used and considered the relevance and reliability of such data and assumptions. In addition, we involved credit risk professionals with specialized skills and knowledge, who assisted in:

- reviewing the Company's collective ACLL methodologies and key assumptions for compliance with U.S. generally accepted accounting principles
- assessing the conceptual soundness and performance testing of the PD, LGD, and EAD models by inspecting the model documentation to determine whether the models are suitable for their intended use
- evaluating judgments made by the Company relative to the development and performance monitoring testing of the PD, LGD, and EAD models by comparing them to relevant Company-specific metrics
- assessing the conceptual soundness and performance testing of the macroeconomic scenario weights model

by inspecting the model documentation to determine whether the model is suitable for its intended use

- assessing the economic forecast scenarios through comparison to publicly available forecasts
- testing corporate loan risk ratings for a selection of borrowers by evaluating the financial performance of the borrower, sources of repayment, and any relevant guarantees or underlying collateral
- evaluating the methodologies used in determining the qualitative components and the effect of that component on the collective ACLL compared with relevant credit risk factors and consistency with credit trends.

We also assessed the sufficiency of the audit evidence obtained related to the collective ACLL by evaluating the:

- cumulative results of the audit procedures
- qualitative aspects of the Company's accounting practices
- potential bias in the accounting estimates

Evaluation of goodwill in the Wealth, Markets and U.S. Personal Banking (USPB) reporting units

As discussed in Notes 1 and 17 to the consolidated financial statements, the goodwill balance as of December 31, 2023 was \$20.1 billion, of which \$4.5 billion related to Wealth, \$5.2 billion related to Markets and \$5.4 billion related to USPB as of October 1, 2023, prior to the Markets and Banking business realignment.

The Company performs goodwill impairment testing on an annual basis and whenever events or changes in circumstances indicate that the carrying value of a reporting unit likely exceeds its fair value. This involves estimating the fair value of the reporting units using both discounted cash flow analyses and a market multiples approach. The Company performed its annual assessment on October 1, 2023. We identified the evaluation of the goodwill impairment analysis for Wealth, Markets, and USPB as of October 1, 2023 as a critical audit matter.

In the fourth quarter, the Company identified the reorganization described in Note 3 as a triggering event due to a change in management for Markets, Banking, Services, USPB, and Wealth and the business realignment between Banking and Markets. The Company performed additional goodwill impairment testing as of December 13, 2023, the effective date of the reorganization. The evaluation of goodwill impairment testing as of December 13, 2023 was not identified as a critical audit matter.

The evaluation of the goodwill impairment analysis for Wealth, Markets, and USPB as of October 1, 2023 was identified as a critical audit matter because as of October 1, 2023, the estimated fair value of the Wealth, Markets, and USPB reporting units marginally exceeded their carrying values at the conclusion of impairment tests. This indicated a higher risk due to measurement uncertainty that the goodwill may be impaired and, therefore, involved a high degree of subjective auditor judgment. Specifically, the assessment encompassed the

evaluation of the key assumptions used in estimating the fair value of the Wealth, Markets, and USPB reporting units, which include the long-term growth rate, discount rate, exit multiple assumptions, certain forecasted macroeconomic assumptions used to inform the forecasted income by reporting unit, and forecasted revenues and operating expenses by reporting unit used in the discounted cash flow analyses.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's determination of the estimated fair value of the Wealth, Markets, and USPB units, including controls related to management's process for assessing the appropriateness of:

- certain assumptions including the long-term growth rate, discount rate, and exit multiple assumptions used in the discounted cash flow analyses
- certain forecasted macroeconomic assumptions used to inform the forecasted income by reporting unit
- forecasted revenues and operating expenses by reporting unit.

We compared the Company's historical forecasts to actual results at a consolidated level to assess the Company's ability to accurately forecast key metrics such as revenues and operating expenses. We also compared prior year actuals to the expected trends for revenues and operating expenses at the reporting unit level to assess the Company's ability to achieve their forecasts. We compared the Company's fourth quarter 2023 forecasts to actual fourth quarter 2023 results at the reporting unit level to assess the Company's ability to accurately forecast. We evaluated the reasonableness of the Company's forecasts by comparing to analyst reports.

In addition, we involved a valuation professional with specialized skills and knowledge, who assisted in:

- developing an independent range of long-term growth rate assumptions by reviewing publicly available data and comparable industries and comparing it to the Company's assumption
- evaluating the discount rate by assessing the methodology used by management and developing an independent assumption for the discount rate
- developing an independent range of the exit multiple assumptions using publicly available data for comparable entities and comparing it to the Company's assumption utilized in the discounted cash flow analysis
- developing an independent estimate of the fair value of the Wealth, Markets, and USPB reporting units using the income and market multiple approaches and comparing the results to the Company's fair value estimate
- assessing the reasonableness of the market capitalization reconciliation.

/s/ KPMG LLP

We have served as the Company's auditor since 1969.

New York, New York
February 23, 2024

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CONSOLIDATED FINANCIAL STATEMENTS
CONSOLIDATED STATEMENT OF INCOME

Citigroup Inc. and Subsidiaries

<i>In millions of dollars, except per share amounts</i>	Years ended December 31,		
	2023	2022	2021
Revenues			
Interest income	\$ 133,258	\$ 74,408	\$ 50,475
Interest expense	78,358	25,740	7,981
Net interest income	\$ 54,900	\$ 48,668	\$ 42,494
Commissions and fees	8,905	9,175	13,672
Principal transactions	10,948	14,159	10,154
Administration and other fiduciary fees	3,781	3,784	3,943
Realized gains on sales of investments, net	188	67	665
Impairment losses on investments:			
Impairment losses on investments	(323)	(499)	(206)
Provision for credit losses on AFS debt securities ⁽¹⁾	(4)	5	(3)
Net impairment losses recognized in earnings	(327)	(494)	(209)
Other revenue	67	(21)	1,165
Total non-interest revenues	\$ 23,562	\$ 26,670	\$ 29,390
Total revenues, net of interest expense	\$ 78,462	\$ 75,338	\$ 71,884
Provisions for credit losses and for benefits and claims			
Provision for credit losses on loans	\$ 7,786	\$ 4,745	\$ (3,103)
Provision for credit losses on HTM debt securities	(24)	33	(3)
Provision for credit losses on other assets	1,762	76	—
Policyholder benefits and claims	87	94	116
Provision for credit losses on unfunded lending commitments	(425)	291	(788)
Total provisions for credit losses and for benefits and claims⁽²⁾	\$ 9,186	\$ 5,239	\$ (3,778)
Operating expenses			
Compensation and benefits	\$ 29,232	\$ 26,655	\$ 25,134
Premises and equipment	2,508	2,320	2,314
Technology/communication	9,106	8,587	7,828
Advertising and marketing	1,393	1,556	1,490
Restructuring	781	—	—
Other operating	13,346	12,174	11,427
Total operating expenses	\$ 56,366	\$ 51,292	\$ 48,193
Income from continuing operations before income taxes	\$ 12,910	\$ 18,807	\$ 27,469
Provision for income taxes	3,528	3,642	5,451
Income from continuing operations	\$ 9,382	\$ 15,165	\$ 22,018
Discontinued operations			
Income (loss) from discontinued operations	\$ (1)	\$ (272)	\$ 7
Benefit for income taxes	—	(41)	—
Income (loss) from discontinued operations, net of taxes	\$ (1)	\$ (231)	\$ 7
Net income before attribution to noncontrolling interests	\$ 9,381	\$ 14,934	\$ 22,025
Noncontrolling interests	153	89	73
Citigroup's net income	\$ 9,228	\$ 14,845	\$ 21,952
Basic earnings per share⁽³⁾			
Income from continuing operations	\$ 4.07	\$ 7.16	\$ 10.21
Loss from discontinued operations, net of taxes	—	(0.12)	—
Net income	\$ 4.07	\$ 7.04	\$ 10.21
Weighted-average common shares outstanding (in millions)	1,930.1	1,946.7	2,033.0
Diluted earnings per share⁽³⁾			
Income from continuing operations	\$ 4.04	\$ 7.11	\$ 10.14
Loss from discontinued operations, net of taxes	—	(0.12)	—
Net income	\$ 4.04	\$ 7.00	\$ 10.14
Adjusted weighted-average diluted common shares outstanding (in millions)	1,955.8	1,964.3	2,049.4

- (1) In accordance with ASC 326, which requires the provision for credit losses on AFS securities to be included in revenue.
 (2) This total excludes the provision for credit losses on AFS securities, which is disclosed separately above.
 (3) Due to rounding, earnings per share on continuing operations and discontinued operations may not sum to earnings per share on net income.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

Citigroup Inc. and Subsidiaries

<i>In millions of dollars</i>	Years ended December 31,		
	2023	2022	2021
Citigroup's net income	\$ 9,228	\$ 14,845	\$ 21,952
Add: Citigroup's other comprehensive income (loss), net change, net of taxes⁽¹⁾			
Unrealized gains and losses on debt securities ⁽²⁾	\$ 2,254	\$ (5,384)	\$ (3,934)
Debt valuation adjustment (DVA) ⁽³⁾	(1,551)	2,029	232
Cash flow hedges	1,116	(2,623)	(1,492)
Benefit plans liability adjustment ⁽⁴⁾	(295)	97	1,012
CTA, net of hedges	752	(2,471)	(2,525)
Excluded component of fair value hedges	(48)	55	—
Long-duration insurance contracts	7	—	—
Citigroup's total other comprehensive income (loss)	\$ 2,235	\$ (8,297)	\$ (6,707)
Citigroup's total comprehensive income	\$ 11,463	\$ 6,548	\$ 15,245
Add: Other comprehensive income (loss) attributable to noncontrolling interests	\$ 84	\$ (58)	\$ (99)
Add: Net income attributable to noncontrolling interests	153	89	73
Total comprehensive income	\$ 11,700	\$ 6,579	\$ 15,219

(1) See Note 21.

(2) See Note 1.

(3) See Note 26.

(4) See Note 8.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

CONSOLIDATED BALANCE SHEET
Citigroup Inc. and Subsidiaries

	December 31,	
<i>In millions of dollars</i>	2023	2022
Assets		
Cash and due from banks (including segregated cash and other deposits)	\$ 27,342	\$ 30,577
Deposits with banks, net of allowance	233,590	311,448
Securities borrowed and purchased under agreements to resell (including \$206,059 and \$239,527 as of December 31, 2023 and 2022, respectively, at fair value), net of allowance	345,700	365,401
Brokerage receivables, net of allowance	53,915	54,192
Trading account assets (including \$197,156 and \$133,535 pledged to creditors at December 31, 2023 and 2022, respectively)	411,756	334,114
Investments:		
Available-for-sale debt securities (including \$11,868 and \$10,933 pledged to creditors as of December 31, 2023 and 2022, respectively)	256,936	249,679
Held-to-maturity debt securities, net of allowance (fair value of which is \$235,001 and \$243,648 as of December 31, 2023 and 2022, respectively) (includes \$71 and \$0 pledged to creditors as of December 31, 2023 and 2022, respectively)	254,247	268,863
Equity securities (including \$766 and \$895 as of December 31, 2023 and 2022, respectively, at fair value)	7,902	8,040
Total investments	\$ 519,085	\$ 526,582
Loans:		
Consumer (including \$313 and \$237 as of December 31, 2023 and 2022, respectively, at fair value)	389,197	368,067
Corporate (including \$7,281 and \$5,123 as of December 31, 2023 and 2022, respectively, at fair value)	300,165	289,154
Loans, net of unearned income	\$ 689,362	\$ 657,221
Allowance for credit losses on loans (ACLL)	(18,145)	(16,974)
Total loans, net	\$ 671,217	\$ 640,247
Goodwill	20,098	19,691
Intangible assets (including MSRs of \$691 and \$665 as of December 31, 2023 and 2022, respectively)	4,421	4,428
Premises and equipment, net of depreciation and amortization	28,747	26,253
Other assets (including \$12,290 and \$10,658 as of December 31, 2023 and 2022, respectively, at fair value), net of allowance	95,963	103,743
Total assets	\$ 2,411,834	\$ 2,416,676

Statement continues on the next page.

CONSOLIDATED BALANCE SHEET
(Continued)

Citigroup Inc. and Subsidiaries

<i>In millions of dollars, except shares and per share amounts</i>	December 31,	
	2023	2022
Liabilities		
Deposits (including \$2,440 and \$1,875 as of December 31, 2023 and 2022, respectively, at fair value)	\$ 1,308,681	\$ 1,365,954
Securities loaned and sold under agreements to repurchase (including \$62,485 and \$70,886 as of December 31, 2023 and 2022, respectively, at fair value)	278,107	202,444
Brokerage payables (including \$4,321 and \$4,439 as of December 31, 2023 and 2022, respectively, at fair value)	63,539	69,218
Trading account liabilities	155,345	170,647
Short-term borrowings (including \$6,545 and \$6,222 as of December 31, 2023 and 2022, respectively, at fair value)	37,457	47,096
Long-term debt (including \$116,338 and \$105,995 as of December 31, 2023 and 2022, respectively, at fair value)	286,619	271,606
Other liabilities, plus allowances	75,835	87,873
Total liabilities	\$ 2,205,583	\$ 2,214,838
Stockholders' equity		
Preferred stock (\$1.00 par value; authorized shares: 30 million), issued shares: as of December 31, 2023 —704,000 and as of December 31, 2022—759,800, at aggregate liquidation value	\$ 17,600	\$ 18,995
Common stock (\$0.01 par value; authorized shares: 6 billion), issued shares: as of December 31, 2023 —3,099,691,704 and as of December 31, 2022—3,099,669,424	31	31
Additional paid-in capital	108,955	108,458
Retained earnings	198,905	194,734
Treasury stock, at cost: December 31, 2023 —1,196,577,865 shares and December 31, 2022—1,162,682,999 shares	(75,238)	(73,967)
Accumulated other comprehensive income (loss) (<i>AOCI</i>)	(44,800)	(47,062)
Total Citigroup stockholders' equity	\$ 205,453	\$ 201,189
Noncontrolling interests	798	649
Total equity	\$ 206,251	\$ 201,838
Total liabilities and equity	\$ 2,411,834	\$ 2,416,676

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY
Citigroup Inc. and Subsidiaries

<i>In millions of dollars, except shares in thousands</i>	Years ended December 31,					
	Amounts			Shares		
	2023	2022	2021	2023	2022	2021
Preferred stock at aggregate liquidation value						
Balance, beginning of year	\$ 18,995	\$ 18,995	\$ 19,480	760	760	779
Issuance of new preferred stock	2,750	—	3,300	110	—	132
Redemption of preferred stock	(4,145)	—	(3,785)	(166)	—	(151)
Balance, end of year	\$ 17,600	\$ 18,995	\$ 18,995	704	760	760
Common stock and additional paid-in capital (APIC)						
Balance, beginning of year	\$ 108,489	\$ 108,034	\$ 107,877	3,099,669	3,099,652	3,099,633
Employee benefit plans	452	455	85	23	17	19
Preferred stock issuance costs (reclassifications to <i>Retained earnings</i> for redemptions)	58	—	25	—	—	—
Other (primarily preferred stock issuance costs related to new issuances)	(13)	—	47	—	—	—
Balance, end of year	\$ 108,986	\$ 108,489	\$ 108,034	3,099,692	3,099,669	3,099,652
Retained earnings						
Balance, beginning of year	\$ 194,734	\$ 184,948	\$ 168,272			
Adjustments to opening balance, net of taxes ⁽¹⁾						
Financial instruments—TDRs and vintage disclosures	290	—	—			
Adjusted balance, beginning of year	\$ 195,024	\$ 184,948	\$ 168,272			
Citigroup's net income	9,228	14,845	21,952			
Common dividends ⁽²⁾	(4,076)	(4,028)	(4,196)			
Preferred dividends	(1,198)	(1,032)	(1,040)			
Other (primarily reclassifications from APIC for preferred issuance costs on redemptions)	(73)	1	(40)			
Balance, end of year	\$ 198,905	\$ 194,734	\$ 184,948			
Treasury stock, at cost						
Balance, beginning of year	\$ (73,967)	\$ (71,240)	\$ (64,129)	(1,162,683)	(1,115,297)	(1,017,544)
Employee benefit plans ⁽³⁾	729	523	489	10,276	8,190	7,745
Treasury stock acquired ⁽⁴⁾	(2,000)	(3,250)	(7,600)	(44,171)	(55,576)	(105,498)
Balance, end of year	\$ (75,238)	\$ (73,967)	\$ (71,240)	(1,196,578)	(1,162,683)	(1,115,297)
Citigroup's accumulated other comprehensive income (loss)						
Balance, beginning of year	\$ (47,062)	\$ (38,765)	\$ (32,058)			
Adjustment to opening balance, net of taxes ⁽¹⁾	27	—	—			
Adjusted balance, beginning of year	\$ (47,035)	\$ (38,765)	\$ (32,058)			
Citigroup's total other comprehensive income (loss)	2,235	(8,297)	(6,707)			
Balance, end of year	\$ (44,800)	\$ (47,062)	\$ (38,765)			
Total Citigroup common stockholders' equity	\$ 187,853	\$ 182,194	\$ 182,977	1,903,114	1,936,986	1,984,355
Total Citigroup stockholders' equity	\$ 205,453	\$ 201,189	\$ 201,972			
Noncontrolling interests						
Balance, beginning of year	\$ 649	\$ 700	\$ 758			
Transactions between Citigroup and the noncontrolling-interest shareholders	(14)	(34)	(10)			
Net income attributable to noncontrolling-interest shareholders	153	89	73			
Distributions paid to noncontrolling-interest shareholders	(82)	(51)	(10)			
Other comprehensive income (loss) attributable to noncontrolling-interest shareholders	84	(58)	(99)			
Other	8	3	(12)			
Net change in noncontrolling interests	\$ 149	\$ (51)	\$ (58)			
Balance, end of year	\$ 798	\$ 649	\$ 700			
Total equity	\$ 206,251	\$ 201,838	\$ 202,672			

(1) See Note 1 for additional details.

- (2) Common dividends declared were \$0.51 per share for each of 1Q23 and 2Q23, and \$0.53 per share for each of 3Q23 and 4Q23; \$0.51 per share for each of 1Q22, 2Q22, 3Q22 and 4Q22; and \$0.51 per share for each of 1Q21, 2Q21, 3Q21 and 4Q21.
- (3) Includes treasury stock related to certain activity under Citi's employee restricted or deferred stock programs where shares are withheld to satisfy employees' tax requirements.
- (4) Primarily consists of open market purchases under Citi's Board of Directors-approved common stock repurchase program.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

CONSOLIDATED STATEMENT OF CASH FLOWS
Citigroup Inc. and Subsidiaries

<i>In millions of dollars</i>	Years ended December 31,		
	2023	2022	2021
Cash flows from operating activities of continuing operations			
Net income before attribution of noncontrolling interests	\$ 9,381	\$ 14,934	\$ 22,025
Net income attributable to noncontrolling interests	153	89	73
Citigroup's net income	\$ 9,228	\$ 14,845	\$ 21,952
Income (loss) from discontinued operations, net of taxes	(1)	(231)	7
Income from continuing operations—excluding noncontrolling interests	\$ 9,229	\$ 15,076	\$ 21,945
Adjustments to reconcile net income to net cash provided by (used in) operating activities of continuing operations			
Net loss (gain) on sale of significant disposals ⁽¹⁾	(1,462)	(762)	700
Depreciation and amortization	4,560	4,262	3,964
Deferred income taxes	(2,416)	(1,141)	1,413
Provisions for credit losses and for benefits and claims	9,186	5,239	(3,778)
Realized gains from sales of investments	(188)	(67)	(665)
Impairment losses on investments and other assets	323	499	206
Goodwill impairment	—	535	—
Change in trading account assets	(77,838)	(2,273)	43,059
Change in trading account liabilities	(15,302)	9,118	(6,498)
Change in brokerage receivables net of brokerage payables	(5,402)	7,936	1,412
Change in loans held-for-sale (HFS)	1,929	4,421	(3,809)
Change in other assets	(6,361)	(4,992)	(2,139)
Change in other liabilities ⁽²⁾	3,587	5,343	6,839
Other, net	6,739	(18,125)	(15,559)
Total adjustments	\$ (82,645)	\$ 9,993	\$ 25,145
Net cash provided by (used in) operating activities of continuing operations	\$ (73,416)	\$ 25,069	\$ 47,090
Cash flows from investing activities of continuing operations			
Change in securities borrowed and purchased under agreements to resell	\$ 19,701	\$ (38,113)	\$ (32,576)
Change in loans	(44,525)	(16,591)	(1,173)
Proceeds from sales and securitizations of loans	4,801	4,709	2,918
Net payment due to transfer of net liabilities associated with divestitures ⁽¹⁾	(1,393)	5,741	—
Available-for-sale (AFS) debt securities			
Purchases of investments	(235,139)	(218,747)	(205,980)
Proceeds from sales of investments	41,886	79,687	125,895
Proceeds from maturities of investments	200,437	140,934	120,936
Held-to-maturity (HTM) debt securities			
Purchases of investments	(1,373)	(42,903)	(136,450)
Proceeds from maturities of investments	12,838	12,188	21,164
Capital expenditures on premises and equipment and capitalized software	(6,583)	(5,632)	(4,119)
Proceeds from sales of premises and equipment and repossessed assets	56	63	190
Other, net	835	(791)	(1,551)
Net cash used in investing activities of continuing operations	\$ (8,459)	\$ (79,455)	\$ (110,746)
Cash flows from financing activities of continuing operations			
Dividends paid	\$ (5,212)	\$ (5,003)	\$ (5,198)
Issuance of preferred stock	2,739	—	3,300
Redemption of preferred stock	(4,145)	—	(3,785)
Treasury stock acquired	(1,977)	(3,250)	(7,601)
Stock tendered for payment of withholding taxes	(329)	(344)	(337)

CONSOLIDATED STATEMENT OF CASH FLOWS
(Continued)

Citigroup Inc. and Subsidiaries

<i>In millions of dollars</i>	Years ended December 31,		
	2023	2022	2021
Change in securities loaned and sold under agreements to repurchase	\$ 75,663	\$ 11,159	\$ (8,240)
Issuance of long-term debt	65,819	104,748	70,658
Payments and redemptions of long-term debt	(64,959)	(57,085)	(74,950)
Change in deposits	(57,273)	68,415	44,966
Change in short-term borrowings	(9,639)	19,123	(1,541)
Net cash provided by financing activities of continuing operations	\$ 687	\$ 137,763	\$ 17,272
Effect of exchange rate changes on cash, due from banks and deposits with banks	\$ 95	\$ (3,385)	\$ (1,198)
Change in cash, due from banks and deposits with banks	(81,093)	79,992	(47,582)
Cash, due from banks and deposits with banks at beginning of year	342,025	262,033	309,615
Cash, due from banks and deposits with banks at end of year	\$ 260,932	\$ 342,025	\$ 262,033
Cash and due from banks (including segregated cash and other deposits)	\$ 27,342	\$ 30,577	\$ 27,515
Deposits with banks, net of allowance	233,590	311,448	234,518
Cash, due from banks and deposits with banks at end of year	\$ 260,932	\$ 342,025	\$ 262,033
Supplemental disclosure of cash flow information for continuing operations			
Cash paid during the year for income taxes	\$ 5,727	\$ 3,733	\$ 4,028
Cash paid during the year for interest	72,989	22,615	7,143
Non-cash investing activities⁽¹⁾⁽³⁾⁽⁴⁾			
Transfer of investment securities from HTM to AFS	\$ 3,324	\$ —	\$ —
Transfer of investment securities from AFS to HTM	—	21,688	—
Decrease in net loans associated with divestitures reclassified to HFS	—	16,956	9,945
Decrease in goodwill associated with divestitures reclassified to HFS	—	876	—
Transfers to loans HFS (<i>Other assets</i>) from loans HFI	7,866	5,582	7,414
Transfers from loans HFS (<i>Other assets</i>) to loans HFI	322	—	—
Non-cash financing activities⁽¹⁾⁽⁴⁾			
Decrease in long-term debt associated with divestitures reclassified to HFS	\$ —	\$ —	\$ 479
Decrease in deposits associated with divestitures reclassified to HFS	—	19,691	8,407

(1) See Note 2.

(2) Includes balances related to the FDIC special assessment and restructuring charges. See Notes 9 and 30.

(3) In January 2023, Citi adopted ASU 2022-01. Upon adoption, Citi transferred \$3.3 billion of mortgage-backed securities from HTM classification to AFS classification as allowed under the ASU. At the time of transfer, the securities were in an unrealized gain position of \$0.1 billion, which was recorded in *AOCI* upon transfer.

(4) Operating and finance lease right-of-use assets and lease liabilities represent non-cash investing and financing activities, respectively, and are not included in the non-cash investing activities presented here. See Note 29 for more information and balances as of December 31, 2023 and 2022.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Throughout these Notes, "Citigroup," "Citi" and the "Company" refer to Citigroup Inc. and its consolidated subsidiaries.

Certain reclassifications and updates have been made to the prior periods' financial statements and notes to conform to the current period's presentation.

Principles of Consolidation

The Consolidated Financial Statements include the accounts of Citigroup and its subsidiaries prepared in accordance with U.S. generally accepted accounting principles (GAAP). The Company consolidates subsidiaries in which it holds, directly or indirectly, more than 50% of the voting rights or where it exercises control. Entities in which the Company holds 20% to 50% of the voting rights and/or has the ability to exercise significant influence, other than investments of designated venture capital subsidiaries or investments accounted for at fair value under the fair value option, are accounted for under the equity method, and the pro rata share of their income (loss) is included in *Other revenue*. Income from investments in less-than-20%-owned companies is recognized when dividends are received. As discussed in more detail in Note 23, Citigroup also consolidates entities deemed to be variable interest entities when Citigroup is determined to be the primary beneficiary. Gains and losses on the disposition of branches, subsidiaries, affiliates, buildings and other investments are included in *Other revenue*.

Citibank

Citibank, N.A. (Citibank) is a commercial bank and indirect wholly owned subsidiary of Citigroup. Citibank's principal offerings include investment banking, commercial banking, cash management, trade finance and e-commerce; private banking products and services; consumer finance, credit cards and mortgage lending; and retail banking products and services.

Variable Interest Entities (VIEs)

An entity is a variable interest entity (VIE) if it meets either of the criteria outlined in Accounting Standards Codification (ASC) Topic 810, *Consolidation*, which are (i) the entity has equity that is insufficient to permit the entity to finance its activities without additional subordinated financial support from other parties, or (ii) the entity has equity investors that cannot make significant decisions about the entity's operations or that do not absorb their proportionate share of the entity's expected losses or expected returns.

The Company consolidates a VIE when it has both the power to direct the activities that most significantly impact the VIE's economic performance and a right to receive benefits or the obligation to absorb losses of the entity that could be potentially significant to the VIE (that is, Citi is the primary beneficiary). In addition to variable interests held in consolidated VIEs, the Company has variable interests in other

VIEs that are not consolidated because the Company is not the primary beneficiary.

All unconsolidated VIEs are monitored by the Company to assess whether any events have occurred to cause its primary beneficiary status to change.

All entities not deemed to be VIEs with which the Company has involvement are evaluated for consolidation under other subtopics of ASC 810. See Note 23 for more detailed information.

Foreign Currency Translation

Assets and liabilities of Citi's foreign operations are translated from their respective functional currencies into U.S. dollars using period-end spot foreign exchange rates. The effects of those translation adjustments are reported in *Accumulated other comprehensive income (loss) (AOCI)*, a component of stockholders' equity, net of any related hedge and tax effects, until realized upon sale or substantial liquidation of the foreign entity, at which point such amounts are reclassified into earnings. Revenues and expenses of Citi's foreign operations are translated monthly from their respective functional currencies into U.S. dollars at amounts that approximate weighted-average exchange rates.

For transactions that are denominated in a currency other than the functional currency, including transactions denominated in the local currencies of foreign operations that use the U.S. dollar as their functional currency, the effects of changes in exchange rates are primarily included in *Principal transactions*, along with the related effects of any economic hedges. Instruments used to hedge foreign currency exposures include foreign currency forward, option and swap contracts and, in certain instances, designated issues of non-U.S.-dollar debt. Foreign operations in countries with highly inflationary economies designate the U.S. dollar as their functional currency, with the effects of changes in exchange rates primarily included in *Other revenue*.

Investment Securities

Investments include debt and equity securities. Debt securities include bonds, notes and redeemable preferred stocks, as well as certain loan-backed and structured securities that are subject to prepayment risk. Equity securities include common and nonredeemable preferred stock.

Debt Securities

- Debt securities classified as "held-to-maturity" (HTM) are securities that the Company has both the ability and the intent to hold until maturity and are carried at amortized cost. Interest income on such securities is included in *Interest revenue*.
- Debt securities classified as "available-for-sale" (AFS) are carried at fair value with changes in fair value reported in *Accumulated other comprehensive income (loss)*, a component of stockholders' equity, net of applicable income taxes and hedges. Interest income on such securities is included in *Interest revenue*.

For investments in debt securities classified as HTM or AFS, accrued interest is subject to the Company's non-accrual policy, which results in the timely write-off of accrued interest.

Investment securities not measured at fair value through earnings include (i) debt securities held in HTM or AFS, (ii) equity securities accounted for under the measurement alternative or equity method, (iii) Federal Reserve Bank and Federal Home Loan Bank stock and (iv) certain exchange memberships. These securities are subject to evaluation for impairment as described in Note 16 for HTM securities and in Note 14 for AFS, measurement alternative and equity method investments. Realized gains and losses on sales of investments are included in earnings, primarily on a specific identification basis.

The Company uses a number of valuation techniques for investments carried at fair value, which are described in Note 26.

Equity Securities

- Marketable equity securities are measured at fair value with changes in fair value recognized in earnings.
- Non-marketable equity securities are measured at fair value with changes in fair value recognized in earnings unless (i) the measurement alternative is elected or (ii) the investment represents Federal Reserve Bank and Federal Home Loan Bank stock or certain exchange seats that continue to be carried at cost. Non-marketable equity securities under the measurement alternative are carried at cost less impairment (if any), plus or minus changes resulting from observed prices for orderly transactions for the identical or a similar investment of the same issuer.
- Certain investments that would otherwise have been accounted for using the equity method are carried at fair value with changes in fair value recognized in earnings, since the Company elected to apply fair value accounting.

Trading Account Assets and Liabilities

Trading account assets include debt and marketable equity securities, derivatives in a receivable position, residual interests in securitizations and physical commodities inventory. In addition, as described in Note 27, certain assets that Citigroup has elected to carry at fair value under the fair value option, such as loans and purchased guarantees, are also included in *Trading account assets*.

Trading account liabilities include securities sold, not yet purchased (short positions) and derivatives in a net payable position, as well as certain liabilities that Citigroup has elected to carry at fair value (as described in Note 27).

Other than physical commodities inventory, all trading account assets and liabilities are carried at fair value. Revenues generated from trading assets and trading liabilities are generally reported in *Principal transactions* and include realized gains and losses as well as unrealized gains and losses resulting from changes in the fair value of such instruments. Interest income on trading assets is recorded in *Interest revenue* reduced by interest expense on trading liabilities.

Physical commodities inventory is carried at the lower of cost or market with related losses reported in *Principal*

transactions, except when included in a hedging relationship. Realized gains and losses on sales of commodities inventory are included in *Principal transactions*. Investments in unallocated precious metals accounts (gold, silver, platinum and palladium) are accounted for as hybrid instruments containing a debt host contract and an embedded non-financial derivative instrument indexed to the price of the relevant precious metal. The embedded derivative instrument and debt host contract are carried at fair value under the fair value option, as described in Note 27.

Derivatives used for trading purposes include interest rate, currency, equity, credit and commodity swap agreements, options, caps and floors, warrants, and financial and commodity futures and forward contracts. Derivative asset and liability positions are presented net by counterparty on the Consolidated Balance Sheet when a valid master netting agreement exists and the other conditions set out in ASC Topic 210-20, *Balance Sheet—Offsetting*, are met. See Note 24.

The Company uses a number of techniques to determine the fair value of trading assets and liabilities, which are described in Note 26.

Securities Borrowed and Securities Lent

Securities borrowing and lending transactions do not constitute a sale of the underlying securities for accounting purposes and are treated as collateralized financing transactions. Such transactions are recorded at the amount of proceeds advanced or received plus accrued interest. As described in Note 27, the Company has elected to apply fair value accounting to a number of securities borrowing and lending transactions. Fees received or paid for all securities borrowing and lending transactions are recorded in *Interest revenue* or *Interest expense* at the contractually specified rate.

Where the conditions of ASC 210-20-45-1, *Balance Sheet—Offsetting: Right of Setoff Conditions*, are met, securities borrowing and lending transactions are presented net on the Consolidated Balance Sheet.

The Company monitors the fair value of securities borrowed or loaned on a daily basis and obtains or posts additional collateral in order to maintain contractual margin protection.

As described in Note 26, the Company uses a discounted cash flow technique to determine the fair value of securities lending and borrowing transactions.

Repurchase and Resale Agreements

Securities sold under agreements to repurchase (repos) and securities purchased under agreements to resell (reverse repos) do not constitute a sale (or purchase) of the underlying securities for accounting purposes and are treated as collateralized financing transactions. As described in Note 27, the Company has elected to apply fair value accounting to certain portions of such transactions, with changes in fair value reported in earnings. Any transactions for which fair value accounting has not been elected are recorded at the amount of cash advanced or received plus accrued interest. Irrespective of whether the Company has elected fair value accounting, interest paid or received on all repo and reverse

repo transactions is recorded in *Interest expense* or *Interest revenue* at the contractually specified rate.

Where the conditions of ASC 210-20-45-11, *Balance Sheet—Offsetting: Repurchase and Reverse Repurchase Agreements*, are met, repos and reverse repos are presented net on the Consolidated Balance Sheet.

The Company's policy is to take possession of securities purchased under reverse repurchase agreements. The Company monitors the fair value of securities subject to repurchase or resale on a daily basis and obtains or posts additional collateral in order to maintain contractual margin protection.

As described in Note 26, the Company uses a discounted cash flow technique to determine the fair value of repo and reverse repo transactions.

Loans

Loans are reported at their outstanding principal balances net of any unearned income and unamortized deferred fees and costs, except for credit card receivable balances, which include accrued interest and fees. Loan origination fees and certain direct origination costs are generally deferred and recognized as adjustments to income over the lives of the related loans.

As described in Note 27, Citi has elected fair value accounting for certain loans. Such loans are carried at fair value with changes in fair value reported in earnings. Interest income on such loans is recorded in *Interest revenue* at the contractually specified rate.

Loans that are held-for-investment are classified as *Loans, net of unearned income* on the Consolidated Balance Sheet, and the related cash flows are included within the cash flows from the investing activities category in the Consolidated Statement of Cash Flows on the line *Change in loans*. However, when the initial intent for holding a loan has changed from held-for-investment to held-for-sale (HFS), the loan is reclassified to HFS, but the related cash flows continue to be reported in cash flows from investing activities in the Consolidated Statement of Cash Flows on the line *Proceeds from sales and securitizations of loans*.

Consumer Loans

Consumer loans represent loans and leases managed primarily by the *USPB, Wealth and All Other—Legacy Franchises* businesses (except Mexico SBMM loans).

Consumer Non-accrual and Re-aging Policies

As a general rule, interest accrual ceases for installment and real estate (both open- and closed-end) loans when payments are 90 days contractually past due. For credit cards and other unsecured revolving loans, however, Citi generally accrues interest until payments are 180 days past due. As a result of OCC guidance, home equity loans in regulated bank entities are classified as non-accrual if the related residential first mortgage is 90 days or more past due. Also as a result of OCC guidance, mortgage loans in regulated bank entities are classified as non-accrual within 60 days of notification that the borrower has filed for bankruptcy, with the exception of Federal Housing Administration (FHA)-insured loans.

Loans that have been modified to grant a concession to a borrower in financial difficulty may not be accruing interest at the time of the modification. The policy for returning such modified loans to accrual status varies by product and/or region. In most cases, a minimum number of payments (ranging from one to six) is required, while in other cases the loan is never returned to accrual status. For regulated bank entities, such modified loans are returned to accrual status if a credit evaluation at the time of, or subsequent to, the modification indicates the borrower is able to meet the restructured terms, and the borrower is current and has demonstrated a reasonable period of sustained payment performance (minimum six months of consecutive payments).

For U.S. consumer loans, generally one of the conditions to qualify for modification (other than for loan modifications made through the CARES Act relief provisions or banking agency guidance for pandemic-related issues) is that a minimum number of payments (typically ranging from one to three) must be made. Upon modification, the loan is re-aged to current status. However, re-aging practices for certain open-ended consumer loans, such as credit cards, are governed by Federal Financial Institutions Examination Council (FFIEC) guidelines. For open-ended consumer loans subject to FFIEC guidelines, one of the conditions for the loan to be re-aged to current status is that at least three consecutive minimum monthly payments, or the equivalent amount, must be received. In addition, under FFIEC guidelines, the number of times that such a loan can be re-aged is subject to limitations (generally once in 12 months and twice in five years). Furthermore, FHA and Department of Veterans Affairs (VA) loans may only be modified under those respective agencies' guidelines, and payments are not always required in order to re-age a modified loan to current.

Consumer Charge-Off Policies

Citi's charge-off policies follow the general guidelines below:

- Unsecured installment loans are charged off at 120 days contractually past due.
- Unsecured revolving loans and credit card loans are charged off at 180 days contractually past due.
- Loans secured with non-real estate collateral are written down to the estimated value of the collateral, less costs to sell, at 120 days contractually past due.
- Real estate-secured loans are written down to the estimated value of the property, less costs to sell, at 180 days contractually past due.
- Real estate-secured loans are charged off no later than 180 days contractually past due if a decision has been made not to foreclose on the loans.
- Unsecured loans in bankruptcy are charged off within 60 days of notification of filing by the bankruptcy court or in accordance with Citi's charge-off policy, whichever occurs earlier.
- Real estate-secured loans in bankruptcy, other than FHA-insured loans, are written down to the estimated value of the property, less costs to sell, within 60 days of notification that the borrower has filed for bankruptcy or in accordance with Citi's charge-off policy, whichever is earlier.

Corporate Loans

Corporate loans represent loans and leases managed by *Services, Markets and Banking* and the Mexico SBMM component of *All Other*—Legacy Franchises. Corporate loans are identified as impaired and placed on a cash (non-accrual) basis when it is determined, based on actual experience and a forward-looking assessment of the collectibility of the loan in full, that the payment of interest or principal is doubtful or when interest or principal is 90 days past due, except when the loan is well collateralized and in the process of collection. Any interest accrued on impaired corporate loans and leases is reversed at 90 days past due and charged against current earnings, and interest is thereafter included in earnings only to the extent actually received in cash. When there is doubt regarding the ultimate collectibility of principal, all cash receipts are thereafter applied to reduce the recorded investment in the loan.

Impaired corporate loans and leases are written down to the extent that principal is deemed to be uncollectible. Impaired collateral-dependent loans and leases, where repayment is expected to be provided solely by the sale of the underlying collateral and there are no other available and reliable sources of repayment, are carried at the lower of amortized cost or collateral value. Cash-basis loans are returned to accrual status when all contractual principal and interest amounts are reasonably assured of repayment and there is a sustained period of repayment performance in accordance with the contractual terms.

Loans Held-for-Sale

Corporate and consumer loans that have been identified for sale are classified as loans HFS and included in *Other assets*. The practice of Citi's U.S. prime mortgage business has been to sell substantially all of its conforming loans. As such, U.S. prime mortgage conforming loans are classified as HFS and the fair value option is elected at origination, with changes in fair value recorded in *Other revenue*. With the exception of those loans for which the fair value option has been elected, HFS loans are accounted for at the lower of cost or market value, with any write-downs or subsequent recoveries charged to *Other revenue*. The related cash flows are classified in the Consolidated Statement of Cash Flows in the cash flows from operating activities category on the line *Change in loans HFS*. Gains and losses on loans HFS are generally presented in *Other revenue*. Gains on sales of fully or partially charged-off loans are presented as gross credit recoveries in the *Provision for credit losses* up to the amount of prior charge-offs.

Allowances for Credit Losses (ACL)

The current expected credit losses (CECL) methodology is based on relevant information about past events, including historical experience, current conditions and reasonable and supportable (R&S) forecasts that affect the collectibility of the reported financial asset balances. If the asset's life extends beyond the R&S forecast period, then historical experience is considered over the remaining life of the assets in the ACL. The resulting ACL is adjusted in each subsequent reporting period through *Provisions for credit losses* in the Consolidated Statement of Income to reflect changes in history, current conditions and forecasts as well as changes in asset positions

and portfolios. ASC 326 defines the ACL as a valuation account that is deducted from the amortized cost of a financial asset to present the net amount that management expects to collect on the financial asset over its expected life. All financial assets carried at amortized cost are in the scope of ASC 326, while assets measured at fair value are excluded. See Note 14 for a discussion of impairment on available-for-sale (AFS) securities.

Increases and decreases to the allowances are recorded in *Provisions for credit losses*. The CECL methodology utilizes a lifetime expected credit loss (ECL) measurement objective for the recognition of credit losses for held-for-investment (HFI) loans, held-to-maturity (HTM) debt securities, receivables and other financial assets measured at amortized cost at the time the financial asset is originated or acquired. Within the life of a loan or other financial asset, the methodology generally results in earlier recognition of the provision for credit losses and the related ACL.

Estimation of ECLs requires Citi to make assumptions regarding the likelihood and severity of credit loss events and their impact on expected cash flows, which drive the probability of default (PD), loss given default (LGD) and exposure at default (EAD) models and, where Citi discounts the ECL, using discounting techniques for certain products.

Citi considers a multitude of global macroeconomic variables for the base, upside and downside probability-weighted macroeconomic scenario forecasts it uses to estimate the ACL. Citi's forecasts of the U.S. unemployment rate and U.S. real GDP growth rate represent the key macroeconomic variables that most significantly affect its estimate of the ACL. Under the base macroeconomic forecast as of 4Q23, U.S. real GDP growth is expected to decline during 2024, and the unemployment rate is expected to increase modestly over the forecast horizon, broadly returning to pre-pandemic levels.

The macroeconomic scenario weights are estimated using a statistical model, which, among other factors, takes into consideration key macroeconomic drivers of the ACL, severity of the scenario and other macroeconomic uncertainties and risks. Citi evaluates scenario weights on a quarterly basis.

Citi's downside scenario incorporates more adverse macroeconomic assumptions than the base scenario. For example, compared to the base scenario, Citi's downside scenario reflects a recession, including an elevated average U.S. unemployment rate of 6.8% over the eight-quarter R&S period, with a peak difference of 3.2% in the second quarter of 2025. The downside scenario also reflects a year-over-year U.S. real GDP contraction in 2024 of 1.9%, with a peak quarter-over-quarter difference to the base scenario of 1.2% in the first quarter of 2024.

The following are the main factors and interpretations that Citi considers when estimating the ACL under the CECL methodology:

- CECL reserves are estimated over the contractual term of the financial asset, which is adjusted for expected prepayments. Expected extensions are generally not considered unless the option to extend the loan cannot be canceled unilaterally by Citi.
- Credit enhancements that are not freestanding (such as those that are included in the original terms of the contract or those executed in conjunction with the lending transaction) are considered loss mitigants for purposes of CECL reserve estimation.
- For unconditionally cancelable accounts (generally credit cards), reserves are based on the expected life of the balance as of the evaluation date (assuming no further charges) and do not include any undrawn commitments that are unconditionally cancelable. Reserves are included for undrawn commitments for accounts that are not unconditionally cancelable (such as letters of credit and corporate loan commitments, home equity lines of credit (HELOCs), undrawn mortgage loan commitments and financial guarantees).
- CECL models are designed to be economically sensitive. They utilize the macroeconomic forecasts provided by Citi's enterprise scenario group that are approved by senior management. Analysis is performed and documented to determine the necessary qualitative management adjustment (QMA) to capture idiosyncratic events and model uncertainty.
- The portion of the forecast that reflects the enterprise scenario group's R&S period indicates the maximum length of time its models can produce a R&S macroeconomic forecast, after which mean reversion reflecting historical loss experience is used for the remaining life of the loan to estimate expected credit losses. For the loss forecast, businesses consume the macroeconomic forecast as determined to be appropriate and justifiable.

Citi's ability to forecast credit losses over the R&S period is based on the ability to forecast economic activity over a reasonable and supportable time window. The R&S period reflects the overall ability to have a reasonable and supportable forecast of credit loss based on economic forecasts. The R&S forecast period for consumer and corporate loans is eight quarters.

- The loss models consume all or a portion of the R&S economic forecast and then revert to historical loss experience.
- The ACL incorporates provisions for accrued interest on products that are not subject to a non-accrual and timely write-off policy (e.g., credit cards, etc.).
- Citi uses the most recent available information to inform its macroeconomic forecasts, allowing sufficient time for analysis of the results and corresponding approvals. Key variables are reviewed for significant changes through year end and changes to portfolio positions are reflected in the ACL.

- Reserves are calculated at an appropriately granular level and on a pooled basis where financial assets share risk characteristics. At a minimum, reserves are calculated at a portfolio level (product and country). Where a financial asset does not share risk characteristics with any of the pools, it is evaluated for credit losses individually.

Quantitative and Qualitative Components of the ACL

The loss likelihood and severity models use both internal and external information and are sensitive to forecasts of different macroeconomic conditions. For the quantitative component, Citi uses multiple macroeconomic scenarios and associated probabilities to estimate the ECL. Estimates of these ECLs are based upon (i) Citigroup's internal system of credit risk ratings, (ii) historical default and loss data, including comprehensive internal history and rating agency information regarding default rates and internal data on the severity of losses in the event of default, and (iii) a R&S forecast of future macroeconomic conditions. ECL is determined primarily by utilizing models for the borrowers' PD, LGD and EAD. Adjustments may be made to this data, including (i) statistically calculated estimates to cover the historical fluctuation of the default rates over the credit cycle, the historical variability of loss severity among defaulted loans and the degree to which there are large obligor concentrations in the global portfolio, and (ii) adjustments made for specifically known items, such as current environmental factors and credit trends.

Any adjustments needed to the modeled expected losses in the quantitative calculations are addressed through a qualitative adjustment. The qualitative adjustment considers, among other things: certain portfolio characteristics and concentrations; collateral coverage; model limitations; idiosyncratic events; and other relevant criteria under banking supervisory guidance for the ACL. The qualitative adjustment also reflects the estimated impact of the pandemic on the economic forecasts and the impact on credit loss estimates. The total ACL is composed of the quantitative and qualitative components. Citi's qualitative component declined year-over-year, primarily driven by the incorporation of multiple macroeconomic scenarios in the quantitative component and releases of COVID-19-related uncertainty reserves as the portfolio continues to normalize toward pre-pandemic levels and as these risks are now captured in the quantitative component of the ACL. See "Accounting Changes" below for information about how the calculation of the quantitative component of the ACL changed in 2023.

Consumer Loans

For consumer loans, most portfolios including North America cards, mortgages and personal installment loans (PILs) are covered by the PD, LGD and EAD loss forecasting models. Some smaller international portfolios are covered by econometric models where the gross credit loss (GCL) rate is forecast. The modeling of all retail products is performed by examining risk drivers for a given portfolio; these drivers relate to exposures with similar credit risk characteristics and consider past events, current conditions and R&S forecasts. Under the PD x LGD x EAD approach, GCLs and recoveries are captured on an undiscounted basis. Citi incorporates

expected recoveries on loans into its reserve estimate, including expected recoveries on assets previously written off.

CECL defines the exposure's expected life as the remaining contractual maturity including any expected prepayments. Subsequent changes to the contractual terms that are the result of a re-underwriting are not included in the loan's expected CECL life.

Citi does not establish reserves for the uncollectible accrued interest on non-revolving consumer products, such as mortgages and installment loans, which are subject to a non-accrual and timely write-off policy at 90 days past due. As such, only the principal balance is subject to the CECL reserve methodology and interest does not attract a further reserve.

For credit cards, Citi uses the payment rate approach, which leverages payment rate curves, to determine the payments that should be applied to liquidate the end-of-period balance (CECL balance) in the estimation of EAD. The payment rate approach uses customer payment behavior (payment rate) to establish the portion of the CECL balance that will be paid each month. These payment rates are defined as the percentage of principal payments received in the respective month divided by the prior month's billed principal balance. The liquidation (CECL payment) amount for each forecast period is determined by multiplying the CECL balance by that period's forecasted payment rate. The cumulative sum of these payments less the CECL balance produces the balance liquidation curve. Citi does not apply a non-accrual policy to credit card receivables; rather, they are subject to full charge-off at 180 days past due or bankruptcy. As such, the entire customer balance up until write-off, including accrued interest and fees, is subject to the CECL reserve methodology.

Corporate Loans, HTM Securities and Other Assets

Citi records allowances for credit losses on all financial assets carried at amortized cost that are in the scope of CECL, including corporate loans classified as HFI, HTM debt securities and *Other assets*. Discounting techniques are applied for corporate loans classified as HFI and HTM securities. All cash flows are fully discounted to the reporting date. The ACL includes Citi's estimate of all credit losses expected to be incurred over the estimated full contractual life of the financial asset. The contractual life of the financial asset does not include expected extensions, renewals or modifications. Where Citi has an unconditional option to extend the contractual term, Citi does not consider the potential extension in determining the contractual term; however, where the borrower has the sole right to exercise the extension option without Citi's approval, Citi does consider the potential extension in determining the contractual term.

The Company primarily bases its ACL on models that assess the likelihood and severity of credit events and their impact on cash flows under R&S forecasted economic scenarios. Allowances consider the probability of the borrower's default, the loss the Company would incur upon default and the borrower's exposure at default. Such models discount the present value of all future cash flows, using the asset's effective interest rate (EIR). Citi applies a more simplified approach based on historical loss rates to certain

exposures recorded in *Other assets* and certain loan exposures in the Private Bank within *Consumer loans*.

The Company considers the risk of nonpayment to be zero for U.S. Treasuries and U.S. government-sponsored agency guaranteed mortgage-backed securities (MBS) and, as such, Citi does not have an ACL for these securities. For all other HTM debt securities, ECLs are estimated using PD models and discounting techniques, which incorporate assumptions regarding the likelihood and severity of credit losses. For structured securities, specific models use relevant assumptions for the underlying collateral type. A discounting approach is applied to HTM direct obligations of a single issuer, similar to that used for corporate HFI loans.

Other Financial Assets with Zero Expected Credit Losses

For certain financial assets, zero expected credit losses will be recognized where the expectation of nonpayment of the amortized cost basis is zero, based on there being no history of loss and the nature of the receivables.

Secured Financing Transactions

Most of Citi's reverse repurchase agreements, securities borrowing arrangements and margin loans require that the borrower continually adjust the amount of the collateral securing Citi's interest, primarily resulting from changes in the fair value of such collateral. In such arrangements, ACLs are recorded based only on the amount by which the asset's amortized cost basis exceeds the fair value of the collateral. No ACLs are recorded where the fair value of the collateral is equal to or exceeds the asset's amortized cost basis, as Citi does not expect to incur credit losses on such well-collateralized exposures. For certain margin loans presented in *Loans* on the Consolidated Balance Sheet, ACLL is estimated using the same approach as corporate loans.

Accrued Interest

CECL permits entities to make an accounting policy election not to reserve for interest, if the entity has a policy in place that will result in timely reversal or write-off of interest. However, when a non-accrual or timely charge-off policy is not applied, an ACL is recognized on accrued interest at 90 days past due. For HTM debt securities, Citi established a non-accrual policy that results in timely write-off of accrued interest. For corporate loans, where a timely charge-off policy is used, Citi has elected to recognize an ACL on accrued interest receivable. The LGD models for corporate loans include an adjustment for estimated accrued interest.

Reasonably Expected TDRs (in 2022 and prior years)

For corporate loans, the reasonable expectation of the TDR concept requires that the contractual life over which ECLs are estimated be extended when a TDR that results in a tenor extension is reasonably expected. Reasonably expected TDRs are included in the life of the asset. A discounting technique or collateral-dependent practical expedient is used for non-accrual and TDR loan exposures that do not share risk characteristics with other loans and are individually assessed. Loans modified in accordance with the CARES Act and bank regulatory guidance are not classified as TDRs.

In 2023, the reasonably expected TDRs accounting was replaced by modifications of loans to borrowers experiencing financial difficulty accounting. See “Accounting Changes—TDRs and Vintage Disclosures” below for a description of this new accounting.

Purchased Credit-Deteriorated (PCD) Assets

ASC 326 requires entities that have acquired financial assets (such as loans and HTM securities) with an intent to hold, to evaluate whether those assets have experienced a more-than-insignificant deterioration in credit quality since origination. These assets are subject to specialized accounting at initial recognition under CECL. Subsequent measurement of PCD assets will remain consistent with other purchased or originated assets, i.e., non-PCD assets. CECL introduces the notion of PCD assets, which replaces purchased credit impaired (PCI) accounting under prior U.S. GAAP.

CECL requires the estimation of credit losses to be performed on a pool basis unless a PCD asset does not share characteristics with any pool. If certain PCD assets do not meet the conditions for aggregation, those PCD assets should be accounted for separately. This determination must be made at the date the PCD asset is purchased. In estimating ECLs from day 2 onward, pools can potentially be reassembled based upon similar risk characteristics. When PCD assets are pooled, Citi determines the amount of the initial ACL at the pool level. The amount of the initial ACL for a PCD asset represents the portion of the total discount at acquisition that relates to credit and is recognized as a “gross-up” of the purchase price to arrive at the PCD asset’s (or pool’s) amortized cost. Any difference between the unpaid principal balance and the amortized cost is considered to be related to non-credit factors and results in a discount or premium, which is amortized to interest income over the life of the individual asset (or pool). Direct expenses incurred related to the acquisition of PCD assets and other assets and liabilities in a business combination are expensed as incurred. Subsequent accounting for acquired PCD assets is the same as the accounting for originated assets; changes in the allowance are recorded in *Provisions for credit losses*.

Consumer

Citi does not purchase whole portfolios of PCD assets in its retail businesses. However, there may be a small portion of a purchased portfolio that is identified as PCD at the purchase date. Interest income recognition does not vary between PCD and non-PCD assets. A consumer financial asset is considered to be more-than-insignificantly credit deteriorated if it is more than 30 days past due at the purchase date.

Corporate

Citi generally classifies wholesale loans and debt securities classified as HTM or AFS as PCD when both of the following criteria are met: (i) the purchase price discount is at least 10% of par and (ii) the purchase date is more than 90 days after the origination or issuance date. Citi classifies HTM beneficial interests rated AA- and lower obtained at origination from certain securitization transactions as PCD when there is a significant difference (i.e., 10% or greater) between

contractual cash flows, adjusted for prepayments, and expected cash flows at the date of recognition.

Reserve Estimates and Policies

Management provides reserves for an estimate of lifetime ECLs in the funded loan portfolio on the Consolidated Balance Sheet in the form of an ACL. These reserves are established in accordance with Citigroup’s credit reserve policies, as approved by the Audit Committee of the Citigroup Board of Directors. Citi’s Chief Risk Officer and Chief Financial Officer review the adequacy of the credit loss reserves each quarter with risk management and finance representatives for each applicable business area. Applicable business areas include those having classifiably managed portfolios, where internal credit risk ratings are assigned (primarily *Services, Markets, Banking and Wealth*) and delinquency-managed portfolios (primarily *USPB*) or modified consumer loans, where concessions were granted due to the borrowers’ financial difficulties. The aforementioned representatives for these business areas present recommended reserve balances for their funded and unfunded lending portfolios along with supporting quantitative and qualitative data discussed below.

Estimated Credit Losses for Portfolios of Performing Exposures

Risk management and finance representatives who cover business areas with delinquency-managed portfolios containing smaller-balance homogeneous loans present their recommended reserve balances based on leading credit indicators, including loan delinquencies and changes in portfolio size as well as economic trends, including current and future housing prices, unemployment, length of time in foreclosure, costs to sell and GDP. This methodology is applied separately for each product within each geographic region in which these portfolios exist. This evaluation process is subject to numerous estimates and judgments.

Risk management and finance representatives who cover business areas with classifiably managed portfolios present their recommended reserve balances based on the frequency of default, risk ratings, loss recovery rates, size and diversity of individual large credits, and ability of borrowers with foreign currency obligations to obtain the foreign currency necessary for orderly debt servicing. Changes in these estimates could have a direct impact on the credit costs in any period and could result in a change in the allowance.

Allowance for Unfunded Lending Commitments

Credit loss reserves are recognized on all off-balance sheet commitments that are not unconditionally cancelable. Corporate loan EAD models include an incremental usage factor (or credit conversion factor) to estimate ECLs on amounts undrawn at the reporting date. Off-balance sheet commitments include unfunded exposures, revolving facilities, securities underwriting commitments, letters of credit, HELOCs and financial guarantees (excluding performance guarantees). This reserve is classified on the Consolidated Balance Sheet in *Other liabilities*. Changes to the allowance for unfunded lending commitments are recorded in *Provision for credit losses on unfunded lending commitments*.

Mortgage Servicing Rights (MSRs)

Mortgage servicing rights (MSRs) are recognized as intangible assets when purchased or when the Company sells or securitizes loans acquired through purchase or origination and retains the right to service the loans. Mortgage servicing rights are accounted for at fair value, with changes in value recorded in *Other revenue* in the Company's Consolidated Statement of Income.

For additional information on the Company's MSRs, see Notes 17 and 22.

Goodwill

Goodwill represents the excess of acquisition cost over the fair value of net tangible and intangible assets acquired in a business combination. Goodwill is subject to annual impairment testing and interim assessments between annual tests if an event occurs or circumstances change that would more-likely-than-not reduce the fair value of a reporting unit below its carrying amount. The Company has determined that its reporting units are at the reportable operating segment level or one level below.

The Company has an option to assess qualitative factors to determine if it is necessary to perform the goodwill impairment test. If, after assessing the totality of events or circumstances, the Company determines that it is not more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, no further testing is necessary. If, however, the Company determines that it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, then the Company must perform the quantitative test.

The Company has an unconditional option to bypass the qualitative assessment for any reporting unit in any reporting period and proceed directly to the quantitative test.

The quantitative test requires a comparison of the fair value of the individual reporting unit to its carrying value, including goodwill. If the fair value of the reporting unit is in excess of the carrying value, the related goodwill is considered not impaired and no further analysis is necessary. If the carrying value of the reporting unit exceeds the fair value, an impairment loss is recognized in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit.

Upon any business disposition, goodwill is allocated to, and derecognized with, the disposed business based on the ratio of the fair value of the disposed business to the fair value of the reporting unit.

During the year ended December 31, 2022, the Company voluntarily changed its annual impairment assessment date from July 1 to October 1.

Additional information on Citi's goodwill impairment testing can be found in Note 17.

Intangible Assets

Intangible assets—including core deposit intangibles, present value of future profits, purchased credit card relationships, credit card contract-related intangibles, other customer relationships and other intangible assets, but excluding MSRs—are amortized over their estimated useful lives. Credit card contract-related intangibles include fixed and unconditional

costs incurred to renew or extend the contract with a card partner. In estimating the useful life of a credit card contract-related intangible, the Company considers the probability of contract renewal or extension to determine the period that the asset is expected to contribute future cash flows. Intangible assets that are deemed to have indefinite useful lives, primarily trade names, are not amortized and are subject to annual impairment tests. An impairment exists if the carrying value of the indefinite-lived intangible asset exceeds its fair value. For other intangible assets subject to amortization, an impairment is recognized if the carrying amount is not recoverable and exceeds the fair value of the intangible asset.

Premises and Equipment

Premises and equipment includes lease right-of-use assets, property and equipment (including purchased and developed software), net of depreciation and amortization. Substantially all lease right-of-use assets are amortized on a straight-line basis over the lease term, and substantially all property and equipment is depreciated or amortized on a straight-line basis over the useful life of the asset.

Other Assets and Other Liabilities

Other assets include, among other items, loans HFS, deferred tax assets, equity method investments, interest and fees receivable, repossessed assets, other receivables and assets from businesses classified as HFS that are reclassified from other balance sheet line items. *Other liabilities* include, among other items, accrued expenses, lease liabilities, deferred tax liabilities, reserves for legal claims and legal fee accruals, taxes, unfunded lending commitments, repositioning reserves, other payables and liabilities from businesses classified as HFS that are reclassified from other balance sheet line items. Legal fee accruals are recognized as incurred.

Other Real Estate Owned and Repossessed Assets

Real estate or other assets received through foreclosure or repossession are generally reported in *Other assets*, net of a valuation allowance for selling costs and subsequent declines in fair value.

Securitizations

There are two key accounting determinations that must be made relating to securitizations. Citi first makes a determination as to whether the securitization entity must be consolidated. Second, it determines whether the transfer of financial assets to the entity is considered a sale under GAAP. If the securitization entity is a VIE, the Company consolidates the VIE if it is the primary beneficiary (as discussed in "Variable Interest Entities" above). For all other securitization entities determined not to be VIEs in which Citigroup participates, consolidation is based on which party has voting control of the entity, giving consideration to removal and liquidation rights in certain partnership structures. Only securitization entities controlled by Citigroup are consolidated.

Interests in the securitized and sold assets may be retained in the form of subordinated or senior interest-only strips, subordinated tranches, spread accounts and servicing rights. In credit card securitizations, the Company retains a seller's interest in the credit card receivables transferred to the trusts,

which is not in securitized form. In the case of consolidated securitization entities, including the credit card trusts, these retained interests are not reported on Citi's Consolidated Balance Sheet. The securitized loans remain on the Balance Sheet. Substantially all of the consumer loans sold or securitized through non-consolidated trusts by Citigroup are U.S. prime residential mortgage loans. Retained interests in non-consolidated mortgage securitization trusts are classified as *Trading account assets*, except for MSRs, which are included in *Intangible assets* on Citigroup's Consolidated Balance Sheet.

Debt

Short-term borrowings and *Long-term debt* are accounted for at amortized cost, except where the Company has elected to report the debt instruments (including certain structured notes) at fair value, or debt that is in a fair value hedging relationship. Premiums, discounts and issuance costs on long-term debt accounted for at amortized cost are amortized over the contractual term using the effective interest method.

Transfers of Financial Assets

For a transfer of financial assets to be considered a sale, (i) the assets must be legally isolated from the Company, even in bankruptcy or other receivership, (ii) the purchaser must have the right to pledge or sell the assets transferred (or, if the purchaser is an entity whose sole purpose is to engage in securitization and asset-backed financing activities through the issuance of beneficial interests and that entity is constrained from pledging the assets it receives, each beneficial interest holder must have the right to sell or pledge their beneficial interests), and (iii) the Company may not have an option or obligation to reacquire the assets.

If these sale requirements are met, the assets are removed from the Company's Consolidated Balance Sheet. If the conditions for sale are not met, the transfer is considered to be a secured borrowing, the assets remain on the Consolidated Balance Sheet and the sale proceeds are recognized as the Company's liability. A legal opinion on a sale generally is obtained for complex transactions or where the Company has continuing involvement with the assets transferred or with the securitization entity. For a transfer to be eligible for sale accounting, that opinion must state that the asset transfer would be considered a sale and that the assets transferred would not be consolidated with the Company's other assets in the event of the Company's insolvency. See Note 23 for further discussion.

Risk Management Activities—Derivatives Used for Hedging Purposes

The Company manages its exposures to market movements outside of its trading activities by modifying the asset and liability mix, either directly or through the use of derivative financial products, including interest rate swaps, futures, forwards, purchased options and commodities, as well as foreign-exchange contracts. These end-user derivatives are carried at fair value in *Trading account assets* and *Trading account liabilities*.

See Note 24 for a further discussion of the Company's hedging and derivative activities.

Instrument-Specific Credit Risk

Citi presents separately in *AOCI* the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk, when the entity has elected to measure the liability at fair value in accordance with the fair value option for financial instruments. Accordingly, the change in fair value of liabilities for which the fair value option was elected related to changes in Citigroup's own credit spreads is presented in *AOCI*.

Employee Benefits Expense

Employee benefits expense includes current service costs of pension and other postretirement benefit plans (which are accrued on a current basis), contributions and unrestricted awards under other employee plans, the amortization of restricted stock awards and costs of other employee benefits. For its most significant pension and postretirement benefit plans (Significant Plans), Citigroup measures and discloses plan obligations, plan assets and periodic plan expense quarterly, instead of annually. The effect of remeasuring the Significant Plan obligations and assets by updating plan actuarial assumptions on a quarterly basis is reflected in *AOCI* and periodic plan expense. All other plans (All Other Plans) are remeasured annually. Benefits earned during the year are reported in *Compensation and benefits expenses* and all other components of the net annual benefit cost are reported in *Other operating expenses* in the Consolidated Statement of Income. See Note 8.

Stock-Based Compensation

The Company recognizes compensation expense related to stock awards over the requisite service period, generally based on the instruments' grant-date fair value, reduced by actual forfeitures as they occur. Compensation cost related to awards granted to employees who meet certain age plus years-of-service requirements (retirement-eligible employees) is accrued in the year prior to the grant date in the same manner as the accrual for cash incentive compensation. Certain stock awards with performance conditions or certain clawback provisions are subject to variable accounting, pursuant to which the associated compensation expense fluctuates with changes in Citigroup's common stock price. See Note 7.

Income Taxes

The Company is subject to the income tax laws of the U.S. and its states and municipalities, as well as the non-U.S. jurisdictions in which it operates. These tax laws are complex and may be subject to different interpretations by the taxpayer and the relevant governmental taxing authorities. In establishing a provision for income tax expense, the Company must make judgments and interpretations about these tax laws. The Company must also make estimates about when in the future certain items will affect taxable income in the various tax jurisdictions, both domestic and foreign.

Disputes over interpretations of the tax laws may be subject to review and adjudication by the court systems of the various tax jurisdictions, or may be settled with the taxing authority upon examination or audit. The Company treats interest and penalties on income taxes as a component of *Income tax expense*.

Deferred taxes are recorded for the future consequences of events that have been recognized in financial statements or tax returns, based upon enacted tax laws and rates. Deferred tax assets are recognized subject to management's judgment about whether realization is more-likely-than-not. ASC 740, *Income Taxes*, sets out a consistent framework to determine the appropriate level of tax reserves to maintain for uncertain tax positions. This interpretation uses a two-step approach wherein a tax benefit is recognized if a position is more-likely-than-not to be sustained. The amount of the benefit is then measured to be the highest tax benefit that is more than 50% likely to be realized. ASC 740 also sets out disclosure requirements to enhance transparency of an entity's tax reserves.

See Note 10 for a further description of the Company's tax provision and related income tax assets and liabilities.

Commissions, Underwriting and Principal Transactions
Commissions and fees revenues are recognized in income when earned. Underwriting revenues are recognized in income typically at the closing of the transaction. *Principal transactions* revenues are recognized in income on a trade-date basis. See Note 5 for a description of the Company's revenue recognition policies for *Commissions and fees*, and Note 6 for details of *Principal transactions* revenue.

Earnings per Share

Earnings per share (EPS) is calculated using the two-class method. Under the two-class method, all earnings (distributed and undistributed) are allocated to common stock and participating securities. Undistributed earnings are calculated after deducting preferred stock dividends, any issuance cost incurred at the time of issuance of redeemed preferred stock and dividends paid and accrued to common stocks and RSU/DSA share awards. Citi grants restricted and deferred share awards under its shares-based compensation programs, which entitle recipients to receive nonforfeitable dividends during the vesting period on a basis equivalent to dividends paid to holders of the Company's common stock. These unvested awards meet the definition of participating securities based on their respective rights to receive nonforfeitable dividends, and they are treated as a separate class of securities and are not included in computing basic EPS.

Diluted EPS incorporates the potential impact of contingently issuable shares, stock options and awards, which require future service as a condition of delivery of the underlying common stock. Anti-dilutive options and warrants are disregarded in the EPS calculations. Diluted EPS is calculated under both the two-class and treasury stock methods, and the more dilutive amount is reported. Participating securities are not included as incremental shares in computing diluted EPS.

Use of Estimates

Management must make estimates and assumptions that affect the Consolidated Financial Statements and the related Notes. Such estimates are used in connection with certain fair value measurements. See Note 26 for further discussions on estimates used in the determination of fair value. Moreover, estimates are significant in determining the amounts of other-

than-temporary impairments, impairments of goodwill and other intangible assets, provisions for probable losses that may arise from credit-related exposures, probable and estimable losses related to litigation and regulatory proceedings, and income taxes. While management makes its best judgment, actual amounts or results could differ from those estimates.

Cash Equivalents and Restricted Cash Flows

Cash equivalents are defined as those amounts included in *Cash and due from banks* and *Deposits with banks*. Certain cash balances are restricted by regulatory or contractual requirements. See Note 28 for additional information on restricted cash.

Related Party Transactions

The Company has related party transactions with certain of its subsidiaries and affiliates. These transactions, which are primarily short-term in nature, include cash accounts, collateralized financing transactions, margin accounts, derivative transactions, charges for operational support and the borrowing and lending of funds, and are entered into in the ordinary course of business.

ACCOUNTING CHANGES

TDRs and Vintage Disclosures

In March 2022, the Financial Accounting Standards Board (FASB) issued ASU No. 2022-02, *Financial Instruments—Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures*. Citi adopted the ASU on January 1, 2023, including the guidance on the recognition and measurement of TDRs under the modified retrospective approach.

Adopting these amendments resulted in a decrease to the ACLL of \$352 million and an increase in other assets related to held-for-sale businesses of \$40 million, with a corresponding increase to retained earnings of \$290 million and a decrease in deferred tax assets of \$102 million on January 1, 2023. The ACLL for corporate loans was unaffected because the measurement approach used for corporate loans is not in the scope of this ASU.

ASU 2022-02 eliminates the accounting and disclosure requirements for TDRs, including the requirement to measure the ACLL for TDRs using a discounted cash flow (DCF) approach. With the elimination of TDR accounting requirements, reasonably expected TDRs are no longer considered when determining the term over which to estimate expected credit losses. The ACLL for modified loans that are collateral dependent continues to be based on the fair value of the collateral.

Consumer Loans

Upon adoption of the ASU on January 1, 2023, Citi discontinued the use of a DCF approach for consumer loans formerly considered TDRs. Beginning January 1, 2023, Citi measures the ACLL for all consumer loans under approaches that do not incorporate discounting, primarily utilizing models that consider the borrowers' probability of default, loss given default and exposure at default. In addition, upon adoption of the ASU, Citi collectively evaluates smaller-balance

homogeneous loans formerly considered TDRs for expected credit losses, whereas previously those loans had been individually evaluated.

The ASU also requires disclosure of modifications of loans to borrowers experiencing financial difficulty if the modification involves principal forgiveness, an interest rate reduction, an other-than-insignificant payment delay, a term extension or a combination of those types of modifications. In addition, the ASU requires the disclosure of current-period gross write-offs by year of loan origination (vintage). The amendments related to disclosures are required to be applied prospectively beginning as of the date of adoption. See Note 14 for these new disclosures for periods beginning on and after January 1, 2023.

Long-Duration Insurance Contracts

In August 2018, the FASB issued ASU No. 2018-12, *Financial Services—Insurance: Targeted Improvements to the Accounting for Long-Duration Contracts*, which changes the existing recognition, measurement, presentation and disclosures for long-duration contracts issued by an insurance entity. Specifically, the guidance (i) improves the timeliness of recognizing changes in the liability for future policy benefits and prescribes the rate used to discount future cash flows for long-duration insurance contracts, (ii) simplifies and improves the accounting for certain market-based options or guarantees associated with deposit (or account balance) contracts, (iii) simplifies the amortization of deferred acquisition costs, and (iv) introduces additional quantitative and qualitative disclosures. Citi has certain insurance subsidiaries, primarily in Mexico, that issue long-duration insurance contracts such as traditional life insurance policies and life-contingent annuity contracts that are impacted by the requirements of ASU 2018-12.

Citi adopted the targeted improvements in ASU 2018-12 on January 1, 2023, resulting in a \$39 million decrease in *Other liabilities* and a \$27 million increase in *AOCI*, after-tax.

Fair Value Hedging—Portfolio Layer Method

In March 2022, the FASB issued ASU No. 2022-01, *Derivatives and Hedging (Topic 815): Fair Value Hedging—Portfolio Layer Method*, intended to better align hedge accounting with an organization's risk management strategies. Specifically, the guidance expands the current single-layer method to allow multiple hedge layers of a single closed portfolio of qualifying assets, which include both prepayable and non-prepayable assets. Upon the adoption of the guidance, entities may elect to reclassify securities held-to-maturity to the available-for-sale category provided that the reclassified securities are designated in a portfolio hedge. Coincident with the adoption of this ASU, on January 1, 2023, Citi transferred HTM mortgage-backed securities with an amortized cost and fair value of approximately \$3.3 billion and \$3.4 billion, respectively, into AFS as permitted under the guidance, and hedged them under the portfolio layer method.

Reference Rate Reform

On December 21, 2022, the FASB issued ASU No. 2022-06, *Reference Rate Reform (Topic 848): Deferral of the Sunset Date of Topic 848*, which extends the period of time preparers

can utilize the reference rate reform relief guidance. In 2020, the FASB issued ASU No. 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*, which provides optional guidance to ease the potential burden in accounting for (or recognizing the effects of) reference rate reform on financial reporting. In 2021, the U.K. Financial Conduct Authority (FCA) delayed the intended cessation date of certain tenors of USD LIBOR to June 30, 2023. To ensure that the relief in Topic 848 covers the period of time during which a significant number of modifications may take place, the ASU defers the sunset date of Topic 848 from December 31, 2022 to December 31, 2024. The extension allows Citi to transition its remaining contracts and maintain hedge accounting. The ASU was adopted by Citi upon issuance and did not impact financial results in 2022.

Multiple Macroeconomic Scenarios-Based ACL Approach

During the second quarter of 2022, Citi refined its ACL methodology to utilize multiple macroeconomic scenarios to estimate its allowance for credit losses. The ACL was previously estimated using a combination of a single base-case forecast scenario as part of its quantitative component and a component of its qualitative management adjustment that reflects economic uncertainty from downside macroeconomic scenarios. As a result of this change, Citi now explicitly incorporates multiple macroeconomic scenarios—base, upside, and downside—and associated probabilities in the quantitative component when estimating its ACL, while still retaining certain of its qualitative management adjustments.

This refinement represents a “change in accounting estimate” under ASC Topic 250, *Accounting Changes and Error Corrections*, with prospective application beginning in the period of change. This change in accounting estimate resulted in a decrease of approximately \$0.3 billion in the allowance for credit losses in the second quarter of 2022, partially offsetting an increase of \$0.8 billion in the allowance for credit losses due to the increased macroeconomic uncertainty and other factors in the second quarter of 2022.

FUTURE ACCOUNTING CHANGES

Accounting for and Disclosure of Crypto Assets

In December 2023, the FASB issued ASU No. 2023-08, *Intangibles—Goodwill and Other—Crypto Assets (Subtopic 350-60): Accounting for and Disclosure of Crypto Assets*, intended to improve the accounting for certain crypto assets by requiring an entity to measure those assets at fair value each reporting period, with changes in fair value recognized in net income. The amendments also improve the information provided to investors about an entity's crypto asset holdings by requiring disclosure about significant holdings, contractual sale restrictions and changes during the reporting period. The guidance is effective for fiscal years beginning after December 15, 2024, and interim periods within those fiscal years with early adoption permitted. Citi does not hold any crypto assets within the scope of the guidance.

Income Taxes (Topic 740): Improvements to Income Tax Disclosures

In December 2023, the FASB issued ASU No. 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*, intended to enhance the transparency and decision usefulness of income tax disclosures. This guidance requires that public business entities disclose on an annual basis a tabular rate reconciliation in eight specific categories disaggregated by nature and for foreign tax effects by jurisdiction that meet a 5% of pretax income multiplied by the applicable statutory tax rate or greater threshold annually. The eight categories include state and local income taxes, net of federal income tax effect; foreign tax effects; enactment of new tax laws or tax credits; effect of cross-border tax laws; valuation allowances; nontaxable items and nondeductible items; and changes in unrecognized tax benefits. Additional disclosures include qualitative description of the state and local jurisdictions that contribute to the majority (greater than 50%) of the effect of the state and local income tax category and explanation of the nature and effect of changes in individual reconciling items. The guidance also requires entities annually to disclose income taxes paid (net of refunds received) disaggregated by federal, state and foreign taxes and by jurisdiction identified based on the same 5% quantitative threshold.

The standard is effective for fiscal years beginning after December 15, 2024. The transition method is prospective with the retrospective method permitted. Citi plans to adopt the ASU for the annual reporting period beginning on January 1, 2025, and is currently evaluating the impact on disclosures.

Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures

In November 2023, the FASB issued ASU No. 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures*, intended to improve reportable segments disclosure requirements primarily through enhanced disclosures about significant segment expenses. The ASU includes a requirement to disclose significant segment expenses that are regularly provided to the chief operating decision maker (CODM) and included within each reported measure of segment profit or loss, the title and position of the CODM, an explanation of how the CODM uses the reported measure(s) of segment profit or loss in assessing segment performance and deciding how to allocate resources, and all segments' profit or loss and assets disclosures currently required annually by Topic 280 along with those introduced by the ASU to be reported on an interim basis. The amendments also clarified that public entities are not precluded from reporting additional measures of a segment's profit or loss that are regularly used by the CODM.

The ASU is required to be adopted on a retrospective basis and will be effective for Citi for its annual period ending December 31, 2024 and interim periods for the interim period beginning on January 1, 2025. Citi is currently evaluating the impact of the standard on its disclosure of reportable segments and related disclosures.

Accounting for Investments in Tax Credit Structures

In March 2023, the FASB issued ASU No. 2023-02, *Investments—Equity Method and Joint Ventures (Topic 323): Accounting for Investments in Tax Credit Structures Using the Proportional Amortization Method*. The ASU expands the scope of tax equity investments eligible to apply the proportional amortization method of accounting. Under the proportional amortization method, the cost of an eligible investment is amortized in proportion to the income tax credits and other income tax benefits that are received by the investor, with the amortization of the investment and the income tax credits being presented net in the income statement as components of income tax expense (benefit). The ASU permits the Company to elect to use the proportional amortization method to account for an expanded range of eligible tax-incentivized investments if certain conditions are met. Citi adopted the ASU on January 1, 2024, which did not have a material impact to the financial statements of the Company.

Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions

In June 2022, the FASB issued ASU No. 2022-03, *Fair Value Measurement (Topic 820): Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions*. The ASU was issued to address diversity in practice whereby certain entities included the impact of contractual restrictions when valuing equity securities, and it clarifies that a contractual restriction on the sale of an equity security should not be considered part of the unit of account of the equity security and, therefore, should not be considered in measuring fair value. The ASU also includes requirements for entities to disclose the fair value of equity securities subject to contractual sale restrictions, the nature and remaining duration of the restrictions and the circumstances that could cause a lapse in the restrictions.

Citi adopted the ASU on January 1, 2024, which did not have a material impact to the financial statements of the Company.

2. DISCONTINUED OPERATIONS, SIGNIFICANT DISPOSALS AND OTHER BUSINESS EXITS

Summary of Discontinued Operations

The Company's results from *Discontinued operations* consisted of residual activities related to the sales of the Egg Banking plc credit card business in 2011 and the German retail banking business in 2008. All *Discontinued operations* results are recorded within *All Other*.

The following table summarizes financial information for all *Discontinued operations*:

In millions of dollars	2023	2022	2021
Total revenues, net of interest expense	\$ —	\$(260)	\$ —
Income (loss) from discontinued operations	\$ (1)	\$(272)	\$ 7
Benefit for income taxes	—	(41)	—
Income (loss) from discontinued operations, net of taxes	\$ (1)	\$(231)	\$ 7

During 2022, the Company finalized the settlement of certain liabilities related to its legacy consumer operation in the U.K. (the legacy operation), including an indemnification liability related to its sale of the Egg Banking business in 2011, which led to the substantial liquidation of the legacy operation. As a result, a CTA loss (net of hedges) in *AOCI* of approximately \$400 million pretax (\$345 million after-tax) related to the legacy operation was released to earnings in 2022. Out of the total CTA release, a \$260 million pretax loss (\$221 million after-tax loss) was attributable to the Egg Banking business noted above, reported in *Discontinued operations*, and therefore the corresponding CTA release was also reported in *Discontinued operations* during 2022. The remaining CTA release of a \$140 million pretax loss (\$124 million after-tax loss) related to Legacy Holdings Assets was reported as part of *Continuing operations* within *All Other* —Legacy Franchises.

While the legacy operation was divested in multiple sales over the years, each transaction did not result in substantial liquidation given that Citi retained certain liabilities noted above, which were gradually settled over time until reaching the point of substantial liquidation during 2022, triggering the release of the CTA loss to earnings.

Cash flows from *Discontinued operations* were not material for the periods presented.

Significant Disposals

As of December 31, 2023, Citi had closed the sales of nine consumer banking businesses within *All Other*—Legacy Franchises. Australia closed in the second quarter of 2022, the Philippines closed in the third quarter of 2022, Bahrain, Malaysia and Thailand closed in the fourth quarter of 2022, India and Vietnam closed in the first quarter of 2023, Taiwan closed in the third quarter of 2023 and Indonesia closed in the fourth quarter of 2023. Of the nine sale agreements, the five below were identified as significant disposals. The gains and losses included in the footnotes to the table below represent life-to-date amounts, which are periodically updated due to post-closing purchase price adjustments. As of December 31, 2023, there were no remaining assets or liabilities included on Citi's Consolidated Balance Sheet related to the significant disposals:

In millions of dollars				Income (loss) before taxes ⁽⁶⁾		
Consumer banking business in	Sale agreement date	Closing date	2023	2022	2021	
Australia ⁽¹⁾	8/9/2021	6/1/2022	\$ —	\$ 193	\$ 306	
Philippines ⁽²⁾	12/23/2021	8/1/2022	—	72	145	
Thailand ⁽³⁾	1/14/2022	11/1/2022	—	122	139	
India ⁽⁴⁾	3/30/2022	3/1/2023	2	194	213	
Taiwan ⁽⁵⁾	1/28/2022	8/12/2023	91	140	282	

- (1) On June 1, 2022, Citi completed the sale of its Australia consumer banking business, which was part of *All Other*—Legacy Franchises. The business had approximately \$9.4 billion in assets, including \$9.3 billion of loans (net of allowance of \$140 million) and excluding goodwill. The total amount of liabilities was \$7.3 billion, including \$6.8 billion in deposits. The transaction generated a pretax loss on sale of approximately \$766 million (\$643 million after-tax), subject to closing adjustments, recorded in *Other revenue*. The loss on sale primarily reflected the impact of an approximate pretax \$620 million CTA loss (net of hedges) (\$347 million after-tax) already reflected in the *AOCI* component of equity. The sale closed on June 1, 2022, and the CTA-related balance was removed from *AOCI*, resulting in a neutral CTA impact to Citi's CET1 Capital. The income before taxes in the above table for Australia reflects Citi's ownership through June 1, 2022.
- (2) On August 1, 2022, Citi completed the sale of its Philippines consumer banking business, which was part of *All Other*—Legacy Franchises. The business had approximately \$1.8 billion in assets, including \$1.2 billion of loans (net of allowance of \$80 million) and excluding goodwill. The total amount of liabilities was \$1.3 billion, including \$1.2 billion in deposits. The sale resulted in a pretax gain on sale of approximately \$618 million (\$290 million after-tax), subject to closing adjustments, recorded in *Other revenue*. The income before taxes in the above table for the Philippines reflects Citi's ownership through August 1, 2022.
- (3) On November 1, 2022, Citi completed the sale of its Thailand consumer banking business, which was part of *All Other*—Legacy Franchises. The business had approximately \$2.7 billion in assets, including \$2.4 billion of loans (net of allowance of \$67 million) and excluding goodwill. The total amount of liabilities was \$1.0 billion, including \$0.8 billion in deposits. The sale resulted in a pretax gain on sale of approximately \$209 million (\$115 million after-tax), subject to closing adjustments, recorded in *Other revenue*. The income before taxes in the above table for Thailand reflects Citi's ownership through November 1, 2022.
- (4) On March 1, 2023, Citi completed the sale of its India consumer banking business, which was part of *All Other*—Legacy Franchises. The business had approximately \$5.2 billion in assets, including \$3.4 billion of loans (net of allowance of \$32 million) and excluding goodwill. The total amount of liabilities was \$5.2 billion, including \$5.1 billion in deposits. The sale resulted in a pretax gain on sale of approximately \$1.1 billion (\$727 million after-tax) recorded in *Other revenue*. The income before taxes in the above table for India reflects Citi's ownership through March 1, 2023.
- (5) On August 12, 2023, Citi completed the sale of its Taiwan consumer banking business, which was part of *All Other*—Legacy Franchises. The business had approximately \$11.6 billion in assets, including \$7.2 billion of loans (net of allowance of \$92 million) and excluding goodwill. The total amount of liabilities was \$9.2 billion, including \$9.0 billion in deposits. The sale resulted in a pretax gain on sale of approximately \$403 million (\$284 million after-tax), subject to closing adjustments, recorded in *Other revenue*. The income before taxes in the above table for Taiwan reflects Citi's ownership through August 12, 2023.
- (6) Income before taxes for the period in which the individually significant component was classified as HFS for all prior periods presented. For Australia, excludes the pretax loss on sale. For the Philippines, Thailand, India and Taiwan, excludes the pretax gain on sale.

Citi did not have any other significant disposals as of December 31, 2023.

As of February 23, 2024, Citi had not entered into sale agreements for the remaining *All Other*—Legacy Franchises businesses to be sold, specifically the Poland consumer banking business and the Mexico Consumer/SBMM businesses.

For a description of the Company's significant disposal transactions in prior periods and financial impact, see Note 2 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

Other Business Exits

Wind-Down of Korea Consumer Banking Business

On October 25, 2021, Citi disclosed its decision to wind down and close its Korea consumer banking business, which is reported in the *All Other*—Legacy Franchises operating segment. In connection with the announcement, Citibank Korea Inc. (CKI) commenced a voluntary early termination program (Korea VERP). Due to the voluntary nature of this termination program, no liabilities for termination benefits are recorded until CKI makes formal offers to employees that are then irrevocably accepted by those employees. Related charges are recorded as *Compensation and benefits*.

The following table summarizes the reserve charges related to the Korea VERP and other initiatives reported in the *All Other* operating segment:

<i>In millions of dollars</i>	Employee termination costs
Total Citigroup (pretax)	
Original charges in fourth quarter 2021	\$ 1,052
Utilization	(1)
Foreign exchange	3
Balance at December 31, 2021	\$ 1,054
Additional charges in first quarter 2022	\$ 31
Utilization	(347)
Foreign exchange	(24)
Balance at March 31, 2022	\$ 714
Additional charges (releases)	\$ (3)
Utilization	(670)
Foreign exchange	(41)
Balance at June 30, 2022	\$ —

Note: There were no additional charges after June 30, 2022.

The total cash charges for the wind-down were \$1.1 billion through 2022, most of which were recognized in 2021. Citi does not expect to record any additional charges in connection with the Korea VERP.

See Note 8 for details on the pension impact of the Korea wind-down.

Wind-Down of Russia Consumer and Institutional Banking Businesses

On August 25, 2022, Citi announced its decision to wind down its consumer banking and local commercial banking operations in Russia. As part of the wind-down, Citi is also actively pursuing sales of certain Russian consumer banking portfolios.

On October 14, 2022, Citi disclosed that it would end nearly all of the institutional banking services it offered in Russia by the end of the first quarter of 2023. Going forward, Citi's only operations in Russia are those necessary to fulfill its remaining legal and regulatory obligations.

Portfolio Sales

- On December 12, 2022, Citi completed the sale of a portfolio of ruble-denominated personal installment loans, totaling approximately \$240 million in outstanding loan balances, to Uralsib, a Russian commercial bank, resulting in a pretax net loss of approximately \$12 million. The net loss on sale of the loan portfolio included a \$32 million adjustment to record the loans at lower of cost or fair value recognized in *Other revenue*. In addition, the sale of the loans resulted in a release in the allowance for credit losses on loans of approximately \$20 million recognized in the *Provision for credit losses on loans*.
- During the second quarter of 2023, Citi recorded an incremental gain of \$5 million related to post-closing contingency payments for the previously disclosed personal installment loan sale in *Other revenue*. The previously disclosed sale of a portfolio of ruble-denominated personal installment loans resulted in a pretax net loss on sale of approximately \$7 million.
- During the third and fourth quarters of 2023, as part of the previously disclosed cards referral agreement with a Russian bank, approximately \$47 million of credit card receivables was settled upon referral and refinanced.

Wind-Down Charges

The following tables provide details on Citi's Russia wind-down charges:

<i>In millions of dollars</i>	2023		
	All Other	Services, Markets and Banking	Total
Severance ⁽¹⁾	\$ 11	\$ 4	\$ 15
Vendor termination and other costs ⁽²⁾	12	—	12
Total	\$ 23	\$ 4	\$ 27

<i>In millions of dollars</i>	Program-to-date December 31, 2023		
	All Other	Services, Markets and Banking	Total
Severance ⁽¹⁾	\$ 35	\$ 9	\$ 44
Vendor termination and other costs ⁽²⁾	19	—	19
Total	\$ 54	\$ 9	\$ 63

<i>In millions of dollars</i>	Estimated additional charges as of December 31, 2023		
	All Other	Services, Markets and Banking	Total
Severance ⁽¹⁾	\$ 20	\$ 2	\$ 22
Vendor termination and other costs ⁽²⁾	36	—	36
Total	\$ 56	\$ 2	\$ 58

(1) Recorded in *Compensation and benefits*.

(2) Recorded in *Other operating expenses*.

3. OPERATING SEGMENTS

Effective in the fourth quarter of 2023, Citi changed its management structure resulting in changes in its reportable operating segments to reflect how the CEO, who is the chief operating decision maker (CODM), manages the Company, including allocating resources and measuring performance. Citi reorganized its reporting into five reportable operating segments: *Services*, *Markets*, *Banking*, *U.S. Personal Banking (USPB)* and *Wealth*, with the remaining operations recorded in *All Other*, which includes activities not assigned to a specific reportable operating segment, as well as discontinued operations.

Prior-period reportable operating segment results have been revised to reflect the reorganization of Citi's management reporting structure, including:

- certain businesses engaged in financing and securitization activities, previously operated under a revenue and expense sharing agreement between *Markets* and *Banking*, now reside primarily within *Markets*;
- the implementation of a Corporate Lending revenue sharing arrangement where certain revenues earned by Citi are subject to a revenue sharing arrangement to *Banking*—Corporate Lending from Investment Banking and certain *Markets* and *Services* products sold to Corporate Lending clients;
- the re-attribution of certain allocation methodologies for other revenues and expenses incurred and allocated to the reportable operating segments to conform with the resegmentation and segment profit and loss measure used by the CODM; and
- certain other immaterial reclassifications.

Citi's consolidated results remain unchanged for all periods presented following the changes and reclassifications discussed above.

All Other results are presented on a managed basis that excludes divestiture-related impacts related to (i) Citi's divestitures of its Asia consumer banking businesses and (ii) the planned divestiture of Mexico consumer banking and small business and middle-market banking within *All Other*—Legacy Franchises. The managed basis presents investors with a view of operating earnings that provides increased transparency and clarity into the operational results of Citi's performance; improves the visibility of management decisions and their impacts on operational performance; enables better comparison to peer companies; and allows Citi to provide a long-term strategic view of the business going forward.

The following is a description of each of Citi's reportable operating segments, and the products and services they provide to their respective client bases.

Services

Services includes Treasury and Trade Solutions (TTS) and Securities Services. TTS provides an integrated suite of tailored cash management, trade and working capital solutions to multinational corporations, financial institutions and public sector organizations. Securities Services provides cross-border support for clients, providing on-the-ground local market

expertise, post-trade technologies, customized data solutions and a wide range of securities services solutions that can be tailored to meet client needs.

Markets

Markets provides corporate, institutional and public sector clients around the world with a full range of sales and trading services across equities, foreign exchange, rates, spread products and commodities. The range of services includes market-making across asset classes, risk management solutions, financing, prime brokerage, research, securities clearing and settlement.

Banking

Banking includes Investment Banking, which supports client capital-raising needs to help strengthen and grow their businesses, including equity and debt capital markets-related strategic financing solutions, as well as advisory services related to mergers and acquisitions, divestitures, restructurings and corporate defense activities; and Corporate Lending, which includes corporate and commercial banking, serving as the conduit of Citi's full product suite to clients.

USPB

USPB includes Branded Cards and Retail Services, which have proprietary card portfolios and co-branded card portfolios within Branded Cards, and co-brand and private label relationships within Retail Services. *USPB* also includes Retail Banking, which provides traditional banking services to retail and small business customers.

Wealth

Wealth includes Private Bank, Wealth at Work and Citigold and provides financial services to a range of client segments including affluent, high net worth and ultra-high net worth clients through banking, lending, mortgages, investment, custody and trust product offerings in 20 countries, including the U.S., Mexico and four wealth management centers: Singapore, Hong Kong, the UAE and London. Private Bank provides financial services to ultra-high net worth clients through customized product offerings. Wealth at Work provides financial services to professional industries (including law firms, consulting groups, accounting and asset management) through tailored solutions. Citigold includes Citigold and Citigold Private Clients, which both provide financial services to affluent and high net worth clients through elevated product offerings and financial relationships.

All Other

All Other primarily consists of activities not assigned to the reportable operating segments, including certain unallocated costs of global functions, other corporate expenses and net treasury results, offsets to certain line-item reclassifications and eliminations, and unallocated taxes; discontinued operations within Corporate/Other; and Legacy Franchises, which consists of Asia Consumer and Mexico Consumer/ SBMM businesses that Citi intends to exit, and its remaining Legacy Holdings Assets. Corporate/Other within *All Other* also includes all restructuring charges related to actions taken

as part of Citi's organizational simplification initiatives. See Note 9.

Revenues and expenses directly associated with each respective business segment or component are included in determining respective operating results. Other revenues and expenses that are attributable to a particular business segment or component are generally allocated from *All Other* based on respective net revenues, non-interest expenses or other relevant measures.

Revenues and expenses from transactions with other operating segments or components are treated as transactions with external parties for purposes of segment disclosures, while funding charges paid by operating segments and funding credits received by Corporate Treasury within *All Other* are included in net interest income. The Company includes intersegment eliminations within *All Other* to reconcile the operating segment results to Citi's consolidated results.

The accounting policies of these reportable operating segments are the same as those disclosed in Note 1.

The following tables present certain information regarding the Company's continuing operations by reportable operating segments and *All Other* on a managed basis. Performance measurement is based on Income (loss) from continuing operations. These results are used by the chief operating decision maker, both in evaluating the performance of, and in allocating resources to, each of the segments:

In millions of dollars, except identifiable assets, average loans and average deposits in billions	Services			Markets			Banking			USPB		
	2023	2022	2021	2023	2022	2021	2023	2022	2021	2023	2022	2021
Net interest income	\$ 13,198	\$ 10,318	\$ 6,821	\$ 7,265	\$ 5,819	\$ 6,147	\$ 2,094	\$ 2,057	\$ 2,204	\$ 20,150	\$ 18,062	\$ 16,285
Non-interest revenue	4,852	5,301	5,702	11,592	14,342	13,252	2,474	3,339	5,579	(963)	(1,190)	(440)
Total revenues, net of interest expense⁽¹⁾	\$ 18,050	\$ 15,619	\$ 12,523	\$ 18,857	\$ 20,161	\$ 19,399	\$ 4,568	\$ 5,396	\$ 7,783	\$ 19,187	\$ 16,872	\$ 15,845
Provisions for credit losses and for benefits and claims	\$ 950	\$ 207	\$ (263)	\$ 437	\$ 155	\$ (329)	\$ (165)	\$ 549	\$ (1,898)	\$ 6,707	\$ 3,448	\$ (998)
Provision (benefits) for income taxes	2,405	1,760	1,312	1,162	1,669	1,695	(92)	(7)	1,170	558	872	1,890
Income (loss) from continuing operations	4,671	4,924	3,768	4,020	5,924	6,661	(44)	383	4,105	1,820	2,770	6,099
Identifiable assets at December 31 ⁽¹⁾	\$ 585	\$ 599	\$ 547	\$ 995	\$ 950	\$ 895	\$ 147	\$ 152	\$ 145	\$ 242	\$ 231	\$ 211
Average loans	81	82	74	110	111	112	90	98	101	193	171	159
Average deposits	810	808	805	23	21	22	1	1	1	110	115	112

	Wealth			All Other ⁽²⁾			Reconciling Items ⁽²⁾			Total Citi		
	2023	2022	2021	2023	2022	2021	2023	2022	2021	2023	2022	2021
Net interest income	\$ 4,460	\$ 4,744	\$ 4,491	\$ 7,733	\$ 7,668	\$ 6,546	\$ —	\$ —	\$ —	\$ 54,900	\$ 48,668	\$ 42,494
Non-interest revenue	2,631	2,704	3,051	1,630	1,320	2,916	1,346	854	(670)	23,562	26,670	29,390
Total revenues, net of interest expense⁽¹⁾	\$ 7,091	\$ 7,448	\$ 7,542	\$ 9,363	\$ 8,988	\$ 9,462	\$ 1,346	\$ 854	\$ (670)	\$ 78,462	\$ 75,338	\$ 71,884
Provisions for credit losses and for benefits and claims	\$ (2)	\$ 306	\$ (226)	\$ 1,326	\$ 498	\$ (88)	\$ (67)	\$ 76	\$ 24	\$ 9,186	\$ 5,239	\$ (3,778)
Provision (benefits) for income taxes	103	134	419	(990)	(1,052)	(812)	382	266	(223)	3,528	3,642	5,451
Income (loss) from continuing operations	346	950	1,968	(2,090)	398	1,059	659	(184)	(1,642)	9,382	15,165	22,018
Identifiable assets at December 31 ⁽¹⁾	\$ 232	\$ 259	\$ 250	\$ 211	\$ 226	\$ 243				\$ 2,412	\$ 2,417	\$ 2,291
Average loans	150	150	148	37	41	74				661	653	668
Average deposits	316	320	305	74	68	90				1,334	1,333	1,335

Reconciliation of Total Citigroup

Income from continuing operations as reported:

2023⁽³⁾ 2022⁽⁴⁾ 2021⁽⁵⁾

Total segments and <i>All Other</i> —Income from continuing operations ⁽²⁾	\$ 8,723	\$ 15,349	\$ 23,660
Divestiture-related impact on:			
Total revenues, net of interest expense			
	1,346	854	(670)
Total operating expenses	372	696	1,171
Provision (release) for credit losses	(67)	76	24
Provision (benefits) for income taxes	382	266	(223)
Income from continuing operations	\$ 9,382	\$ 15,165	\$ 22,018

- (1) See “Performance by Geographic Area” below.
- (2) Segment results are presented on a managed basis that excludes divestiture-related impacts related to (i) Citi’s divestitures of its Asia consumer banking businesses and (ii) the planned divestiture of Mexico consumer banking and small business and middle-market banking within *All Other*—Legacy Franchises. Adjustments are included in Legacy Franchises within *All Other* and are reflected in the reconciliations above to arrive at Citi’s reported results in the Consolidated Statement of Income.
- (3) 2023 includes (i) an approximate \$1.059 billion gain on sale recorded in revenue (approximately \$727 million after-tax) related to the India consumer banking business sale; (ii) an approximate \$403 million gain on sale recorded in revenue (approximately \$284 million after-tax) related to the Taiwan consumer banking business sale; and (iii) approximately \$372 million (approximately \$263 million after-tax) in operating expenses primarily related to separation costs in Mexico and severance costs in the Asia exit markets.
- (4) 2022 includes (i) an approximate \$535 million (approximately \$489 million after-tax) goodwill write-down due to resegmentation and the timing of Asia consumer banking business divestitures; (ii) an approximate \$616 million gain on sale recorded in revenue (approximately \$290 million after-tax) related to the Philippines consumer banking business sale; and (iii) an approximate \$209 million gain on sale recorded in revenue (approximately \$115 million after-tax) related to the Thailand consumer banking business sale.
- (5) 2021 includes (i) an approximate \$680 million loss on sale (approximately \$580 million after-tax) related to Citi’s agreement to sell its Australia consumer banking business; and (ii) an approximate \$1.052 billion in expenses (approximately \$792 million after-tax) primarily related to charges incurred from the voluntary early retirement program (VERP) in connection with the wind-down of Citi’s consumer banking business in Korea.

Performance by Geographic Area

Citi's operations are highly integrated, and estimates and subjective assumptions have been made to apportion revenue between North America and international operations. These estimates and assumptions are consistent with the allocations used for the Company's segment reporting.

The Company defines international activities for purposes of this footnote presentation as business transactions that involve clients that reside outside of North America, and the information presented below is based predominantly on the domicile of the client or the booking location from which the client relationship is managed. However, many of the Company's North America operations serve international businesses.

The following table presents revenues net of interest expense and identifiable assets between North America and international areas:

	Revenues, net of interest expense		
In millions of dollars	2023	2022	2021
North America ⁽¹⁾	\$ 36,661	\$ 34,799	\$ 35,022
International ⁽²⁾⁽³⁾	39,636	39,018	36,037
Corporate/Other ⁽⁴⁾	2,165	1,521	825
Total Citi	\$ 78,462	\$ 75,338	\$ 71,884

	Identifiable assets ⁽⁵⁾	
In millions of dollars at December 31,	2023	2022
North America ⁽¹⁾	\$ 1,348,169	\$ 1,306,127
International	930,185	979,214
Corporate/Other	133,480	131,335
Total Citi	\$ 2,411,834	\$ 2,416,676

(1) Primarily reflects the U.S.

(2) International represents the summation of international revenues in *Services, Markets, Banking, Wealth* and *All Other*—Legacy Franchises Asia Consumer and Mexico Consumer/SBMM.

(3) Total revenues for the U.K. were approximately \$7.6 billion, \$9.2 billion and \$7.4 billion for 2023, 2022 and 2021, respectively.

(4) Corporate/Other revenues, net of interest expense largely reflects U.S. activities, as well as intersegment eliminations.

(5) The Company's long-lived assets (*Premises and equipment*) for the periods presented are not considered significant in relation to its total assets.

4. INTEREST INCOME AND EXPENSE

Interest revenue and *Interest expense* consisted of the following:

In millions of dollars	2023	2022	2021
Interest income			
Consumer loans	\$ 36,864	\$ 28,391	\$ 26,408
Corporate loans	21,004	12,851	9,032
Loan interest, including fees	\$ 57,868	\$ 41,242	\$ 35,440
Deposits with banks	11,238	4,515	577
Securities borrowed and purchased under agreements to resell	26,887	7,154	1,052
Investments, including dividends	18,300	11,214	7,388
Trading account assets ⁽¹⁾	14,458	7,418	5,365
Other interest-bearing assets ⁽²⁾	4,507	2,865	653
Total interest income	\$ 133,258	\$ 74,408	\$ 50,475
Interest expense			
Deposits	\$ 36,300	\$ 11,559	\$ 2,896
Securities loaned and sold under agreements to repurchase	21,439	4,455	1,012
Trading account liabilities ⁽¹⁾	3,427	1,437	482
Short-term borrowings and other interest-bearing liabilities ⁽³⁾	7,438	2,488	121
Long-term debt	9,754	5,801	3,470
Total interest expense	\$ 78,358	\$ 25,740	\$ 7,981
Net interest income	\$ 54,900	\$ 48,668	\$ 42,494
Provision (benefit) for credit losses on loans	7,786	4,745	(3,103)
Net interest income after provision for credit losses on loans	\$ 47,114	\$ 43,923	\$ 45,597

(1) Interest expense on *Trading account liabilities* of *Services, Markets and Banking* is reported as a reduction of *Interest revenue*. *Interest revenue* and *Interest expense* on cash collateral positions are reported in interest on *Trading account assets* and *Trading account liabilities*, respectively.

(2) Includes assets from businesses held-for-sale (see Note 2) and *Brokerage receivables*.

(3) Includes liabilities from businesses held-for-sale (see Note 2) and *Brokerage payables*.

5. COMMISSIONS AND FEES; ADMINISTRATION AND OTHER FIDUCIARY FEES

Commissions and Fees

The primary components of *Commissions and fees* revenue are investment banking fees, brokerage commissions, credit card and bank card income and deposit-related fees.

Investment banking fees are substantially composed of underwriting and advisory revenues. Such fees are recognized at the point in time when Citigroup's performance under the terms of a contractual arrangement is completed, which is typically at the closing of a transaction. Reimbursed expenses related to these transactions are recorded as revenue and are included within investment banking fees. In certain instances for advisory contracts, Citi will receive amounts in advance of the deal's closing. In these instances, the amounts received will be recognized as a liability and not recognized in revenue until the transaction closes. Investment banking fees are earned primarily by *Banking and Markets*. See Note 3 for segment results.

Out-of-pocket expenses associated with underwriting activity are deferred and recognized at the time the related revenue is recognized, while out-of-pocket expenses associated with advisory arrangements are expensed as incurred. In general, expenses incurred related to investment banking transactions, whether consummated or not, are recorded in *Other operating expenses*. The Company has determined that it acts as principal in the majority of these transactions and therefore presents expenses gross within *Other operating expenses*.

Brokerage commissions primarily include commissions and fees from the following: executing transactions for clients on exchanges and over-the-counter markets; sales of mutual funds and other annuity products; and assisting clients in clearing transactions, providing brokerage services and other such activities. Brokerage commissions are recognized in *Commissions and fees* at the point in time the associated service is fulfilled, generally on the trade execution date. Certain costs paid to third-party clearing houses and exchanges are recorded net against commission revenue, as the Company is an agent for those services. Sales of certain investment products include a portion of variable consideration associated with the underlying product. In these instances, a portion of the revenue associated with the sale of the product is not recognized until the variable consideration becomes fixed and determinable. Brokerage commissions are earned primarily by *Markets and Wealth*. See Note 3 for segment results.

Credit card and bank card income is primarily composed of interchange fees, which are earned by card issuers based on card spend volumes, and certain card fees, including annual fees. Costs related to customer reward programs and certain payments to partners (primarily based on program sales, profitability and customer acquisitions) are recorded as a reduction of credit card and bank card income. Citi's credit card programs have certain partner sharing agreements that vary by partner. These partner sharing agreements are subject to contractually based performance thresholds that, if met, would require Citi to make ongoing payments to the partner. The threshold is based on the profitability of a program and is

generally calculated based on predefined program revenues less predefined program expenses. In most of Citi's partner sharing agreements, program expenses include net credit losses, which, to the extent that the increase in net credit losses reduces Citi's liability for the partners' share for a given program year, would generally result in lower payments to partners in total for that year and vice versa. Further, in some instances, other partner payments are based on program sales and new account acquisitions. Interchange revenues are recognized as earned on a daily basis when Citi's performance obligation to transmit funds to the payment networks has been satisfied. Annual card fees, net of origination costs, are deferred and amortized on a straight-line basis over a 12-month period. Costs related to card reward programs are recognized when the rewards are earned by the cardholders. Payments to partners are recognized when incurred. Credit card and bank card income is earned primarily by *USPB and Services*. See Note 3 for segment results.

Deposit-related fees consist of service charges on deposit accounts and fees earned from performing cash management activities and other deposit account services. Such fees are recognized in the period in which the related service is provided. Deposit-related fees are earned primarily by *Services and USPB*. See Note 3 for segment results.

Transactional service fees primarily consist of fees charged for processing services such as cash management, global payments, clearing, international funds transfer and other trade services. Such fees are recognized as/when the associated service is satisfied, which normally occurs at the point in time the service is requested by the customer and provided by Citi. Transactional service fees are earned primarily by *Services*. See Note 3 for segment results.

Insurance distribution revenue consists of commissions earned from third-party insurance companies for marketing and selling insurance policies on behalf of such entities. Such commissions are recognized in *Commissions and fees* at the point in time the associated service is fulfilled, generally when the insurance policy is sold to the policyholder. Sales of certain insurance products include a portion of variable consideration associated with the underlying product. In these instances, a portion of the revenue associated with the sale of the policy is not recognized until the variable consideration becomes fixed and determinable. The Company recognized \$188 million, \$201 million and \$260 million of revenue related to such variable consideration for the years ended December 31, 2023, 2022 and 2021, respectively. These amounts primarily relate to performance obligations satisfied in prior periods. Insurance distribution revenue is earned primarily by *Wealth and Legacy Franchises* within *All Other*. See Note 3 for segment results.

Insurance premiums consist of premium income from insurance policies that Citi has underwritten and sold to policyholders. Insurance premiums are earned primarily by *Legacy Franchises* within *All Other*. See Note 3 for segment results.

The following table presents *Commissions and fees* revenue:

<i>In millions of dollars</i>	2023	2022	2021
Investment banking ⁽¹⁾	\$ 2,676	\$ 3,084	\$ 6,007
Brokerage commissions ⁽²⁾	2,316	2,546	3,236
Credit and bank card income			
Interchange fees	11,996	11,505	9,821
Card-related loan fees	475	589	695
Card rewards and partner payments ⁽³⁾	(12,513)	(12,336)	(10,235)
Deposit-related fees ⁽⁴⁾	1,254	1,274	1,331
Transactional service fees	1,323	1,169	1,098
Corporate finance ⁽⁵⁾	439	458	709
Insurance distribution revenue	321	346	473
Insurance premiums	97	91	94
Loan servicing	100	103	98
Other	421	346	345
Total⁽⁶⁾	\$ 8,905	\$ 9,175	\$ 13,672

(1) For the periods presented, the contract liability amount was negligible.

(2) The Company recognized \$448 million, \$538 million and \$639 million of revenue related to variable consideration for the years ended December 31, 2023, 2022 and 2021, respectively. These amounts primarily relate to performance obligations satisfied in prior periods.

(3) As described above, Citi's credit card programs have certain partner sharing agreements that vary by partner.

(4) Overdraft fees are accounted for under ASC 310. Citi eliminated overdraft fees, returned item fees and overdraft protection fees beginning in June 2022. Includes overdraft fees of \$0 million, \$59 million (prior to the elimination of overdraft fees in June 2022) and \$107 million for the years ended December 31, 2023, 2022 and 2021, respectively.

(5) Consists primarily of fees earned from structuring and underwriting loan syndications or related financing activity. This activity is accounted for under ASC 310.

(6) *Commissions and fees* include \$(11,367) million, \$(11,008) million and \$(8,516) million not accounted for under ASC 606, *Revenue from Contracts with Customers*, for the years ended December 31, 2023, 2022 and 2021, respectively. Amounts reported in *Commissions and fees* accounted for under other guidance primarily include card-related loan fees, card reward programs and certain partner payments, corporate finance fees, insurance premiums and loan servicing fees.

Administration and Other Fiduciary Fees

Administration and other fiduciary fees revenue is primarily composed of custody fees and fiduciary fees.

The custody product is composed of numerous services related to the administration, safekeeping and reporting for both U.S. and non-U.S. denominated securities. The services offered to clients include trade settlement, safekeeping, income collection, corporate action notification, record-keeping and reporting, tax reporting and cash management. These services are provided for a wide range of securities, including but not limited to equities, municipal and corporate bonds, mortgage- and asset-backed securities, money market instruments, U.S. Treasuries and agencies, derivative instruments, mutual funds, alternative investments and precious metals. Custody fees are recognized as or when the associated promised service is satisfied, which normally occurs at the point in time the service is requested by the customer and provided by Citi. Custody fees are earned primarily by *Services*. See Note 3 for segment results.

Fiduciary fees consist of trust services and investment management services. As an escrow agent, Citi receives, safekeeps, services and manages clients' escrowed assets, such as cash, securities, property (including intellectual property), contracts or other collateral. Citi performs its escrow agent duties by safekeeping the assets during the specified time period agreed upon by all parties and therefore earns its revenue evenly during the contract duration. Investment management services consist of managing assets on behalf of Citi's retail and institutional clients. Revenue from these services primarily consists of asset-based fees for advisory accounts, which are based on the market value of the client's assets and recognized monthly, when the market value is fixed. In some instances, the Company contracts with third-party advisors and with third-party custodians. The Company has determined that it acts as principal in the majority of these transactions and therefore presents the amounts paid to third parties gross within *Other operating expenses*. Fiduciary fees are earned primarily by *Wealth* and *Legacy Franchises* within *All Other*. See Note 3 for segment results.

The following table presents *Administration and other fiduciary fees* revenue:

<i>In millions of dollars</i>	2023	2022	2021
Custody fees	\$ 1,871	\$ 1,877	\$ 1,898
Fiduciary fees	1,376	1,350	1,464
Guarantee fees	534	557	581
Total administration and other fiduciary fees⁽¹⁾	\$ 3,781	\$ 3,784	\$ 3,943

(1) *Administration and other fiduciary fees* include \$534 million, \$557 million and \$581 million for the years ended December 31, 2023, 2022 and 2021, respectively, that are not accounted for under ASC 606, *Revenue from Contracts with Customers*. These generally include guarantee fees.

6. PRINCIPAL TRANSACTIONS

Principal transactions revenue consists of realized and unrealized gains and losses from trading activities. Trading activities include revenues from fixed income, equities, credit and commodities products and foreign exchange transactions that are managed on a portfolio basis and characterized below based on the primary risk managed by each trading desk (as such, the trading desks can be periodically reorganized and thus the risk categories). Not included in the table below is the impact of net interest income related to trading activities, which is an integral part of trading activities' profitability (see

Note 4 for information about net interest income related to trading activities). Principal transactions include CVA (credit valuation adjustments) and FVA (funding valuation adjustments) on over-the-counter derivatives, and gains (losses) on certain economic hedges on loans in *Services*, *Markets* and *Banking*. These adjustments are discussed further in Note 26.

In certain transactions, Citi incurs fees and presents these fees paid to third parties in operating expenses.

The following table presents *Principal transactions* revenue:

<i>In millions of dollars</i>	2023	2022	2021
Interest rate risks ⁽¹⁾	\$ 2,946	\$ 3,944	\$ 2,001
Foreign exchange risks ⁽²⁾	5,439	6,599	4,661
Equity risks ⁽³⁾	1,266	1,848	2,196
Commodity and other risks ⁽⁴⁾	1,741	1,801	1,123
Credit products and risks ⁽⁵⁾	(444)	(33)	173
Total	\$ 10,948	\$ 14,159	\$ 10,154

- (1) Includes revenues from government securities, municipal securities, mortgage securities and other debt instruments. Also includes spot and forward trading of currencies and exchange-traded and over-the-counter (OTC) currency options, options on fixed income securities, interest rate swaps, currency swaps, swap options, caps and floors, financial futures, OTC options and forward contracts on fixed income securities.
- (2) Includes revenues from foreign exchange spot, forward, option and swap contracts, as well as foreign currency translation (FX translation) gains and losses.
- (3) Includes revenues from common, preferred and convertible preferred stock, convertible corporate debt, equity-linked notes and exchange-traded and OTC equity options and warrants.
- (4) Primarily includes revenues from crude oil, refined oil products, natural gas and other commodities trades.
- (5) Includes revenues from corporate debt, secondary trading loans, mortgage securities, single name and index credit default swaps, and structured credit products.

7. INCENTIVE PLANS

Discretionary Annual Incentive Awards

Citigroup grants immediate cash bonus payments and various forms of immediate and deferred awards as part of its discretionary annual incentive award program involving a large segment of Citigroup's employees worldwide.

Discretionary annual incentive awards are generally awarded in the first quarter of the year based on the previous year's performance. Awards valued at less than U.S. \$75,000 (or the local currency equivalent) are generally paid entirely in the form of an immediate cash bonus. Pursuant to Citigroup policy and/or regulatory requirements, certain employees are subject to mandatory deferrals of incentive pay and generally receive 15%–60% of their awards in the form of deferred stock or deferred cash stock units. Discretionary annual incentive awards to certain employees in the EU are subject to deferral requirements regardless of the total award value, with at least 50% of the immediate incentive delivered in the form of a stock payment award subject to a restriction on sale or transfer (generally, for 12 months).

For deferred incentive awards granted in 2022 and after, Citigroup changed the annual deferred compensation structure from granting deferred cash awards for certain regulated employees to deferred stock awards. Certain employees located in countries that have regulations or tax advantages for offering deferred cash or deferred cash stock units received those types of awards as a part of their annual incentive compensation rather than deferred stock.

Subject to certain exceptions (principally, for retirement-eligible employees), continuous employment within Citigroup is required to vest in deferred annual incentive awards. Post employment vesting by retirement-eligible employees and participants who meet other conditions is generally conditioned upon their compliance with certain restrictions during the remaining vesting period.

Generally, the deferred awards vest in equal annual installments over three- or four-year periods. Vested stock awards are delivered in shares of common stock. Deferred cash awards are payable in cash and, except as prohibited by applicable regulatory guidance, earn a fixed notional rate of interest that is paid only if and when the underlying principal award amount vests. Deferred cash stock unit awards are payable in cash at the vesting value of the underlying stock. The value of each deferred stock unit is equal to one share of Citigroup stock, and the award will fluctuate with changes in the stock price. Recipients of deferred stock awards and deferred cash stock unit awards, however, may, except as prohibited by applicable regulatory guidance, be entitled to receive or accrue dividend-equivalent payments during the vesting period. Generally, in the EU, vested shares are subject to a restriction on sale or transfer after vesting, and vested deferred cash awards and deferred cash stock units are subject to hold back (generally, for 6 or 12 months based on the award type).

Stock awards, deferred cash stock units and deferred cash awards are subject to one or more cancellation and clawback provisions that apply in certain circumstances, including gross misconduct.

Outstanding (Unvested) Stock Awards

A summary of the status of unvested stock awards granted as discretionary annual incentive or sign-on and replacement stock awards is presented below:

Unvested stock awards	Shares	Weighted-average grant date fair value per share
Unvested at December 31, 2022	41,908,207	\$ 65.23
Granted ⁽¹⁾	37,029,558	49.36
Canceled	(2,332,517)	57.00
Vested ⁽²⁾	(16,747,915)	63.93
Unvested at December 31, 2023	59,857,333	\$ 56.09

(1) The weighted-average fair value of the shares granted during 2022 and 2021 was \$65.07 and \$62.10, respectively.

(2) The weighted-average fair value of the shares vesting during 2023 was approximately \$49.86 per share on the vesting date, compared to \$63.93 on the grant date.

Citigroup did not capitalize any stock-based compensation costs in 2023, 2022 and 2021. The related income tax benefits for stock-based compensation costs were \$392 million, \$350 million and \$335 million for 2023, 2022 and 2021, respectively. Total unrecognized compensation cost related to unvested stock awards was \$1 billion at December 31, 2023. The cost is expected to be recognized over a weighted-average period of 1.7 years.

Performance Share Units

Certain senior executives were awarded performance share units (PSUs) every February from 2020 to 2023, for performance in the year prior to the award date based on two performance metrics. For PSUs awarded in 2020, those metrics were return on average tangible common equity and earnings per share. For PSU awards in 2021, 2022 and 2023, the metrics were average return on tangible common equity and cumulative tangible book value per share. In each year, the metrics were equally weighted.

For all award years, if the total shareholder return is negative over the three-year performance period, executives may earn no more than 100% of the target PSUs, regardless of the extent to which Citigroup outperforms against performance goals and/or peer firms. The number of PSUs ultimately earned could vary from zero, if performance goals are not met, to as much as 150% of target, if performance goals are meaningfully exceeded. The reported financial metrics during the performance period are adjusted to reflect any mandatory equitable adjustments as required under the applicable award agreements for unusual and non-recurring items as presented to and approved by the Compensation, Performance Management and Culture (CPC) Committee.

For all award years, the value of each PSU is equal to the value of one share of Citi common stock. Dividend equivalents are forfeitable, or accrued and paid on the number of earned PSUs after the end of the performance period.

PSUs are subject to variable accounting, pursuant to which the associated value of the award will fluctuate with changes in Citigroup's stock price and the attainment of the specified performance goals for each award. The award is settled solely in cash after the end of each performance period. The value of the award, subject to the performance goals and taking into account any mandatory equitable adjustments as per the terms of the award agreement, is estimated using a simulation model that incorporates multiple valuation assumptions, including the probability of achieving the specified performance goals of each award. The risk-free rate used in the model is based on the applicable U.S. Treasury yield curve. Other significant assumptions for the awards are as follows:

Valuation assumptions— weighted average	2023	2022	2021
Expected volatility	35.97 %	37.01 %	40.88 %
Expected dividend yield	4.13	2.96	4.21

A summary of the performance share unit activity for 2023 is presented below:

Performance share units	Units	Weighted-average grant date fair value per unit
Outstanding, beginning of year	1,282,135	\$ 76.90
Granted ⁽¹⁾	1,093,234	47.15
Canceled	(332,213)	84.19
Payments ⁽²⁾	—	—
Outstanding, end of year	2,043,156	\$ 59.79

(1) The weighted-average grant date fair value per unit awarded in 2022 and 2021 was \$71.04 and \$78.55, respectively.

(2) No payments were processed for this program in 2023.

Transformation Program

In order to provide an incentive for select employees to effectively execute Citi's transformation program, in August 2021 the Personnel and Compensation (P&C) Committee of Citigroup's Board of Directors, the predecessor of the Compensation, Performance Management and Culture (CPC) Committee of Citigroup's Board of Directors, approved a program for the select employees to earn additional compensation based on the achievement of Citi's transformation goals from August 2021 through December 2024 and satisfaction of other conditions. Performance under the program is divided into three consecutive periods, ending on December 31, 2022, 2023 and 2024. The awards are subject to variable accounting, pursuant to which the associated value of the award will fluctuate with the attainment of the performance conditions for each tranche and changes to Citigroup's stock price for the third tranche. Payment for each period will be in cash, in a lump sum, with the third payment indexed to changes in the value of Citi's common stock from the service inception date through the payment date. Earnings generally will be based on collective performance with respect to Citi's transformation goals and

will be evaluated and approved by the CPC Committee on an annual basis.

Payments in the event of any category of employment termination or change in job title or employment status are subject to Citi's discretion. Cancellation and clawback are provided for in the event of misconduct and certain other circumstances. The program applies to senior leaders, other than the CEO, critical to helping deliver a successful transformation with the value of the awards varying based on individual compensation levels.

Stock Option Program

All outstanding options were fully vested at December 31, 2020 and exercised during 2021, with none outstanding at December 31, 2023 and 2022.

Other Variable Incentive Compensation

Citigroup has various incentive plans globally that are used to motivate and reward performance primarily in the areas of sales, operational excellence and customer satisfaction. Participation in these plans is generally limited to employees who are not eligible for discretionary annual incentive awards. Other forms of variable compensation include commissions paid to financial advisors and mortgage loan officers.

Additional Information

Except for awards subject to variable accounting, the total expense recognized for stock awards represents the grant date fair value of such awards, which is generally recognized as a charge to income ratably over the vesting period, other than for awards to retirement-eligible employees and immediately vested awards. Whenever awards are granted or are expected to be granted to retirement-eligible employees, the charge to income is accelerated based on when the applicable conditions for retirement eligibility were or will be met. If the employee is retirement eligible on the grant date, or the award is vested at the grant date, Citi recognizes the expense each year equal to the grant date fair value of the awards that it estimates will be granted in the following year.

Recipients of Citigroup stock awards generally do not have any stockholder rights until shares are delivered upon vesting. Recipients of stock-settled awards and other vested stock awards subject to a sale-restriction period are generally entitled to vote the shares in their award and receive dividends on such shares during the sale-restriction period. Once a stock award vests, the shares delivered to the participant are freely transferable, unless they are subject to a restriction on sale or transfer for a specified period.

All equity awards granted since April 19, 2005 have been made pursuant to stockholder-approved stock incentive plans that are administered by the CPC Committee (or its predecessor), which is composed entirely of independent non-employee directors.

On December 31, 2023, approximately 41.7 million shares of Citigroup common stock were authorized and available for grant under Citigroup's 2019 Stock Incentive Plan, the only plan from which equity awards are currently granted.

The 2019 Stock Incentive Plan and predecessor plans permit the use of treasury stock or newly issued shares in connection with awards granted under the plans. Treasury shares were used to settle vestings from 2018 to 2022, and for the first quarter of 2023, except where local laws favor newly issued shares. The use of treasury stock or newly issued shares to settle stock awards does not affect the compensation expense recorded in the Consolidated Statement of Income for equity awards.

Incentive Compensation Cost

The following table presents components of compensation expense, relating to the incentive compensation programs described above:

<i>In millions of dollars</i>	2023	2022	2021
Charges for estimated awards to retirement-eligible employees	\$ 663	\$ 742	\$ 807
Amortization of deferred cash awards, deferred cash stock units and performance stock units	340	463	384
Immediately vested stock award expense ⁽¹⁾	127	101	99
Amortization of restricted and deferred stock awards ⁽²⁾	689	533	395
Other variable incentive compensation	286	304	435
Total⁽³⁾	\$ 2,105	\$ 2,143	\$ 2,091

- (1) Represents expense for immediately vested stock awards that generally were stock payments in lieu of cash compensation. The expense is generally accrued as cash incentive compensation in the year prior to grant.
- (2) All periods include amortization expense for all unvested awards to non-retirement-eligible employees.
- (3) Citigroup recognized an additional \$46 million of share-based compensation costs in 2023 that is reflected in the *Restructuring* line (not reflected in the above totals). See Note 9.

8. RETIREMENT BENEFITS

Pension and Postretirement Benefit Plans

The Company has several non-contributory defined benefit pension plans covering certain U.S. employees and has various defined benefit pension and termination indemnity plans covering employees outside the U.S.

The U.S. qualified defined benefit plan was frozen effective January 1, 2008 for most employees. Accordingly, no additional compensation-based contributions have been credited to the cash balance portion of the plan for existing plan participants after 2007. However, certain employees covered under the prior final pay plan formula continue to accrue benefits. The Company also offers postretirement health care and life insurance benefits to certain eligible U.S. retired employees, as well as to certain eligible employees outside the U.S.

The Company also sponsors a number of non-contributory, nonqualified pension plans. These plans, which are unfunded, provide supplemental defined pension benefits to certain U.S. employees. With the exception of certain

employees covered under the prior final pay plan formula, the benefits under these plans were frozen in prior years.

The plan obligations, plan assets and periodic plan expense for the Company's most significant pension and postretirement benefit plans (Significant Plans) are measured and disclosed quarterly, instead of annually. The Significant Plans captured approximately 90% of the Company's global pension and postretirement benefit plan obligations as of December 31, 2023. All other plans (All Other Plans) are measured annually with a December 31 measurement date.

Net (Benefit) Expense

The following table summarizes the components of net (benefit) expense recognized in the Consolidated Statement of Income for the Company's pension and postretirement benefit plans for Significant Plans and All Other Plans. Benefits earned during the year are reported in *Compensation and benefits expenses* and all other components of the net annual benefit cost are reported in *Other operating expenses* in the Consolidated Statement of Income:

In millions of dollars	Pension plans						Postretirement benefit plans					
	U.S. plans			Non-U.S. plans			U.S. plans			Non-U.S. plans		
	2023	2022	2021	2023	2022	2021	2023	2022	2021	2023	2022	2021
Service cost	\$ —	\$ —	\$ —	\$ 115	\$ 116	\$ 149	\$ —	\$ —	\$ —	\$ 1	\$ 2	\$ 6
Interest cost on benefit obligation	505	442	351	409	329	268	18	16	13	106	90	96
Expected return on assets	(640)	(612)	(683)	(327)	(263)	(253)	(13)	(11)	(13)	(77)	(69)	(84)
Amortization of:												
Prior service cost (benefit)	2	2	2	(5)	(7)	(6)	(9)	(9)	(9)	(9)	(8)	(9)
Net actuarial loss (gain)	151	162	228	72	58	62	(12)	(9)	(3)	(18)	6	13
Curtailment (gain) loss ⁽¹⁾	—	—	—	(16)	(22)	1	—	—	—	—	—	—
Settlement loss (gain) ⁽¹⁾	—	—	—	9	(15)	10	—	—	—	—	—	—
Total net expense (benefit)	\$ 18	\$ (6)	\$ (102)	\$ 257	\$ 196	\$ 231	\$ (16)	\$ (13)	\$ (12)	\$ 3	\$ 21	\$ 22

(1) Curtailment and settlement relate to divestiture and wind-down activities. Total 2023 net expense for non-U.S. plans include curtailment gains and settlement loss related to divestiture of Citi's consumer businesses in India, Indonesia and Taiwan. Total 2022 net expense for non-U.S. plans includes a \$36 million net benefit related to the wind-down of Citi's consumer banking business in Korea.

Contributions

The Company's funding practice for U.S. and non-U.S. pension and postretirement benefit plans is generally to fund to minimum funding requirements in accordance with applicable local laws and regulations. The Company may increase its contributions above the minimum required contribution, if appropriate. In addition, management has the ability to change its funding practices. For the U.S. pension plans, there were no required minimum cash contributions for 2023 or 2022.

The following table summarizes the Company's actual contributions for the years ended December 31, 2023 and 2022, as well as expected Company contributions for 2024. Expected contributions are subject to change, since contribution decisions are affected by various factors, such as market performance, tax considerations and regulatory requirements.

In millions of dollars	Pension plans ⁽¹⁾						Postretirement benefit plans ⁽¹⁾					
	U.S. plans ⁽²⁾			Non-U.S. plans			U.S. plans			Non-U.S. plans		
	2024	2023	2022	2024	2023	2022	2024	2023	2022	2024	2023	2022
Contributions made by the Company	\$ —	\$ —	\$ —	\$ 61	\$ 87	\$ 158	\$ —	\$ —	\$ —	\$ 4	\$ 4	\$ 4
Benefits paid directly by the Company ⁽³⁾	57	58	55	46	31	336	6	8	14	6	5	5

(1) Amounts reported for 2024 are expected amounts.

(2) The U.S. plans include benefits paid directly by the Company for the nonqualified pension plans.

(3) 2022 benefit payments include the wind-down of Citi's consumer banking business in Korea.

Funded Status and Accumulated Other Comprehensive Income (AOCI)

The following table summarizes the funded status and amounts recognized on the Consolidated Balance Sheet for the Company's pension and postretirement benefit plans:

In millions of dollars	Pension plans				Postretirement benefit plans			
	U.S. plans		Non-U.S. plans		U.S. plans		Non-U.S. plans	
	2023	2022	2023	2022	2023	2022	2023	2022
Change in benefit obligation								
Benefit obligation at beginning of year	\$ 9,741	\$ 12,766	\$ 6,375	\$ 8,001	\$ 375	\$ 501	\$ 1,013	\$ 1,169
Service cost	—	—	115	116	—	—	1	2
Interest cost on benefit obligation	505	442	409	329	18	16	106	90
Plan amendments	—	—	(2)	—	—	—	—	—
Actuarial loss (gain) ⁽¹⁾	282	(2,522)	273	(1,168)	(1)	(95)	27	(100)
Benefits paid, net of participants' contributions	(888)	(945)	(368)	(397)	(49)	(47)	(77)	(72)
Divestitures	—	—	(77)	(22)	—	—	—	—
Settlement ⁽²⁾⁽³⁾	—	—	(104)	(364)	—	—	—	—
Curtailment ⁽³⁾	—	—	(33)	(35)	—	—	—	—
Foreign exchange impact and other	—	—	442	(85)	—	—	138	(76)
Benefit obligation at year end	\$ 9,640	\$ 9,741	\$ 7,030	\$ 6,375	\$ 343	\$ 375	\$ 1,208	\$ 1,013
Change in plan assets								
Plan assets at fair value at beginning of year	\$ 10,145	\$ 12,977	\$ 6,086	\$ 7,614	\$ 253	\$ 319	\$ 855	\$ 1,043
Actual return on plan assets ⁽¹⁾	895	(1,942)	352	(1,212)	19	(33)	56	(75)
Company contributions, net of reimbursements	58	55	118	495	8	14	9	9
Benefits paid, net of participants' contributions	(888)	(945)	(368)	(397)	(49)	(47)	(77)	(72)
Divestitures	—	—	(19)	(11)	—	—	—	—
Settlement ⁽²⁾⁽³⁾	—	—	(104)	(364)	—	—	—	—
Foreign exchange impact and other	—	—	361	(39)	—	—	127	(50)
Plan assets at fair value at year end	\$ 10,210	\$ 10,145	\$ 6,426	\$ 6,086	\$ 231	\$ 253	\$ 970	\$ 855
Funded status of the plans								
Qualified plans⁽⁴⁾	\$ 1,107	\$ 949	\$ (604)	\$ (289)	\$ (112)	\$ (122)	\$ (238)	\$ (158)
Nonqualified plans⁽⁵⁾	(537)	(545)	—	—	—	—	—	—
Funded status of the plans at year end	\$ 570	\$ 404	\$ (604)	\$ (289)	\$ (112)	\$ (122)	\$ (238)	\$ (158)
Net amount recognized at year end								
Qualified plans								
Benefit asset	\$ 1,107	\$ 949	\$ 832	\$ 799	\$ —	\$ —	\$ —	\$ 28
Benefit liability	—	—	(1,436)	(1,088)	(112)	(122)	(238)	(186)
Qualified plans	\$ 1,107	\$ 949	\$ (604)	\$ (289)	\$ (112)	\$ (122)	\$ (238)	\$ (158)
Nonqualified plans	(537)	(545)	—	—	—	—	—	—
Net amount recognized on the balance sheet	\$ 570	\$ 404	\$ (604)	\$ (289)	\$ (112)	\$ (122)	\$ (238)	\$ (158)
Amounts recognized in AOCI at year end⁽²⁾								
Prior service (cost) benefit	\$ (5)	\$ (6)	\$ 5	\$ 7	\$ 73	\$ 82	\$ 33	\$ 36
Net actuarial (loss) gain	(6,320)	(6,445)	(1,990)	(1,671)	114	120	(311)	(206)
Net amount recognized in AOCI	\$ (6,325)	\$ (6,451)	\$ (1,985)	\$ (1,664)	\$ 187	\$ 202	\$ (278)	\$ (170)
Accumulated benefit obligation at year end	\$ 9,640	\$ 9,740	\$ 6,686	\$ 6,051	\$ 343	\$ 375	\$ 1,208	\$ 1,013

- (1) In 2022, the actuarial gain was primarily due to the increase in global discount rates partially offset by lower than expected asset returns.
- (2) The framework for the Company's pension oversight process includes monitoring of potential settlement charges for all plans. Settlement accounting is triggered when either the sum of all settlements (including lump sum payments) for the year is greater than service plus interest costs or if more than 10% of the plan's projected benefit obligation will be settled. Because some of Citi's Significant Plans are frozen and have no material service cost, settlement accounting may apply in the future.
- (3) Curtailment and settlement relate to divestiture and other wind-down activities.
- (4) The U.S. qualified plan was fully funded as of January 1, 2023 and no minimum funding was required for 2023. The plan is also expected to be fully funded as of January 1, 2024 with no expected minimum funding requirement for 2024.
- (5) The nonqualified plans of the Company are unfunded.

The following table presents the change in *AOCI* related to the Company's pension, postretirement and post employment plans:

<i>In millions of dollars</i>	2023	2022	2021
Beginning of year balance, net of tax⁽¹⁾⁽²⁾	\$ (5,755)	\$ (5,852)	\$ (6,864)
Actuarial assumptions changes and plan experience	(547)	3,923	963
Net asset gain (loss) due to difference between actual and expected returns	263	(4,225)	(148)
Net amortization	175	198	280
Prior service benefit (cost)	2	—	(7)
Curtailment/settlement (loss) gain ⁽³⁾	(7)	(37)	11
Foreign exchange impact and other	(239)	172	153
Change in deferred taxes, net	58	66	(240)
Change, net of tax	\$ (295)	\$ 97	\$ 1,012
End of year balance, net of tax⁽¹⁾⁽²⁾	\$ (6,050)	\$ (5,755)	\$ (5,852)

(1) See Note 21 for further discussion of net *AOCI* balance.

(2) Includes net-of-tax amounts for certain profit-sharing plans outside the U.S.

(3) Curtailment and settlement relate to divestiture and wind-down activities, including \$36 million related to the Korea wind-down in 2022.

At December 31, 2023 and 2022, the aggregate projected benefit obligation (PBO), the aggregate accumulated benefit obligation (ABO) and the aggregate fair value of plan assets are presented for all defined benefit pension plans with a PBO in excess of plan assets and for all defined benefit pension plans with an ABO in excess of plan assets as follows:

<i>In millions of dollars</i>	PBO exceeds fair value of plan assets				ABO exceeds fair value of plan assets			
	U.S. plans ⁽¹⁾		Non-U.S. plans		U.S. plans ⁽¹⁾		Non-U.S. plans	
	2023	2022	2023	2022	2023	2022	2023	2022
Projected benefit obligation	\$ 537	\$ 545	\$ 3,747	\$ 3,463	\$ 537	\$ 545	\$ 3,510	\$ 3,315
Accumulated benefit obligation	537	545	3,453	3,179	537	545	3,258	3,088
Fair value of plan assets	—	—	2,311	2,374	—	—	2,100	2,252

(1) As of December 31, 2023 and 2022, only the nonqualified plans' PBO and ABO exceeded plan assets.

Plan Assumptions

The Company utilizes a number of assumptions to determine plan obligations and expenses. Changes in one or a combination of these assumptions will have an impact on the Company's pension and postretirement PBO, funded status and (benefit) expense. Changes in the plans' funded status resulting from changes in the PBO and fair value of plan assets will have a corresponding impact on *Accumulated other comprehensive income (loss)*.

The actuarial assumptions at the respective years ended December 31 in the table below are used to measure the year-end PBO and the net periodic (benefit) expense for the subsequent year (period). Since Citi's Significant Plans are measured on a quarterly basis, the year-end rates for those plans are used to calculate the net periodic (benefit) expense for the subsequent year's first quarter.

As a result of the quarterly measurement process, the net periodic (benefit) expense for the Significant Plans is calculated at each respective quarter end based on the preceding quarter-end rates (as presented below for the U.S. and non-U.S. pension and postretirement benefit plans). The actuarial assumptions for All Other Plans are measured annually.

Certain assumptions used in determining pension and postretirement benefit obligations and net benefit expense for the Company's plans are presented in the following table:

<i>At year end</i>	2023	2022
Discount rate		
U.S. plans		
Qualified pension	5.10%	5.50%
Nonqualified pension	5.15	5.55
Postretirement benefit plan	5.20	5.60
Non-U.S. pension plans		
Range	1.35 to 14.55	1.75 to 25.20
Weighted average	6.91	6.66
Non-U.S. postretirement benefit plans		
Range	3.80 to 10.70	3.25 to 10.60
Weighted average	9.90	9.80
Future compensation increase rate⁽¹⁾		
Non-U.S. pension plans		
Range	1.30 to 12.40	1.30 to 23.11
Weighted average	3.84	3.76
Long-term expected return on assets		
U.S. plans		
Qualified pension	5.70	5.70
Postretirement benefit plan ⁽²⁾	5.70/3.00	5.70/3.00
Non-U.S. pension plans		
Range	2.00 to 11.50	1.00 to 11.50
Weighted average	6.62	6.05
Non-U.S. postretirement benefit plans		
Range	8.60 to 9.40	8.70 to 9.10
Weighted average	9.39	8.70
Interest crediting rate (weighted average)⁽³⁾		
U.S. plans	4.10	4.50
Non-U.S. plans	1.78	1.73

(1) Not material for U.S. plans.

(2) For the years ended 2023 and 2022, the expected return on assets for the Voluntary Employees Beneficiary Association (VEBA) Trust was 3.00%.

(3) The Company has cash balance plans and other plans with promised interest crediting rates. For these plans, the interest crediting rates are set in line with plan rules or country legislation.

<i>During the year</i>	2023	2022	2021
Discount rate			
U.S. plans			
Qualified pension	5.50%/5.15%/ 5.40%/6.05%	2.80%/3.80%/ 4.80%/5.65%	2.45%/3.10%/ 2.75%/2.80%
Nonqualified pension	5.55/5.20/ 5.45/6.10	2.80/3.85/ 4.80/5.60	2.35/3.00/ 2.70/2.75
Postretirement benefit plan	5.60/5.25/ 5.50/6.10	2.75/3.85/ 4.75/5.65	2.20/2.85/ 2.60/2.65
Non-U.S. pension plans ⁽¹⁾			
Range ⁽²⁾	1.75 to 25.20	-0.10 to 11.95	-0.25 to 11.15
Weighted average	6.66	3.96	3.14
Non-U.S. postretirement benefit plans ⁽¹⁾			
Range	3.25 to 11.55	1.05 to 11.25	0.80 to 9.80
Weighted average	9.80	8.28	7.42
Future compensation increase rate⁽³⁾			
Non-U.S. pension plans ⁽¹⁾			
Range	1.30 to 23.11	1.30 to 11.25	1.20 to 11.25
Weighted average	3.76	3.10	3.10
Long-term expected return on assets			
U.S. plans			
Qualified pension ⁽⁴⁾	5.70	5.00	5.80/5.60/5.60/ 5.00
Postretirement benefit plan ⁽⁴⁾	5.70/3.00	5.00/1.50	5.80/5.60/5.00/ 1.50
Non-U.S. pension plans ⁽¹⁾			
Range	1.00 to 11.50	0.00 to 11.50	0.00 to 11.50
Weighted average	6.05	3.69	3.39
Non-U.S. postretirement benefit plans ⁽¹⁾			
Range	8.70 to 9.10	6.00 to 8.00	5.95 to 8.00
Weighted average	8.70	7.99	7.99
Interest crediting rate (weighted average)⁽⁵⁾			
U.S. plans			
Range	4.50/4.15/ 4.40/5.05	1.80/2.80/ 3.80/4.65	1.45/2.10/ 1.75/1.80
Weighted average	1.73	1.61	1.60

(1) Reflects rates utilized to determine the quarterly expense for Significant non-U.S. pension and postretirement benefit plans.

(2) In 2021, due to historically low global interest rates, there were negative discount rates for plans with relatively short duration in certain major markets, such as the Eurozone and Switzerland.

(3) Not material for U.S. plans.

(4) Effective January 1, 2024, there is no change in the expected return on assets for the U.S. pension and postretirement benefit plans of 5.70%. The expected return on assets for the U.S. pension and postretirement benefit plans was adjusted from 5.00% to 5.70% effective January 1, 2023 to reflect a significant change in economic market conditions. The expected return on assets for the U.S. pension and postretirement benefit plans changed from 6.70% to 5.80% effective January 1, 2021, reduced to 5.60% effective April 1, 2021 and further reduced to 5.00% effective October 1, 2021. For the year 2023, the expected return on assets for the VEBA Trust was 3.00% and for 2021 and 2022 it was 1.50%.

- (5) The Company has cash balance plans and other plans with promised interest crediting rates. For these plans, the interest crediting rates are set in line with plan rules or country legislation.

Discount Rate

The discount rates for the U.S. pension and postretirement benefit plans were selected by reference to a Citigroup-specific analysis using each plan's specific cash flows and a hypothetical bond portfolio of U.S. high-quality corporate bonds that match each plan's projected cash flows. The discount rates for the non-U.S. pension and postretirement benefit plans are selected by reference to each plan's specific cash flows and a market-based yield curve developed from the available local high-quality corporate bonds. However, where developed corporate bond markets do not exist, the discount rates are selected by reference to local government bonds with an estimated premium added to reflect the additional risk for corporate bonds in certain countries. Where available, the resulting plan yields by jurisdiction are compared with published, high-quality corporate bond indices for reasonableness.

Expected Return on Assets

The Company determines its assumptions for the expected return on assets for its U.S. pension and postretirement benefit plans using a "building block" approach, which focuses on ranges of anticipated rates of return for each asset class. A weighted-average range of nominal rates is then determined based on target allocations to each asset class. Market performance over a number of earlier years is evaluated covering a wide range of economic conditions to determine whether there are sound reasons for projecting any past trends.

The Company considers the expected return on assets to be a long-term assessment of return expectations and does not anticipate changing this assumption unless there are significant changes in investment strategy or economic conditions. This contrasts with the selection of the discount rate and certain other assumptions, which are reconsidered annually (or quarterly for the Significant Plans) in accordance with GAAP.

The expected return on assets reflects the expected annual appreciation of the plan assets and reduces the Company's annual pension expense. The expected return on assets is deducted from the sum of service cost, interest cost and other components of pension expense to arrive at the net pension (benefit) expense.

The following table presents the expected return on assets used in determining the Company's pension expense compared to the actual return on assets during 2023, 2022 and 2021 for the U.S. pension and postretirement benefit plans:

U.S. plans (during the year)	2023	2022	2021
Expected return on assets			
U.S. pension and postretirement trust	5.70%	5.00%	5.80%/5.60%/5.60%/5.00%
VEBA Trust ⁽¹⁾	3.00	1.50	1.50
Actual return on assets ⁽²⁾			
U.S. pension and postretirement trust	9.83	(15.52)	5.14
VEBA Trust	5.87	1.40	1.52

(1) The expected return on assets for the VEBA Trust was adjusted from 1.50% to 3.00% effective January 1, 2023 to reflect the significant change in economic conditions.

(2) Actual return on assets is presented net of fees.

Sensitivities of Certain Key Assumptions

The U.S. Qualified Pension Plan was frozen in 2008, and as a result, most of the prospective service costs have been eliminated and the gain/loss amortization period was changed to the life expectancy for inactive participants. As a result, pension expense for the U.S. Qualified Pension Plan is driven more by interest cost than service cost, and an increase in the discount rate would increase pension expense, while a decrease in the discount rate would decrease pension expense.

For Non-U.S. Pension Plans that are not frozen (in countries such as Mexico, the U.K. and South Korea), there is more service cost. The pension expense for the Non-U.S. Plans is driven by both service cost and interest cost. An increase in the discount rate generally decreases pension expense due to the greater impact on service cost compared to interest cost.

The following tables summarize the effect on pension expense:

<i>In millions of dollars</i>	Discount rate		
	One-percentage-point increase		
	2023	2022	2021
U.S. plans	\$ 22	\$ 27	\$ 35
Non-U.S. plans	(12)	(5)	(4)

<i>In millions of dollars</i>	One-percentage-point decrease		
	2023	2022	2021
U.S. plans	\$ (26)	\$ (34)	\$ (49)
Non-U.S. plans	20	15	25

In millions of dollars	Expected return on assets		
	One-percentage-point increase		
	2023	2022	2021
U.S. plans	\$ (112)	\$ (123)	\$ (124)
Non-U.S. plans	(54)	(60)	(70)

In millions of dollars	One-percentage-point decrease		
	One-percentage-point decrease		
	2023	2022	2021
U.S. plans	\$ 112	\$ 123	\$ 124
Non-U.S. plans	54	60	70

Health Care Cost Trend Rate

Assumed health care cost trend rates were as follows:

	2023	2022
Health care cost increase rate for U.S. plans		
Following year	6.75%	7.00%
Ultimate rate to which cost increase is assumed to decline	5.00	5.00
Year in which the ultimate rate is reached	2031	2031
Health care cost increase rate for non-U.S. plans (weighted average)		
Following year	7.60%	7.05%
Ultimate rate to which cost increase is assumed to decline	7.02	7.05
Year in which the ultimate rate is reached	2030	2023

Plan Assets

Citigroup's pension and postretirement benefit plans' asset allocations for the U.S. plans and the target allocations by asset category based on asset fair values are as follows:

Asset category ⁽¹⁾	Target asset allocation	U.S. pension assets at December 31,		U.S. postretirement assets at December 31,	
		2024	2023	2022	2023
Equity securities ⁽²⁾	0–22%	7 %	7 %	7 %	7 %
Debt securities ⁽³⁾	55–105	71	71	71	71
Real estate	0–4	2	3	2	3
Private equity	0–5	8	7	8	7
Other investments	0–23	12	12	12	12
Total		100 %	100 %	100 %	100 %

- (1) Target asset allocations are set by investment strategy, whereas pension and postretirement assets as of December 31, 2023 and 2022 are based on the underlying investment product. For example, the private equity investment strategy may include underlying investments in real estate within the target asset allocation; however, within pension and postretirement assets, the underlying investment in real estate is reflected in the real estate category and not private equity.
- (2) Equity securities in the U.S. pension and postretirement benefit plans do not include any Citigroup common stock at the end of 2023 and 2022.
- (3) The VEBA Trust for postretirement benefits is primarily invested in cash equivalents and debt securities in 2023 and 2022 and is not reflected in the table above.

Third-party investment managers and advisors provide their services to Citigroup's U.S. pension and postretirement benefit plans. Assets are rebalanced as the Company's Pension Plan Investment Committee deems appropriate. Citigroup's investment strategy, with respect to its assets, is to maintain a globally diversified investment portfolio across several asset classes that, when combined with Citigroup's contributions to the plans, will maintain the plans' ability to meet all required benefit obligations.

Citigroup's pension and postretirement benefit plans' weighted-average asset allocations for the non-U.S. plans and the actual ranges, and the weighted-average target allocations by asset category based on asset fair values, are as follows:

Asset category ⁽¹⁾	Non-U.S. pension plans				
	Target asset allocation	Actual range at December 31,		Weighted average at December 31,	
	2024	2023	2022	2023	2022
Equity securities	0–48%	0–48%	0–63%	19 %	19 %
Debt securities	0–100	0–100	0–100	73	73
Real estate	0–17	0–17	0–15	1	1
Other investments	0–100	0–100	0–100	7	7
Total				100 %	100 %

Asset category ⁽¹⁾	Non-U.S. postretirement benefit plans				
	Target asset allocation	Actual range at December 31,		Weighted average at December 31,	
	2024	2023	2022	2023	2022
Equity securities	0–46%	0–46%	0–48%	45 %	47 %
Debt securities	50–100	49–100	45–100	50	49
Other investments	0–4	0–5	0–7	5	4
Total				100 %	100 %

(1) Similar to the U.S. plans, asset allocations for certain non-U.S. plans are set by investment strategy, not by investment product.

Fair Value Disclosure

For information on fair value measurements, including descriptions of Levels 1, 2 and 3 of the fair value hierarchy and the valuation methodology utilized by the Company, see Notes 1 and 26. Investments measured using the NAV per share practical expedient are excluded from Level 1, Level 2 and Level 3 in the tables below.

Certain investments may transfer between the fair value hierarchy classifications during the year due to changes in valuation methodology and pricing sources.

Plan assets by detailed asset categories and the fair value hierarchy are as follows:

In millions of dollars Asset categories	U.S. pension and postretirement benefit plans ⁽¹⁾			
	Fair value measurement at December 31, 2023			
	Level 1	Level 2	Level 3	Total
U.S. equities	\$ 262	\$ —	\$ —	\$ 262
Non-U.S. equities	315	—	—	315
Mutual funds and other registered investment companies	244	—	—	244
Commingled funds	—	622	—	622
Debt securities	690	5,041	—	5,731
Annuity contracts	—	—	3	3
Derivatives	38	164	—	202
Other investments	—	—	2	2
Total investments	\$ 1,549	\$ 5,827	\$ 5	\$ 7,381
Cash and short-term investments	\$ 11	\$ 651	\$ —	\$ 662
Other investment liabilities	(3)	(171)	—	(174)
Net investments at fair value	\$ 1,557	\$ 6,307	\$ 5	\$ 7,869
Other investment liabilities redeemed at NAV			\$ —	\$ (127)
Securities valued at NAV				2,699
Total net assets			\$ —	\$ 10,441

- (1) The investments of the U.S. pension and postretirement benefit plans are commingled in one trust. At December 31, 2023, the allocable interests of the U.S. pension and postretirement benefit plans were 98.0% and 2.0%, respectively. The investments of the VEBA Trust for postretirement benefits are reflected in the above table.

In millions of dollars Asset categories	U.S. pension and postretirement benefit plans ⁽¹⁾			
	Fair value measurement at December 31, 2022			
	Level 1	Level 2	Level 3	Total
U.S. equities	\$ 233	\$ —	\$ —	\$ 233
Non-U.S. equities	346	—	—	346
Mutual funds and other registered investment companies	243	—	—	243
Commingled funds	—	818	—	818
Debt securities	929	4,638	—	5,567
Annuity contracts	—	—	3	3
Derivatives	2	34	—	36
Other investments	—	—	4	4
Total investments	\$ 1,753	\$ 5,490	\$ 7	\$ 7,250
Cash and short-term investments	\$ 39	\$ 563	\$ —	\$ 602
Other investment liabilities	(10)	(45)	—	(55)
Net investments at fair value	\$ 1,782	\$ 6,008	\$ 7	\$ 7,797
Other investment receivables redeemed at NAV			\$ —	\$ 21
Securities valued at NAV				2,580
Total net assets			\$ —	\$ 10,398

- (1) The investments of the U.S. pension and postretirement benefit plans are commingled in one trust. At December 31, 2022, the allocable interests of the U.S. pension and postretirement benefit plans were 98.0% and 2.0%, respectively. The investments of the VEBA Trust for postretirement benefits are reflected in the above table.

Non-U.S. pension and postretirement benefit plans

In millions of dollars

Asset categories	Fair value measurement at December 31, 2023				
	Level 1	Level 2	Level 3	Total	
U.S. equities	\$ 133	\$ —	\$ —	\$ 133	
Non-U.S. equities	722	—	—	722	
Mutual funds and other registered investment companies	2,706	310	—	3,016	
Commingled funds	12	—	—	12	
Debt securities	2,620	1,016	—	3,636	
Real estate	—	—	2	2	
Annuity contracts	—	—	2	2	
Derivatives	—	1,137	—	1,137	
Other investments	—	—	231	231	
Total investments	\$ 6,193	\$ 2,463	\$ 235	\$ 8,891	
Cash and short-term investments	\$ 83	\$ —	\$ —	\$ 83	
Other investment liabilities	—	(1,594)	—	(1,594)	
Net investments at fair value	\$ 6,276	\$ 869	\$ 235	\$ 7,380	
Securities valued at NAV				\$ 16	
Total net assets				\$ 7,396	

Non-U.S. pension and postretirement benefit plans

In millions of dollars

Asset categories	Fair value measurement at December 31, 2022				
	Level 1	Level 2	Level 3	Total	
U.S. equities	\$ 121	\$ 10	\$ —	\$ 131	
Non-U.S. equities	718	19	—	737	
Mutual funds and other registered investment companies	2,416	296	—	2,712	
Commingled funds	13	—	—	13	
Debt securities	2,959	980	—	3,939	
Real estate	—	2	2	4	
Annuity contracts	—	—	2	2	
Derivatives	—	1,490	—	1,490	
Other investments	—	—	258	258	
Total investments	\$ 6,227	\$ 2,797	\$ 262	\$ 9,286	
Cash and short-term investments	\$ 69	\$ 6	\$ —	\$ 75	
Other investment liabilities	—	(2,436)	—	(2,436)	
Net investments at fair value	\$ 6,296	\$ 367	\$ 262	\$ 6,925	
Securities valued at NAV				\$ 16	
Total net assets				\$ 6,941	

Level 3 Rollforward

The reconciliations of the beginning and ending balances during the year for Level 3 assets are as follows:

In millions of dollars		U.S. pension and postretirement benefit plans				
Asset categories	Beginning Level 3 fair value at Dec. 31, 2022	Realized (losses)	Unrealized gains	Purchases, sales and issuances	Transfers in and/or out of Level 3	Ending Level 3 fair value at Dec. 31, 2023
Annuity contracts	\$ 3	—	—	—	—	\$ 3
Other investments	4	—	—	(2)	—	2
Total investments	\$ 7	—	—	(2)	—	\$ 5

In millions of dollars		U.S. pension and postretirement benefit plans				
Asset categories	Beginning Level 3 fair value at Dec. 31, 2021	Realized (losses)	Unrealized gains	Purchases, sales and issuances	Transfers in and/or out of Level 3	Ending Level 3 fair value at Dec. 31, 2022
Annuity contracts	\$ 4	—	—	(1)	—	\$ 3
Other investments	25	(3)	2	(20)	—	4
Total investments	\$ 29	(3)	2	(21)	—	\$ 7

In millions of dollars		Non-U.S. pension and postretirement benefit plans				
Asset categories	Beginning Level 3 fair value at Dec. 31, 2022	Unrealized gains	Purchases, sales and issuances	Transfers in and/or out of Level 3	Ending Level 3 fair value at Dec. 31, 2023	
Real estate	\$ 2	—	—	—	—	\$ 2
Annuity contracts	2	—	—	—	—	2
Other investments	258	6	(33)	—	—	231
Total investments	\$ 262	6	(33)	—	—	\$ 235

In millions of dollars		Non-U.S. pension and postretirement benefit plans				
Asset categories	Beginning Level 3 fair value at Dec. 31, 2021	Unrealized gains	Purchases, sales and issuances	Transfers in and/or out of Level 3	Ending Level 3 fair value at Dec. 31, 2022	
Real estate	\$ 2	—	—	—	—	\$ 2
Annuity contracts	2	—	—	—	—	2
Other investments	318	—	(60)	—	—	258
Total investments	\$ 322	—	(60)	—	—	\$ 262

Investment Strategy

The Company's global pension and postretirement funds' investment strategy is to invest in a prudent manner for the exclusive purpose of providing benefits to participants. The investment strategies are targeted to produce a total return that, when combined with the Company's contributions to the funds, will maintain the funds' ability to meet all required benefit obligations. Risk is controlled through diversification of asset types and investments in domestic and international equities, fixed income securities and cash and short-term investments. The target asset allocation in most locations outside the U.S. is primarily in equity and debt securities. These allocations may vary by geographic region and country depending on the nature of applicable obligations and various other regional considerations. The wide variation in the actual range of plan asset allocations for the funded non-U.S. plans is a result of differing local statutory requirements and economic conditions. For example, in certain countries local law requires that all pension plan assets must be invested in fixed income investments, government funds or local-country securities.

Significant Concentrations of Risk in Plan Assets

The assets of the Company's pension plans are diversified to limit the impact of any individual investment. The U.S. qualified pension plan is diversified across multiple asset classes, with publicly traded fixed income, publicly traded equity, hedge funds and real estate representing the most significant asset allocations. Investments in these four asset classes are further diversified across funds, managers, strategies, vintages, sectors and geographies, depending on the specific characteristics of each asset class. The pension assets for the Company's non-U.S. Significant Plans are primarily invested in publicly traded fixed income and publicly traded equity securities.

Oversight and Risk Management Practices

The framework for the Company's pension oversight process includes monitoring of retirement plans by plan fiduciaries and/or management at the global, regional or country level, as appropriate. Independent Risk Management contributes to the risk oversight and monitoring for the Company's U.S. Qualified Pension Plan and non-U.S. Significant Pension Plans. Although the specific components of the oversight process are tailored to the requirements of each region, country and plan, the following elements are common to the Company's monitoring and risk management process:

- periodic asset/liability management studies and strategic asset allocation reviews;
- periodic monitoring of funding levels and funding ratios;
- periodic monitoring of compliance with asset allocation guidelines;
- periodic monitoring of asset class and/or investment manager performance against benchmarks; and
- periodic risk capital analysis and stress testing.

Estimated Future Benefit Payments

The Company expects to pay the following estimated benefit payments in future years:

In millions of dollars	Pension plans		Postretirement benefit plans	
	U.S. plans	Non-U.S. plans	U.S. plans	Non-U.S. plans
2024	\$ 1,000	\$ 638	\$ 57	\$ 89
2025	1,005	558	41	93
2026	985	553	39	98
2027	962	566	36	102
2028	937	569	34	107
2029–2033	3,974	3,207	131	601

Post Employment Plans

The Company sponsors U.S. post employment plans that provide income continuation and health and welfare benefits to certain eligible U.S. employees on long-term disability. The following table summarizes the funded status and amounts recognized on the Company's Consolidated Balance Sheet:

In millions of dollars	2023	2022
Funded status of the plan at year end	\$ (46)	\$ (48)
Net amount recognized in AOCI (pretax)	\$ (13)	\$ (16)

The following table summarizes the net expense recognized in the Consolidated Statement of Income for the Company's U.S. post employment plans:

In millions of dollars	2023	2022	2021
Net expense	\$ 14	\$ 11	\$ 10

Defined Contribution Plans

The Company sponsors defined contribution plans in the U.S. and in certain non-U.S. locations, all of which are administered in accordance with local laws. The most significant defined contribution plan is the Citi Retirement Savings Plan sponsored by the Company in the U.S.

Under the Citi Retirement Savings Plan, eligible U.S. employees received matching contributions of up to 6% of their eligible compensation for 2023 and 2022, subject to statutory limits. In addition, for eligible employees whose eligible compensation is \$100,000 or less, a fixed contribution of up to 2% of eligible compensation is provided. All Company contributions are invested according to participants' individual elections. The following tables summarize the Company contributions for the defined contribution plans:

In millions of dollars	U.S. plans		
	2023	2022	2021
Company contributions	\$ 546	\$ 471	\$ 436
Non-U.S. plans			
In millions of dollars	2023		
	2022	2021	
Company contributions	\$ 453	\$ 399	\$ 364

9. RESTRUCTURING

Citi is pursuing various initiatives to simplify the Company and further align its organizational structure with its business strategy. As part of its overall simplification initiatives, in the fourth quarter of 2023, Citi eliminated the Institutional Clients Group and Personal Banking and Wealth Management layers, exited certain institutional business lines, and consolidated its regional structure, creating one international group, while centralizing client capabilities and streamlining its global staff functions.

Citi incurred restructuring charges of approximately \$780 million in the fourth quarter related to the implementation of its organizational simplification initiatives. These charges included severance costs associated with actual headcount reductions (as well as those headcount reductions that were probable and could be reasonably estimated), asset write-downs and other costs. Citi expects to incur additional costs related to its organizational simplification in the first quarter of 2024.

Restructuring charges are recorded as a separate line item within *Operating expenses* in the Company's Consolidated Statement of Income. These charges were included within *All Other*—Corporate/Other.

The following costs associated with these initiatives are included in restructuring charges:

- Personnel costs: severance costs associated with headcount reductions
- Other: costs associated with contract terminations and other direct costs associated with the restructuring, including asset write-downs (non-cash write-downs of capitalized software, which are included in *Premises and equipment* related to exited businesses)

The following table is a rollforward of the liability related to the restructuring charges:

<i>In millions of dollars</i>	Personnel costs	Other	Total
Beginning balance at January 1, 2023	\$ —	\$ —	\$ —
Restructuring charge	687	94	781
Payments and utilization	—	(69)	(69)
Foreign exchange	—	—	—
Ending balance at December 31, 2023	\$ 687	\$ 25	\$ 712

10. INCOME TAXES

Income Tax Provision

Details of the Company's income tax provision are presented below:

In millions of dollars	2023	2022	2021
Current			
Federal	\$ 41	\$ 407	\$ 522
Non-U.S.	5,807	4,106	3,288
State	96	270	228
Total current income taxes	\$ 5,944	\$ 4,783	\$ 4,038
Deferred			
Federal	\$ (1,925)	\$ (807)	\$ 1,059
Non-U.S.	(432)	353	8
State	(59)	(687)	346
Total deferred income taxes	\$ (2,416)	\$ (1,141)	\$ 1,413
Provision for income tax on continuing operations before noncontrolling interests⁽¹⁾	\$ 3,528	\$ 3,642	\$ 5,451
Provision (benefit) for income taxes on:			
Discontinued operations	\$ —	\$ (41)	\$ —
Gains (losses) included in <i>AOCI</i> , but excluded from net income	557	(1,573)	(1,684)
Employee stock plans	(13)	(8)	(6)
Opening adjustment to <i>Retained earnings</i> ⁽²⁾	102	—	—
Opening adjustment to <i>AOCI</i>⁽³⁾	12	—	—

- (1) Includes the tax on realized investment gains and impairment losses resulting in a provision (benefit) of \$51 million and \$(92) million in 2023, \$14 million and \$(137) million in 2022 and \$169 million and \$(57) million in 2021, respectively.
- (2) Related to the adoption of "Financial Instruments—Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures." See Note 1.
- (3) Related to the adoption of "Financial Services—Insurance: Targeted Improvements to the Accounting for Long-Duration Contracts." See Note 1.

Tax Rate

The reconciliation of the federal statutory income tax rate to the Company's effective income tax rate applicable to income from continuing operations (before noncontrolling interests and the cumulative effect of accounting changes) for each of the periods indicated is as follows:

	2023	2022	2021
Federal statutory rate	21.0 %	21.0 %	21.0 %
State income taxes, net of federal benefit	0.3	2.0	2.1
Non-U.S. income tax rate differential	9.5	4.3	1.6
Tax audit resolutions	(0.3)	(3.2)	(0.4)
Nondeductible FDIC premiums ⁽¹⁾	1.7	1.0	0.6
Tax-advantaged investments	(4.4)	(3.0)	(2.3)
Valuation allowance releases ⁽²⁾	(0.2)	(2.3)	(1.7)
Other, net	(0.3)	(0.4)	(1.1)
Effective income tax rate	27.3 %	19.4 %	19.8 %

(1) Excludes the 2023 FDIC special assessment, which is tax deductible. See Note 30.

(2) See "Deferred Tax Assets" below for a description of the components.

As presented in the table above, Citi's effective tax rate for 2023 was 27.3%, compared to 19.4% in 2022, due to the geographic mix of earnings and the absence of the prior-year discrete benefits.

Deferred Income Taxes

Deferred income taxes at December 31 related to the following:

In millions of dollars	2023	2022
Deferred tax assets		
Credit loss deduction	\$ 5,449	\$ 5,162
Deferred compensation and employee benefits	2,771	2,059
U.S. tax on non-U.S. earnings	1,349	1,191
Investment and loan basis differences	4,706	5,218
Tax credit and net operating loss carry-forwards	15,250	14,623
Fixed assets and leases	4,297	3,551
Other deferred tax assets	5,235	4,055
Gross deferred tax assets	\$ 39,057	\$ 35,859
Valuation allowance	\$ 3,572	\$ 2,438
Deferred tax assets after valuation allowance	\$ 35,485	\$ 33,421
Deferred tax liabilities		
Intangibles and leases	\$ (2,333)	\$ (2,271)
Non-U.S. withholding taxes	(951)	(1,142)
Debt issuances	(113)	(595)
Derivatives	(587)	(69)
Other deferred tax liabilities	(1,893)	(1,672)
Gross deferred tax liabilities	\$ (5,877)	\$ (5,749)
Net deferred tax assets	\$ 29,608	\$ 27,672

Unrecognized Tax Benefits

The following is a rollforward of the Company's unrecognized tax benefits:

<i>In millions of dollars</i>	2023	2022	2021
Total unrecognized tax benefits at January 1	\$ 1,311	\$ 1,296	\$ 861
Increases for current year's tax positions	59	55	97
Increases for prior years' tax positions	51	168	515
Decreases for prior years' tax positions	(138)	(119)	(107)
Amounts of decreases relating to settlements	(3)	(50)	(64)
Reductions due to lapse of statutes of limitation	(4)	(26)	(2)
Foreign exchange, acquisitions and dispositions	1	(13)	(4)
Total unrecognized tax benefits at December 31	\$ 1,277	\$ 1,311	\$ 1,296

The portions of the total unrecognized tax benefits at December 31, 2023, 2022 and 2021 that, if recognized, would affect Citi's tax expense is \$1.0 billion in each of the respective years. The remaining uncertain tax positions have offsetting amounts in other jurisdictions or are temporary differences.

Interest and penalties (not included in unrecognized tax benefits above) are a component of *Provision for income taxes*.

<i>In millions of dollars</i>	2023		2022		2021	
	Pretax	Net of tax	Pretax	Net of tax	Pretax	Net of tax
Total interest and penalties on the Consolidated Balance Sheet at January 1	\$ 234	\$ 176	\$ 214	\$ 164	\$ 118	\$ 96
Total interest and penalties in the Consolidated Statement of Income	47	38	27	16	32	24
Total interest and penalties on the Consolidated Balance Sheet at December 31⁽¹⁾	271	205	234	176	214	164

(1) Includes \$0 million, \$3 million and \$3 million for non-U.S. penalties in 2023, 2022 and 2021, respectively.

As of December 31, 2023, Citi was under audit by the Internal Revenue Service and other major taxing jurisdictions around the world. It is thus reasonably possible that significant changes in the gross balance of unrecognized tax benefits may occur within the next 12 months. The potential range of amounts that could affect Citi's effective tax rate is between \$0 and \$500 million.

The following are the major tax jurisdictions in which the Company and its affiliates operate and the earliest tax year subject to examination:

Jurisdiction	Tax year
United States	2016
Mexico	2017
New York State and City	2009
United Kingdom	2016
India	2021
Singapore	2022
Hong Kong	2023
Ireland	2018

Non-U.S. Earnings

Non-U.S. pretax earnings approximated \$19.4 billion in 2023, \$16.2 billion in 2022 and \$12.9 billion in 2021. As a U.S. corporation, Citigroup and its U.S. subsidiaries are currently subject to U.S. taxation on all non-U.S. pretax earnings of non-U.S. branches. Beginning in 2018, there is a separate foreign tax credit (FTC) basket for branches. Also, dividends from a non-U.S. subsidiary or affiliate are effectively exempt from U.S. taxation. The Company provides income taxes on the book over tax basis differences of non-U.S. subsidiaries except to the extent that such differences are indefinitely reinvested outside the U.S.

At December 31, 2023, \$6.0 billion of basis differences of non-U.S. entities was indefinitely reinvested. At the existing tax rates (including withholding taxes), additional taxes (net of U.S. FTCs) of \$2.3 billion would have to be provided if such assertions were reversed.

Deferred Tax Assets

As of December 31, 2023, Citi had a valuation allowance of \$3.6 billion, composed of valuation allowances of \$1.9 billion on its branch basket FTC carry-forwards, \$1.2 billion on its U.S. residual DTA related to its non-U.S. branches, \$0.4 billion on local non-U.S. DTAs and \$0.1 billion on state net operating loss carry-forwards. There was an increase of \$1.2 billion from the December 31, 2022 balance of \$2.4 billion. The amount of Citi's valuation allowances (VA) may change in future years.

In 2023, Citi's VA for carry-forward FTCs in its branch basket increased by \$1.0 billion, primarily due to lower ODL usage.

The level of branch pretax income, the local branch tax rate and the allocations of overall domestic losses (ODL) and expenses for U.S. tax purposes to the branch basket are the main factors in determining the branch VA. There was no branch basket VA release in 2023.

The non-U.S. local VA was unchanged.

The following table summarizes Citi's DTAs:

In billions of dollars

Jurisdiction/component ⁽¹⁾	DTAs balance December 31, 2023	DTAs balance December 31, 2022
U.S. federal⁽²⁾		
Net operating losses (NOLs) ⁽³⁾	\$ 3.3	\$ 3.3
Foreign tax credits (FTCs)	1.2	1.9
General business credits (GBCs)	5.6	5.2
Future tax deductions and credits	12.0	10.1
Total U.S. federal	\$ 22.1	20.5
State and local		
New York NOLs	\$ 1.7	\$ 1.9
Other state NOLs	0.1	0.2
Future tax deductions	2.4	2.2
Total state and local	\$ 4.2	4.3
Non-U.S.		
NOLs	\$ 1.0	\$ 0.7
Future tax deductions	2.3	2.2
Total non-U.S.	\$ 3.3	2.9
Total	\$ 29.6	27.7

(1) All amounts are net of valuation allowances.

(2) Included in the net U.S. federal DTAs of \$22.1 billion as of December 31, 2023 were deferred tax liabilities of \$2.9 billion that will reverse in the relevant carry-forward period and may be used to support the DTAs.

(3) Consists of non-consolidated tax return NOL carry-forwards that are eventually expected to be utilized in Citigroup's consolidated tax return.

The following table summarizes the amounts of tax carry-forwards and their expiration dates:

In billions of dollars

Year of expiration	December 31, 2023	December 31, 2022
U.S. tax return general basket foreign tax credit carry-forwards⁽¹⁾		
2025	\$ 0.1	\$ 0.8
2027	1.1	1.1
Total U.S. tax return general basket foreign tax credit carry-forwards	\$ 1.2	\$ 1.9
U.S. tax return branch basket foreign tax credit carry-forwards⁽¹⁾		
2028	\$ 0.7	\$ 0.7
2029	0.2	0.2
2033	1.0	—
Total U.S. tax return branch basket foreign tax credit carry-forwards	\$ 1.9	\$ 0.9
U.S. tax return general business credit carry-forwards		
2032	\$ 0.4	\$ 0.4
2033	0.3	0.3
2034	0.2	0.2
2035	0.2	0.2
2036	0.2	0.2
2037	0.5	0.5
2038	0.5	0.5
2039	0.7	0.7
2040	0.7	0.7
2041	0.8	0.8
2042	0.7	0.7
2043	0.4	—
Total U.S. tax return general business credit carry-forwards	\$ 5.6	\$ 5.2
U.S. subsidiary separate federal NOL carry-forwards		
2027	\$ 0.1	\$ 0.1
2028	0.1	0.1
2030	0.3	0.3
2033	1.7	1.6
2034	1.9	2.0
2035	3.3	3.3
2036	2.1	2.1
2037	1.0	1.0
Unlimited carry-forward period	5.4	5.3
Total U.S. subsidiary separate federal NOL carry-forwards⁽²⁾	\$ 15.9	\$ 15.8
New York State NOL carry-forwards⁽²⁾		
2034	\$ 9.9	\$ 11.5
New York City NOL carry-forwards⁽²⁾		
2034	\$ 8.7	\$ 10.3
Non-U.S. NOL carry-forwards⁽¹⁾		
Various	\$ 1.4	\$ 1.1

(1) Before valuation allowance.

(2) Pretax.

Although realization is not assured, Citi believes that the realization of the recognized net DTAs of \$29.6 billion at December 31, 2023 is more-likely-than-not, based on expectations as to future taxable income in the jurisdictions in which the DTAs arise and consideration of available tax planning strategies (as defined in ASC 740, *Income Taxes*).

The majority of Citi's U.S. federal net operating loss carry-forward and all of its New York State and City net operating loss carry-forwards are subject to a carry-forward period of 20 years. This provides enough time to fully utilize the DTAs pertaining to these existing NOL carry-forwards. This is due to Citi's forecast of sufficient U.S. taxable income and because New York State and City continue to tax Citi's non-U.S. income.

With respect to the FTCs component of the DTAs, the carry-forward period is 10 years. Utilization of FTCs in any year is generally limited to 21% of foreign source taxable income in that year. However, ODL that Citi has incurred of approximately \$7 billion as of December 31, 2023 are allowed to be reclassified as foreign source income to the extent of 50%–100% (at taxpayer's election) of domestic source income produced in subsequent years. Such resulting foreign source income would help support the realization of the FTC carry-forwards after VA. As noted in the tables above, Citi's FTC carry-forwards were \$1.2 billion (\$3.1 billion before VA) as of December 31, 2023, compared to \$1.9 billion (\$2.8 billion before VA) as of December 31, 2022. The increased VA on branch FTCs is reflected in the "Non-U.S. income tax rate differential" line in the "Tax Rate" section above. Citi believes that it will more-likely-than-not generate sufficient U.S. taxable income within the 10-year carry-forward period to be able to utilize the net FTCs after the VA, after considering any FTCs produced in the tax return for such period, which must be used prior to any carry-forward utilization.

11. EARNINGS PER SHARE

The following table reconciles the income and share data used in the basic and diluted earnings per share (EPS) computations:

<i>In millions of dollars, except per share amounts</i>	2023	2022	2021
Earnings per common share			
Income from continuing operations before attribution of noncontrolling interests	\$ 9,382	\$ 15,165	\$ 22,018
Less: Noncontrolling interests from continuing operations	153	89	73
Net income from continuing operations (for EPS purposes)	\$ 9,229	\$ 15,076	\$ 21,945
Loss from discontinued operations, net of taxes	(1)	(231)	7
Citigroup's net income	\$ 9,228	\$ 14,845	\$ 21,952
Less: Preferred dividends	1,198	1,032	1,040
Net income available to common shareholders	\$ 8,030	\$ 13,813	\$ 20,912
Less: Dividends and undistributed earnings allocated to employee restricted and deferred shares with rights to dividends, and other relevant items ⁽¹⁾ , applicable to basic EPS	180	113	154
Net income allocated to common shareholders for basic EPS	\$ 7,850	\$ 13,700	\$ 20,758
Weighted-average common shares outstanding applicable to basic EPS (in millions)	1,930.1	1,946.7	2,033.0
Basic earnings per share⁽²⁾			
Income from continuing operations	\$ 4.07	\$ 7.16	\$ 10.21
Discontinued operations	—	(0.12)	—
Net income per share—basic	\$ 4.07	\$ 7.04	\$ 10.21
Diluted earnings per share			
Net income allocated to common shareholders for basic EPS	\$ 7,850	\$ 13,700	\$ 20,758
Add back: Dividends allocated to employee restricted and deferred shares with rights to dividends that are forfeitable	57	41	31
Net income allocated to common shareholders for diluted EPS	\$ 7,907	\$ 13,741	\$ 20,789
Weighted-average common shares outstanding applicable to basic EPS (in millions)	\$ 1,930.1	\$ 1,946.7	\$ 2,033.0
Effect of dilutive securities ⁽³⁾			
Other employee plans	25.7	17.6	16.4
Adjusted weighted-average common shares outstanding applicable to diluted EPS (in millions)	1,955.8	1,964.3	2,049.4
Diluted earnings per share⁽²⁾			
Income from continuing operations	\$ 4.04	\$ 7.11	\$ 10.14
Discontinued operations	—	(0.12)	—
Net income per share—diluted⁽⁴⁾	\$ 4.04	\$ 7.00	\$ 10.14

(1) Other relevant items include issuance costs of \$58 million related to the redemption of preferred stock Series A, B, K and partial J, during 2023, and \$14 million in 1% excise tax on preferred stock redemptions during 2023. The preferred issuance costs were reclassified from *Additional paid-in capital* to *Retained earnings* upon redemption of the preferred stock. See Note 22.

(2) Due to rounding, earnings per share on continuing operations and discontinued operations may not sum to earnings per share on net income.

(3) During 2023, 2022 and 2021, there were no weighted-average options outstanding.

(4) Due to rounding, income from continuing operations and discontinued operations may not sum to net income per share—diluted.

12. SECURITIES BORROWED, LOANED AND SUBJECT TO REPURCHASE AGREEMENTS

Securities borrowed and purchased under agreements to resell, at their respective carrying values, consisted of the following:

<i>In millions of dollars</i>	December 31,	
	2023	2022
Securities purchased under agreements to resell	\$ 267,319	\$ 291,272
Deposits paid for securities borrowed	78,408	74,165
Total, net⁽¹⁾	\$ 345,727	\$ 365,437
Allowance for credit losses on securities purchased and borrowed ⁽²⁾	(27)	(36)
Total, net of allowance	\$ 345,700	\$ 365,401

Securities loaned and sold under agreements to repurchase, at their respective carrying values, consisted of the following:

<i>In millions of dollars</i>	December 31,	
	2023	2022
Securities sold under agreements to repurchase	\$ 264,958	\$ 183,827
Deposits received for securities loaned	13,149	18,617
Total, net⁽¹⁾	\$ 278,107	\$ 202,444

- (1) The above tables do not include securities-for-securities lending transactions of \$4.3 billion and \$4.4 billion at December 31, 2023 and 2022, respectively, where the Company acts as lender and receives securities that can be sold or pledged as collateral. In these transactions, the Company recognizes the securities received at fair value within *Other assets* and the obligation to return those securities as a liability within *Brokerage payables*.
- (2) See Note 16.

The resale and repurchase agreements represent collateralized financing transactions. Citi executes these transactions primarily through its broker-dealer subsidiaries to facilitate customer matched-book activity and to efficiently fund a portion of Citi's trading inventory. Transactions executed by Citi's bank subsidiaries primarily facilitate customer financing activity.

To maintain reliable funding under a wide range of market conditions, including under periods of stress, Citi manages these activities by taking into consideration the quality of the underlying collateral and stipulating financing tenor. Citi manages the risks in its collateralized financing transactions by conducting daily stress tests to account for changes in capacity, tenors, haircut, collateral profile and client actions. In addition, Citi maintains counterparty diversification by establishing concentration triggers and assessing counterparty reliability and stability under stress.

It is the Company's policy to take possession of the underlying collateral, monitor its market value relative to the amounts due under the agreements and, when necessary,

require prompt transfer of additional collateral in order to maintain contractual margin protection. For resale and repurchase agreements, when necessary, the Company posts additional collateral in order to maintain contractual margin protection.

Collateral typically consists of government and government-agency securities, corporate and municipal bonds, equities and mortgage- and other asset-backed securities.

The resale and repurchase agreements are generally documented under industry standard agreements that allow the prompt close-out of all transactions (including the liquidation of securities held) and the offsetting of obligations to return cash or securities by the non-defaulting party, following a payment default or other type of default under the relevant master agreement. Events of default generally include (i) failure to deliver cash or securities as required under the transaction, (ii) failure to provide or return cash or securities as used for margining purposes, (iii) breach of representation, (iv) cross-default to another transaction entered into among the parties, or, in some cases, their affiliates, and (v) a repudiation of obligations under the agreement. The counterparty that receives the securities in these transactions is generally unrestricted in its use of the securities, with the exception of transactions executed on a tri-party basis, where the collateral is maintained by a custodian and operational limitations may restrict its use of the securities.

A substantial portion of the resale and repurchase agreements is recorded at fair value as the Company elected the fair value option, as described in Notes 26 and 27. The remaining portion is carried at the amount of cash initially advanced or received, plus accrued interest, as specified in the respective agreements.

The securities borrowing and lending agreements also represent collateralized financing transactions similar to the resale and repurchase agreements. Collateral typically consists of government and government-agency securities and corporate debt and equity securities.

Similar to the resale and repurchase agreements, securities borrowing and lending agreements are generally documented under industry standard agreements that allow the prompt close-out of all transactions (including the liquidation of securities held) and the offsetting of obligations to return cash or securities by the non-defaulting party, following a payment default or other default by the other party under the relevant master agreement. Events of default and rights to use securities under the securities borrowing and lending agreements are similar to the resale and repurchase agreements referenced above.

A substantial portion of securities borrowing and lending agreements is recorded at the amount of cash advanced or received. The remaining portion is recorded at fair value as the Company elected the fair value option for certain securities borrowed and loaned portfolios, as described in Note 27. With respect to securities loaned, the Company receives cash collateral in an amount generally in excess of the market value of the securities loaned. The Company monitors the market value of securities borrowed and securities loaned on a daily basis and posts or obtains additional collateral in order to maintain contractual margin protection.

The enforceability of offsetting rights incorporated in the master netting agreements for resale and repurchase agreements, and securities borrowing and lending agreements, is evidenced to the extent that (i) a supportive legal opinion has been obtained from counsel of recognized standing that provides the requisite level of certainty regarding the enforceability of these agreements and (ii) the exercise of rights by the non-defaulting party to terminate and close out transactions on a net basis under these agreements will not be stayed or avoided under applicable law upon an event of default including bankruptcy, insolvency or similar proceeding.

A legal opinion may not have been sought or obtained for certain jurisdictions where local law is silent or sufficiently ambiguous to determine the enforceability of offsetting rights or where adverse case law or conflicting regulation may cast doubt on the enforceability of such rights. In some jurisdictions and for some counterparty types, the insolvency

law for a particular counterparty type may be nonexistent or unclear as overlapping regimes may exist. For example, this may be the case for certain sovereigns, municipalities, central banks and U.S. pension plans.

The following tables present the gross and net resale and repurchase agreements and securities borrowing and lending agreements and the related offsetting amounts permitted under ASC 210-20-45. The tables also include amounts related to financial instruments that are not permitted to be offset under ASC 210-20-45, but would be eligible for offsetting to the extent that an event of default has occurred and a legal opinion supporting enforceability of the offsetting rights has been obtained. Remaining exposures continue to be secured by financial collateral, but the Company may not have sought or been able to obtain a legal opinion evidencing enforceability of the offsetting right.

As of December 31, 2023						
In millions of dollars	Gross amounts of recognized assets	Gross amounts offset on the Consolidated Balance Sheet ⁽¹⁾	Net amounts of assets included on the Consolidated Balance Sheet	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default ⁽²⁾	Net amounts ⁽³⁾	
Securities purchased under agreements to resell	\$ 515,533	\$ 248,214	\$ 267,319	\$ 244,783	\$ 22,536	
Deposits paid for securities borrowed	97,881	19,473	78,408	25,433	52,975	
Total	\$ 613,414	\$ 267,687	\$ 345,727	\$ 270,216	\$ 75,511	
In millions of dollars	Gross amounts of recognized liabilities	Gross amounts offset on the Consolidated Balance Sheet ⁽¹⁾	Net amounts of liabilities included on the Consolidated Balance Sheet	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default ⁽²⁾	Net amounts ⁽³⁾	
Securities sold under agreements to repurchase	\$ 513,172	\$ 248,214	\$ 264,958	\$ 181,794	\$ 83,164	
Deposits received for securities loaned	32,622	19,473	13,149	2,441	10,708	
Total	\$ 545,794	\$ 267,687	\$ 278,107	\$ 184,235	\$ 93,872	
As of December 31, 2022						
In millions of dollars	Gross amounts of recognized assets	Gross amounts offset on the Consolidated Balance Sheet ⁽¹⁾	Net amounts of assets included on the Consolidated Balance Sheet	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default ⁽²⁾	Net amounts ⁽³⁾	
Securities purchased under agreements to resell	\$ 403,663	\$ 112,391	\$ 291,272	\$ 204,077	\$ 87,195	
Deposits paid for securities borrowed	88,817	14,652	74,165	13,844	60,321	
Total	\$ 492,480	\$ 127,043	\$ 365,437	\$ 217,921	\$ 147,516	
In millions of dollars	Gross amounts of recognized liabilities	Gross amounts offset on the Consolidated Balance Sheet ⁽¹⁾	Net amounts of liabilities included on the Consolidated Balance Sheet	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default ⁽²⁾	Net amounts ⁽³⁾	
Securities sold under agreements to repurchase	\$ 296,218	\$ 112,391	\$ 183,827	\$ 71,635	\$ 112,192	
Deposits received for securities loaned	33,269	14,652	18,617	2,542	16,075	
Total	\$ 329,487	\$ 127,043	\$ 202,444	\$ 74,177	\$ 128,267	

(1) Includes financial instruments subject to enforceable master netting agreements that are permitted to be offset under ASC 210-20-45.

- (2) Includes financial instruments subject to enforceable master netting agreements that are not permitted to be offset under ASC 210-20-45, but would be eligible for offsetting to the extent that an event of default has occurred and a legal opinion supporting enforceability of the offsetting right has been obtained.
- (3) Remaining exposures continue to be secured by financial collateral, but the Company may not have sought or been able to obtain a legal opinion evidencing enforceability of the offsetting right.

The following tables present the gross amounts of liabilities associated with repurchase agreements and securities lending agreements by remaining contractual maturity:

In millions of dollars	As of December 31, 2023					Total
	Open and overnight	Up to 30 days	31–90 days	Greater than 90 days		
Securities sold under agreements to repurchase	\$ 289,907	\$ 134,870	\$ 35,639	\$ 52,756	\$ 513,172	
Deposits received for securities loaned	24,997	—	1,270	6,355	32,622	
Total	\$ 314,904	\$ 134,870	\$ 36,909	\$ 59,111	\$ 545,794	

In millions of dollars	As of December 31, 2022					Total
	Open and overnight	Up to 30 days	31–90 days	Greater than 90 days		
Securities sold under agreements to repurchase	\$ 138,710	\$ 86,819	\$ 25,119	\$ 45,570	\$ 296,218	
Deposits received for securities loaned	25,388	267	2,121	5,493	33,269	
Total	\$ 164,098	\$ 87,086	\$ 27,240	\$ 51,063	\$ 329,487	

The following tables present the gross amounts of liabilities associated with repurchase agreements and securities lending agreements by class of underlying collateral:

In millions of dollars	As of December 31, 2023			Total
	Repurchase agreements	Securities lending agreements		
U.S. Treasury and federal agency securities	\$ 223,343	\$ 461	\$ 461	\$ 223,804
State and municipal securities	447	2	2	449
Foreign government securities	174,661	118	118	174,779
Corporate bonds	12,403	195	195	12,598
Equity securities	5,853	31,574	31,574	37,427
Mortgage-backed securities	85,014	21	21	85,035
Asset-backed securities	3,032	178	178	3,210
Other	8,419	73	73	8,492
Total	\$ 513,172	\$ 32,622	\$ 32,622	\$ 545,794

In millions of dollars	As of December 31, 2022			Total
	Repurchase agreements	Securities lending agreements		
U.S. Treasury and federal agency securities	\$ 99,979	\$ 106	\$ 106	\$ 100,085
State and municipal securities	1,911	—	—	1,911
Foreign government securities	123,826	13	13	123,839
Corporate bonds	14,308	45	45	14,353
Equity securities	9,749	33,096	33,096	42,845
Mortgage-backed securities	36,225	—	—	36,225
Asset-backed securities	1,755	—	—	1,755
Other	8,465	9	9	8,474
Total	\$ 296,218	\$ 33,269	\$ 33,269	\$ 329,487

13. BROKERAGE RECEIVABLES AND BROKERAGE PAYABLES

The Company has receivables and payables for financial instruments sold to and purchased from brokers, dealers and customers, which arise in the ordinary course of business. Citi is exposed to risk of loss from the inability of brokers, dealers or customers to pay for purchases or to deliver the financial instruments sold, in which case Citi would have to sell or purchase the financial instruments at prevailing market prices. Credit risk is reduced to the extent that an exchange or clearing organization acts as a counterparty to the transaction and replaces the broker, dealer or customer in question.

Citi seeks to protect itself from the risks associated with customer activities by requiring customers to maintain margin collateral in compliance with regulatory and internal guidelines. Margin levels are monitored daily, and customers deposit additional collateral as required. Where customers cannot meet collateral requirements, Citi may liquidate sufficient underlying financial instruments to bring the customer into compliance with the required margin level.

Exposure to credit risk is impacted by market volatility, which may impair the ability of clients to satisfy their obligations to Citi. Credit limits are established and closely monitored for customers and for brokers and dealers engaged in forwards, futures and other transactions deemed to be credit sensitive.

Brokerage receivables and *Brokerage payables* consisted of the following:

<i>In millions of dollars</i>	December 31,	
	2023	2022
Receivables from customers	\$ 15,986	\$ 15,462
Receivables from brokers, dealers and clearing organizations	37,929	38,730
Total brokerage receivables⁽¹⁾	\$ 53,915	\$ 54,192
Payables to customers	\$ 49,206	\$ 55,747
Payables to brokers, dealers and clearing organizations	14,333	13,471
Total brokerage payables⁽¹⁾	\$ 63,539	\$ 69,218

(1) Includes brokerage receivables and payables recorded by Citi broker-dealer entities that are accounted for in accordance with the AICPA Accounting Guide for Brokers and Dealers in Securities as codified in ASC 940-320.

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14. INVESTMENTS

The following table presents Citi's investments by category:

<i>In millions of dollars</i>	December 31,	
	2023	2022
Debt securities available-for-sale (AFS)	\$ 256,936	\$ 249,679
Debt securities held-to-maturity (HTM) ⁽¹⁾	254,247	268,863
Marketable equity securities carried at fair value ⁽²⁾	258	429
Non-marketable equity securities carried at fair value ⁽²⁾⁽⁵⁾	508	466
Non-marketable equity securities measured using the measurement alternative ⁽³⁾	1,639	1,676
Non-marketable equity securities carried at cost ⁽⁴⁾	5,497	5,469
Total investments⁽⁶⁾	\$ 519,085	\$ 526,582

- (1) Carried at adjusted amortized cost basis, net of any ACL.
- (2) Unrealized gains and losses are recognized in earnings.
- (3) Impairment losses and adjustments to the carrying value as a result of observable price changes are recognized in earnings. See "Non-Marketable Equity Securities Not Carried at Fair Value" below.
- (4) Represents shares issued by the Federal Reserve Bank, Federal Home Loan Banks and certain exchanges of which Citigroup is a member.
- (5) Includes \$25 million and \$27 million of investments in funds for which the fair values are estimated using the net asset value of the Company's ownership interest in the funds at December 31, 2023 and 2022, respectively.
- (6) Not included in the balances above is approximately \$2 billion of accrued interest receivable at December 31, 2023 and 2022, which is included in *Other assets* on the Consolidated Balance Sheet. The Company does not recognize an allowance for credit losses on accrued interest receivable for AFS and HTM debt securities, consistent with its non-accrual policy, which results in timely write-off of accrued interest. The Company did not reverse through interest income any accrued interest receivables for the years ended December 31, 2023 and 2022.

The following table presents interest and dividend income on investments:

<i>In millions of dollars</i>	2023	2022	2021
Taxable interest	\$ 17,654	\$ 10,643	\$ 6,975
Interest exempt from U.S. federal income tax	334	348	279
Dividend income	312	223	134
Total interest and dividend income on investments	\$ 18,300	\$ 11,214	\$ 7,388

The following table presents realized gains and losses on the sales of investments, which exclude impairment losses:

<i>In millions of dollars</i>	2023	2022	2021
Gross realized investment gains	\$ 324	\$ 323	\$ 860
Gross realized investment losses	(136)	(256)	(195)
Net realized gains on sales of investments	\$ 188	\$ 67	\$ 665

Debt Securities Available-for-Sale

The amortized cost and fair value of AFS debt securities were as follows:

In millions of dollars	December 31, 2023					December 31, 2022				
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Allowance for credit losses	Fair value	Amortized cost	Gross unrealized gains	Gross unrealized losses	Allowance for credit losses	Fair value
Debt securities AFS										
Mortgage-backed securities ⁽¹⁾										
U.S. government-sponsored agency guaranteed ⁽²⁾⁽³⁾	\$ 30,279	\$ 170	\$ 734	\$ —	\$ 29,715	\$ 12,009	\$ 8	\$ 755	\$ —	\$ 11,262
Residential	426	—	3	—	423	488	—	3	—	485
Commercial	1	—	—	—	1	2	—	—	—	2
Total mortgage-backed securities	\$ 30,706	\$ 170	\$ 737	\$ —	\$ 30,139	\$ 12,499	\$ 8	\$ 758	\$ —	\$ 11,749
U.S. Treasury and federal agency securities										
U.S. Treasury	\$ 81,684	\$ 59	\$ 1,382	\$ —	\$ 80,361	\$ 94,732	\$ 50	\$ 2,492	\$ —	\$ 92,290
Agency obligations	—	—	—	—	—	—	—	—	—	—
Total U.S. Treasury and federal agency securities	\$ 81,684	\$ 59	\$ 1,382	\$ —	\$ 80,361	\$ 94,732	\$ 50	\$ 2,492	\$ —	\$ 92,290
State and municipal	\$ 2,204	\$ 18	\$ 91	\$ —	\$ 2,131	\$ 2,363	\$ 19	\$ 159	\$ —	\$ 2,223
Foreign government	132,045	528	1,375	—	131,198	135,648	569	2,940	—	133,277
Corporate	5,610	18	208	8	5,412	5,146	19	246	3	4,916
Asset-backed securities ⁽¹⁾	921	17	—	—	938	1,022	12	4	—	1,030
Other debt securities	6,754	4	1	—	6,757	4,198	1	5	—	4,194
Total debt securities AFS	\$ 259,924	\$ 814	\$ 3,794	\$ 8	\$ 256,936	\$ 255,608	\$ 678	\$ 6,604	\$ 3	\$ 249,679

- (1) The Company invests in mortgage- and asset-backed securities, which are typically issued by VIEs through securitization transactions. The Company's maximum exposure to loss from these VIEs is equal to the carrying amount of the securities, which is reflected in the table above. See Note 23 for mortgage- and asset-backed securitizations in which the Company has other involvement.
- (2) In January 2023, Citi adopted ASU 2022-01. Upon adoption, Citi transferred \$3.3 billion of mortgage-backed securities from HTM classification to AFS classification as allowed under the ASU. At the time of transfer, the securities were in an unrealized gain position of \$0.1 billion, which was recorded in AOCI upon transfer. See Note 1.
- (3) Amortized cost includes unallocated portfolio layer cumulative basis adjustments of \$0.2 billion as of December 31, 2023. Gross unrealized gains and gross unrealized (losses) on mortgage-backed securities excluding the effect of unallocated portfolio layer cumulative basis adjustments were \$368 million and \$(683) million, respectively, as of December 31, 2023.

At December 31, 2023, the amortized cost of AFS debt securities for those in a loss position exceeded their fair value by \$3,794 million. Of the \$3,794 million, \$861 million represented unrealized losses on AFS debt securities that have been in a gross unrealized loss position for less than a year and, of these, 82% were rated investment grade; and \$2,933 million represented unrealized losses on AFS debt securities that have been in a gross unrealized loss position for a year or more and, of these, 96% were rated investment grade. Of the \$2,933 million, \$1,269 million represents U.S. Treasury and federal agency securities.

The following table presents the fair value of AFS debt securities that have been in an unrealized loss position:

In millions of dollars	Less than 12 months		12 months or longer		Total	
	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses
December 31, 2023						
Debt securities AFS						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	\$ 8,602	\$ 86	\$ 9,734	\$ 648	\$ 18,336	\$ 734
Residential	352	1	34	2	386	3
Commercial	—	—	—	—	—	—
Total mortgage-backed securities	\$ 8,954	\$ 87	\$ 9,768	\$ 650	\$ 18,722	\$ 737
U.S. Treasury and federal agency securities						
U.S. Treasury	\$ 11,851	\$ 113	\$ 57,669	\$ 1,269	\$ 69,520	\$ 1,382
Total U.S. Treasury and federal agency securities	\$ 11,851	\$ 113	\$ 57,669	\$ 1,269	\$ 69,520	\$ 1,382
State and municipal	\$ 906	\$ 17	\$ 324	\$ 74	\$ 1,230	\$ 91
Foreign government	42,250	540	29,176	835	71,426	1,375
Corporate	2,319	103	1,619	105	3,938	208
Asset-backed securities	154	—	16	—	170	—
Other debt securities	1,864	1	228	—	2,092	1
Total debt securities AFS	\$ 68,298	\$ 861	\$ 98,800	\$ 2,933	\$ 167,098	\$ 3,794
December 31, 2022						
Debt securities AFS						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	\$ 7,908	\$ 412	\$ 3,290	\$ 343	\$ 11,198	\$ 755
Residential	158	3	1	—	159	3
Commercial	1	—	1	—	2	—
Total mortgage-backed securities	\$ 8,067	\$ 415	\$ 3,292	\$ 343	\$ 11,359	\$ 758
U.S. Treasury and federal agency securities						
U.S. Treasury	\$ 40,701	\$ 1,001	\$ 34,692	\$ 1,491	\$ 75,393	\$ 2,492
Total U.S. Treasury and federal agency securities	\$ 40,701	\$ 1,001	\$ 34,692	\$ 1,491	\$ 75,393	\$ 2,492
State and municipal	\$ 896	\$ 31	\$ 707	\$ 128	\$ 1,603	\$ 159
Foreign government	82,900	2,332	14,220	608	97,120	2,940
Corporate	3,082	209	784	37	3,866	246
Asset-backed securities	708	4	—	—	708	4
Other debt securities	2,213	5	—	—	2,213	5
Total debt securities AFS	\$ 138,567	\$ 3,997	\$ 53,695	\$ 2,607	\$ 192,262	\$ 6,604

The following table presents the amortized cost and fair value of AFS debt securities by contractual maturity dates:

<i>In millions of dollars</i>	December 31, 2023			
	Amortized cost	Fair value	Weighted- average yield ⁽¹⁾	
Mortgage-backed securities⁽²⁾				
Due within 1 year	\$ 10	\$ 11	1.48 %	
After 1 but within 5 years	570	559	3.14	
After 5 but within 10 years	552	528	3.64	
After 10 years	29,326	29,041	4.76	
Total⁽³⁾	\$ 30,458	\$ 30,139	4.71 %	
U.S. Treasury and federal agency securities				
Due within 1 year	\$ 45,716	\$ 45,425	2.19 %	
After 1 but within 5 years	35,439	34,449	1.25	
After 5 but within 10 years	529	487	3.61	
After 10 years	—	—	—	
Total	\$ 81,684	\$ 80,361	1.79 %	
State and municipal				
Due within 1 year	\$ 12	\$ 11	1.39 %	
After 1 but within 5 years	132	131	3.28	
After 5 but within 10 years	272	269	4.04	
After 10 years	1,788	1,720	3.82	
Total	\$ 2,204	\$ 2,131	3.81 %	
Foreign government				
Due within 1 year	\$ 63,008	\$ 62,733	5.24 %	
After 1 but within 5 years	64,760	64,238	5.26	
After 5 but within 10 years	3,781	3,765	3.95	
After 10 years	496	462	2.61	
Total	\$ 132,045	\$ 131,198	5.20 %	
All other⁽⁴⁾				
Due within 1 year	\$ 6,408	\$ 6,395	1.86 %	
After 1 but within 5 years	6,042	5,913	5.70	
After 5 but within 10 years	766	772	13.01	
After 10 years	69	27	1.34	
Total	\$ 13,285	\$ 13,107	4.25 %	
Total debt securities AFS⁽³⁾	\$ 259,676	\$ 256,936	4.01 %	

(1) Weighted-average yields are weighted based on the amortized cost of each security. The effective yield considers the contractual coupon, amortization of premiums and accretion of discounts and excludes the effects of any related hedging derivatives.

(2) Includes mortgage-backed securities of U.S. government-sponsored agencies. The Company invests in mortgage- and asset-backed securities, which are typically issued by VIEs through securitization transactions. See Note 23 for additional information about mortgage- and asset-backed securitizations in which the Company has other involvement.

(3) Amortized cost excludes unallocated portfolio layer cumulative basis adjustments of \$0.2 billion as of December 31, 2023.

(4) Includes corporate, asset-backed and other debt securities.

Debt Securities Held-to-Maturity

The carrying value and fair value of debt securities HTM were as follows:

<i>In millions of dollars</i>	Amortized cost, net⁽¹⁾	Gross unrealized gains	Gross unrealized losses	Fair value
December 31, 2023				
Debt securities HTM				
Mortgage-backed securities ⁽²⁾				
U.S. government-sponsored agency guaranteed ⁽³⁾	\$ 79,689	\$ 7	\$ 8,603	\$ 71,093
Non-U.S. residential	198	—	—	198
Commercial	1,146	2	156	992
Total mortgage-backed securities	\$ 81,033	\$ 9	\$ 8,759	\$ 72,283
U.S. Treasury securities	\$ 131,776	—	\$ 9,908	\$ 121,868
State and municipal	9,182	73	477	8,778
Foreign government	2,210	—	58	2,152
Asset-backed securities ⁽²⁾	30,046	9	135	29,920
Total debt securities HTM, net	\$ 254,247	\$ 91	\$ 19,337	\$ 235,001
December 31, 2022				
Debt securities HTM				
Mortgage-backed securities ⁽²⁾				
U.S. government-sponsored agency guaranteed	\$ 90,063	\$ 58	\$ 10,033	\$ 80,088
Non-U.S. residential	445	—	—	445
Commercial	1,114	5	1	1,118
Total mortgage-backed securities	\$ 91,622	\$ 63	\$ 10,034	\$ 81,651
U.S. Treasury securities	\$ 134,961	—	\$ 13,722	\$ 121,239
State and municipal	9,237	34	764	8,507
Foreign government	2,075	—	93	1,982
Asset-backed securities ⁽²⁾	30,968	4	703	30,269
Total debt securities HTM, net	\$ 268,863	\$ 101	\$ 25,316	\$ 243,648

(1) Amortized cost is reported net of ACL of \$95 million and \$120 million at December 31, 2023 and 2022, respectively.

(2) The Company invests in mortgage- and asset-backed securities. These securitizations are generally considered VIEs. The Company's maximum exposure to loss from these VIEs is equal to the carrying amount of the securities, which is reflected in the table above. See Note 23 for mortgage- and asset-backed securitizations in which the Company has other involvement.

(3) In January 2023, Citi adopted ASU 2022-01. Upon adoption, Citi transferred \$3.3 billion of mortgage-backed securities from HTM classification to AFS classification as allowed under the ASU. At the time of transfer, the securities were in an unrealized gain position of \$0.1 billion, which was recorded in *AOCI* upon transfer. See Note 1.

The Company has the positive intent and ability to hold these securities to maturity or, where applicable, until the exercise of any issuer call option, absent any unforeseen significant changes in circumstances, including deterioration in credit or changes in regulatory capital requirements.

The net unrealized losses classified in *AOCI* for HTM debt securities primarily relate to debt securities previously classified as AFS that were transferred to HTM, and include any cumulative fair value hedge adjustments. The net unrealized loss amount also includes any non-credit-related changes in fair value of HTM debt securities that have suffered credit impairment recorded in earnings. The *AOCI* balance related to HTM debt securities is amortized as an adjustment of yield, in a manner consistent with the accretion of any difference between the carrying value at the transfer date and par value of the same debt securities.

The following table presents the carrying value and fair value of HTM debt securities by contractual maturity dates:

	December 31, 2023			
<i>In millions of dollars</i>	Amortized cost ⁽¹⁾	Fair value	Weighted-average yield ⁽²⁾	
Mortgage-backed securities				
Due within 1 year	\$ 20	\$ 20		2.14 %
After 1 but within 5 years	1,213	1,156		3.46
After 5 but within 10 years	708	650		2.47
After 10 years	79,092	70,457		2.88
Total	\$ 81,033	\$ 72,283		2.89 %
U.S. Treasury securities				
Due within 1 year	\$ 5,607	\$ 5,424		0.68 %
After 1 but within 5 years	126,169	116,444		1.10
After 5 but within 10 years	—	—		—
After 10 years	—	—		—
Total	\$ 131,776	\$ 121,868		1.08 %
State and municipal				
Due within 1 year	\$ 34	\$ 34		3.13 %
After 1 but within 5 years	117	115		3.04
After 5 but within 10 years	1,388	1,351		3.14
After 10 years	7,643	7,278		3.34
Total	\$ 9,182	\$ 8,778		3.31 %
Foreign government				
Due within 1 year	\$ 1,553	\$ 1,493		10.77 %
After 1 but within 5 years	657	659		9.82
After 5 but within 10 years	—	—		—
After 10 years	—	—		—
Total	\$ 2,210	\$ 2,152		10.49 %
All other⁽³⁾				
Due within 1 year	\$ —	\$ —		— %
After 1 but within 5 years	1	1		1.22
After 5 but within 10 years	11,365	11,362		4.97
After 10 years	18,680	18,557		5.70
Total	\$ 30,046	\$ 29,920		5.42 %
Total debt securities HTM	\$ 254,247	\$ 235,001		2.33 %

(1) Amortized cost is reported net of ACL of \$95 million at December 31, 2023.

(2) Weighted-average yields are weighted based on the amortized cost of each security. The effective yield considers the contractual coupon, amortization of premiums and accretion of discounts and excludes the effects of any related hedging derivatives.

(3) Includes corporate and asset-backed securities.

HTM Debt Securities Delinquency and Non-Accrual

Details

Citi did not have any HTM debt securities that were delinquent or on non-accrual status at December 31, 2023 and 2022.

There were no purchased credit-deteriorated HTM debt securities held by the Company as of December 31, 2023 and 2022.

Evaluating Investments for Impairment—AFS Debt Securities

Overview

The Company conducts periodic reviews of all AFS debt securities with unrealized losses to evaluate whether the impairment resulted from expected credit losses or from other factors and to evaluate the Company's intent to sell such securities.

An AFS debt security is impaired when the current fair value of an individual AFS debt security is less than its amortized cost basis.

The Company recognizes the entire difference between amortized cost basis and fair value in earnings for impaired AFS debt securities that Citi has an intent to sell or for which Citi believes it will more-likely-than-not be required to sell prior to recovery of the amortized cost basis. However, for those AFS debt securities that the Company does not intend to sell and is not likely to be required to sell, only the credit-related impairment is recognized in earnings by recording an allowance for credit losses. Any remaining fair value decline for such securities is recorded in *AOCI*. The Company does not consider the length of time that the fair value of a security is below its amortized cost when determining if a credit loss exists.

For AFS debt securities, credit losses exist where Citi does not expect to receive contractual principal and interest cash flows sufficient to recover the entire amortized cost basis of a security. The allowance for credit losses is limited to the amount by which the AFS debt security's amortized cost basis exceeds its fair value. The allowance is increased or decreased if credit conditions subsequently worsen or improve. Reversals of credit losses are recognized in earnings.

The Company's review for impairment of AFS debt securities generally entails:

- identification and evaluation of impaired investments;
- consideration of evidential matter, including an evaluation of factors or triggers that could cause individual positions to qualify as credit impaired and those that would not support credit impairment; and
- documentation of the results of these analyses, as required under business policies.

The sections below describe the Company's process for identifying expected credit impairments for debt security types that have the most significant unrealized losses as of December 31, 2023.

Agency Mortgage-Backed Securities

Citi records no allowances for credit losses on U.S. government-agency-guaranteed mortgage-backed securities, because the Company expects to incur no credit losses in the event of default due to a history of incurring no credit losses and due to the nature of the counterparties.

State and Municipal Securities

The process for estimating credit losses in Citigroup's AFS state and municipal bonds is primarily based on a credit analysis that incorporates third-party credit ratings. Citi monitors the bond issuers and any insurers providing default protection in the form of financial guarantee insurance. The average external credit rating, disregarding any insurance, is Aa2/AA. In the event of an external rating downgrade or other indicator of credit impairment (i.e., based on instrument-specific estimates of cash flows or probability of issuer default), the subject bond is specifically reviewed for adverse changes in the amount or timing of expected contractual principal and interest payments.

For AFS state and municipal bonds with unrealized losses that Citi plans to sell or would more-likely-than-not be required to sell prior to recovery of value, the full impairment is recognized in earnings. For AFS state and municipal bonds where Citi has no intent to sell and it is not more-likely-than-not that the Company will be required to sell, Citi records an allowance for expected credit losses for the amount it expects not to collect, capped at the difference between the bond's amortized cost basis and fair value.

Equity Method Investments

Management assesses equity method investments that have fair values that are less than their respective carrying values for other-than-temporary impairment (OTTI). Fair value is measured as price multiplied by quantity if the investee has publicly listed securities. If the investee is not publicly listed, other methods are used (see Note 26).

For impaired equity method investments that Citi plans to sell prior to recovery of value or would more-likely-than-not be required to sell, with no expectation that the fair value will recover prior to the expected sale date, the full impairment is recognized as OTTI in *Other revenue* regardless of severity and duration. The measurement of the OTTI does not include partial projected recoveries subsequent to the balance sheet date.

For impaired equity method investments that management does not plan to sell and is not more-likely-than-not to be required to sell prior to recovery of value, the evaluation of whether an impairment is other-than-temporary is based on (i) whether and when an equity method investment will recover in value and (ii) whether the investor has the intent and ability to hold that investment for a period of time sufficient to recover the value. The determination of whether the impairment is considered other-than-temporary considers the following indicators:

- the cause of the impairment and the financial condition and near-term prospects of the issuer, including any specific events that may influence the operations of the issuer;
- the intent and ability to hold the investment for a period of time sufficient to allow for any anticipated recovery in market value; and
- the length of time and extent to which fair value has been less than the carrying value.

Recognition and Measurement of Impairment

The following table presents total impairment on AFS investments recognized in earnings:

<i>In millions of dollars</i>	Year ended		
	2023	2022	2021
Impairment losses recognized in earnings for debt securities that the Company intends to sell, would more-likely-than-not be required to sell or will be subject to an issuer call deemed probable of exercise	\$ 188	\$ 360	\$ 181

Allowance for Credit Losses on AFS Debt Securities

The allowance for credit losses on AFS debt securities held that the Company does not intend to sell nor will likely be required to sell was \$8 million and \$3 million as of December 31, 2023 and 2022, respectively.

Non-Marketable Equity Securities Not Carried at Fair Value

Non-marketable equity securities are required to be measured at fair value with changes in fair value recognized in earnings unless (i) the measurement alternative is elected or (ii) the investment represents Federal Reserve Bank and Federal Home Loan Bank stock or certain exchange seats that continue to be carried at cost.

The election to measure a non-marketable equity security using the measurement alternative is made on an instrument-by-instrument basis. Under the measurement alternative, an equity security is carried at cost plus or minus changes resulting from observable prices in orderly transactions for the identical or a similar investment of the same issuer. The carrying value of the equity security is adjusted to fair value on the date of an observed transaction. Fair value may differ from the observed transaction price due to a number of factors, including marketability adjustments and differences in rights and obligations when the observed transaction is not for the identical investment held by Citi.

Equity securities under the measurement alternative are also assessed for impairment. On a quarterly basis, management qualitatively assesses whether each equity security under the measurement alternative is impaired. Impairment indicators that are considered include, but are not limited to, the following:

- a significant deterioration in the earnings performance, credit rating, asset quality or business prospects of the investee;
- a significant adverse change in the regulatory, economic or technological environment of the investee;
- a significant adverse change in the general market condition of either the geographical area or the industry in which the investee operates;
- a bona fide offer to purchase, an offer by the investee to sell or a completed auction process for the same or similar investment for an amount less than the carrying amount of that investment; and
- factors that raise significant concerns about the investee's ability to continue as a going concern, such as negative cash flows from operations, working capital deficiencies or noncompliance with statutory capital requirements or debt covenants.

When the qualitative assessment indicates that the equity security is impaired, its fair value is determined. If the fair value of the investment is less than its carrying value, the investment is written down to fair value through earnings.

Below is the carrying value of non-marketable equity securities measured using the measurement alternative at December 31, 2023 and 2022:

<i>In millions of dollars</i>	December 31, 2023	December 31, 2022
Measurement alternative:		
Carrying value	\$ 1,639	\$ 1,676

Below are amounts recognized in earnings and life-to-date amounts for non-marketable equity securities measured using the measurement alternative:

<i>In millions of dollars</i>	Year ended December 31,	
	2023	2022
Measurement alternative ⁽¹⁾ :		
Impairment losses	\$ 135	139
Downward changes for observable prices	24	3
Upward changes for observable prices	87	177

(1) See Note 26 for additional information on these nonrecurring fair value measurements.

<i>In millions of dollars</i>	Life-to-date amounts on securities still held	
	December 31, 2023	
Measurement alternative:		
Impairment losses	\$ 338	
Downward changes for observable prices	34	
Upward changes for observable prices	951	

A similar impairment analysis is performed for non-marketable equity securities carried at cost. For the years ended December 31, 2023 and 2022, there was no impairment loss recognized in earnings for non-marketable equity securities carried at cost.

15. LOANS

Citigroup loans are reported in two categories: corporate and consumer. These categories are classified primarily according to the operating segment, reporting unit and component that manage the loans in addition to the nature of the obligor, with corporate loans generally made for corporate institutional and public sector clients around the world and consumer loans to retail and small business customers.

Corporate Loans

Corporate loans represent loans and leases managed by *Services, Markets, Banking* and the Mexico SBMM component of *All Other—Legacy Franchises*. The following table presents information by corporate loan type:

<i>In millions of dollars</i>	December 31, 2023	December 31, 2022
In North America offices⁽¹⁾		
Commercial and industrial	\$ 61,008	\$ 56,176
Financial institutions	39,393	43,399
Mortgage and real estate ⁽²⁾	17,813	17,829
Installment and other	23,335	23,767
Lease financing	227	308
Total	\$ 141,776	\$ 141,479
In offices outside North America⁽¹⁾		
Commercial and industrial	\$ 93,402	\$ 93,967
Financial institutions	26,143	21,931
Mortgage and real estate ⁽²⁾	7,197	4,179
Installment and other	27,907	23,347
Lease financing	48	46
Governments and official institutions	3,599	4,205
Total	\$ 158,296	\$ 147,675
Corporate loans, net of unearned income, excluding portfolio layer cumulative basis adjustments⁽³⁾⁽⁴⁾⁽⁵⁾	\$ 300,072	\$ 289,154
Unallocated portfolio layer cumulative basis adjustments⁽⁶⁾	\$ 93	\$ —
Corporate loans, net of unearned income⁽³⁾⁽⁴⁾⁽⁵⁾	\$ 300,165	\$ 289,154

(1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America. The classification between offices in North America and outside North America is based on the domicile of the booking unit. The difference between the domicile of the booking unit and the domicile of the managing unit is not material.

(2) Loans secured primarily by real estate.

(3) Corporate loans are net of unearned income of (\$917) million and (\$797) million at December 31, 2023 and 2022, respectively. Unearned income on corporate loans primarily represents loan origination fees, net of certain direct origination costs, that are deferred and recognized as *Interest income* over the lives of the related loans.

(4) Not included in the balances above is approximately \$2 billion of accrued interest receivable at December 31, 2023 and 2022, which is included in *Other assets* on the Consolidated Balance Sheet.

(5) Accrued interest receivable considered to be uncollectible is reversed through interest income. Amounts reversed were not material for the years ended December 31, 2023 and 2022, respectively.

(6) Represents fair value hedge basis adjustments related to portfolio layer method hedges of mortgage and real estate loans, which are not allocated to individual loans in the portfolio. See Note 24.

The Company sold and/or reclassified to held-for-sale \$5.7 billion and \$5.0 billion of corporate loans during the years ended December 31, 2023 and 2022, respectively. The Company did not have significant purchases of corporate loans classified as held-for-investment for the years ended December 31, 2023 or 2022.

Lease Financing

Citi is a lessor in the power, railcars, shipping and aircraft sectors, where the Company has executed operating, direct financing and leveraged leases. Citi's \$0.3 billion of lease financing receivables, as of December 31, 2023, is composed of approximately equal balances of direct financing lease receivables and net investments in leveraged leases. Citi uses the interest rate implicit in the lease to determine the present value of its lease financing receivables. Interest income on direct financing and leveraged leases during the year ended December 31, 2023 was not material.

The Company's operating leases, where Citi is a lessor, are not significant to the Consolidated Financial Statements.

Delinquency Status

Citi generally does not manage corporate loans on a delinquency basis. Corporate loans are placed on a cash (non-accrual) basis when it is determined, based on actual experience and a forward-looking assessment of the collectibility of the loan in full, that the payment of interest or principal is doubtful or when interest or principal is 90 days past due, except when the loan is well collateralized and in the process of collection. Any interest accrued on impaired corporate loans and leases is reversed at 90 days and charged against current earnings, and interest is thereafter included in earnings only to the extent actually received in cash. When there is doubt regarding the ultimate collectibility of principal, all cash receipts are thereafter applied to reduce the recorded investment in the loan. While corporate loans are generally managed based on their internally assigned risk rating (see further discussion below), the following tables present delinquency information by corporate loan type.

Corporate Loan Delinquencies and Non-Accrual Details at December 31, 2023

<i>In millions of dollars</i>	30–89 days past due and accruing ⁽¹⁾	≥ 90 days past due and accruing ⁽¹⁾	Total past due and accruing	Total non-accrual ⁽²⁾	Total current ⁽³⁾	Total loans ⁽⁴⁾
Commercial and industrial	\$ 308	\$ 118	\$ 426	\$ 717	\$ 150,308	\$ 151,451
Financial institutions	9	7	16	51	64,993	65,060
Mortgage and real estate	66	3	69	868	24,001	24,938
Lease financing	—	—	—	—	275	275
Other	66	17	83	246	50,738	51,067
Loans at fair value						7,281
Total⁽⁵⁾	\$ 449	\$ 145	\$ 594	\$ 1,882	\$ 290,315	\$ 300,072

Corporate Loan Delinquencies and Non-Accrual Details at December 31, 2022

<i>In millions of dollars</i>	30–89 days past due and accruing ⁽¹⁾	≥ 90 days past due and accruing ⁽¹⁾	Total past due and accruing	Total non-accrual ⁽²⁾	Total current ⁽³⁾	Total loans ⁽⁴⁾
Commercial and industrial	\$ 763	\$ 594	\$ 1,357	\$ 860	\$ 145,586	\$ 147,803
Financial institutions	233	102	335	152	64,420	64,907
Mortgage and real estate	30	12	42	33	21,874	21,949
Lease financing	—	1	1	10	343	354
Other	145	18	163	67	48,788	49,018
Loans at fair value						5,123
Total	\$ 1,171	\$ 727	\$ 1,898	\$ 1,122	\$ 281,011	\$ 289,154

- (1) Corporate loans that are 90 days past due are generally classified as non-accrual. Corporate loans are considered past due when principal or interest is contractually due but unpaid.
- (2) Non-accrual loans generally include those loans that are 90 days or more past due or those loans for which Citi believes, based on actual experience and a forward-looking assessment of the collectibility of the loan in full, that the payment of interest and/or principal is doubtful.
- (3) Loans less than 30 days past due are presented as current.
- (4) The Total loans column includes loans at fair value, which are not included in the various delinquency columns and, therefore, the tables' total rows will not cross-foot.
- (5) Excludes \$93 million of unallocated portfolio layer cumulative basis adjustments at December 31, 2023.

Citigroup has a risk management process to monitor, evaluate and manage the principal risks associated with its corporate loan portfolio. As part of its risk management process, Citi assigns numeric risk ratings to its corporate loan facilities based on quantitative and qualitative assessments of the obligor and facility. These risk ratings are reviewed at least annually or more often if material events related to the obligor or facility warrant. Factors considered in assigning the risk ratings include financial condition of the obligor, qualitative assessment of management and strategy, amount and sources of repayment, amount and type of collateral and guarantee arrangements, amount and type of any contingencies associated with the obligor and the obligor's industry and geography.

The obligor risk ratings are defined by ranges of default probabilities. The facility risk ratings are defined by ranges of loss norms, which are the product of the probability of default and the loss given default. The investment-grade rating categories are similar to the category BBB-/Baa3 and above as defined by S&P and Moody's. Loans classified according to the bank regulatory definitions as special mention, substandard, doubtful and loss will have risk ratings within the non-investment-grade categories.

Corporate Loans Credit Quality Indicators

In millions of dollars	Recorded investment in loans ⁽¹⁾								December 31, 2023	
	Term loans by year of origination							Revolving line of credit arrangements ⁽²⁾		
	2023	2022	2021	2020	2019	Prior				
Investment grade⁽³⁾										
Commercial and industrial ⁽⁴⁾	\$ 47,811	\$ 7,738	\$ 3,641	\$ 2,279	\$ 2,604	\$ 6,907	\$ 34,956	\$ 105,936		
Financial institutions ⁽⁴⁾	11,002	2,356	2,834	424	557	1,847	36,715	55,735		
Mortgage and real estate	3,628	4,433	3,595	2,544	1,238	1,582	66	17,086		
Other ⁽⁵⁾	4,653	5,781	1,072	1,029	812	5,302	29,335	47,984		
Total investment grade	\$ 67,094	\$ 20,308	\$ 11,142	\$ 6,276	\$ 5,211	\$ 15,638	\$ 101,072	\$ 226,741		
Non-investment grade⁽³⁾										
<i>Accrual</i>										
Commercial and industrial ⁽⁴⁾	\$ 17,570	\$ 4,785	\$ 1,914	\$ 1,359	\$ 732	\$ 2,526	\$ 15,912	\$ 44,798		
Financial institutions ⁽⁴⁾	4,207	748	1,084	56	194	260	2,725	9,274		
Mortgage and real estate	1,034	1,234	1,378	947	755	1,016	620	6,984		
Other ⁽⁵⁾	653	434	248	158	211	155	1,253	3,112		
<i>Non-accrual</i>										
Commercial and industrial ⁽⁴⁾	53	46	84	35	45	93	361	717		
Financial institutions	—	—	—	—	—	—	51	51		
Mortgage and real estate	118	233	8	38	110	308	53	868		
Other ⁽⁵⁾	8	—	41	—	55	12	130	246		
Total non-investment grade	\$ 23,643	\$ 7,480	\$ 4,757	\$ 2,593	\$ 2,102	\$ 4,370	\$ 21,105	\$ 66,050		
Loans at fair value⁽⁶⁾									\$ 7,281	
Corporate loans, net of unearned income⁽⁷⁾	\$ 90,737	\$ 27,788	\$ 15,899	\$ 8,869	\$ 7,313	\$ 20,008	\$ 122,177	\$ 300,072		

In millions of dollars	Recorded investment in loans ⁽¹⁾								December 31, 2022	
	Term loans by year of origination						Revolving line of credit arrangements ⁽²⁾			
	2022	2021	2020	2019	2018	Prior				
Investment grade⁽³⁾										
Commercial and industrial ⁽⁴⁾	\$ 40,639	\$ 6,124	\$ 3,620	\$ 3,458	\$ 2,617	\$ 7,048	\$ 38,358	\$ 101,864		
Financial institutions ⁽⁴⁾	11,850	3,877	835	922	333	1,327	37,462	56,606		
Mortgage and real estate	4,436	3,236	4,010	2,619	1,127	1,706	152	17,286		
Other ⁽⁵⁾	7,649	2,687	1,439	643	2,119	3,832	26,805	45,174		
Total investment grade	\$ 64,574	\$ 15,924	\$ 9,904	\$ 7,642	\$ 6,196	\$ 13,913	\$ 102,777	\$ 220,930		
Non-investment grade⁽³⁾										
<i>Accrual</i>										
Commercial and industrial ⁽⁴⁾	\$ 17,278	\$ 3,139	\$ 1,973	\$ 1,331	\$ 965	\$ 3,546	\$ 16,848	\$ 45,080		
Financial institutions ⁽⁴⁾	4,708	630	197	254	47	240	2,073	8,149		
Mortgage and real estate	582	835	429	729	783	801	472	4,631		
Other ⁽⁵⁾	1,244	559	391	413	1	219	1,292	4,119		
<i>Non-accrual</i>										
Commercial and industrial	1	12	99	115	49	105	479	860		
Financial institutions ⁽⁴⁾	41	34	—	—	—	—	77	152		
Mortgage and real estate	10	4	—	—	—	19	—	33		
Other ⁽⁵⁾	6	—	26	8	10	11	16	77		
Total non-investment grade	\$ 23,870	\$ 5,213	\$ 3,115	\$ 2,850	\$ 1,855	\$ 4,941	\$ 21,257	\$ 63,101		
Loans at fair value⁽⁶⁾										
Corporate loans, net of unearned income	\$ 88,444	\$ 21,137	\$ 13,019	\$ 10,492	\$ 8,051	\$ 18,854	\$ 124,034	\$ 289,154		

(1) Recorded investment in a loan includes net deferred loan fees and costs, unamortized premium or discount, less any direct write-downs.

(2) There were no significant revolving line of credit arrangements that converted to term loans during the year.

(3) Held-for-investment loans are accounted for on an amortized cost basis.

(4) Includes certain short-term loans with less than one year in tenor.

(5) Other includes installment and other, lease financing and loans to government and official institutions.

(6) Loans at fair value include loans to commercial and industrial, financial institutions, mortgage and real estate and other.

(7) Excludes \$93 million of unallocated portfolio layer cumulative basis adjustments at December 31, 2023.

Collateral-dependent loans and leases, where repayment is expected to be provided solely by the sale of the underlying collateral with no other available and reliable sources of repayment, are written down to the lower of carrying value or collateral value, less cost to sell. Cash-basis loans are returned to an accrual status when all contractual principal and interest amounts are reasonably assured of repayment and there is a sustained period of repayment performance, generally six months, in accordance with the contractual terms of the loan.

Corporate Gross Credit Losses

The table below details gross credit losses recognized during the year ended December 31, 2023, by year of loan origination:

In millions of dollars	For the year ended December 31, 2023								Revolving line of credit arrangement	Total
	2023	2022	2021	2020	2019	Prior				
Commercial and industrial	\$ 27	\$ 20	\$ 1	\$ 1	\$ —	\$ 10	\$ 130	\$ 189		
Financial institutions	1	1	—	—	—	—	—	38		40
Mortgage and real estate	—	9	—	15	—	11	5		40	
Other ⁽¹⁾	—	—	—	—	—	—	—	59		59
Total	\$ 28	\$ 30	\$ 1	\$ 16	\$ —	\$ 21	\$ 232			\$ 328

(1) Other includes installment and other, lease financing and loans to government and official institutions.

Non-Accrual Corporate Loans

The following table presents non-accrual loan information by corporate loan type and interest income recognized on non-accrual corporate loans:

In millions of dollars	December 31, 2023		December 31, 2022	
	Recorded investment ⁽¹⁾⁽²⁾	Related specific allowance	Recorded investment ⁽¹⁾⁽²⁾	Related specific allowance
Non-accrual corporate loans with specific allowances				
Commercial and industrial	\$ 507	\$ 168	\$ 583	\$ 268
Financial institutions	48	15	149	51
Mortgage and real estate	697	128	33	4
Other	185	51	—	—
Total non-accrual corporate loans with specific allowances	\$ 1,437	\$ 362	\$ 765	\$ 323
Non-accrual corporate loans without specific allowances				
Commercial and industrial	\$ 210	—	\$ 277	—
Financial institutions	3	—	3	—
Mortgage and real estate	171	—	—	—
Lease financing	—	—	10	—
Other	61	—	67	—
Total non-accrual corporate loans without specific allowances	\$ 445	N/A	\$ 357	N/A

(1) Recorded investment in a loan includes net deferred loan fees and costs, unamortized premium or discount, less any direct write-downs.

(2) Interest income recognized for the year ended December 31, 2023, 2022 and 2021 was \$38 million, \$66 million and \$54 million, respectively.

N/A Not applicable

Corporate Loan Modifications to Borrowers Experiencing Financial Difficulty

Citi seeks to modify certain corporate loans to borrowers experiencing financial difficulty to reduce Citi's exposure to loss, often providing the borrower with an opportunity to work through financial difficulties. Each modification is unique to the borrower's individual circumstances. The following table details corporate loan modifications granted during the year ended December 31, 2023 to borrowers experiencing financial difficulty by type of modification granted and the financial effect of those modifications. Citi defines a corporate loan modification to a borrower experiencing financial difficulty as a modification of a loan classified as substandard or worse at the time of modification.

In millions of dollars, except for weighted-average term extension	For the year ended December 31, 2023				
	Total modifications balance at December 31, 2023 ⁽¹⁾⁽²⁾⁽³⁾	Term extension	Combination: Term extension and payment delay ⁽⁴⁾	Weighted-average term extension (months)	
Commercial and industrial	\$ 198	\$ 180	\$ 18	19	
Financial institutions	—	—	—	—	
Mortgage and real estate	144	143	1	24	
Other ⁽⁵⁾	—	—	—	—	
Total	\$ 342	\$ 323	\$ 19		

- (1) The above table reflects activity for loans outstanding as of the end of the reporting period. The balances are not significant as a percentage of the total carrying values of loans by class of receivable as of December 31, 2023.
- (2) Commitments to lend to borrowers experiencing financial difficulty that were granted modifications totaled \$1.2 billion as of December 31, 2023.
- (3) The allowance for corporate loans, including modified loans, is based on the borrower's overall financial performance. Charge-offs for amounts deemed uncollectible may be recorded at the time of the modification or may have already been recorded in prior periods such that no charge-off is required at the time of modification.
- (4) Payment delays either for principal or interest payments had an immaterial financial impact.
- (5) Other includes installment and other, lease financing and loans to government and official institutions.

The following table presents the Company's corporate troubled debt restructurings (TDRs), under previous GAAP, prior to the Company's adoption of ASU No. 2022-02 on January 1, 2023:

In millions of dollars	For the year ended December 31, 2022			
	Carrying value of TDRs modified during the year	TDRs involving changes in the amount and/or timing of principal payments ⁽¹⁾	TDRs involving changes in the amount and/or timing of interest payments ⁽²⁾	TDRs involving changes in the amount and/or timing of both principal and interest payments
Commercial and industrial	\$ 61	\$ —	\$ —	\$ 61
Mortgage and real estate	2	1	—	1
Other ⁽³⁾	30	—	—	30
Total	\$ 93	\$ 1	\$ —	\$ 92

- (1) TDRs involving changes in the amount or timing of principal payments may involve principal forgiveness or deferral of periodic and/or final principal payments. Because forgiveness of principal is rare for corporate loans, modifications typically have little to no impact on the loans' projected cash flows and thus little to no impact on the allowance established for the loans. Charge-offs for amounts deemed uncollectible may be recorded at the time of the restructuring or may have already been recorded in prior periods such that no charge-off is required at the time of the modification.
- (2) TDRs involving changes in the amount or timing of interest payments may involve a below-market interest rate.
- (3) Other includes installment and other, lease financing and loans to government and official institutions.

Performance of Modified Corporate Loans

The following table presents the delinquencies of modified corporate loans to borrowers experiencing financial difficulty. It includes loans that were modified during the year ended December 31, 2023:

In millions of dollars	Total	As of December 31, 2023 ⁽¹⁾		
		Current	30–89 days past due	90+ days past due
Commercial and industrial	\$ 198	\$ 198	\$ —	\$ —
Financial institutions	—	—	—	—
Mortgage and real estate	144	144	—	—
Other ⁽²⁾	—	—	—	—
Total	\$ 342	\$ 342	\$ —	\$ —

- (1) Corporate loans are generally not modified as a result of their delinquency status; rather, they are modified because of events that have impacted the overall financial performance of the borrower. Corporate loans, if past due, are re-aged to current status upon modification.
- (2) Other includes installment and other, lease financing and loans to government and official institutions.

Defaults of Modified Corporate Loans

No modified corporate loans to borrowers experiencing financial difficulty defaulted during the year ended December 31, 2023. Default is defined as 60 days past due, except for classifiably managed commercial banking loans, where default is defined as 90 days past due. For a modified corporate loan that is not collateral dependent, expected default rates are considered in the loan's individually assessed ACL.

The following table presents the Company's corporate TDRs at December 31, 2022, under previous GAAP, prior to the Company's adoption of ASU No. 2022-02 on January 1, 2023, that defaulted for which the payment default occurred within one year of a permanent modification. Default is defined as 60 days past due:

<i>In millions of dollars</i>	TDR balances at December 31, 2022	TDR loans that re-defaulted in 2022 within one year of modification
Commercial and industrial	\$ 85	\$ —
Mortgage and real estate	13	—
Other ⁽¹⁾	12	—
Total⁽²⁾	\$ 110	\$ —

(1) Other includes installment and other, lease financing and loans to government and official institutions.

(2) The above table reflects activity for loans outstanding that were considered TDRs as of the end of the reporting period.

Consumer Loans

Consumer loans represent loans and leases managed primarily by *USPB, Wealth* and *All Other*—Legacy Franchises (except Mexico SBMM).

Citigroup has established a risk management process to monitor, evaluate and manage the principal risks associated with its consumer loan portfolio. Credit quality indicators that are actively monitored include delinquency status, consumer credit scores under Fair Isaac Corporation (FICO) and loan-to-value (LTV) ratios, each as discussed in more detail below.

Delinquency Status

Delinquency status is monitored and considered a key indicator of credit quality of consumer loans. Principally, the U.S. residential first mortgage loans use the Mortgage Bankers Association (MBA) method of reporting delinquencies, which considers a loan delinquent if a monthly payment has not been received by the end of the day immediately preceding the loan's next due date. All other loans use a method of reporting delinquencies that considers a loan delinquent if a monthly payment has not been received by the close of business on the loan's next due date.

As a general policy, residential first mortgages, home equity loans and installment loans are classified as non-accrual when loan payments are 90 days contractually past due. Credit cards and unsecured revolving loans generally accrue interest until payments are 180 days past due. Home equity loans in regulated bank entities are classified as non-accrual if the related residential first mortgage is 90 days or more past due. Mortgage loans, other than Federal Housing Administration (FHA)-insured loans, are classified as non-accrual within 60 days of notification that the borrower has filed for bankruptcy.

The policy for re-aging modified U.S. consumer loans to current status varies by product. Generally, one of the conditions to qualify for these modifications is that a minimum number of payments (typically ranging from one to three) be made. Upon modification, the loan is re-aged to current status. However, re-aging practices for certain open-ended consumer loans, such as credit cards, are governed by Federal Financial Institutions Examination Council (FFIEC) guidelines. For open-ended consumer loans subject to FFIEC guidelines, one of the conditions for a loan to be re-aged to current status is that at least three consecutive minimum monthly payments, or the equivalent amount, must be received. In addition, under FFIEC guidelines, the number of times that such a loan can be re-aged is subject to limitations (generally once in 12 months and twice in five years).

Furthermore, FHA and Department of Veterans Affairs (VA) loans are modified under those respective agencies' guidelines and payments are not always required in order to re-age a modified loan to current.

The tables below present details about these loans, including the following loan categories:

- Residential first mortgages and Home equity loans primarily represent secured mortgage lending to customers of Retail Banking and *Wealth*.
- Credit cards primarily represent unsecured credit card lending to customers of Branded Cards and Retail Services.
- Personal, small business and other loans are primarily composed of classifiably managed loans to customers of *Wealth* (mainly within the Private Bank) who are typically high credit quality borrowers that historically experienced minimal delinquencies and credit losses. Loans to these borrowers are generally well collateralized in the form of liquid securities and other forms of collateral.

The following tables provide Citi's consumer loans by type:

Consumer Loans, Delinquencies and Non-Accrual Status at December 31, 2023

In millions of dollars	Total current ⁽¹⁾⁽²⁾	30–89 days past due ⁽³⁾	≥ 90 days past due ⁽³⁾	Past due government guaranteed ⁽⁴⁾	Total loans	Non-accrual loans for which there is no ACCL	Non-accrual loans for which there is an ACCL	Total non-accrual	90 days past due and accruing
In North America offices ⁽⁵⁾									
Residential first mortgages ⁽⁶⁾	\$ 107,720	\$ 462	\$ 294	\$ 235	\$ 108,711	\$ 105	\$ 384	\$ 489	\$ 120
Home equity loans ⁽⁷⁾⁽⁸⁾	3,471	36	85	—	3,592	48	126	174	—
Credit cards	159,966	2,293	2,461	—	164,720	—	—	—	2,461
Personal, small business and other ⁽⁹⁾	35,970	104	57	4	36,135	6	59	65	5
Total	\$ 307,127	\$ 2,895	\$ 2,897	\$ 239	\$ 313,158	\$ 159	\$ 569	\$ 728	\$ 2,586
In offices outside North America ⁽⁵⁾									
Residential mortgages ⁽⁶⁾	\$ 26,309	\$ 48	\$ 69	\$ —	\$ 26,426	\$ —	\$ 243	\$ 243	\$ —
Credit cards	13,797	209	227	—	14,233	—	211	211	88
Personal, small business and other ⁽⁹⁾	35,233	107	40	—	35,380	—	133	133	—
Total	\$ 75,339	\$ 364	\$ 336	\$ —	\$ 76,039	\$ —	\$ 587	\$ 587	\$ 88
Total Citigroup⁽¹⁰⁾⁽¹¹⁾	\$ 382,466	\$ 3,259	\$ 3,233	\$ 239	\$ 389,197	\$ 159	\$ 1,156	\$ 1,315	\$ 2,674

Consumer Loans, Delinquencies and Non-Accrual Status at December 31, 2022

In millions of dollars	Total current ⁽¹⁾⁽²⁾	30–89 days past due ⁽³⁾	≥ 90 days past due ⁽³⁾	Past due government guaranteed ⁽⁴⁾	Total loans	Non-accrual loans for which there is no ACCL	Non-accrual loans for which there is an ACCL	Total non-accrual	90 days past due and accruing
In North America offices ⁽⁵⁾									
Residential first mortgages ⁽⁶⁾	\$ 95,023	\$ 421	\$ 316	\$ 279	\$ 96,039	\$ 86	\$ 434	\$ 520	\$ 163
Home equity loans ⁽⁷⁾⁽⁸⁾	4,407	38	135	—	4,580	51	151	202	—
Credit cards	147,717	1,511	1,415	—	150,643	—	—	—	1,415
Personal, small business and other ⁽⁹⁾	37,635	88	22	7	37,752	3	23	26	11
Total	\$ 284,782	\$ 2,058	\$ 1,888	\$ 286	\$ 289,014	\$ 140	\$ 608	\$ 748	\$ 1,589
In offices outside North America ⁽⁵⁾									
Residential mortgages ⁽⁶⁾	\$ 27,946	\$ 62	\$ 106	\$ —	\$ 28,114	\$ —	\$ 305	\$ 305	\$ 13
Credit cards	12,659	147	149	—	12,955	—	127	127	56
Personal, small business and other ⁽⁹⁾	37,869	105	10	—	37,984	—	137	137	—
Total	\$ 78,474	\$ 314	\$ 265	\$ —	\$ 79,053	\$ —	\$ 569	\$ 569	\$ 69
Total Citigroup⁽¹⁰⁾⁽¹¹⁾	\$ 363,256	\$ 2,372	\$ 2,153	\$ 286	\$ 368,067	\$ 140	\$ 1,177	\$ 1,317	\$ 1,658

(1) Loans less than 30 days past due are presented as current.

(2) Includes \$313 million and \$237 million at December 31, 2023 and 2022, respectively, of residential first mortgages recorded at fair value.

(3) Excludes loans guaranteed by U.S. government-sponsored agencies. Excludes delinquencies on \$29.2 billion and \$17.0 billion of classifiably managed Private Bank loans in North America and outside North America, respectively, at December 31, 2023. Excludes delinquencies on \$31.5 billion and \$17.8 billion of classifiably managed Private Bank loans in North America and outside North America, respectively, at December 31, 2022.

(4) Consists of loans that are guaranteed by U.S. government-sponsored agencies that are 30–89 days past due of \$0.1 billion and \$0.1 billion and 90 days or more past due of \$0.1 billion and \$0.2 billion at December 31, 2023 and 2022, respectively.

(5) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.

(6) Includes approximately \$0.1 billion and \$0.0 billion of residential first mortgage loans in process of foreclosure in North America and outside North America, respectively, and \$19.9 billion of residential mortgages outside North America related to *Wealth* at December 31, 2023. Includes approximately \$0.1 billion and \$0.0 billion of residential first mortgage loans in process of foreclosure in North America and outside North America, respectively, and \$19.8 billion of residential mortgages outside North America related to *Wealth* at December 31, 2022.

(7) Includes approximately \$0.0 billion and \$0.1 billion at December 31, 2023 and 2022, respectively, of home equity loans in process of foreclosure.

(8) Fixed-rate home equity loans and loans extended under home equity lines of credit, which are typically in junior lien positions.

- (9) As of December 31, 2023, *Wealth* in North America includes \$31.6 billion of loans, of which \$29.2 billion are classifiably managed with 92% rated investment grade, and *Wealth* outside North America includes \$24.9 billion of loans, of which \$17.0 billion are classifiably managed with 74% rated investment grade. As of December 31, 2022, *Wealth* in North America includes \$34.0 billion of loans, of which \$31.5 billion are classifiably managed with 98% rated investment grade, and *Wealth* outside North America includes \$26.6 billion of loans, of which \$17.8 billion are classifiably managed with 94% rated investment grade. Such loans are presented as “current” above.
- (10) Consumer loans were net of unearned income of \$802 million and \$712 million at December 31, 2023 and 2022, respectively. Unearned income on consumer loans primarily represents unamortized origination fees and costs, premiums and discounts.
- (11) Not included in the balances above is approximately \$1 billion and \$1 billion of accrued interest receivable at December 31, 2023 and 2022, respectively, which is included in *Other assets* on the Consolidated Balance Sheet, except for credit card loans (which include accrued interest and fees). During the years ended December 31, 2023 and 2022, the Company reversed accrued interest (primarily related to credit cards) of approximately \$1.1 billion and \$0.6 billion, respectively. These reversals of accrued interest are reflected as a reduction to *Interest income* in the Consolidated Statement of Income.

Interest Income Recognized for Non-Accrual Consumer Loans

	For the years ended December 31,	
	2023	2022
<i>In millions of dollars</i>		
In North America offices⁽¹⁾		
Residential first mortgages	\$ 11	\$ 12
Home equity loans	6	5
Personal, small business and other	3	2
Total	\$ 20	\$ 19
In offices outside North America⁽¹⁾		
Residential mortgages	\$ 10	\$ 4
Personal, small business and other	—	4
Total	\$ 10	\$ 8
Total Citigroup	\$ 30	\$ 27

(1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.

During the years ended December 31, 2023 and 2022, the Company sold and/or reclassified to held-for-sale (HFS) approximately \$2,166 million and \$582 million of consumer loans, respectively. The increase was largely due to the reclassification of a mortgage portfolio to HFS in the first quarter of 2023 that was subsequently sold in the second quarter of 2023. The Company did not have significant purchases of consumer loans classified as held-for-investment during the years ended December 31, 2023 and 2022. Loans held by a business for sale are not included in the above since they have been reclassified to *Other assets*. See Note 2 for additional information regarding Citigroup’s businesses held-for-sale.

Consumer Credit Scores (FICO)

In the U.S., independent credit agencies rate an individual's risk for assuming debt based on the individual's credit history and assign every consumer a Fair Isaac Corporation (FICO) credit score. These scores are continually updated by the agencies based on an individual's credit actions (e.g., taking out a loan or missed or late payments).

The following tables provide details on the FICO scores for Citi's U.S. consumer loan portfolio based on end-of-period receivables by year of origination. FICO scores are updated monthly for substantially all of the portfolio or, otherwise, on a quarterly basis for the remaining portfolio. Loans that did not have FICO scores as of the prior period have been updated with FICO scores as they become available.

With respect to Citi's consumer loan portfolio outside of the U.S. as of December 31, 2023 and 2022 (\$77.5 billion and \$80.5 billion, respectively), various country-specific or regional credit risk metrics and acquisition and behavior scoring models are leveraged as one of the factors to evaluate the credit quality of customers (see "Consumer Loans and Ratios Outside of North America" below). As a result, details of relevant credit quality indicators for those loans are not comparable to the below FICO score distribution for the U.S. portfolio.

<i>In millions of dollars</i>	December 31, 2023						<i>Total loans</i>
	Less than 680	680 to 760	Greater than 760	Classifiably managed⁽²⁾	FICO not available⁽³⁾		
FICO score distribution—U.S. portfolio⁽¹⁾							
Residential first mortgages							
2023	\$ 373	\$ 5,396	\$ 11,461				
2022	655	5,976	13,965				
2021	560	5,430	12,481				
2020	376	3,945	10,881				
2019	296	2,214	5,276				
Prior	1,934	6,406	13,323				
Total residential first mortgages	\$ 4,194	\$ 29,367	\$ 67,387			\$ 7,763	\$ 108,711
Home equity line of credit (pre-reset)	\$ 425	\$ 1,174	\$ 1,479				
Home equity line of credit (post-reset)	79	75	52				
Home equity term loans	80	124	99				
2023	—	—	—				
2022	—	—	—				
2021	—	—	1				
2020	1	2	2				
2019	1	1	1				
Prior	78	121	95				
Total home equity loans	\$ 584	\$ 1,373	\$ 1,630			\$ 5	\$ 3,592
Credit cards	\$ 32,500	\$ 63,334	\$ 64,712				
Revolving loans converted to term loans ⁽⁴⁾	1,154	401	54				
Total credit cards⁽⁵⁾	\$ 33,654	\$ 63,735	\$ 64,766			\$ 1,955	\$ 164,110
Personal, small business and other							
2023	\$ 138	\$ 438	\$ 851				
2022	279	375	484				
2021	69	88	106				
2020	8	9	12				
2019	7	6	7				
Prior	132	175	126				
Total personal, small business and other⁽⁶⁾⁽⁷⁾	\$ 633	\$ 1,091	\$ 1,586	\$ 29,209	\$ 2,739	\$ 35,258	
Total	\$ 39,065	\$ 95,566	\$ 135,369	\$ 29,209	\$ 12,462	\$ 311,671	

FICO score distribution—U.S. portfolio⁽¹⁾

December 31, 2022

In millions of dollars	Less than 680	680 to 760	Greater than 760	Classifiably managed ⁽²⁾	FICO not available ⁽³⁾	Total loans
Residential first mortgages						
2022	\$ 691	\$ 7,530	\$ 12,928			
2021	639	5,933	12,672			
2020	431	4,621	10,936			
2019	321	2,505	5,445			
2018	302	1,072	1,899			
Prior	2,020	6,551	12,649			
Total residential first mortgages	\$ 4,404	\$ 28,212	\$ 56,529		\$ 6,894	\$ 96,039
Home equity line of credit (pre-reset)	\$ 552	\$ 1,536	\$ 1,876			
Home equity line of credit (post-reset)	62	65	40			
Home equity term loans	106	151	117			
2022	—	—	—			
2021	—	1	1			
2020	1	2	2			
2019	1	2	2			
2018	1	2	1			
Prior	103	144	111			
Total home equity loans	\$ 720	\$ 1,752	\$ 2,033		\$ 75	\$ 4,580
Credit cards	\$ 27,901	\$ 58,213	\$ 60,896			
Revolving loans converted to term loans⁽⁴⁾	766	354	54			
Total credit cards⁽⁵⁾	\$ 28,667	\$ 58,567	\$ 60,950		\$ 1,914	\$ 150,098
Personal, small business and other						
2022	\$ 247	\$ 546	\$ 800			
2021	96	170	210			
2020	15	20	30			
2019	21	23	28			
2018	10	10	9			
Prior	126	190	144			
Total personal, small business and other⁽⁶⁾⁽⁷⁾	\$ 515	\$ 959	\$ 1,221	\$ 31,478	\$ 2,639	\$ 36,812
Total	\$ 34,306	\$ 89,490	\$ 120,733	\$ 31,478	\$ 11,522	\$ 287,529

(1) The FICO bands in the tables are consistent with general industry peer presentations.

(2) These personal, small business and other loans without a FICO score available include \$29.2 billion and \$31.5 billion of Private Bank loans as of December 31, 2023 and 2022, respectively, which are classifiably managed within *Wealth* and are primarily evaluated for credit risk based on their internal risk ratings. As of December 31, 2023 and 2022, approximately 92% and 98% of these loans, respectively, were rated investment grade.

(3) FICO scores not available related to loans guaranteed by government-sponsored enterprises for which FICO scores are generally not utilized.

(4) Not included in the tables above are \$51 million and \$75 million of revolving credit card loans outside of the U.S. that were converted to term loans as of December 31, 2023 and 2022, respectively.

(5) Excludes \$610 million and \$545 million of balances related to Canada for December 31, 2023 and 2022, respectively.

(6) Excludes \$877 million and \$940 million of balances related to Canada for December 31, 2023 and 2022, respectively.

(7) Includes approximately \$37 million and \$67 million of personal revolving loans that were converted to term loans for December 31, 2023 and 2022, respectively.

Consumer Gross Credit Losses

The following table provides details on gross credit losses recognized during the year ended December 31, 2023, by year of loan origination:

<i>In millions of dollars</i>	For the year ended December 31, 2023	
Residential first mortgages		
2023	\$ —	
2022	2	
2021	1	
2020	1	
2019	5	
Prior	41	
Total residential first mortgages	\$ 50	
Home equity line of credit (pre-reset)	\$ 3	
Home equity line of credit (post-reset)	—	
Home equity term loans	4	
Total home equity loans	\$ 7	
Credit cards	\$ 6,575	
Revolving loans converted to term loans	184	
Total credit cards	\$ 6,759	
Personal, small business and other		
2023	\$ 162	
2022	202	
2021	106	
2020	44	
2019	51	
Prior	172	
Total personal, small business and other	\$ 737	
Total Citigroup	\$ 7,553	

Loan-to-Value (LTV) Ratios—U.S. Consumer Mortgages

LTV ratios (loan balance divided by appraised value) are calculated at origination and updated by applying market price data.

The following tables provide details on the LTV ratios for Citi's U.S. consumer mortgage portfolios by year of origination. LTV ratios are updated monthly using the most recent Core Logic Home Price Index data available for substantially all of the portfolio, applied at the Metropolitan Statistical Area level, if available, or the state level if not. The remainder of the portfolio is updated in a similar manner using the Federal Housing Finance Agency indices.

LTV distribution—U.S. portfolio		December 31, 2023				
<i>In millions of dollars</i>		Less than or equal to 80%	> 80% but less than or equal to 100%	Greater than 100%	LTV not available ⁽¹⁾	Total
Residential first mortgages						
2023	\$ 13,907	\$ 3,769	\$ 3			
2022	\$ 17,736	\$ 3,900	\$ 52			
2021	\$ 18,795	\$ 728	\$ 33			
2020	\$ 16,094	\$ 306	\$ 1			
2019	\$ 8,198	\$ 191	\$ 26			
Prior	\$ 23,120	\$ 191	\$ 23			
Total residential first mortgages	\$ 97,850	\$ 9,085	\$ 138	\$ 1,638	\$ 108,711	
Home equity loans (pre-reset)	\$ 2,964	\$ 29	\$ 57			
Home equity loans (post-reset)	\$ 476	\$ 5	\$ 12			
Total home equity loans	\$ 3,440	\$ 34	\$ 69	\$ 49	\$ 3,592	
Total	\$ 101,290	\$ 9,119	\$ 207	\$ 1,687	\$ 112,303	

LTV distribution—U.S. portfolio		December 31, 2022				
<i>In millions of dollars</i>		Less than or equal to 80%	> 80% but less than or equal to 100%	Greater than 100%	LTV not available ⁽¹⁾	Total
Residential first mortgages						
2022	\$ 15,644	\$ 6,497	\$ 40			
2021	\$ 19,104	\$ 1,227	\$ 33			
2020	\$ 16,935	\$ 267	\$ 1			
2019	\$ 8,789	\$ 140	\$ 23			
2018	\$ 3,598	\$ 74	\$ 9			
Prior	\$ 22,367	\$ 132	\$ 74			
Total residential first mortgages	\$ 86,437	\$ 8,337	\$ 180	\$ 1,085	\$ 96,039	
Home equity loans (pre-reset)	\$ 3,677	\$ 36	\$ 56			
Home equity loans (post-reset)	\$ 627	\$ 12	\$ 27			
Total home equity loans	\$ 4,304	\$ 48	\$ 83	\$ 145	\$ 4,580	
Total	\$ 90,741	\$ 8,385	\$ 263	\$ 1,230	\$ 100,619	

(1) Residential first mortgages with no LTV information available include government-guaranteed loans that do not require LTV information for credit risk assessment and fair value loans.

Loan-to-Value (LTV) Ratios—Outside of U.S. Consumer Mortgages

The following tables provide details on the LTV ratios for Citi's consumer mortgage portfolio outside of the U.S. by year of origination:

LTV distribution—outside of U.S. portfolio ⁽¹⁾		December 31, 2023				
In millions of dollars		Less than or equal to 80%	> 80% but less than or equal to 100%	Greater than 100%	LTV not available	Total
Residential mortgages						
2023	\$ 2,756	\$ 1,007	\$ 112			
2022	3,229	807	439			
2021	3,257	754	382			
2020	2,286	454	62			
2019	2,525	84	2			
Prior	8,000	84	3			
Total	\$ 22,053	\$ 3,190	\$ 1,000	\$ 183	\$ 26,426	

LTV distribution—outside of U.S. portfolio ⁽¹⁾		December 31, 2022				
In millions of dollars		Less than or equal to 80%	> 80% but less than or equal to 100%	Greater than 100%	LTV not available	Total
Residential mortgages						
2022	\$ 3,106	\$ 975	\$ 294			
2021	4,144	964	273			
2020	3,293	502	25			
2019	3,048	92	1			
2018	2,074	48	—			
Prior	9,201	36	7			
Total	\$ 24,866	\$ 2,617	\$ 600	\$ 31	\$ 28,114	

(1) Mortgage portfolios outside of the U.S. are primarily in *Wealth*. As of December 31, 2023 and 2022, mortgage portfolios outside of the U.S. have an average LTV of approximately 55% and 51%, respectively.

Consumer Loans and Ratios Outside of North America

In millions of dollars at December 31, 2023	Total loans outside of North America ⁽¹⁾	Classifiably managed loans ⁽²⁾	Delinquency-managed loans and ratios			
			Delinquency-managed loans	30–89 days past due ratio	≥ 90 days past due ratio	4Q23 NCL ratio
Residential mortgages ⁽³⁾	\$ 26,426	\$ —	\$ 26,426	0.18 %	0.26 %	0.06 %
Credit cards	14,233	—	14,233	1.47	1.59	5.87
Personal, small business and other ⁽⁴⁾	35,380	17,007	18,373	0.58	0.22	1.03
Total	\$ 76,039	\$ 17,007	\$ 59,032	0.62 %	0.57 %	1.58 %

In millions of dollars at December 31, 2022	Total loans outside of North America ⁽¹⁾	Classifiably managed loans ⁽²⁾	Delinquency-managed loans and ratios			
			Delinquency-managed loans	30–89 days past due ratio	≥ 90 days past due ratio	4Q22 NCL ratio
Residential mortgages ⁽³⁾	\$ 28,114	\$ —	\$ 28,114	0.22 %	0.38 %	0.10 %
Credit cards	12,955	—	12,955	1.13	1.15	3.18
Personal, small business and other ⁽⁴⁾	37,984	17,762	20,222	0.52	0.05	0.76
Total	\$ 79,053	\$ 17,762	\$ 61,291	0.51 %	0.43 %	0.91 %

- (1) Mexico is included in offices outside of North America.
(2) Classifiably managed loans are primarily evaluated for credit risk based on their internal risk classification. As of December 31, 2023 and 2022, approximately 74% and 94% of these loans, respectively, were rated investment grade.
(3) Includes \$19.9 billion and \$19.8 billion as of December 31, 2023 and 2022, respectively, of residential mortgages related to *Wealth*.
(4) Includes \$24.9 billion and \$26.6 billion as of December 31, 2023 and 2022, respectively, of loans related to *Wealth*.

Consumer Loan Modifications to Borrowers Experiencing Financial Difficulty

Citi seeks to modify consumer loans to borrowers experiencing financial difficulty to minimize losses, avoid foreclosure or repossession of collateral, and ultimately maximize payments received from the borrowers. Citi uses various metrics to identify consumer borrowers experiencing financial difficulty, with the primary indicator being delinquency at the time of modification. Citi's significant consumer modification programs are described below.

Credit Cards

Citi seeks to assist credit card borrowers who are experiencing financial difficulty by offering long-term loan modification programs. These modifications generally involve reducing the interest rate on the credit card, placing the customer on a fixed payment plan not to exceed 60 months and canceling the customer's available line of credit. Citi also grants modifications to credit card borrowers working with third-party renegotiation agencies that seek to restructure customers' entire unsecured debt. In both circumstances, if the cardholder does not comply with the modified payment terms, the credit card loan continues to age and will ultimately be charged off in accordance with Citi's standard charge-off policy. In certain situations, Citi may forgive a portion of an outstanding balance if the borrower pays a required amount.

Residential Mortgages

Citi utilizes a third-party subservicer for the servicing of its residential mortgage loans. Through this third-party subservicer, Citi seeks to assist residential mortgage borrowers who are experiencing financial difficulty primarily by offering interest rate reductions, principal and/or interest forbearance, term extensions or combinations thereof. Borrowers enrolled in forbearance programs typically have payments suspended until the end of the forbearance period. In the U.S., before permanently modifying the contractual payment terms of a mortgage loan, Citi enters into a trial modification with the borrower. Trial modifications generally represent a three-month period during which the borrower makes monthly payments under the anticipated modified payment terms. These loans continue to age and accrue interest in accordance with their original contractual terms. Upon successful completion of the trial period, and the borrower's formal acceptance of the modified terms, Citi and the borrower enter into a permanent modification. Citi expects the majority of loans entering trial modifications to ultimately be enrolled in a permanent modification. During the year ended December 31, 2023, \$21 million of mortgage loans were enrolled in trial programs. Mortgage loans of \$7 million had gone through Chapter 7 bankruptcy during the year ended December 31, 2023.

Types of Consumer Loan Modifications and Their Financial Effect

The following table provides details on permanent consumer loan modifications granted during the year ended December 31, 2023 to borrowers experiencing financial difficulty by type of modification granted and the financial effect of those modifications:

In millions of dollars, except weighted averages	Modifications as % of loans	Total modifications balance at December 31, 2023 ⁽¹⁾⁽²⁾⁽³⁾	For the year ended December 31, 2023								
			Interest rate reduction	Term extension	Payment delay	Combination: interest rate reduction and term extension	Combination: term extension and payment delay	Weighted-average interest rate reduction %	Weighted-average term extension (months)	Weighted-average delay in payments (months)	
In North America offices⁽⁴⁾											
Residential first mortgages ⁽⁵⁾	0.15 %	\$ 164	\$ 3	\$ 63	\$ 89	\$ 9	\$ —	1 %	202	9	
Home equity loans	0.58	21	—	—	9	12	—	2	121	9	
Credit cards	0.63	1,039	1,039	—	—	—	—	23	—	—	
Personal, small business and other	0.04	14	2	—	—	12	—	6	15	—	
Total	0.40 %	\$ 1,238	\$ 1,044	\$ 63	\$ 98	\$ 33	\$ —				
In offices outside North America⁽⁴⁾											
Residential mortgages	1.26 %	\$ 334	\$ —	\$ —	\$ 33	\$ 2	\$ 299	2 %	4	4	
Credit cards	0.30	43	42	—	—	1	—	18	37	—	
Personal, small business and other	0.08	27	5	7	—	15	—	7	19	—	
Total	0.53 %	\$ 404	\$ 47	\$ 7	\$ 33	\$ 18	\$ 299				

- (1) The above table reflects activity for loans outstanding as of the end of the reporting period. During the year ended December 31, 2023, Citi granted forgiveness of \$50 million in credit card loans and \$2 million in personal, small business and other loans. As a result, there were no outstanding balances as of December 31, 2023.
- (2) Commitments to lend to borrowers experiencing financial difficulty that were granted modifications included in the table above were immaterial at December 31, 2023.
- (3) For major consumer portfolios, the ACIL is based on macroeconomic-sensitive models that rely on historical performance and macroeconomic scenarios to forecast expected credit losses. Modifications of consumer loans impact expected credit losses by affecting the likelihood of default..
- (4) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.
- (5) Excludes residential first mortgages discharged in Chapter 7 bankruptcy in the year ended December 31, 2023.

The following table presents the Company's consumer TDRs at December 31, 2022, under previous GAAP, prior to the Company's adoption of ASU No. 2022-02 on January 1, 2023:

Consumer Troubled Debt Restructurings⁽¹⁾

<i>In millions of dollars, except number of loans modified</i>	For the year ended December 31, 2022					
	Number of loans modified	Post-modification recorded investment ⁽²⁾⁽³⁾	Deferred principal ⁽⁴⁾	Contingent principal forgiveness ⁽⁵⁾	Principal forgiveness ⁽⁶⁾	Average interest rate reduction
In North America offices⁽⁷⁾						
Residential first mortgages	1,133	\$ 263	— \$	— \$	—	— %
Home equity loans	451	40	—	—	—	—
Credit cards	176,252	775	—	—	—	18
Personal, small business and other	575	7	—	—	—	5
Total⁽⁸⁾	178,411	\$ 1,085	— \$	— \$	—	
In offices outside North America⁽⁷⁾						
Residential mortgages	683	\$ 21	— \$	— \$	—	— %
Credit cards	16,006	68	—	—	1	25
Personal, small business and other	2,432	29	—	—	1	8
Total⁽⁸⁾	19,121	\$ 118	— \$	— \$	2	

- (1) The above table does not include loan modifications that meet the TDR relief criteria in the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) or the interagency guidance.
- (2) Post-modification balances include past-due amounts that are capitalized at the modification date.
- (3) Post-modification balances in North America include \$5 million of residential first mortgages to borrowers who have gone through Chapter 7 bankruptcy in the year ended December 31, 2022. These amounts include \$3.8 million of residential first mortgages that were newly classified as TDRs during 2022, based on previously received OCC guidance. The remaining amounts were already classified as TDRs before being discharged in Chapter 7 bankruptcy.
- (4) Represents the portion of contractual loan principal that is non-interest bearing, but still due from the borrower. Such deferred principal is charged off at the time of permanent modification to the extent that the related loan balance exceeds the underlying collateral value.
- (5) Represents the portion of contractual loan principal that is non-interest bearing and, depending on borrower performance, eligible for forgiveness.
- (6) Represents the portion of contractual loan principal that was forgiven at the time of permanent modification.
- (7) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.
- (8) The above table reflects activity for restructured loans that were considered TDRs during the year.

Performance of Modified Consumer Loans

The following table presents the delinquencies and gross credit losses of permanently modified consumer loans to borrowers experiencing financial difficulty. It includes loans that were modified during the year ended December 31, 2023:

In millions of dollars	As of December 31, 2023				
	Total	Current	30–89 days past due	90+ days past due	Gross credit losses
In North America offices⁽¹⁾					
Residential first mortgages	\$ 164	\$ 70	\$ 22	\$ 72	\$ —
Home equity loans	21	14	1	6	—
Credit cards	1,039	740	179	120	204
Personal, small business and other	14	12	1	1	1
Total⁽²⁾⁽³⁾	\$ 1,238	\$ 836	\$ 203	\$ 199	\$ 205
In offices outside North America⁽¹⁾					
Residential mortgages	\$ 334	\$ 331	\$ 2	\$ 1	\$ —
Credit cards	43	37	3	3	4
Personal, small business and other	27	24	3	—	1
Total⁽²⁾⁽³⁾	\$ 404	\$ 392	\$ 8	\$ 4	\$ 5

(1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.

(2) Typically, upon modification a loan re-ages to current. However, FFIEC guidelines for re-aging certain loans require that at least three consecutive minimum monthly payments, or the equivalent amount, be received. In these cases, the loan will remain delinquent until the payment criteria for re-aging have been satisfied.

(3) Loans modified under Citi's COVID-19 consumer relief programs continue to be reported in the same delinquency bucket they were in at the time of modification.

Defaults of Modified Consumer Loans

The following table presents default activity for permanently modified consumer loans to borrowers experiencing financial difficulty by type of modification granted, including loans that were modified and subsequently defaulted during the year ended December 31, 2023. Default is defined as 60 days past due:

In millions of dollars	For the year ended December 31, 2023						
	Total ⁽¹⁾⁽²⁾	Interest rate reduction	Term extension	Payment delay	Combination: interest rate reduction and term extension	Combination: term extension and payment delay	Combination: interest rate reduction, term extension and payment delay
In North America offices⁽³⁾							
Residential first mortgages	\$ 12	\$ 1	\$ 10	\$ 1	— \$	— \$	—
Home equity loans	—	—	—	—	—	—	—
Credit cards ⁽⁴⁾	134	134	—	—	—	—	—
Personal, small business and other	1	—	—	—	1	—	—
Total	\$ 147	\$ 135	\$ 10	\$ 1	\$ 1	\$ 1	\$ 1
In offices outside North America⁽³⁾							
Residential mortgages	\$ 3	— \$	— \$	\$ 3	— \$	— \$	—
Credit cards ⁽⁴⁾	5	5	—	—	—	—	—
Personal, small business and other	3	—	—	—	3	—	—
Total	\$ 11	\$ 5	\$ —	\$ 3	\$ 3	\$ —	\$ —

(1) The above table reflects activity for loans outstanding as of the end of the reporting period.

(2) Modified residential first mortgages that default are typically liquidated through foreclosure or a similar type of liquidation.

(3) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.

(4) Modified credit card loans that default continue to be charged off in accordance with Citi's consumer charge-off policy.

The following table presents the Company's consumer TDRs at December 31, 2022, under previous GAAP, prior to the Company's adoption of ASU No. 2022-02 on January 1, 2023, that defaulted for which the payment default occurred within one year of a permanent modification. Default is defined as 60 days past due:

<i>In millions of dollars</i>	Year ended December 31, 2022	
In North America offices⁽¹⁾		
Residential first mortgages	\$	35
Home equity loans		4
Credit cards		250
Personal, small business and other		1
Total	\$	290
In offices outside North America⁽¹⁾		
Residential mortgages	\$	10
Credit cards		12
Personal, small business and other		3
Total	\$	25

(1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.

16. ALLOWANCE FOR CREDIT LOSSES

In millions of dollars	2023	2022	2021
Allowance for credit losses on loans (ACLL) at beginning of year	\$ 16,974	\$ 16,455	\$ 24,956
Adjustments to opening balance ⁽¹⁾			
Financial instruments—TDRs and vintage disclosures ⁽¹⁾	(352)	—	—
Adjusted ACLL at beginning of year	\$ 16,622	\$ 16,455	\$ 24,956
Gross credit losses on loans	\$ (7,881)	\$ (5,156)	\$ (6,720)
Gross recoveries on loans	1,444	1,367	1,825
Net credit losses on loans (NCLs)	\$ (6,437)	\$ (3,789)	\$ (4,895)
Replenishment of NCLs	\$ 6,437	\$ 3,789	\$ 4,895
Net reserve builds (releases) for loans	1,272	937	(7,283)
Net specific reserve builds (releases) for loans	77	19	(715)
Total provision for credit losses on loans (PCLL)	\$ 7,786	\$ 4,745	\$ (3,103)
Other, net (see table below)	174	(437)	(503)
ACLL at end of year	\$ 18,145	\$ 16,974	\$ 16,455
Allowance for credit losses on unfunded lending commitments (ACLUC) at beginning of year⁽²⁾	\$ 2,151	\$ 1,871	\$ 2,655
Provision (release) for credit losses on unfunded lending commitments	(425)	291	(788)
Other, net ⁽³⁾	2	(11)	4
ACLUC at end of year⁽²⁾	\$ 1,728	\$ 2,151	\$ 1,871
Total allowance for credit losses on loans, leases and unfunded lending commitments	\$ 19,873	\$ 19,125	\$ 18,326

Other, net details

In millions of dollars	2023	2022	2021
Sales or transfers of various consumer loan portfolios to HFS ⁽³⁾			
Reclass of Thailand, India, Malaysia, Taiwan, Indonesia, Bahrain and Vietnam consumer ACLL to HFS	\$ —	\$ (350)	\$ —
Reclass of Australia consumer ACLL to HFS	—	—	(280)
Reclass of the Philippines consumer ACLL to HFS	—	—	(90)
Reclasses of consumer ACLL to HFS⁽³⁾	\$ —	\$ (350)	\$ (370)
FX translation and other	174	(87)	(133)
Other, net	\$ 174	\$ (437)	\$ (503)

(1) See “Accounting Changes” in Note 1.

(2) Represents additional credit loss reserves for unfunded lending commitments and letters of credit recorded in *Other liabilities* on the Consolidated Balance Sheet.

(3) See Note 2.

Allowance for Credit Losses on Loans and End-of-Period Loans at December 31, 2023

<i>In millions of dollars</i>	Corporate	Consumer	Total
ACLL at beginning of year	\$ 2,855	\$ 14,119	\$ 16,974
Adjustments to opening balance:			
Financial instruments—TDRs and vintage disclosures ⁽¹⁾	—	(352)	(352)
Adjusted ACLL at beginning of year	\$ 2,855	\$ 13,767	\$ 16,622
Gross credit losses on loans	\$ (328)	\$ (7,553)	\$ (7,881)
Gross recoveries on loans	78	1,366	1,444
Replenishment of NCLs	250	6,187	6,437
Net reserve builds (releases)	(168)	1,440	1,272
Net specific reserve builds (releases)	39	38	77
Other	(12)	186	174
Ending balance	\$ 2,714	\$ 15,431	\$ 18,145
ACLL			
Collectively evaluated	\$ 2,352	\$ 15,391	\$ 17,743
Individually evaluated	362	40	402
Purchased credit deteriorated	—	—	—
Total ACLL	\$ 2,714	\$ 15,431	\$ 18,145
Loans, net of unearned income			
Collectively evaluated	\$ 291,002	\$ 388,711	\$ 679,713
Individually evaluated	1,882	58	1,940
Purchased credit deteriorated	—	115	115
Held at fair value	7,281	313	7,594
Total loans, net of unearned income	\$ 300,165	\$ 389,197	\$ 689,362

(1) See “Accounting Changes” in Note 1.

2023 Changes in the ACL

The total allowance for credit losses on loans, leases and unfunded lending commitments as of December 31, 2023 was \$19,873 million, an increase from \$19,125 million at December 31, 2022. The increase in the ACLL was primarily driven by card balances in Branded Cards and Retail Services and an increase in transfer risk associated with exposures outside the U.S. driven by safety and soundness considerations under U.S. banking law, partially offset by a decrease in the ACLL of \$352 million from the adoption of ASU 2022-02 for the recognition and measurement of TDRs (see Note 1) and improved key macroeconomic variable forecasts.

Consumer ACLL

Citi's total consumer allowance for credit losses on loans (ACLL) as of December 31, 2023 was \$15,431 million, an increase from \$14,119 million at December 31, 2022. The increase was primarily driven by growth in U.S. cards balances, partially offset by a decrease to the ACLL of \$352 million from the adoption of ASU 2022-02 for the recognition and measurement of TDRs.

Corporate ACLL

Citi's total corporate ACLL as of December 31, 2023 was \$2,714 million, a decrease from \$2,855 million at December 31, 2022. The decrease was primarily driven by an improved macroeconomic outlook.

ACLUC

As of December 31, 2023, Citi's total ACLUC, included in *Other liabilities*, was \$1,728 million, a decrease from \$2,151 million at December 31, 2022. The decrease was primarily driven by an improved macroeconomic outlook.

Allowance for Credit Losses on Loans and End-of-Period Loans at December 31, 2022

<i>In millions of dollars</i>	Corporate	Consumer	Total
ACLL at beginning of year	\$ 2,415	\$ 14,040	\$ 16,455
Gross credit losses on loans	(278)	(4,878)	(5,156)
Gross recoveries on loans	100	1,267	1,367
Replenishment of NCLs	178	3,611	3,789
Net reserve builds (releases)	374	563	937
Net specific reserve builds (releases)	65	(46)	19
Other	1	(438)	(437)
Ending balance	\$ 2,855	\$ 14,119	\$ 16,974
ACLL			
Collectively evaluated	\$ 2,532	\$ 13,521	\$ 16,053
Individually evaluated	323	596	919
Purchased credit deteriorated	—	2	2
Total ACLL	\$ 2,855	\$ 14,119	\$ 16,974
Loans, net of unearned income			
Collectively evaluated	\$ 282,909	\$ 364,795	\$ 647,704
Individually evaluated	1,122	2,921	4,043
Purchased credit deteriorated	—	114	114
Held at fair value	5,123	237	5,360
Total loans, net of unearned income	\$ 289,154	\$ 368,067	\$ 657,221

Allowance for Credit Losses on Loans at December 31, 2021

<i>In millions of dollars</i>	Corporate	Consumer	Total
ACLL at beginning of year	\$ 4,776	\$ 20,180	\$ 24,956
Gross credit losses on loans	(500)	(6,220)	(6,720)
Gross recoveries on loans	114	1,711	1,825
Replenishment of NCLs	386	4,509	4,895
Net reserve builds (releases)	(2,075)	(5,208)	(7,283)
Net specific reserve builds (releases)	(255)	(460)	(715)
Other	(31)	(472)	(503)
Ending balance	\$ 2,415	\$ 14,040	\$ 16,455

Allowance for Credit Losses on HTM Debt Securities

The allowance for credit losses on HTM debt securities, which the Company has the intent and ability to hold, was \$95 million, \$120 million and \$87 million as of December 31, 2023, 2022 and 2021, respectively.

Allowance for Credit Losses on Other Assets

In millions of dollars	Year ended December 31, 2023				
	Deposits with banks	Securities borrowed and purchased under agreements to resell	All other assets ⁽¹⁾	Total	
	\$ 51	\$ 36	\$ 36	\$ 123	
Allowance for credit losses on other assets at beginning of year	\$ 51	\$ 36	\$ 36	\$ 123	
Gross credit losses	—	—	(97)	(97)	
Gross recoveries	—	—	25	25	
Net credit losses (NCLs)	\$ —	\$ —	\$ (72)	\$ (72)	
Replenishment of NCLs	\$ —	\$ —	\$ 72	\$ 72	
Net reserve builds (releases)	(19)	14	1,695	1,690	
Total provision for credit losses	\$ (19)	\$ 14	\$ 1,767	\$ 1,762	
Other, net	\$ (1)	\$ (23)	\$ (1)	\$ (25)	
Allowance for credit losses on other assets at end of year	\$ 31	\$ 27	\$ 1,730	\$ 1,788	

(1) Primarily ACL related to transfer risk associated with exposures outside of the U.S. driven by safety and soundness considerations under U.S. banking law.

In millions of dollars	Year ended December 31, 2022				
	Deposits with banks	Securities borrowed and purchased under agreements to resell	All other assets ⁽¹⁾	Total	
	\$ 21	\$ 6	\$ 26	\$ 53	
Allowance for credit losses on other assets at beginning of year	\$ 21	\$ 6	\$ 26	\$ 53	
Gross credit losses	—	—	(24)	(24)	
Gross recoveries	—	—	3	3	
Net credit losses (NCLs)	\$ —	\$ —	\$ (21)	\$ (21)	
Replenishment of NCLs	\$ —	\$ —	\$ 21	\$ 21	
Net reserve builds (releases)	30	14	11	55	
Total provision for credit losses	\$ 30	\$ 14	\$ 32	\$ 76	
Other, net ⁽²⁾	\$ —	\$ 16	\$ (1)	\$ 15	
Allowance for credit losses on other assets at end of year	\$ 51	\$ 36	\$ 36	\$ 123	

(1) Primarily accounts receivable.

(2) Includes \$30 million of ACL transferred from *Services, Markets and Banking* loans ACL during the second quarter of 2022 for securities borrowed and purchased under agreements to resell.

In millions of dollars	Year ended December 31, 2021				
	Deposits with banks	Securities borrowed and purchased under agreements to resell	All other assets ⁽¹⁾	Total	
	\$ 20	\$ 10	\$ 25	\$ 55	
Allowance for credit losses on other assets at beginning of year	\$ 20	\$ 10	\$ 25	\$ 55	
Gross credit losses	—	—	(2)	(2)	
Gross recoveries	—	—	—	—	
Net credit losses (NCLs)	\$ —	\$ —	\$ (2)	\$ (2)	
Replenishment of NCLs	\$ —	\$ —	\$ 2	\$ 2	
Net reserve builds (releases)	2	(4)	—	(2)	
Total provision for credit losses	\$ 2	\$ (4)	\$ 2	\$ —	
Other, net	\$ (1)	—	1	\$ —	
Allowance for credit losses on other assets at end of year	\$ 21	\$ 6	\$ 26	\$ 53	

(1) Primarily accounts receivable.

For ACL on AFS debt securities, see Note 14.

17. GOODWILL AND INTANGIBLE ASSETS

Goodwill

The changes in *Goodwill* were as follows:

<i>In millions of dollars</i>	Services	Markets⁽¹⁾	Banking⁽¹⁾	USPB	Wealth	All Other	Total
Balance at December 31, 2020	\$ 2,166	\$ 6,238	\$ 1,077	\$ 5,387	\$ 4,635	\$ 2,659	\$ 22,162
Foreign currency translation	(61)	(160)	(45)	(164)	(132)	179	(383)
Divestitures ⁽²⁾	—	—	—	—	(9)	(471)	(480)
Balance at December 31, 2021	\$ 2,105	\$ 6,078	\$ 1,032	\$ 5,223	\$ 4,494	\$ 2,367	\$ 21,299
Foreign currency translation	62	(293)	2	50	(26)	5	(200)
Divestitures ⁽²⁾	—	—	—	—	—	(873)	(873)
Impairment of goodwill ⁽³⁾	—	—	—	—	—	(535)	(535)
Balance at December 31, 2022	\$ 2,167	\$ 5,785	\$ 1,034	\$ 5,273	\$ 4,468	\$ 964	\$ 19,691
Foreign currency translation	47	85	5	125	1	144	407
Balance at December 31, 2023	\$ 2,214	\$ 5,870	\$ 1,039	\$ 5,398	\$ 4,469	\$ 1,108	\$ 20,098

- (1) In 2023, goodwill of approximately \$537 million was transferred from *Banking* to *Markets* related to business realignment. Prior-period amounts have been revised to conform with the current presentation. See Note 3.
- (2) Represents goodwill allocated to the Asia Consumer banking exit markets upon the signing of the respective sales agreements: in 2021, related to the Australia and Philippines consumer banking businesses, which were reclassified as HFS during 2021; in 2022, related to the India, Taiwan, Thailand, Malaysia, Indonesia, Bahrain and Vietnam consumer banking businesses, which were reclassified as HFS during 2022. See Note 2.
- (3) Goodwill impairment of \$535 million (approximately \$489 million after-tax) was incurred in the Asia Consumer reporting unit of Legacy Franchises in the first quarter of 2022, due to the resegmentation and change of reporting units as well as the sequence of the signing of sale agreements.

Citi performed its annual goodwill impairment test as of October 1, 2023, which resulted in no impairment of any of Citi's reporting units' goodwill.

As discussed in Note 3, effective in the fourth quarter of 2023, as part of its organizational simplification, Citi made changes to its management structure, which resulted in changes in its operating segments and reporting units to reflect how the CEO, who is the chief operating decision maker, manages the Company, including allocating resources and measuring performance.

The reorganization of Citi's segment structure, including the change of management, and the business realignment between *Banking* and *Markets* were identified as triggering events for purposes of goodwill impairment testing. Consistent with the requirements of ASC 350, additional interim goodwill impairment tests were performed as of December 13, 2023, which resulted in no impairment during the fourth quarter of 2023. Additionally, goodwill was reallocated from *Banking* to *Markets* related to the business realignment based on their relative fair values using the valuation performed as of the effective date of the reorganization. No additional triggering events were identified and no goodwill was impaired during 2023.

While the inherent risk of uncertainty is embedded in the key assumptions used in the reporting unit valuations, the economic and business environments continue to evolve as management implements its organizational simplification. If management's future estimates of key economic and market assumptions were to differ from its current assumptions, Citi could potentially experience material goodwill impairment charges in the future.

For additional information regarding Citi's goodwill impairment testing process, see Note 1 for Citi's accounting policy for goodwill and Note 3 for a description of Citi's operating segments.

Intangible Assets

The components of intangible assets were as follows:

In millions of dollars	December 31, 2023			December 31, 2022		
	Gross carrying amount	Accumulated amortization	Net carrying amount	Gross carrying amount	Accumulated amortization	Net carrying amount
Purchased credit card relationships ⁽¹⁾	\$ 5,302	\$ 4,365	\$ 937	\$ 5,513	\$ 4,426	\$ 1,087
Credit card contract-related intangibles ⁽²⁾	4,177	1,698	2,479	3,903	1,518	2,385
Other customer relationships	363	290	73	373	283	90
Present value of future profits	37	36	1	32	31	1
Indefinite-lived intangible assets	240	—	240	192	—	192
Other	—	—	—	65	57	8
Intangible assets (excluding MSRs)	\$ 10,119	\$ 6,389	\$ 3,730	\$ 10,078	\$ 6,315	\$ 3,763
Mortgage servicing rights (MSRs) ⁽³⁾	691	—	691	665	—	665
Total intangible assets	\$ 10,810	\$ 6,389	\$ 4,421	\$ 10,743	\$ 6,315	\$ 4,428

(1) Reflects intangibles for the value of purchased cardholder relationships, which are discrete from contract-related intangibles.

(2) Reflects contract-related intangibles associated with the extension or renewal of existing credit card program agreements with card partners. For the credit card program agreement extended during 2023, the remaining term is over 10 years.

(3) See Note 23.

Intangible assets amortization expense was \$370 million, \$352 million and \$360 million for 2023, 2022 and 2021, respectively. Intangible assets amortization expense is estimated to be \$383 million in 2024, \$391 million in 2025, \$359 million in 2026, \$333 million in 2027 and \$355 million in 2028.

The changes in intangible assets were as follows:

In millions of dollars	Net carrying amount at December 31, 2022	Acquisitions/ renewals/ divestitures	Amortization	Impairments	FX translation and other	Net carrying amount at
						December 31, 2023
Purchased credit card relationships ⁽¹⁾	\$ 1,087	\$ —	\$ (150)	\$ —	\$ —	\$ 937
Credit card contract-related intangibles ⁽²⁾	2,385	290	(188)	—	(8)	2,479
Other customer relationships	90	11	(24)	—	(4)	73
Present value of future profits	1	—	—	—	—	1
Indefinite-lived intangible assets	192	20	—	—	28	240
Other	8	—	(8)	—	—	—
Intangible assets (excluding MSRs)	\$ 3,763	\$ 321	\$ (370)	\$ —	\$ 16	\$ 3,730
Mortgage servicing rights (MSRs) ⁽³⁾	665	—	—	—	—	691
Total intangible assets	\$ 4,428					\$ 4,421

(1) Reflects intangibles for the value of purchased cardholder relationships, which are discrete from contract-related intangibles.

(2) Reflects contract-related intangibles associated with the extension or renewal of existing credit card program agreements with card partners. For the credit card program agreement extended during 2023, the remaining term is over 10 years.

(3) See Note 23.

18. DEPOSITS

Deposits consisted of the following:

<i>In millions of dollars</i>	December 31,	
	2023	2022
Non-interest-bearing deposits in U.S. offices	\$ 112,089	\$ 122,655
Interest-bearing deposits in U.S. offices (including \$1,309 and \$903 as of December 31, 2023 and 2022, respectively, at fair value)	576,784	607,470
Total deposits in U.S. offices ⁽¹⁾	\$ 688,873	\$ 730,125
Non-interest-bearing deposits in offices outside the U.S.	\$ 88,988	\$ 95,182
Interest-bearing deposits in offices outside the U.S. (including \$1,131 and \$972 as of December 31, 2023 and 2022, respectively, at fair value)	530,820	540,647
Total deposits in offices outside the U.S. ⁽¹⁾	\$ 619,808	\$ 635,829
Total deposits	\$ 1,308,681	\$ 1,365,954

At December 31, 2023 and 2022, time deposits in denominations that met or exceeded the insured limit were as follows:

<i>In millions of dollars</i>	December 31,	
	2023	2022
U.S. offices ⁽¹⁾⁽²⁾	\$ 67,471	\$ 63,420
Offices outside the U.S. ⁽¹⁾⁽³⁾⁽⁴⁾	155,973	150,921
Total	\$ 223,444	\$ 214,341

(1) The classification between offices in the U.S. and outside the U.S. is based on the domicile of the booking unit, rather than the domicile of the depositor.

(2) Represents time deposits in U.S. offices in denominations that met or exceeded \$250,000.

(3) Time deposits in offices outside the U.S. are assumed to be a depositor's account as single account ownership.

(4) The insurance coverage is applied in sequence of checking, savings and short- and long-term time deposits accounts.

At December 31, 2023, the maturities of time deposits were as follows:

<i>In millions of dollars</i>	U.S.	Outside U.S.	Total
2024	\$ 113,404	\$ 163,330	\$ 276,734
2025	1,143	1,018	2,161
2026	590	227	817
2027	137	112	249
2028	209	20	229
After 5 years	288	4	292
Total	\$ 115,771	\$ 164,711	\$ 280,482

19. DEBT

Short-Term Borrowings

In millions of dollars	December 31,				Balances at December 31,	
	2023		2022			
	Balance	Weighted-average coupon ⁽¹⁾	Balance	Weighted-average coupon ⁽¹⁾		
Commercial paper						
Bank ⁽²⁾	\$11,116		\$11,185			
Broker-dealer and other ⁽³⁾	9,106		14,345			
Total commercial paper	\$20,222	5.72 %	\$25,530	4.29 %		
Other borrowings⁽⁴⁾	17,235	5.45	21,566	4.23		
Total	\$37,457		\$47,096			

- (1) The weighted-average coupon excludes structured notes accounted for at fair value and the effect of hedges.
- (2) Represents Citibank entities as well as other bank entities.
- (3) Represents broker-dealer and other non-bank subsidiaries that are consolidated into Citigroup Inc., the parent holding company.
- (4) Includes borrowings from Federal Home Loan Banks and other market participants. At December 31, 2023 and 2022, collateralized short-term advances from Federal Home Loan Banks were \$8.0 billion and \$12.0 billion, respectively.

Some of Citigroup's non-bank subsidiaries have credit facilities with Citigroup's subsidiary depository institutions, including Citibank. Borrowings under these facilities are secured in accordance with Section 23A of the Federal Reserve Act.

Long-Term Debt

In millions of dollars	Weighted-average coupon ⁽¹⁾	Maturities	Balances at December 31,	
			2023	2022
Citigroup Inc.⁽²⁾				
Senior debt	3.53 %	2024–2098	\$135,579	\$141,893
Subordinated debt ⁽³⁾	5.02	2024–2046	25,116	22,758
Trust preferred securities	11.66	2036–2040	1,614	1,606
Bank⁽⁴⁾				
Senior debt	5.37	2024–2039	31,673	21,113
Broker-dealer⁽⁵⁾				
Senior debt	5.34	2024–2070	92,637	84,236
Total	4.17 %		\$286,619	\$271,606
Senior debt			\$259,889	\$247,242
Subordinated debt ⁽³⁾			25,116	22,758
Trust preferred securities			1,614	1,606
Total			\$286,619	\$271,606

- (1) The weighted-average coupon excludes structured notes accounted for at fair value and the effect of hedges.
- (2) Represents the parent holding company.
- (3) Includes notes that are subordinated within certain countries, regions or subsidiaries.
- (4) Represents Citibank entities as well as other bank entities. At December 31, 2023 and 2022, collateralized long-term advances from Federal Home Loan Banks were \$11.5 billion and \$7.3 billion, respectively.
- (5) Represents broker-dealer and other non-bank subsidiaries that are consolidated into Citigroup Inc., the parent holding company. Certain Citigroup consolidated hedging activities are also included in this line. Balances primarily relate to senior debt.

The Company issues both fixed- and variable-rate debt in a range of currencies. It uses derivative contracts, primarily interest rate swaps, to effectively convert a portion of its fixed-rate debt to variable-rate debt. In addition, the Company uses other derivative contracts to manage the foreign exchange impact of certain debt issuances. At December 31, 2023, the Company's overall weighted-average interest rate for long-term debt, excluding structured notes accounted for at fair value, was 4.17% on a contractual basis and 4.22% including the effects of derivative contracts.

Aggregate annual maturities of long-term debt obligations (based on final maturity dates) including trust preferred securities are as follows:

<i>In millions of dollars</i>	2024	2025	2026	2027	2028	Thereafter	Total
Citigroup Inc.	\$ 7,035	\$ 18,892	\$ 28,995	\$ 13,371	\$ 18,791	\$ 75,225	\$ 162,309
Bank	11,798	10,415	3,183	774	3,679	1,824	31,673
Broker-dealer	26,955	17,117	8,202	7,117	7,644	25,602	92,637
Total	\$ 45,788	\$ 46,424	\$ 40,380	\$ 21,262	\$ 30,114	\$ 102,651	\$ 286,619

The following table summarizes Citi's outstanding trust preferred securities at December 31, 2023:

Trust	Issuance date	Securities issued	Liquidation value ⁽¹⁾	Coupon rate ⁽²⁾	Common shares issued to parent	Junior subordinated debentures owned by trust		
						Notional amount	Maturity	Redeemable by issuer beginning
<i>In millions of dollars, except securities and share amounts</i>								
Citigroup Capital III	Dec. 1996	194,053	\$ 194	7.625 %	6,003	\$ 200	Dec. 1, 2036	Not redeemable
Citigroup Capital XIII	Oct. 2010	89,840,000	2,246	3-mo. SOFR + 663 bps ⁽³⁾	1,000	2,246	Oct. 30, 2040	Oct. 30, 2015
Total obligated			\$ 2,440			\$ 2,446		

Note: Distributions on the trust preferred securities and interest on the subordinated debentures are payable semiannually for Citigroup Capital III and quarterly for Citigroup Capital XIII.

- (1) Represents the notional value received by outside investors from the trusts at the time of issuance. This differs from Citi's balance sheet carrying value due primarily to unamortized discount and issuance costs.
- (2) In each case, the coupon rate on the subordinated debentures is the same as that on the trust preferred securities.
- (3) The spread incorporates the original contractual spread and a 26.161 bps tenor spread adjustment.

20. REGULATORY CAPITAL

Citigroup is subject to risk-based capital and leverage standards issued by the Federal Reserve Board, which constitute the U.S. Basel III rules. Citi's U.S.-insured depository institution subsidiaries, including Citibank, are subject to similar standards issued by their respective primary bank regulatory agencies. These standards are used to evaluate capital adequacy and include the required minimums

presented in the following table. The regulatory agencies are required by law to take specific, prompt corrective actions with respect to institutions that do not meet minimum capital standards.

The following table presents for Citigroup and Citibank the regulatory capital tiers, total risk-weighted assets, quarterly adjusted average total assets, Total Leverage Exposure, risk-based capital ratios and leverage ratios:

In millions of dollars, except ratios	Citigroup				Citibank		
	Stated minimum	Well-capitalized minimum	December 31, 2023	December 31, 2022	Well-capitalized minimum	December 31, 2023	December 31, 2022
CET1 Capital		\$ 153,595	\$ 148,930		\$ 147,109	\$ 149,593	
Tier 1 Capital		172,504	169,145		149,238	151,720	
Total Capital (Tier 1 Capital + Tier 2 Capital)—Standardized Approach		201,768	197,543		168,571	172,647	
Total Capital (Tier 1 Capital + Tier 2 Capital)—Advanced Approaches		191,919	188,839		160,706	165,131	
Total risk-weighted assets—Standardized Approach		1,148,608	1,142,985		983,960	982,914	
Total risk-weighted assets—Advanced Approaches		1,268,723	1,221,538		1,057,194	1,003,747	
Quarterly adjusted average total assets ⁽¹⁾		2,394,272	2,395,863		1,666,609	1,738,744	
Total Leverage Exposure ⁽²⁾		2,964,954	2,906,773		2,166,334	2,189,541	
CET1 Capital ratio ⁽³⁾	4.5 %	N/A	13.37 %	13.03 %	6.5 %	13.92 %	14.90 %
Tier 1 Capital ratio ⁽³⁾	6.0	6.0 %	15.02	14.80	8.0	14.12	15.12
Total Capital ratio ⁽³⁾	8.0	10.0	15.13	15.46	10.0	15.20	16.45
Leverage ratio	4.0	N/A	7.20	7.06	5.0	8.95	8.73
Supplementary Leverage ratio	3.0	N/A	5.82	5.82	6.0	6.89	6.93

(1) Leverage ratio denominator.

(2) Supplementary Leverage ratio denominator.

(3) Citi's binding CET1 Capital and Tier 1 Capital ratios were derived under the Basel III Standardized Approach, whereas Citi's binding Total Capital ratio was derived under the Basel III Advanced Approaches framework for both periods presented. Citibank's binding CET1 Capital, Tier 1 Capital and Total Capital ratios were derived under the Basel III Advanced Approaches framework for both periods presented.

N/A Not applicable

As indicated in the table above, Citigroup and Citibank were "well capitalized" under the current federal bank regulatory agencies definitions as of December 31, 2023 and 2022.

Banking Subsidiaries—Constraints on Dividends

There are various legal limitations on the ability of Citigroup's subsidiary depository institutions to extend credit, pay dividends or otherwise supply funds to Citigroup and its non-bank subsidiaries. The approval of the Office of the Comptroller of the Currency is required if total dividends declared in any calendar year were to exceed amounts specified by the agency's regulations.

In determining the dividends, each subsidiary depository institution must also consider its effect on applicable risk-based capital and leverage ratio requirements, as well as policy statements of the federal bank regulatory agencies that indicate that banking organizations should generally pay dividends out of current operating earnings. Citigroup received \$16.3 billion and \$8.5 billion in dividends indirectly from Citibank through its holding company during 2023 and 2022, respectively.

21. CHANGES IN ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS) (AOCI)

Changes in each component of Citigroup's *Accumulated other comprehensive income (loss)* were as follows:

<i>In millions of dollars</i>	Net unrealized gains (losses) on debt securities	Debt valuation adjustment (DVA)⁽¹⁾	Cash flow hedges⁽²⁾	Benefit plans⁽³⁾	CTA, net of hedges⁽⁴⁾⁽⁵⁾	Excluded component of fair value hedges	Long-duration insurance contracts⁽⁶⁾	Accumulated other comprehensive income (loss)
Balance, December 31, 2020	\$ 3,320	\$ (1,419)	\$ 1,593	\$ (6,864)	\$ (28,641)	\$ (47)	\$ —	\$ (32,058)
Other comprehensive income before reclassifications	(3,556)	121	(679)	797	(2,537)	(11)	—	(5,865)
Increase (decrease) due to amounts reclassified from <i>AOCI</i>	(378)	111	(813)	215	12	11	—	(842)
Change, net of taxes	\$ (3,934)	\$ 232	\$ (1,492)	\$ 1,012	\$ (2,525)	\$ —	\$ —	\$ (6,707)
Balance, December 31, 2021	\$ (614)	\$ (1,187)	\$ 101	\$ (5,852)	\$ (31,166)	\$ (47)	\$ —	\$ (38,765)
Other comprehensive income before reclassifications	(5,599)	2,047	(2,718)	(19)	(2,855)	49	—	(9,095)
Increase (decrease) due to amounts reclassified from <i>AOCI</i>	215	(18)	95	116	384	6	—	798
Change, net of taxes	\$ (5,384)	\$ 2,029	\$ (2,623)	\$ 97	\$ (2,471)	\$ 55	\$ —	\$ (8,297)
Balance, December 31, 2022	\$ (5,998)	\$ 842	\$ (2,522)	\$ (5,755)	\$ (33,637)	\$ 8	\$ —	\$ (47,062)
Adjustment to opening balance, net of taxes ⁽⁷⁾	—	—	—	—	—	—	27	27
Adjusted balance, beginning of period	\$ (5,998)	\$ 842	\$ (2,522)	\$ (5,755)	\$ (33,637)	\$ 8	\$ 27	\$ (47,035)
Other comprehensive income before reclassifications	2,266	(1,553)	(327)	(416)	752	(16)	7	713
Increase (decrease) due to amounts reclassified from <i>AOCI</i>	(12)	2	1,443	121	—	(32)	—	1,522
Change, net of taxes	\$ 2,254	\$ (1,551)	\$ 1,116	\$ (295)	\$ 752	\$ (48)	\$ 7	\$ 2,235
Balance, December 31, 2023	\$ (3,744)	\$ (709)	\$ (1,406)	\$ (6,050)	\$ (32,885)	\$ (40)	\$ 34	\$ (44,800)

(1) Reflects the after-tax valuation of Citi's fair value option liabilities. See "Market Valuation Adjustments" in Note 26.

(2) Primarily driven by Citi's pay floating/receive fixed interest rate swap programs that hedge certain floating rates on assets.

(3) Primarily reflects adjustments based on the quarterly actuarial valuations of the Company's significant pension and postretirement plans, annual actuarial valuations of all other plans and amortization of amounts previously recognized in other comprehensive income.

(4) Primarily reflects the movements in (by order of impact) the Mexican peso, Polish zloty, Euro, Brazilian real, Russian ruble and Japanese yen against the U.S. dollar and changes in related tax effects and hedges for the year ended December 31, 2023. Primarily reflects the movements in (by order of impact) the Indian rupee, South Korean won, Euro, Chinese yuan, Russian ruble, Japanese yen and British pound sterling against the U.S. dollar and changes in related tax effects and hedges for the year ended December 31, 2022. Primarily reflects the movements in (by order of impact) the Mexican peso, Euro, South Korean won, Chilean peso and Japanese yen against the U.S. dollar and changes in related tax effects and hedges for the year ended December 31, 2021. Amounts recorded in the CTA component of *AOCI* remain in *AOCI* until the sale or substantial liquidation of the foreign entity, at which point such amounts related to the foreign entity are reclassified into earnings.

(5) December 31, 2022 reflects a reduction from an approximate \$470 million (after-tax) (\$620 million pretax) CTA loss (net of hedges) recorded in June 2022, associated with the closing of Citi's sale of its consumer banking business in Australia (see Note 2). The reduction from *AOCI* had a neutral impact on Citi's CET1 Capital.

(6) Reflects the change in the liability for future policyholder benefits for certain long-duration life-contingent annuity contracts that are issued by a regulated Citi insurance subsidiary in Mexico and reported within Legacy Franchises. The amount reflects the change in the liability after discounting using an upper-medium-grade fixed income instrument yield that reflects the duration characteristics of the liability. As of December 31, 2023, the balance of the liability for future policyholder benefits, which is recorded within *Other liabilities*, for this insurance subsidiary was approximately \$557 million.

(7) See Note 1.

The pretax and after-tax changes in each component of *Accumulated other comprehensive income (loss)* were as follows:

In millions of dollars	Pretax	Tax effect ⁽¹⁾	After-tax
Balance, December 31, 2020	\$ (36,992)	\$ 4,934	\$ (32,058)
Change in net unrealized gains (losses) on debt securities	(5,301)	1,367	(3,934)
Debt valuation adjustment (DVA)	296	(64)	232
Cash flow hedges	(1,969)	477	(1,492)
Benefit plans	1,252	(240)	1,012
CTA	(2,671)	146	(2,525)
Excluded component of fair value hedges	2	(2)	—
Long-duration insurance contracts	—	—	—
Change	\$ (8,391)	\$ 1,684	\$ (6,707)
Balance, December 31, 2021	\$ (45,383)	\$ 6,618	\$ (38,765)
Change in net unrealized gains (losses) on debt securities	(7,178)	1,794	(5,384)
DVA	2,685	(656)	2,029
Cash flow hedges	(3,477)	854	(2,623)
Benefit plans	31	66	97
CTA	(2,004)	(467)	(2,471)
Excluded component of fair value hedges	73	(18)	55
Long-duration insurance contracts	—	—	—
Change	\$ (9,870)	\$ 1,573	\$ (8,297)
Balance, December 31, 2022	\$ (55,253)	\$ 8,191	\$ (47,062)
Adjustment to opening balance ⁽²⁾	39	(12)	27
Adjusted balance, beginning of period	\$ (55,214)	\$ 8,179	\$ (47,035)
Change in net unrealized gains (losses) on debt securities	3,136	(882)	2,254
DVA	(2,078)	527	(1,551)
Cash flow hedges	1,480	(364)	1,116
Benefit plans	(353)	58	(295)
CTA	665	87	752
Excluded component of fair value hedges	(70)	22	(48)
Long-duration insurance contracts	12	(5)	7
Change	\$ 2,792	\$ (557)	\$ 2,235
Balance, December 31, 2023	\$ (52,422)	\$ 7,622	\$ (44,800)

(1) Income tax effects of these items are released from *AOCI* contemporaneously with the related gross pretax amount.

(2) See Note 1.

The Company recognized pretax (gains) losses related to amounts in *AOCI* reclassified to the Consolidated Statement of Income as follows:

	Increase (decrease) in AOCI due to amounts reclassified to Consolidated Statement of Income		
	Year ended December 31,		
In millions of dollars	2023	2022	2021
Realized (gains) losses on sales of investments	\$ (188)	\$ (67)	\$ (665)
Gross impairment losses	188	360	181
Subtotal, pretax	\$ —	\$ 293	\$ (484)
Tax effect	(12)	(78)	106
Net realized (gains) losses on investments, after-tax⁽¹⁾	\$ (12)	\$ 215	\$ (378)
Realized DVA (gains) losses on fair value option liabilities, pretax	\$ 3	\$ (25)	\$ 144
Tax effect	(1)	7	(33)
Net realized DVA, after-tax	\$ 2	\$ (18)	\$ 111
Interest rate contracts	\$ 1,897	\$ 125	\$ (1,075)
Foreign exchange contracts	4	4	4
Subtotal, pretax	\$ 1,901	\$ 129	\$ (1,071)
Tax effect	(458)	(34)	258
Amortization of cash flow hedges, after-tax⁽²⁾	\$ 1,443	\$ 95	\$ (813)
Amortization of unrecognized:			
Prior service cost (benefit)	\$ (22)	\$ (23)	\$ (23)
Net actuarial loss	196	221	302
Curtailment/settlement impact ⁽³⁾	(7)	(37)	11
Subtotal, pretax	\$ 167	\$ 161	\$ 290
Tax effect	(46)	(45)	(75)
Amortization of benefit plans, after-tax⁽³⁾	\$ 121	\$ 116	\$ 215
Excluded component of fair value hedges, pretax	\$ (43)	\$ 9	\$ 15
Tax effect	11	(3)	(4)
Excluded component of fair value hedges, after-tax	\$ (32)	\$ 6	\$ 11
Long-duration contracts, pretax	\$ —	\$ —	\$ —
Tax effect	—	—	—
Long-duration contracts, after-tax	\$ —	\$ —	\$ —
CTA, pretax	\$ —	\$ 438	\$ 19
Tax effect	—	(54)	(7)
CTA, after-tax⁽⁴⁾	\$ —	\$ 384	\$ 12
Total amounts reclassified out of AOCI, pretax	\$ 2,028	\$ 1,005	\$ (1,087)
Total tax effect	(506)	(207)	245
Total amounts reclassified out of AOCI, after-tax	\$ 1,522	\$ 798	\$ (842)

(1) The pretax amount is reclassified to *Realized gains (losses) on sales of investments, net* and *Gross impairment losses* in the Consolidated Statement of Income. See Note 14.

(2) See Note 24.

(3) See Note 8.

(4) The pretax amount is reclassified to *Discontinued operations* and *Other revenue* in the Consolidated Statement of Income, and results from the substantial liquidation of a legacy U.K. consumer operation. See Note 2.

22. PREFERRED STOCK

The following table summarizes the Company's preferred stock outstanding:

							Carrying value (in millions of dollars)
			Dividend rate as of December 31, 2023	Redemption price per depositary share/ preference share	Number of depositary shares	December 31, 2023	December 31, 2022
	Issuance date	Redeemable by issuer beginning					
Series A ⁽¹⁾	October 29, 2012	January 30, 2023	N/A	\$ 1,000	1,500,000	\$ —	\$ 1,500
Series B ⁽²⁾	December 13, 2012	February 15, 2023	N/A	1,000	750,000	—	750
Series D ⁽³⁾	April 30, 2013	May 15, 2023	3-mo. SOFR+ 3.72761	1,000	1,250,000	1,250	1,250
Series J ⁽⁴⁾	September 19, 2013	September 30, 2023	3-mo. SOFR+ 4.30161	25	22,000,000	550	950
Series K ⁽⁵⁾	October 31, 2013	November 15, 2023	N/A	25	59,800,000	—	1,495
Series M ⁽⁶⁾	April 30, 2014	May 15, 2024	6.300 %	1,000	1,750,000	1,750	1,750
Series P ⁽⁷⁾	April 24, 2015	May 15, 2025	5.950	1,000	2,000,000	2,000	2,000
Series T ⁽⁸⁾	April 25, 2016	August 15, 2026	6.250	1,000	1,500,000	1,500	1,500
Series U ⁽⁹⁾	September 12, 2019	September 12, 2024	5.000	1,000	1,500,000	1,500	1,500
Series V ⁽¹⁰⁾	January 23, 2020	January 30, 2025	4.700	1,000	1,500,000	1,500	1,500
Series W ⁽¹¹⁾	December 10, 2020	December 10, 2025	4.000	1,000	1,500,000	1,500	1,500
Series X ⁽¹²⁾	February 18, 2021	February 18, 2026	3.875	1,000	2,300,000	2,300	2,300
Series Y ⁽¹³⁾	October 27, 2021	November 15, 2026	4.150	1,000	1,000,000	1,000	1,000
Series Z ⁽¹⁴⁾	March 7, 2023	May 15, 2028	7.375	1,000	1,250,000	1,250	—
Series AA ⁽¹⁵⁾	September 21, 2023	November 15, 2028	7.625	1,000	1,500,000	1,500	—
						\$ 17,600	\$ 18,995

- (1) Citi redeemed Series A in its entirety on October 30, 2023.
- (2) Citi redeemed Series B in its entirety on August 15, 2023.
- (3) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Beginning in the third quarter of 2023, dividends are payable quarterly on February 15, May 15, August 15 and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors. The spread incorporates the original contractual spread and a 0.26161% tenor spread adjustment.
- (4) Issued as depositary shares, each representing a 1/1,000th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Citi redeemed \$400 million of Series J on December 29, 2023. Beginning in the fourth quarter of 2023, dividends are payable quarterly on March 30, June 30, September 30 and December 30 at a floating rate, in each case when, as and if declared by the Citi Board of Directors. The spread incorporates the original contractual spread and a 0.26161% tenor spread adjustment.
- (5) Citi redeemed Series K in its entirety on November 15, 2023.
- (6) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on May 15 and November 15 at a fixed rate until, but excluding, May 15, 2024, thereafter payable quarterly on February 15, May 15, August 15 and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
- (7) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on May 15 and November 15 at a fixed rate until, but excluding, May 15, 2025, and thereafter payable quarterly on February 15, May 15, August 15 and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
- (8) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on February 15 and August 15 at a fixed rate until, but excluding, August 15, 2026, thereafter payable quarterly on February 15, May 15, August 15 and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
- (9) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on March 12 and September 12 at a fixed rate until, but excluding, September 12, 2024, thereafter payable quarterly on March 12, June 12, September 12 and December 12 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
- (10) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semiannually on January 30 and July 30 at a fixed rate until, but excluding, January 30, 2025, thereafter payable quarterly on January 30, April 30, July 30 and October 30 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
- (11) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on March 10, June 10, September 10 and December 10 at a fixed rate until, but excluding, December 10, 2025, thereafter payable quarterly on the same dates at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
- (12) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on February 18, May 18, August 18 and November 18 at a fixed rate until, but excluding, February 18, 2026, thereafter payable quarterly on the same dates at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
- (13) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on February 15, May 15, August 15 and November 15 at a fixed rate until, but excluding, November 15, 2026, thereafter payable quarterly on the same dates at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

- (14) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on February 15, May 15, August 15 and November 15 at a fixed rate until, but excluding, May 15, 2028, thereafter payable quarterly on the same dates at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
 - (15) Issued as depositary shares, each representing a 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on February 15, May 15, August 15 and November 15 at a fixed rate until, but excluding, November 15, 2028, thereafter payable quarterly on the same dates at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
- N/A Not applicable, as the series has been redeemed.

23. SECURITIZATIONS AND VARIABLE INTEREST ENTITIES

Uses of Special Purpose Entities

A special purpose entity (SPE) is an entity designed to fulfill a specific limited need of the company that organized it. The principal uses of SPEs by Citi are to assist clients in securitizing their financial assets and create investment products for clients and to obtain liquidity and optimize capital efficiency by securitizing certain of Citi's financial assets. SPEs may be organized in various legal forms, including trusts, partnerships or corporations. In a securitization, through the SPE's issuance of debt and equity instruments, certificates, commercial paper or other notes of indebtedness, the company transferring assets to the SPE converts all (or a portion) of those assets into cash before they would have been realized in the normal course of business. These issuances are recorded on the balance sheet of the SPE, which may or may not be consolidated onto the balance sheet of the company that organized the SPE.

Investors usually have recourse only to the assets in the SPE, but may also benefit from other credit enhancements, such as a collateral account, a line of credit or a liquidity facility, such as a liquidity put option or asset purchase agreement. Because of these enhancements, the SPE issuances typically obtain a more favorable credit rating than the transferor could obtain for its own debt issuances. This results in less expensive financing costs than unsecured debt. The SPE may also enter into derivative contracts in order to convert the yield or currency of the underlying assets to match the needs of the SPE investors or to limit or change the credit risk of the SPE. Citigroup may be the provider of certain credit enhancements as well as the counterparty to any related derivative contracts.

Most of Citigroup's SPEs are variable interest entities (VIEs).

Variable Interest Entities

VIEs are described in Note 1. Investors that finance the VIE through debt or equity interests or other counterparties providing other forms of support, such as guarantees, certain fee arrangements or certain types of derivative contracts, are variable interest holders in the entity.

The variable interest holder, if any, that has a controlling financial interest in a VIE is deemed to be the primary beneficiary and must consolidate the VIE.

The Company must evaluate each VIE to understand the purpose and design of the entity, the role the Company had in the entity's design and its involvement in the VIE's ongoing activities. The Company then must evaluate which activities most significantly impact the economic performance of the VIE and who has the power to direct such activities.

For those VIEs where the Company determines that it has the power to direct the activities that most significantly impact the VIE's economic performance, the Company must then evaluate its economic interests, if any, and determine whether it could absorb losses or receive benefits that could potentially be significant to the VIE. When evaluating whether the Company has an obligation to absorb losses that could potentially be significant, it considers the maximum exposure to such loss without consideration of probability. Such obligations could be in various forms, including, but not limited to, debt and equity investments, guarantees, liquidity agreements and certain derivative contracts.

In various other transactions, the Company may (i) act as a derivative counterparty (e.g., interest rate swap, cross-currency swap or purchaser of credit protection under a credit default swap or total return swap where the Company pays the total return on certain assets to the SPE), (ii) act as underwriter or placement agent, (iii) provide administrative, trustee or other services or (iv) make a market in debt securities or other instruments issued by VIEs. The Company generally considers such involvement, by itself, not to be variable interests and thus not an indicator of power or potentially significant benefits or losses.

Citigroup's involvement with consolidated and unconsolidated VIEs with which the Company holds significant variable interests or has continuing involvement through servicing a majority of the assets in a VIE is presented below:

In millions of dollars	As of December 31, 2023							
	Total involvement with SPE assets	Consolidated VIE/SPE assets	Significant unconsolidated VIE assets ⁽³⁾	Maximum exposure to loss in significant unconsolidated VIEs ⁽¹⁾				
				Debt investments	Equity investments	Funding commitments	Guarantees and derivatives	Total
Credit card securizations	\$ 31,852	\$ 31,852	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Mortgage securizations ⁽⁴⁾								
U.S. agency-sponsored	123,787	—	123,787	2,332	—	—	136	2,468
Non-agency-sponsored	64,963	—	64,963	3,751	—	129	—	3,880
Citi-administered asset-backed commercial paper conduits	21,097	21,097	—	—	—	—	—	—
Collateralized loan obligations (CLOs)	5,562	—	5,562	2,344	—	—	—	2,344
Asset-based financing ⁽⁵⁾	204,680	12,197	192,483	48,187	902	13,655	—	62,744
Municipal securities tender option bond trusts (TOBs)	1,493	883	610	12	—	417	—	429
Municipal investments	21,317	3	21,314	2,243	2,779	2,587	—	7,609
Client intermediation	368	86	282	37	—	—	—	37
Investment funds	545	70	475	3	10	95	—	108
Other	—	—	—	—	—	—	—	—
Total	\$ 475,664	\$ 66,188	\$ 409,476	\$ 58,909	\$ 3,691	\$ 16,883	\$ 136	\$ 79,619

In millions of dollars	As of December 31, 2022							
	Total involvement with SPE assets	Consolidated VIE/SPE assets	Significant unconsolidated VIE assets ⁽³⁾	Maximum exposure to loss in significant unconsolidated VIEs ⁽¹⁾				
				Debt investments	Equity investments	Funding commitments	Guarantees and derivatives	Total
Credit card securizations	\$ 32,021	\$ 32,021	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Mortgage securizations ⁽⁴⁾								
U.S. agency-sponsored	117,358	—	117,358	2,052	—	—	48	2,100
Non-agency-sponsored	67,704	—	67,704	3,294	—	—	—	3,294
Citi-administered asset-backed commercial paper conduits	19,621	19,621	—	—	—	—	—	—
Collateralized loan obligations (CLOs)	7,600	—	7,600	2,601	—	—	—	2,601
Asset-based financing ⁽⁵⁾	242,348	9,672	232,676	40,121	1,022	10,726	—	51,869
Municipal securities tender option bond trusts (TOBs)	2,155	672	1,483	2	—	1,108	—	1,110
Municipal investments	22,167	3	22,164	2,731	3,143	3,420	—	9,294
Client intermediation	482	121	361	58	—	—	13	71
Investment funds	534	91	443	2	5	68	—	75
Other	—	—	—	—	—	—	—	—
Total	\$ 511,990	\$ 62,201	\$ 449,789	\$ 50,861	\$ 4,170	\$ 15,322	\$ 61	\$ 70,414

- (1) The definition of maximum exposure to loss is included in the text that follows this table.
- (2) Included on Citigroup's December 31, 2023 and 2022 Consolidated Balance Sheet.
- (3) A significant unconsolidated VIE is an entity in which the Company has any variable interest or continuing involvement considered to be significant, regardless of the likelihood of loss.
- (4) Citigroup mortgage securizations also include agency and non-agency (private label) re-securitization activities. These SPEs are not consolidated. See "Re-securitizations" below for further discussion.
- (5) Included within this line are loans to third-party-sponsored private equity funds, which represent \$6 billion and \$69 billion in unconsolidated VIE assets and \$282 million and \$498 million in maximum exposure to loss as of December 31, 2023 and 2022, respectively.

The previous tables do not include:

- certain investment funds for which the Company provides investment management services and personal estate trusts for which the Company provides administrative, trustee and/or investment management services;
- certain third-party-sponsored private equity funds to which the Company provides secured credit facilities. The Company has no decision-making power and does not consolidate these funds, some of which may meet the definition of a VIE. The Company's maximum exposure to loss is generally limited to a loan or lending-related commitment. As of December 31, 2023 and 2022, the Company's maximum exposure to loss related to these transactions was \$8.5 billion and \$33.6 billion, respectively (see Notes 15 and 26 for more information on these positions);
- certain VIEs structured by third parties in which the Company holds securities in inventory, as these investments are made on arm's-length terms;
- certain positions in mortgage- and asset-backed securities held by the Company, which are classified as *Trading account assets* or *Investments*, in which the Company has no other involvement with the related securitization entity deemed to be significant (see Notes 14 and 26 for more information on these positions);
- certain representations and warranties exposures in Citigroup residential mortgage securitizations, in which the original mortgage loan balances are no longer outstanding; and
- VIEs such as preferred securities trusts used in connection with the Company's funding activities. The Company does not have a variable interest in these trusts.

The asset balances for consolidated VIEs represent the carrying amounts of the assets consolidated by the Company. The carrying amount may represent the amortized cost or the current fair value of the assets depending on the classification of the asset (e.g., loan or security) and the associated accounting model ascribed to that classification.

The asset balances for unconsolidated VIEs in which the Company has significant involvement represent the most current information available to the Company. In most cases, the asset balances represent an amortized cost basis without regard to impairments, unless fair value information is readily available to the Company.

The maximum funded exposure represents the balance sheet carrying amount of the Company's investment in the VIE. It reflects the initial amount of cash invested in the VIE, adjusted for any accrued interest and cash principal payments received. The carrying amount may also be adjusted for increases or declines in fair value or any impairment in value recognized in earnings. The maximum exposure of unfunded positions represents the remaining undrawn committed amount, including liquidity and credit facilities provided by the Company or the notional amount of a derivative instrument considered to be a variable interest. In certain transactions, the Company has entered into derivative instruments or other arrangements that are not considered variable interests in the VIE (e.g., interest rate swaps, cross-currency swaps or where the Company is the purchaser of credit protection under a credit default swap or total return swap where the Company pays the total return on certain assets to the SPE). Receivables under such arrangements are not included in the maximum exposure amounts.

The following tables present certain assets and liabilities of consolidated variable interest entities (VIEs), which are included on Citi's Consolidated Balance Sheet. The assets include those assets that can only be used to settle obligations of consolidated VIEs, presented on the following page, and are in excess of those obligations. In addition, the assets include third-party assets of consolidated VIEs only and exclude intercompany balances that eliminate in consolidation. The liabilities include third-party liabilities of consolidated VIEs only and exclude intercompany balances that eliminate in consolidation. The liabilities also exclude amounts where creditors or beneficial interest holders have recourse to the general credit of Citigroup.

<i>In millions of dollars</i>	December 31,	
	2023	2022
Assets of consolidated VIEs to be used to settle obligations of consolidated VIEs		
Cash and due from banks	\$ 44	\$ 61
Trading account assets	11,350	9,153
Investments	767	594
Loans, net of unearned income		
Consumer	35,141	35,026
Corporate	21,207	19,782
Loans, net of unearned income	\$ 56,348	\$ 54,808
Allowance for credit losses on loans (ACLL)	(2,481)	(2,520)
Total loans, net	\$ 53,867	\$ 52,288
Other assets	160	105
Total assets of consolidated VIEs to be used to settle obligations of consolidated VIEs	\$ 66,188	\$ 62,201

<i>In millions of dollars</i>	December 31,	
	2023	2022
Liabilities of consolidated VIEs for which creditors or beneficial interest holders do not have recourse to the general credit of Citigroup		
Short-term borrowings	\$ 9,692	\$ 9,807
Long-term debt	8,443	10,324
Other liabilities	927	622
Total liabilities of consolidated VIEs for which creditors or beneficial interest holders do not have recourse to the general credit of Citigroup	\$ 19,062	\$ 20,753

Funding Commitments for Significant Unconsolidated VIEs—Liquidity Facilities and Loan Commitments

The following table presents the notional amount of liquidity facilities and loan commitments that are classified as funding commitments in the VIE tables above:

<i>In millions of dollars</i>	December 31, 2023		December 31, 2022	
	Liquidity facilities	Loan/equity commitments	Liquidity facilities	Loan/equity commitments
Non-agency-sponsored mortgage securitizations	\$ —	\$ 129	\$ —	\$ —
Asset-based financing	—	13,655	—	10,726
Municipal securities tender option bond trusts (TOBs)	417	—	1,108	—
Municipal investments	—	2,587	—	3,420
Investment funds	—	95	—	68
Other	—	—	—	—
Total funding commitments	\$ 417	\$ 16,466	\$ 1,108	\$ 14,214

Consolidated VIEs

The Company engages in on-balance sheet securitizations, which are securitizations that do not qualify for sales treatment; thus, the assets remain on Citi's Consolidated Balance Sheet, and any proceeds received are recognized as secured liabilities. In general, the third-party investors in the obligations of consolidated VIEs have legal recourse only to the assets of the respective VIEs and do not have such recourse to the Company, except where Citi has provided a guarantee to the investors or is the counterparty to certain derivative transactions involving the VIE. Thus, Citigroup's

maximum legal exposure to loss related to consolidated VIEs is significantly less than the carrying value of the consolidated VIE assets due to outstanding third-party financing.

Intercompany assets and liabilities are excluded from Citi's Consolidated Balance Sheet. All VIE assets are restricted from being sold or pledged as collateral. The cash flows from these assets are the only source used to pay down the associated liabilities, which are non-recourse to Citi's general assets. See the Consolidated Balance Sheet for more information about these Consolidated VIE assets and liabilities.

Significant Interests in Unconsolidated VIEs—Balance Sheet Classification

The following table presents the carrying amounts and classification of significant variable interests in unconsolidated VIEs:

<i>In billions of dollars</i>	December 31, 2023	December 31, 2022
Cash	\$ —	\$ —
Trading account assets	1.9	1.6
Investments	8.3	8.6
Total loans, net of allowance	51.8	44.2
Other	0.6	0.6
Total assets	\$ 62.6	\$ 55.0

Credit Card Securitizations

The Company securitizes credit card receivables through trusts established to purchase the receivables. Citigroup transfers receivables into the trusts on a non-recourse basis. Credit card securitizations are revolving securitizations: as customers pay their credit card balances, the cash proceeds are used to purchase new receivables and replenish the receivables in the trust.

The Company's primary credit card securitization activity is through two trusts—Citibank Credit Card Master Trust (Master Trust) and Citibank Omni Trust (Omni Trust), with the substantial majority through the Master Trust. These trusts are consolidated entities because, as servicer, Citigroup has the

power to direct the activities that most significantly impact the economic performance of the trusts. Citigroup holds a seller's interest and certain securities issued by the trusts, which could result in exposure to potentially significant losses or benefits from the trusts. Accordingly, the transferred credit card receivables remain on Citi's Consolidated Balance Sheet with no gain or loss recognized. The debt issued by the trusts to third parties is included on Citi's Consolidated Balance Sheet.

Citi utilizes securitizations as one of the sources of funding for its business in North America. The following table reflects amounts related to the Company's securitized credit card receivables:

<i>In billions of dollars</i>	December 31, 2023	December 31, 2022
Ownership interests in principal amount of trust credit card receivables		
Sold to investors via trust-issued securities	\$ 6.9	\$ 7.9
Retained by Citigroup as trust-issued securities	5.1	6.4
Retained by Citigroup via non-certificated interests	21.4	19.5
Total	\$ 33.4	\$ 33.8

The following table summarizes selected cash flow information related to Citigroup's credit card securitizations:

<i>In billions of dollars</i>	2023	2022	2021
Proceeds from new securitizations	\$ 1.5	\$ 0.3	\$ —
Pay down of maturing notes	(2.4)	(2.1)	(6.0)

Managed Loans

After securitization of credit card receivables, the Company continues to maintain credit card customer account relationships and provides servicing for receivables transferred to the trusts. As a result, the Company considers the securitized credit card receivables to be part of the business it manages. As Citigroup consolidates the credit card trusts, all managed securitized card receivables are on-balance sheet.

Funding, Liquidity Facilities and Subordinated Interests

As noted above, Citigroup securitizes credit card receivables through two securitization trusts—Master Trust and Omni Trust. The liabilities of the trusts are included on the Consolidated Balance Sheet, excluding those retained by Citigroup.

Master Trust Liabilities (at Par Value)

The Master Trust issues fixed- and floating-rate term notes. Some of the term notes may be issued to multi-seller commercial paper conduits. The weighted-average maturity of the third-party term notes issued by the Master Trust was 3.8 years as of December 31, 2023 and 3.5 years as of December 31, 2022.

<i>In billions of dollars</i>	Dec. 31, 2023	Dec. 31, 2022
Term notes issued to third parties	\$ 5.4	\$ 6.3
Term notes retained by Citigroup affiliates	1.5	1.6
Total Master Trust liabilities	\$ 6.9	\$ 7.9

Omni Trust Liabilities (at Par Value)

The Omni Trust issues fixed- and floating-rate term notes, some of which are purchased by multi-seller commercial paper conduits. The weighted-average maturity of the third-party term notes issued by the Omni Trust was 1.3 years as of December 31, 2023 and 2.2 years as of December 31, 2022.

<i>In billions of dollars</i>	Dec. 31, 2023	Dec. 31, 2022
Term notes issued to third parties	\$ 1.5	\$ 1.6
Term notes retained by Citigroup affiliates	3.6	4.8
Total Omni Trust liabilities	\$ 5.1	\$ 6.4

Mortgage Securitizations

Citigroup provides a wide range of mortgage loan products to a diverse customer base. Once originated, the Company often securitizes these loans through the use of VIEs. These VIEs are funded through the issuance of trust certificates backed solely by the transferred assets. These certificates have the same life as the transferred assets. In addition to providing a source of liquidity and less expensive funding, securitizing these assets also reduces Citi's credit exposure to the borrowers. These mortgage loan securitizations are primarily non-recourse, thereby effectively transferring the risk of future credit losses to the purchasers of the securities issued by the trust.

Citi's U.S. consumer mortgage business generally retains the servicing rights and in certain instances retains investment securities, interest-only strips and residual interests in future cash flows from the trusts and also provides servicing for a limited number of *Services, Markets and Banking* securitizations. Citi's *Services, Markets and Banking* businesses may hold investment securities pursuant to credit risk retention rules or in connection with secondary market-making activities.

The Company securitizes mortgage loans generally through either a U.S. government-sponsored agency, such as Ginnie Mae, a U.S. agency-sponsored entity, such as Fannie Mae or Freddie Mac, or a private label (non-agency-sponsored

mortgages) securitization. Citi is not the primary beneficiary of its U.S. agency-sponsored mortgage securitization entities because Citigroup does not have the power to direct the activities of the VIEs that most significantly impact the entities' economic performance. Therefore, Citi does not consolidate these U.S. agency-sponsored mortgage securitization entities. Substantially all of the consumer loans sold or securitized through non-consolidated trusts by Citigroup are U.S. prime residential mortgage loans. Retained interests in non-consolidated agency-sponsored mortgage securitization trusts are classified as *Trading account assets*, except for MSRs, which are included in *Other assets* on Citigroup's Consolidated Balance Sheet.

Citigroup does not consolidate certain non-agency-sponsored mortgage securitization entities because Citi is either not the servicer with the power to direct the significant activities of the entity or Citi is the servicer, but the servicing relationship is deemed to be a fiduciary relationship; therefore, Citi is not deemed to be the primary beneficiary of the entity.

In certain instances, the Company has (i) the power to direct the activities that most significantly impact the entities' economic performance and (ii) the obligation to either absorb losses or the right to receive benefits that could be potentially significant to its non-agency-sponsored mortgage securitization entities and, therefore, is the primary beneficiary and, thus, consolidates the VIE.

The following tables summarize selected cash flow information and retained interests related to Citigroup mortgage securitizations:

In billions of dollars	2023		2022		2021	
	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages
Principal securitized	\$ 4.9	\$ 4.8	\$ 6.9	\$ 13.9	\$ 6.1	\$ 25.2
Proceeds from new securitizations	4.9	3.5	6.7	13.4	6.4	25.4
Contractual servicing fees received	0.1	—	0.1	—	0.1	—
Cash flows received on retained interests and other net cash flows	—	0.2	—	0.2	—	0.1
Purchases of previously transferred financial assets	—	—	0.1	—	0.2	—

Note: Excludes re-securitization transactions.

For non-consolidated mortgage securitization entities where the transfer of loans to the VIE meets the conditions for sale accounting, Citi recognizes a gain or loss based on the difference between the carrying value of the transferred assets and the proceeds received (generally cash but may be beneficial interests or servicing rights).

Agency and non-agency securitization gains for the year ended December 31, 2023 were \$0.4 million and \$88.7 million, respectively.

Agency and non-agency securitization gains for the year ended December 31, 2022 were \$1.3 million and \$154.8 million, respectively, and \$3.9 million and \$493.4 million, respectively, for the year ended December 31, 2021.

In millions of dollars	2023			2022		
	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages ⁽¹⁾		U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages ⁽¹⁾	
		Senior interests ⁽²⁾	Subordinated interests		Senior interests	Subordinated interests
Carrying value of retained interests ⁽³⁾	\$ 689	\$ 943	\$ 963	\$ 659	\$ 1,119	\$ 943

- (1) Disclosure of non-agency-sponsored mortgages as senior and subordinated interests is indicative of the interests' position in the capital structure of the securitization.
- (2) Senior interests in non-agency-sponsored mortgages include \$0.9 million related to personal loan securitizations at December 31, 2023.
- (3) Retained interests consist of Level 2 and Level 3 assets depending on the observability of significant inputs. See Note 26 for more information about fair value measurements.

Key assumptions used in measuring the fair value of retained interests at the date of sale or securitization of mortgage receivables were as follows:

	December 31, 2023		
	Non-agency-sponsored mortgages ⁽¹⁾		
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Weighted-average discount rate	12.9%	6.0 %	6.1 %
Weighted-average constant prepayment rate	5.9%	8.6 %	7.3 %
Weighted-average anticipated net credit losses ⁽²⁾	NM	0.2 %	0.9 %
Weighted-average life	7.7 years	6.8 years	8.1 years

	December 31, 2022		
	Non-agency-sponsored mortgages ⁽¹⁾		
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Weighted-average discount rate	8.8%	3.2 %	4.1 %
Weighted-average constant prepayment rate	2.7%	6.0 %	11.4 %
Weighted-average anticipated net credit losses ⁽²⁾	NM	2.0 %	0.4 %
Weighted-average life	9.0 years	5.5 years	5.6 years

- (1) Disclosure of non-agency-sponsored mortgages as senior and subordinated interests is indicative of the interests' position in the capital structure of the securitization.
 - (2) Anticipated net credit losses represent estimated loss severity associated with defaulted mortgage loans underlying the mortgage securitizations disclosed above. Anticipated net credit losses, in this instance, do not represent total credit losses incurred to date, nor do they represent credit losses expected on retained interests in mortgage securitizations.
- NM Anticipated net credit losses are not meaningful due to U.S. agency guarantees.

The interests retained by the Company range from highly rated and/or senior in the capital structure to unrated and/or residual interests. Key assumptions used in measuring the fair value of retained interests in securitizations of mortgage receivables at period end were as follows:

	December 31, 2023		
	Non-agency-sponsored mortgages ⁽¹⁾		
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Weighted-average discount rate	5.4%	NM	NM
Weighted-average constant prepayment rate	5.8%	NM	NM
Weighted-average anticipated net credit losses ⁽²⁾	NM	NM	NM
Weighted-average life	7.5 years	NM	NM

	December 31, 2022		
	Non-agency-sponsored mortgages ⁽¹⁾		
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Weighted-average discount rate	5.3%	13.8%	NM
Weighted-average constant prepayment rate	5.8%	4.0%	NM
Weighted-average anticipated net credit losses ⁽²⁾	NM	1.0%	NM
Weighted-average life	7.7 years	10.3 years	NM

- (1) Disclosure of non-agency-sponsored mortgages as senior and subordinated interests is indicative of the interests' position in the capital structure of the securitization.

(2) Anticipated net credit losses represent estimated loss severity associated with defaulted mortgage loans underlying the mortgage securitizations disclosed above.

Anticipated net credit losses, in this instance, do not represent total credit losses incurred to date, nor do they represent credit losses expected on retained interests in mortgage securitizations.

NM Anticipated net credit losses are not meaningful due to U.S. agency guarantees.

The sensitivity of the fair value to adverse changes of 10% and 20% in each of the key assumptions is presented in the tables below. The negative effect of each change is calculated independently, holding all other assumptions constant. Because the key assumptions may not be independent, the net effect of simultaneous adverse changes in the key assumptions may be less than the sum of the individual effects presented below.

In millions of dollars	December 31, 2023		
	Non-agency-sponsored mortgages		
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Discount rate			
Adverse change of 10%	\$ (20)	\$ —	\$ —
Adverse change of 20%	(40)	—	—
Constant prepayment rate			
Adverse change of 10%	(17)	—	—
Adverse change of 20%	(34)	—	—
Anticipated net credit losses			
Adverse change of 10%	NM	—	—
Adverse change of 20%	NM	—	—

In millions of dollars	December 31, 2022		
	Non-agency-sponsored mortgages		
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Discount rate			
Adverse change of 10%	\$ (19)	\$ —	\$ —
Adverse change of 20%	(37)	—	—
Constant prepayment rate			
Adverse change of 10%	(15)	—	—
Adverse change of 20%	(30)	—	—
Anticipated net credit losses			
Adverse change of 10%	NM	—	—
Adverse change of 20%	NM	—	—

NM Anticipated net credit losses are not meaningful due to U.S. agency guarantees.

The following table includes information about loan delinquencies and liquidation losses for assets held in non-consolidated, non-agency-sponsored securitization entities at December 31:

In billions of dollars, except liquidation losses in millions	Securitized assets		90 days past due		Liquidation losses	
	2023	2022	2023	2022	2023	2022
Securitized assets						
Residential mortgages ⁽¹⁾	\$ 28.2	\$ 30.8	\$ 0.5	\$ 0.5	\$ 4.3	\$ 2.9
Commercial and other	29.9	28.8	—	—	—	—
Total	\$ 58.1	\$ 59.6	\$ 0.5	\$ 0.5	\$ 4.3	\$ 2.9

(1) Securitized assets include \$117 million of personal loan securitizations as of December 31, 2023.

Consumer Loan Securitizations

Beginning in the third quarter of 2023, Citi relaunched a program securitizing other consumer loans into asset-backed securities. The principal securitized and the proceeds from new securitizations for the year ended December 31, 2023 were \$1 billion and \$0.7 billion, respectively. The gain recognized on the securitization of consumer loans was \$7.5 million for the year ended December 31, 2023.

Mortgage Servicing Rights (MSRs)

In connection with the securitization of mortgage loans, Citi's U.S. consumer mortgage business generally retains the servicing rights, which entitle the Company to a future stream of cash flows based on the outstanding principal balances of the loans and the contractual servicing fee. Failure to service the loans in accordance with contractual requirements may lead to a termination of the servicing rights and the loss of future servicing fees.

These transactions create intangible assets referred to as MSRs, which are recorded at fair value on Citi's Consolidated Balance Sheet. The fair value of Citi's capitalized MSRs was \$691 million and \$665 million at December 31, 2023 and 2022, respectively. The MSRs correspond to principal loan balances of \$52 billion and \$51 billion as of December 31, 2023 and 2022, respectively.

The following table summarizes the changes in capitalized MSRs:

In millions of dollars	2023	2022
Balance, beginning of year	\$ 665	\$ 404
Originations	66	120
Changes in fair value of MSRs due to changes in inputs and assumptions	28	201
Other changes ⁽¹⁾	(68)	(60)
Balance, as of December 31	\$ 691	\$ 665

(1) Represents changes due to customer payments.

The fair value of the MSRs is primarily affected by changes in prepayments of mortgages that result from shifts in mortgage interest rates. Specifically, higher interest rates tend to lead to declining prepayments, which causes the fair value of the MSRs to increase. In managing this risk, Citigroup economically hedges a significant portion of the value of its MSRs through the use of interest rate derivative contracts, forward purchase and sale commitments of mortgage-backed securities and purchased securities, all classified as *Trading account assets*.

The Company receives fees during the course of servicing previously securitized mortgages. The amounts of these fees were as follows:

In millions of dollars	2023	2022	2021
Servicing fees	\$ 129	\$ 122	\$ 131
Late fees	4	4	3
Total MSR fees	\$ 133	\$ 126	\$ 134

In the Consolidated Statement of Income these fees are primarily classified as *Commissions and fees*, and changes in MSR fair values are classified as *Other revenue*.

Re-securitizations

The Company engages in re-securitization transactions in which debt securities are transferred to a VIE in exchange for new beneficial interests. Citi did not transfer non-agency (private label) securities to re-securitization entities during the years ended December 31, 2023 and 2022. These securities are backed by either residential or commercial mortgages and are often structured on behalf of clients.

As of December 31, 2023 and 2022, Citi held no retained interests in private label re-securitization transactions structured by Citi.

The Company also re-securitizes U.S. government-agency-guaranteed mortgage-backed (agency) securities. During the years ended December 31, 2023 and 2022, Citi transferred agency securities with a fair value of approximately \$17.1 billion and \$24.1 billion, respectively, to re-securitization entities.

As of December 31, 2023, the fair value of Citi-retained interests in agency re-securitization transactions structured by Citi totaled approximately \$1.7 billion (including \$930 million related to re-securitization transactions executed in 2023), compared to \$1.4 billion as of December 31, 2022 (including \$801 million related to re-securitization transactions executed in 2022), which is recorded in *Trading account assets*. The original fair values of agency re-securitization transactions in which Citi holds a retained interest as of December 31, 2023 and 2022 were approximately \$84.1 billion and \$79.4 billion, respectively.

As of December 31, 2023 and 2022, the Company did not consolidate any private label or agency re-securitization entities.

Citi-Administered Asset-Backed Commercial Paper Conduits

The Company is active in the asset-backed commercial paper conduit business as administrator of several multi-seller commercial paper conduits and also as a service provider to single-seller and other commercial paper conduits sponsored by third parties.

Citi's multi-seller commercial paper conduits are designed to provide the Company's clients access to low-cost funding in the commercial paper markets. The conduits purchase assets from or provide financing facilities to clients and are funded by issuing commercial paper to third-party investors. The conduits generally do not purchase assets originated by Citi. The funding of the conduits is facilitated by the liquidity support and credit enhancements provided by the Company.

As administrator to Citi's conduits, the Company is generally responsible for selecting and structuring assets purchased or financed by the conduits, making decisions regarding the funding of the conduits, including determining the tenor and other features of the commercial paper issued, monitoring the quality and performance of the conduits' assets and facilitating the operations and cash flows of the conduits. In return, the Company earns structuring fees from customers for individual transactions and earns an administration fee from the conduit, which is equal to the income from the client program and liquidity fees of the conduit after payment of conduit expenses. This administration fee is fairly stable, since most risks and rewards of the underlying assets are passed back to the clients. Once the asset pricing is negotiated, most ongoing income, costs and fees are relatively stable as a percentage of the conduit's size.

The conduits administered by Citi do not generally invest in liquid securities that are formally rated by third parties. The assets are privately negotiated and structured transactions that are generally designed to be held by the conduit, rather than actively traded and sold. The yield earned by the conduit on each asset is generally tied to the rate on the commercial paper issued by the conduit, thus passing interest rate risk to the client. Each asset purchased by the conduit is structured with transaction-specific credit enhancement features provided by the third-party client seller, including over-collateralization, cash and excess spread collateral accounts, direct recourse or third-party guarantees. These credit enhancements are sized with the objective of approximating a credit rating of A or above, based on Citi's internal risk ratings. At December 31, 2023 and 2022, the commercial paper conduits administered by Citi had approximately \$21.1 billion and \$19.6 billion of purchased assets outstanding, respectively, and had unfunded commitments with clients of approximately \$16.7 billion and \$13.9 billion, respectively.

Substantially all of the funding of the conduits is in the form of short-term commercial paper. At December 31, 2023 and 2022, the weighted-average remaining maturities of the commercial paper issued by the conduits were approximately 68 and 64 days, respectively.

The primary credit enhancement provided to the conduit investors is in the form of transaction-specific credit enhancements described above. Each asset purchased by the conduit is structured with transaction-specific credit

enhancement, including over-collateralization, cash and excess spread collateral accounts, direct recourse or third-party guarantees. Credit enhancement is sized with the objective of approximating an investment-grade credit rating, based on Citi's internal risk ratings. In addition to the transaction-specific credit enhancement, the conduits have obtained letters of credit from the Company that equal at least 8% to 10% of the conduit's assets with a minimum of \$200 million to \$350 million. The letters of credit provided by the Company to the conduits total approximately \$2.1 billion as of December 31, 2023 and \$1.9 billion as of December 31, 2022. The net result across multi-seller conduits administered by the Company is that, in the event that defaulted assets exceed the transaction-specific credit enhancement described above, any losses in each conduit are allocated first to the Company and then to the commercial paper investors.

Citigroup also provides the conduits with two forms of liquidity agreements that are used to provide funding to the conduits in the event of a market disruption, among other events. Each asset of the conduits is supported by a transaction-specific liquidity facility in the form of an asset purchase agreement (APA). Under the APA, the Company has generally agreed to purchase non-defaulted eligible receivables from the conduit at par. The APA is not designed to provide credit support to the conduit, as it generally does not permit the purchase of defaulted or impaired assets. Any funding under the APA will likely subject the underlying conduit clients to increased interest costs. In addition, the Company provides the conduits with program-wide liquidity in the form of short-term lending commitments. Under these commitments, the Company has agreed to lend to the conduits in the event of a short-term disruption in the commercial paper market, subject to specified conditions. The Company receives fees for providing both types of liquidity agreements and considers these fees to be on fair market terms.

Finally, Citi is one of several named dealers in the commercial paper issued by the conduits and earns a market-based fee for providing such services. Along with third-party dealers, the Company makes a market in the commercial paper and may from time to time fund commercial paper pending sale to a third party. On specific dates with less liquidity in the market, the Company may hold in inventory commercial paper issued by conduits administered by the Company, as well as conduits administered by third parties. Separately, in the normal course of business, Citi purchases commercial paper, including commercial paper issued by Citigroup's conduits. At December 31, 2023 and 2022, the Company owned \$10.1 billion and \$8.6 billion, respectively, of the commercial paper issued by its administered conduits. The Company's investments were not driven by market illiquidity and the Company is not obligated under any agreement to purchase the commercial paper issued by the conduits.

The asset-backed commercial paper conduits are consolidated by Citi. The Company has determined that, through its roles as administrator and liquidity provider, it has the power to direct the activities that most significantly impact the entities' economic performance. These powers include its ability to structure and approve the assets purchased by the conduits, its ongoing surveillance and credit mitigation activities, its ability to sell or repurchase assets out of the

conduits and its liability management. In addition, as a result of all the Company's involvement described above, it was concluded that Citi has an economic interest that could potentially be significant. No assets of any conduit are available to satisfy the creditors of Citigroup or any of its other subsidiaries.

Collateralized Loan Obligations (CLOs)

A collateralized loan obligation (CLO) is a VIE that purchases a portfolio of assets consisting primarily of non-investment grade corporate loans. CLOs issue multiple tranches of debt and equity to investors to fund the asset purchases and pay upfront expenses associated with forming the CLO. A third-party asset manager is contracted by the CLO to purchase the underlying assets from the open market and monitor the credit risk associated with those assets. Over the term of a CLO, the asset manager directs purchases and sales of assets in a manner consistent with the CLO's asset management agreement and indenture. In general, the CLO asset manager will have the power to direct the activities of the entity that most significantly impact the economic performance of the CLO. Investors in a CLO, through their ownership of debt and/or equity in it, can also direct certain activities of the CLO, including removing its asset manager under limited circumstances, optionally redeeming the notes, voting on amendments to the CLO's operating documents and other activities. A CLO has a finite life, typically 12 years.

Citi serves as a structuring and placement agent with respect to the CLOs. Typically, the debt and equity of the CLOs are sold to third-party investors. On occasion, certain Citi entities may purchase some portion of a CLO's liabilities for investment purposes. In addition, Citi may purchase, typically in the secondary market, certain securities issued by the CLOs to support its market-making activities.

The Company generally does not have the power to direct the activities that most significantly impact the economic performance of the CLOs, as this power is generally held by a third-party asset manager of the CLO. As such, those CLOs are not consolidated.

The following tables summarize selected cash flow information and retained interests related to Citigroup CLOs:

<i>In billions of dollars</i>	2023	2022	2021
Cash flows received on retained interests and other net cash flows	\$ 0.1	\$ 0.3	\$ 1.1
Purchases of previously transferred financial assets	—	—	0.2
<i>In millions of dollars</i>	Dec. 31, 2023	Dec. 31, 2022	Dec. 31, 2021
Carrying value of retained interests	\$ 604	\$ 681	\$ 921

All of Citi's retained interests were held-to-maturity securities as of December 31, 2023 and 2022.

Municipal Securities Tender Option Bond (TOB) Trusts

Municipal TOB trusts may hold fixed- or floating-rate, taxable or tax-exempt securities issued by state and local governments and municipalities. TOB trusts are typically structured as single-issuer entities whose assets are purchased from either the Company or from other investors in the municipal securities market. TOB trusts finance the purchase of their municipal assets by issuing two classes of certificates: long-dated, floating rate certificates ("Floaters") that are putable pursuant to a liquidity facility and residual interest certificates ("Residuals"). The Floaters are purchased by third-party investors, typically tax-exempt money market funds. The Residuals are purchased by the original owner of the municipal securities that are being financed.

From Citigroup's perspective, there are two types of TOB trusts: customer and non-customer. Customer TOB trusts are those trusts utilized by customers of the Company to finance their securities, generally municipal securities. The Residuals issued by these trusts are purchased by the customer being financed. Non-customer TOB trusts are generally used by the Company to finance its own municipal securities investments; the Residuals issued by non-customer TOB trusts are purchased by the Company.

With respect to both customer and non-customer TOB trusts, Citi may provide remarketing agent services. If Floaters are optionally tendered and the Company, in its role as remarketing agent, is unable to find a new investor to purchase the optionally tendered Floaters within a specified period of time, Citigroup may, but is not obligated to, purchase the tendered Floaters into its own inventory. The level of the Company's inventory of such Floaters fluctuates.

For certain customer TOB trusts, Citi may also serve as a voluntary advance provider. In this capacity, the Company may, but is not obligated to, make loan advances to customer TOB trusts to purchase optionally tendered Floaters that have not otherwise been successfully remarketed to new investors. Such loans are secured by pledged Floaters. As of December 31, 2023, Citi had no outstanding voluntary advances to customer TOB trusts.

For certain non-customer trusts, the Company also provides credit enhancement. At December 31, 2023 and 2022, none of the municipal bonds owned by non-customer TOB trusts were subject to a credit guarantee provided by the Company.

Citigroup also provides liquidity services to many customer and non-customer trusts. If a trust is unwound early due to an event other than a credit event on the underlying municipal bonds, the underlying municipal bonds are sold out of the trust and bond sale proceeds are used to redeem the outstanding trust certificates. If this results in a shortfall between the bond sale proceeds and the redemption price of the tendered Floaters, the Company, pursuant to the liquidity agreement, would be obligated to make a payment to the trust to satisfy that shortfall. For certain customer TOB trusts, Citigroup has also executed a reimbursement agreement with the holder of the Residual, pursuant to which the Residual holder is obligated to reimburse the Company for any payment the Company makes under the liquidity arrangement. These reimbursement agreements may be subject to daily margining based on changes in the market value of the underlying

municipal bonds. In cases where a third party provides liquidity to a non-customer TOB trust, a similar reimbursement arrangement may be executed, whereby the Company (or a consolidated subsidiary of the Company), as Residual holder, would absorb any losses incurred by the liquidity provider.

For certain other non-customer TOB trusts, Citi serves as tender option provider. The tender option provider arrangement allows Floater holders to put their interests directly to the Company at any time, subject to the requisite notice period requirements, at a price of par.

At December 31, 2023 and 2022, liquidity agreements provided with respect to customer TOB trusts totaled \$0.4 billion and \$1.1 billion, respectively, of which \$0.3 billion and \$0.7 billion, respectively, were offset by reimbursement agreements. For the remaining exposure related to TOB transactions, where the residual owned by the customer was at least 25% of the bond value at the inception of the transaction, no reimbursement agreement was executed.

Citi considers both customer and non-customer TOB trusts to be VIEs. Customer TOB trusts are not consolidated by the Company, as the power to direct the activities that most significantly impact the trust's economic performance rests with the customer Residual holder, which may unilaterally cause the sale of the trust's bonds.

Non-customer TOB trusts generally are consolidated because the Company holds the Residual interest and thus has the unilateral power to cause the sale of the trust's bonds.

The Company also provides other liquidity agreements or letters of credit to customer-sponsored municipal investment funds, which are not variable interest entities, and municipality-related issuers that totaled \$1.2 billion as of December 31, 2023 and \$1.4 billion as of December 31, 2022. These liquidity agreements and letters of credit are offset by reimbursement agreements with various term-out provisions.

Municipal Investments

Municipal investment transactions include debt and equity interests in partnerships that finance the construction and rehabilitation of low-income housing, facilitate lending in new or underserved markets or finance the construction or operation of renewable municipal energy facilities. Citi generally invests in these partnerships as a limited partner and earns a return primarily through the receipt of tax credits and grants earned from the investments made by the partnership. The Company may also provide construction loans or permanent loans for the development or operation of real estate properties held by partnerships. These entities are generally considered VIEs. The power to direct the activities of these entities is typically held by the general partner. Accordingly, these entities are not consolidated by Citigroup.

Client Intermediation

Client intermediation transactions represent a range of transactions designed to provide investors with specified returns based on the returns of an underlying security, referenced asset or index. These transactions include credit-linked notes and equity-linked notes. In these transactions, the VIE typically obtains exposure to the underlying security, referenced asset or index through a derivative instrument, such as a total-return swap or a credit-default swap. In turn, the VIE issues notes to investors that pay a return based on the specified underlying security, referenced asset or index. The VIE invests the proceeds in a financial asset or a guaranteed insurance contract that serves as collateral for the derivative contract over the term of the transaction. The Company's involvement in these transactions includes being the counterparty to the VIE's derivative instruments and investing in a portion of the notes issued by the VIE. In certain transactions, the investor's maximum risk of loss is limited and the Company absorbs risk of loss above a specified level. Citi does not have the power to direct the activities of the VIEs that most significantly impact their economic performance and thus it does not consolidate them.

Citi's maximum risk of loss in these transactions is defined as the amount invested in notes issued by the VIE and the notional amount of any risk of loss absorbed by Citi through a separate instrument issued by the VIE. The derivative instrument held by the Company may generate a receivable from the VIE (e.g., where the Company purchases credit protection from the VIE in connection with the VIE's issuance of a credit-linked note), which is collateralized by the assets owned by the VIE. These derivative instruments are not considered variable interests and any associated receivables are not included in the calculation of maximum exposure to the VIE.

Investment Funds

The Company is the investment manager for certain investment funds and retirement funds that invest in various asset classes including private equity, hedge funds, real estate, fixed income and infrastructure. Citigroup earns a management fee, which is a percentage of capital under management, and may earn performance fees. In addition, for some of these funds the Company has an ownership interest in the investment funds. Citi has also established a number of investment funds as opportunities for qualified employees to invest in private equity investments. The Company acts as investment manager for these funds and may provide employees with financing on both recourse and non-recourse bases for a portion of the employees' investment commitments.

Asset-Based Financing

The Company provides loans and other forms of financing to VIEs that hold assets. Those loans are subject to the same credit approvals as all other loans originated or purchased by the Company. Financings in the form of debt securities or derivatives are, in most circumstances, reported in *Trading account assets* and accounted for at fair value through earnings. The Company generally does not have the power to direct the activities that most significantly impact these VIEs' economic performance; thus, it does not consolidate them.

The primary types of Citi's asset-based financings, total assets of the unconsolidated VIEs with significant involvement and Citi's maximum exposure to loss are presented below. For Citi to realize the maximum loss, the VIE (borrower) would have to default with no recovery from the assets held by the VIE.

	December 31, 2023		December 31, 2022	
	Total unconsolidated VIE assets	Maximum exposure to unconsolidated VIEs	Total unconsolidated VIE assets	Maximum exposure to unconsolidated VIEs
<i>In millions of dollars</i>				
Type				
Commercial and other real estate	\$ 42,869	\$ 8,831	\$ 43,236	\$ 8,806
Corporate loans	27,903	18,546	23,120	15,077
Other (including investment funds, airlines and shipping)	121,711	35,367	166,320	27,986
Total	\$ 192,483	\$ 62,744	\$ 232,676	\$ 51,869

24. DERIVATIVES

In the ordinary course of business, Citigroup enters into various types of derivative transactions, which include:

- *Futures and forward contracts*, which are commitments to buy or sell at a future date a financial instrument, commodity or currency at a contracted price that may be settled in cash or through delivery of an item readily convertible to cash.
- *Swap contracts*, which are commitments to settle in cash at a future date or dates that may range from a few days to a number of years, based on differentials between specified indices or financial instruments, as applied to a notional principal amount.
- *Option contracts*, which give the purchaser, for a premium, the right, but not the obligation, to buy or sell within a specified time a financial instrument, commodity or currency at a contracted price that may also be settled in cash, based on differentials between specified indices or prices.

Swaps, forwards and some option contracts are over-the-counter (OTC) derivatives that are bilaterally negotiated with counterparties and settled with those counterparties, except for swap contracts that are novated and “cleared” through central counterparties (CCPs). Futures contracts and other option contracts are standardized contracts that are traded on an exchange with a CCP as the counterparty from the inception of the transaction. Citigroup enters into derivative contracts relating to interest rate, foreign currency, commodity and other market/credit risks for the following reasons:

- *Trading Purposes*: Citigroup trades derivatives as an active market maker. Citigroup offers its customers derivatives in connection with their risk management actions to transfer, modify or reduce their interest rate, foreign exchange and other market/credit risks or for their own trading purposes. Citigroup also manages its derivative risk positions through offsetting trade activities.
- *Hedging*: Citigroup uses derivatives in connection with its own risk management activities to hedge certain risks or reposition the risk profile of the Company. Hedging may be accomplished by applying hedge accounting in accordance with ASC 815, *Derivatives and Hedging*. For example, Citigroup issues fixed-rate long-term debt and then enters into a receive-fixed, pay-variable-rate interest rate swap with the same tenor and notional amount to synthetically convert the interest payments to a net variable-rate basis. This strategy is the most common form of an interest rate hedge, as it minimizes net interest cost in certain yield curve environments. Derivatives are also used to manage market risks inherent in specific groups of on-balance sheet assets and liabilities, including AFS securities, commodities and borrowings, as well as other interest-sensitive assets and liabilities. In addition, foreign exchange contracts are used to hedge non-U.S.-dollar-denominated debt, foreign currency-denominated AFS securities and net investment exposures.

Derivatives may expose Citigroup to market, credit or liquidity risks in excess of the amounts recorded on the Consolidated Balance Sheet. Market risk on a derivative product is the exposure created by potential fluctuations in interest rates, market prices, foreign exchange rates and other factors and is a function of the type of product, the volume of transactions, the tenor and terms of the agreement and the underlying volatility. Credit risk is the exposure to loss in the event of nonperformance by the other party to satisfy a derivative liability where the value of any collateral held by Citi is not adequate to cover such losses. The recognition in earnings of unrealized gains on derivative transactions is subject to management’s assessment of the probability of counterparty default. Liquidity risk is the potential exposure that arises when the size of a derivative position may affect the ability to monetize the position in a reasonable period of time and at a reasonable cost in periods of high volatility and financial stress.

Derivative transactions are customarily documented under industry standard master netting agreements, which provide that following an event of default, the non-defaulting party may promptly terminate all transactions between the parties and determine the net amount due to be paid to, or by, the defaulting party. Events of default include (i) failure to make a payment on a derivative transaction that remains uncured following applicable notice and grace periods, (ii) breach of agreement that remains uncured after applicable notice and grace periods, (iii) breach of a representation, (iv) cross default, either to third-party debt or to other derivative transactions entered into between the parties, or, in some cases, their affiliates, (v) the occurrence of a merger or consolidation that results in the creditworthiness of a party becoming materially weaker, and (vi) the cessation or repudiation of any applicable guarantee or other credit support document. Obligations under master netting agreements are often secured by collateral posted under an industry standard credit support annex to the master netting agreement. An event of default may also occur under a credit support annex if a party fails to make a collateral delivery that remains uncured following applicable notice and grace periods.

The netting and collateral rights incorporated in the master netting agreements are considered to be legally enforceable if a supportive legal opinion has been obtained from counsel of recognized standing that provides (i) the requisite level of certainty regarding enforceability and (ii) that the exercise of rights by the non-defaulting party to terminate and close-out transactions on a net basis under these agreements will not be stayed or avoided under applicable law upon an event of default, including bankruptcy, insolvency or similar proceeding.

A legal opinion may not be sought for certain jurisdictions where local law is silent or unclear as to the enforceability of such rights or where adverse case law or conflicting regulation may cast doubt on the enforceability of such rights. In some jurisdictions and for some counterparty types, the insolvency law may not provide the requisite level of certainty. For example, this may be the case for certain sovereigns, municipalities, central banks and U.S. pension plans.

Exposure to credit risk on derivatives is affected by market volatility, which may impair the ability of counterparties to satisfy their obligations to the Company. Credit limits are established and closely monitored for customers engaged in derivatives transactions. Citi considers the level of legal certainty regarding enforceability of its offsetting rights under master netting agreements and credit support annexes to be an important factor in its risk management process. Specifically, Citi generally transacts much lower volumes of derivatives under master netting agreements where Citi does not have the requisite level of legal certainty regarding enforceability, because such derivatives consume greater amounts of single counterparty credit limits than those executed under enforceable master netting agreements.

Cash collateral and security collateral in the form of G10 government debt securities are often posted by a party to a master netting agreement to secure the net open exposure of the other party; the receiving party is free to commingle/rehypothecate such collateral in the ordinary course of its business. Nonstandard collateral such as corporate bonds, municipal bonds, U.S. agency securities and/or MBS may also be pledged as collateral for derivative transactions. Security collateral posted to open and maintain a master netting agreement with a counterparty, in the form of cash and/or securities, may from time to time be segregated in an account at a third-party custodian pursuant to a tri-party account control agreement.

Information pertaining to Citigroup's derivatives activities, based on notional amounts, is presented in the table below. Derivative notional amounts are reference amounts from which contractual payments are derived and do not represent a complete measure of Citi's exposure to derivative transactions. Citi's derivative exposure arises primarily from market fluctuations (i.e., market risk), counterparty failure (i.e., credit risk) and/or periods of high volatility or financial stress (i.e., liquidity risk), as well as any market valuation adjustments that may be required on the transactions.

Moreover, notional amounts do not reflect the netting of offsetting trades. For example, if Citi enters into a receive-fixed interest rate swap with \$100 million notional, and offsets this risk with an identical but opposite pay-fixed position with a different counterparty, \$200 million in derivative notional is reported, although these offsetting positions may result in de minimis overall market risk.

In addition, aggregate derivative notional amounts can fluctuate from period to period in the normal course of business based on Citi's market share, levels of client activity and other factors. All derivatives are recorded in *Trading account assets/Trading account liabilities* on the Consolidated Balance Sheet.

Derivative Notionals

In millions of dollars	Hedging instruments under ASC 815		Trading derivative instruments	
	December 31, 2023	December 31, 2022	December 31, 2023	December 31, 2022
Interest rate contracts				
Swaps	\$ 277,003	\$ 255,280	\$ 17,077,712	\$ 23,780,711
Futures and forwards	—	—	3,022,127	2,966,025
Written options	—	—	2,753,912	1,937,025
Purchased options	—	—	2,687,662	1,881,291
Total interest rate contracts	\$ 277,003	\$ 255,280	\$ 25,541,413	\$ 30,565,052
Foreign exchange contracts				
Swaps	\$ 45,851	\$ 48,678	\$ 7,943,054	\$ 6,746,070
Futures, forwards and spot	49,779	43,666	3,737,063	3,350,341
Written options	—	—	778,397	789,077
Purchased options	—	—	771,134	783,591
Total foreign exchange contracts	\$ 95,630	\$ 92,344	\$ 13,229,648	\$ 11,669,079
Equity contracts				
Swaps	\$ —	\$ —	\$ 317,117	\$ 266,115
Futures and forwards	—	—	72,592	76,935
Written options	—	—	544,315	482,266
Purchased options	—	—	428,949	387,766
Total equity contracts	\$ —	\$ —	\$ 1,362,973	\$ 1,213,082
Commodity and other contracts				
Swaps	\$ —	\$ —	\$ 82,009	\$ 90,884
Futures and forwards	1,750	1,571	161,811	165,314
Written options	—	—	49,555	45,862
Purchased options	—	—	46,742	48,197
Total commodity and other contracts	\$ 1,750	\$ 1,571	\$ 340,117	\$ 350,257
Credit derivatives⁽¹⁾				
Protection sold	\$ —	\$ —	\$ 496,699	\$ 593,136
Protection purchased	—	—	567,627	641,639
Total credit derivatives	\$ —	\$ —	\$ 1,064,326	\$ 1,234,775
Total derivative notionals	\$ 374,383	\$ 349,195	\$ 41,538,477	\$ 45,032,245

(1) Credit derivatives are arrangements designed to allow one party (protection purchaser) to transfer the credit risk of a “reference asset” to another party (protection seller). These arrangements allow a protection seller to assume the credit risk associated with the reference asset without directly purchasing that asset. The Company enters into credit derivative positions for purposes such as risk management, yield enhancement, reduction of credit concentrations and diversification of overall risk.

The following tables present the gross and net fair values of the Company’s derivative transactions and the related offsetting amounts as of December 31, 2023 and 2022. Gross positive fair values are offset against gross negative fair values by counterparty, pursuant to enforceable master netting agreements. Under ASC 815-10-45, payables and receivables in respect of cash collateral received from or paid to a given counterparty pursuant to a credit support annex are included in the offsetting amount if a legal opinion supporting the enforceability of netting and collateral rights has been obtained. GAAP does not permit similar offsetting for security collateral.

In addition, the following tables reflect rule changes adopted by clearing organizations that require or allow entities to treat certain derivative assets, liabilities and the related variation margin as settlement of the related derivative fair values for legal and accounting purposes, as opposed to presenting gross derivative assets and liabilities that are subject to collateral, whereby the counterparties would also record a related collateral payable or receivable. The tables also present amounts that are not permitted to be offset, such as security collateral or cash collateral posted at third-party custodians, but which would be eligible for offsetting to the extent that an event of default has occurred and a legal opinion supporting enforceability of the netting and collateral rights has been obtained.

Derivative Mark-to-Market (MTM) Receivables/Payables

	Derivatives classified in Trading account assets/liabilities ⁽¹⁾⁽²⁾	
In millions of dollars at December 31, 2023	Assets	Liabilities
Derivatives instruments designated as ASC 815 hedges		
Over-the-counter	\$ 458	\$ 5
Cleared	99	121
Interest rate contracts	\$ 557	\$ 126
Over-the-counter	\$ 1,690	\$ 1,732
Cleared	—	—
Foreign exchange contracts	\$ 1,690	\$ 1,732
Total derivatives instruments designated as ASC 815 hedges	\$ 2,247	\$ 1,858
Derivatives instruments not designated as ASC 815 hedges		
Over-the-counter	\$ 113,993	\$ 105,512
Cleared	43,858	47,462
Exchange traded	86	86
Interest rate contracts	\$ 157,937	\$ 153,060
Over-the-counter	\$ 157,633	\$ 155,027
Cleared	368	420
Exchange traded	3	22
Foreign exchange contracts	\$ 158,004	\$ 155,469
Over-the-counter	\$ 19,515	\$ 25,425
Cleared	—	—
Exchange traded	23,763	22,521
Equity contracts	\$ 43,278	\$ 47,946
Over-the-counter	\$ 16,921	\$ 18,086
Exchange traded	648	710
Commodity and other contracts	\$ 17,569	\$ 18,796
Over-the-counter	\$ 6,094	\$ 6,293
Cleared	2,245	1,789
Credit derivatives	\$ 8,339	\$ 8,082
Total derivatives instruments not designated as ASC 815 hedges	\$ 385,127	\$ 383,353
Total derivatives	\$ 387,374	\$ 385,211
Less: Netting agreements ⁽³⁾	\$ (308,431)	\$ (308,431)
Less: Netting cash collateral received/paid ⁽⁴⁾	(21,226)	(26,101)
Net receivables/payables included on the Consolidated Balance Sheet⁽⁵⁾	\$ 57,717	\$ 50,679
Additional amounts subject to an enforceable master netting agreement, but not offset on the Consolidated Balance Sheet		
Less: Cash collateral received/paid	\$ (563)	\$ (348)
Less: Non-cash collateral received/paid	(5,208)	(12,504)
Total net receivables/payables⁽⁵⁾	\$ 51,946	\$ 37,827

- (1) The derivatives fair values are also presented in Note 26.
- (2) Over-the-counter (OTC) derivatives are derivatives executed and settled bilaterally with counterparties without the use of an organized exchange or central clearing house. Cleared derivatives include derivatives executed bilaterally with a counterparty in the OTC market, but then novated to a central clearing house, whereby the central clearing house becomes the counterparty to both of the original counterparties. Exchange-traded derivatives include derivatives executed directly on an organized exchange that provides pre-trade price transparency.
- (3) Represents the netting of balances with the same counterparty under enforceable netting agreements. Approximately \$242 billion, \$44 billion and \$22 billion of the netting against trading account asset/liability balances is attributable to each of the OTC, cleared and exchange-traded derivatives, respectively.
- (4) Represents the netting of cash collateral paid and received by counterparties under enforceable credit support agreements with appropriate legal opinion supporting enforceability of netting. Substantially all netting of cash collateral received and paid is against OTC derivative assets and liabilities, respectively.
- (5) The net receivables/payables include approximately \$4 billion of derivative asset and \$10 billion of derivative liability fair values not subject to enforceable master netting agreements, respectively.

Derivatives classified in
Trading account assets/liabilities⁽¹⁾⁽²⁾

<i>In millions of dollars at December 31, 2022</i>	<i>Assets</i>	<i>Liabilities</i>
Derivatives instruments designated as ASC 815 hedges		
Over-the-counter	\$ 468	\$ 1
Cleared	129	101
Interest rate contracts	\$ 597	\$ 102
Over-the-counter	\$ 2,288	\$ 1,766
Cleared	3	3
Foreign exchange contracts	\$ 2,291	\$ 1,769
Total derivatives instruments designated as ASC 815 hedges	\$ 2,888	\$ 1,871
Derivatives instruments not designated as ASC 815 hedges		
Over-the-counter	\$ 126,844	\$ 119,854
Cleared	50,515	52,566
Exchange traded	248	98
Interest rate contracts	\$ 177,607	\$ 172,518
Over-the-counter	\$ 184,869	\$ 183,578
Cleared	502	643
Exchange traded	1	5
Foreign exchange contracts	\$ 185,372	\$ 184,226
Over-the-counter	\$ 19,674	\$ 21,871
Cleared	1	4
Exchange traded	22,732	21,908
Equity contracts	\$ 42,407	\$ 43,783
Over-the-counter	\$ 27,285	\$ 24,912
Exchange traded	1,039	1,406
Commodity and other contracts	\$ 28,324	\$ 26,318
Over-the-counter	\$ 6,836	\$ 5,807
Cleared	1,553	1,970
Credit derivatives	\$ 8,389	\$ 7,777
Total derivatives instruments not designated as ASC 815 hedges	\$ 442,099	\$ 434,622
Total derivatives	\$ 444,987	\$ 436,493
Less: Netting agreements ⁽³⁾	\$ (346,545)	\$ (346,545)
Less: Netting cash collateral received/paid ⁽⁴⁾	(23,136)	(30,032)
Net receivables/payables included on the Consolidated Balance Sheet⁽⁵⁾	\$ 75,306	\$ 59,916
Additional amounts subject to an enforceable master netting agreement, but not offset on the Consolidated Balance Sheet		
Less: Cash collateral received/paid	\$ (1,455)	\$ (2,272)
Less: Non-cash collateral received/paid	(5,923)	(13,475)
Total net receivables/payables⁽⁵⁾	\$ 67,928	\$ 44,169

(1) The derivative fair values are also presented in Note 26.

(2) OTC derivatives are derivatives executed and settled bilaterally with counterparties without the use of an organized exchange or central clearing house. Cleared derivatives include derivatives executed bilaterally with a counterparty in the OTC market, but then novated to a central clearing house, whereby the central clearing house becomes the counterparty to both of the original counterparties. Exchange-traded derivatives include derivatives executed directly on an organized exchange that provides pre-trade price transparency.

(3) Represents the netting of balances with the same counterparty under enforceable netting agreements. Approximately \$276 billion, \$49 billion and \$22 billion of the netting against trading account asset/liability balances is attributable to each of the OTC, cleared and exchange-traded derivatives, respectively.

(4) Represents the netting of cash collateral paid and received by counterparties under enforceable credit support agreements with appropriate legal opinion supporting enforceability of netting. Substantially all netting of cash collateral received and paid is against OTC derivative assets and liabilities, respectively.

(5) The net receivables/payables include approximately \$14 billion of derivative asset and \$11 billion of derivative liability fair values not subject to enforceable master netting agreements, respectively.

For the years ended December 31, 2023, 2022 and 2021, amounts recognized in *Principal transactions* in the Consolidated Statement of Income include certain derivatives not designated in a qualifying hedging relationship. Citigroup presents this disclosure by business classification, showing derivative gains and losses related to its trading activities together with gains and losses related to non-derivative instruments within the same trading portfolios, as this represents how these portfolios are risk managed. See Note 6 for further information.

The amounts recognized in *Other revenue* in the Consolidated Statement of Income related to derivatives not designated in a qualifying hedging relationship are presented below. The table below does not include any offsetting gains (losses) on the economically hedged items:

In millions of dollars	Gains (losses) included in Other revenue		
	Year ended December 31,		
	2023	2022	2021
Interest rate contracts	\$ (47)	\$ 141	\$ (70)
Foreign exchange	(216)	(56)	(102)
Total	\$ (263)	\$ 85	\$ (172)

Accounting for Derivative Hedging

Citigroup accounts for its hedging activities in accordance with ASC 815, *Derivatives and Hedging*. As a general rule, hedge accounting is permitted where the Company is exposed to a particular risk, such as interest rate or foreign exchange risk, that causes changes in the fair value of an asset or liability or variability in the expected future cash flows of an existing asset, liability or a forecasted transaction that may affect earnings.

Derivative contracts hedging the risks associated with changes in fair value are referred to as fair value hedges, while contracts hedging the variability of expected future cash flows are cash flow hedges. Hedges that utilize derivatives or debt instruments to manage the foreign exchange risk associated with equity investments in non-U.S.-dollar-functional-currency foreign subsidiaries (i.e., net investment in a foreign operation) are net investment hedges.

To qualify as an accounting hedge under the hedge accounting rules (versus an economic hedge where hedge accounting is not applied), a hedging relationship must be highly effective in offsetting the risk designated as being hedged. The hedging relationship must be formally documented at inception, detailing the particular risk management objective and strategy for the hedge. This includes the item and risk(s) being hedged, the hedging instrument being used and how effectiveness will be assessed.

The effectiveness of these hedging relationships is evaluated at hedge inception and on an ongoing basis both on a retrospective and prospective basis, typically using quantitative measures of correlation. Hedge effectiveness assessment methodologies are performed in a similar manner for similar hedges, and are used consistently throughout the hedging relationships. The assessment of effectiveness may exclude changes in the value of the hedged item that are unrelated to the risks being hedged and the changes in fair value of the derivative associated with time value.

Discontinued Hedge Accounting

A hedging instrument must be highly effective in accomplishing the hedge objective of offsetting either changes in the fair value or cash flows of the hedged item for the risk being hedged. Management may voluntarily de-designate an accounting hedge at any time, but if a hedging relationship is not highly effective, it no longer qualifies for hedge accounting and must be de-designated. Subsequent changes in the fair value of the derivative are recognized in *Other revenue* or *Principal transactions*, similar to trading derivatives, with no offset recorded related to the hedged item.

For fair value hedges, any changes in the carrying value of the hedged item remain as part of the basis of the asset or liability and are ultimately realized as an element of the yield on the item. For cash flow hedges, changes in fair value of the end-user derivative remain in *Accumulated other comprehensive income (loss) (AOCI)* and are included in the earnings of future periods when the forecasted hedged cash flows impact earnings. However, if it becomes probable that some or all of the hedged forecasted transactions will not occur, any amounts that remain in *AOCI* related to these transactions must be immediately reflected in *Other revenue*.

The foregoing criteria are applied on a decentralized basis, consistent with the level at which market risk is managed, but are subject to various limits and controls. The underlying asset, liability or forecasted transaction may be an individual item or a portfolio of similar items.

Fair Value Hedges

Hedging of Benchmark Interest Rate Risk

Citigroup's fair value hedges, which include hedges of closed pools of assets, are primarily hedges of fixed-rate long-term debt or assets, such as available-for-sale debt securities or loans.

For qualifying fair value hedges of interest rate risk, the changes in the fair value of the derivative and the change in the fair value of the hedged item attributable to the hedged risk are presented within *Interest income* or *Interest expense* based on whether the hedged item is an asset or a liability.

Hedging of Foreign Exchange Risk

Citigroup hedges the change in fair value attributable to foreign exchange rate movements in available-for-sale debt securities and long-term debt that are denominated in currencies other than the functional currency of the entity holding the securities or issuing the debt. The hedging instrument is generally a forward foreign exchange contract or a cross-currency swap contract. Changes in the fair value of the forward points (i.e., the spot-forward difference) of forward contracts are excluded from the assessment of hedge effectiveness and are generally reflected directly in earnings over the life of the hedge. Citi also excludes changes in the fair value of cross-currency basis associated with cross-currency swaps from the assessment of hedge effectiveness and records them in *Other comprehensive income*.

Hedging of Commodity Price Risk

Citigroup hedges the change in fair value attributable to spot price movements in physical commodities inventories. The hedging instrument is a futures contract to sell the underlying commodity. In this hedge, the change in the carrying value of the hedged inventory is reflected in earnings, which offsets the change in the fair value of the futures contract that is also reflected in earnings. Although the entire change in the fair value of the hedging instrument is recorded in earnings, under certain hedge programs, Citigroup excludes changes in the fair value of the forward points (i.e., spot-forward difference) of the futures contract from the assessment of hedge effectiveness, and they are generally reflected directly in earnings over the life of the hedge. Under other hedge programs, Citi excludes changes in the fair value of forward points from the assessment of hedge effectiveness and records them in *Other comprehensive income*.

The following table summarizes the gains (losses) on the Company's fair value hedges:

In millions of dollars	Gains (losses) on fair value hedges ⁽¹⁾					
	Year ended December 31,					
	2023		2022		2021	
Other revenue	Net interest income	Other revenue	Net interest income	Other revenue	Net interest income	
Gain (loss) on the hedging derivatives included in assessment of the effectiveness of fair value hedges						
Interest rate hedges	\$ — \$ (804)	\$ — \$ (8,322)	\$ — \$ (5,425)			
Foreign exchange hedges	1,433 —	(1,375) —	(627) —			
Commodity hedges ⁽²⁾	(46) —	(1,870) —	(3,983) —			
Total gain (loss) on the hedging derivatives included in assessment of the effectiveness of fair value hedges	\$ 1,387 \$ (804)	\$ (3,245) \$ (8,322)	\$ (4,610) \$ (5,425)			
Gain (loss) on the hedged item in designated and qualifying fair value hedges						
Interest rate hedges	\$ — \$ 795	\$ — \$ 8,087	\$ — \$ 5,043			
Foreign exchange hedges	(1,433) —	1,372 —	628 —			
Commodity hedges ⁽²⁾	46 —	1,870 —	3,973 —			
Total gain (loss) on the hedged item in designated and qualifying fair value hedges	\$ (1,387) \$ 795	\$ 3,242 \$ 8,087	\$ 4,601 \$ 5,043			
Net gain (loss) on the hedging derivatives excluded from assessment of the effectiveness of fair value hedges						
Interest rate hedges	\$ — \$ —	\$ — \$ —	\$ — \$ (9)			
Foreign exchange hedges ⁽³⁾	2 —	171 —	79 —			
Commodity hedges ⁽²⁾⁽⁴⁾	312 —	94 —	5 —			
Total net gain (loss) on the hedging derivatives excluded from assessment of the effectiveness of fair value hedges	\$ 314 \$ —	\$ 265 \$ —	\$ 84 \$ (9)			

- (1) Gain (loss) amounts for interest rate risk hedges are included in *Interest income/Interest expense*. The accrued interest income on fair value hedges is recorded in *Net interest income* and is excluded from this table. Amounts included both hedges of AFS securities and long-term debt on a net basis, which largely offset in the current period.
- (2) The gain (loss) amounts for commodity hedges are included in *Principal transactions* for periods beginning 2023.
- (3) Amounts related to the forward points (i.e., the spot-forward difference) that are excluded from the assessment of hedge effectiveness and are generally reflected directly in earnings under the mark-to-market approach. Amounts related to cross-currency basis, which are recognized in *AOCI*, are not reflected in the table above. The amount of cross-currency basis included in *AOCI* was \$(70) million and \$73 million for the years ended December 31, 2023 and 2022, respectively.
- (4) Amounts related to the forward points (i.e., the spot-forward difference) that are excluded from the assessment of hedge effectiveness reflected directly in earnings under the mark-to-market approach or recorded in *AOCI* under the amortization approach. The year ended December 31, 2023 includes gain (loss) of approximately \$284 million and \$28 million under the mark-to-market approach and amortization approach, respectively. The year ended December 31, 2022 includes gain (loss) of approximately \$86 million and \$8 million under the mark-to-market approach and amortization approach, respectively.

Cumulative Basis Adjustment

Upon electing to apply ASC 815 fair value hedge accounting, the carrying value of the hedged item is adjusted to reflect the cumulative changes in the hedged risk. This cumulative basis adjustment becomes part of the carrying amount of the hedged item until the hedged item is derecognized from the balance sheet. The table below presents the carrying amount of Citi's hedged assets and liabilities under qualifying fair value hedges at December 31, 2023 and 2022, along with the cumulative basis adjustments included in the carrying value of those hedged assets and liabilities that would reverse through earnings in future periods.

In millions of dollars

Balance sheet line item in which hedged item is recorded	Carrying amount of hedged asset/liability ⁽¹⁾	Cumulative basis adjustment increasing (decreasing) the carrying amount	
		Active	De-designated
As of December 31, 2023			
Debt securities AFS ⁽²⁾⁽⁵⁾	\$ 111,886	\$ (925)	\$ (282)
Corporate loans ⁽³⁾	4,968	93	(3)
Long-term debt	141,449	(908)	(5,160)
As of December 31, 2022			
Debt securities AFS ⁽⁴⁾⁽⁵⁾	\$ 98,837	\$ (2,976)	\$ (333)
Long-term debt	144,549	(5,040)	(3,399)

- (1) Excludes physical commodities inventories with a carrying value of approximately \$8 billion as of December 31, 2023, which includes cumulative basis adjustments of approximately \$1.2 billion for active hedges.
- (2) These amounts include a cumulative basis adjustment of \$248 million for active hedges and \$(51) million for de-designated hedges as of December 31, 2023, related to certain prepayable financial assets previously designated as the hedged item in a fair value hedge using the portfolio layer approach. The Company designated approximately \$14 billion as the hedged amount (from a closed portfolio of financial assets with a carrying value of \$28 billion as of December 31, 2023) in a portfolio layer-hedging relationship.
- (3) All hedged corporate loans are designated in a fair value hedge using the portfolio layer approach. The Company designated approximately \$3.6 billion as the hedged amount (from a closed portfolio of financial assets with a carrying value of \$5.0 billion as of December 31, 2023).
- (4) These amounts include a cumulative basis adjustment of \$(91) million for active hedges and \$(309) million for de-designated hedges as of December 31, 2022, related to certain prepayable financial assets previously designated as the hedged item in a fair value hedge using the last-of-layer approach. The Company designated approximately \$3 billion as the hedged amount (from a closed portfolio of prepayable financial assets with a carrying value of \$11 billion as of December 31, 2022) in a last-of-layer hedging relationship.
- (5) Carrying amount represents the amortized cost.

Cash Flow Hedges

Citigroup hedges the variability of forecasted cash flows due to changes in contractually specified interest rates associated with floating-rate assets/liabilities and other forecasted transactions. Variable cash flows from those liabilities are synthetically converted to fixed-rate cash flows by entering into receive-variable, pay-fixed interest rate swaps and receive-variable, pay-fixed forward-starting interest rate swaps. Variable cash flows associated with certain assets are synthetically converted to fixed-rate cash flows by entering into receive-fixed, pay-variable interest rate swaps. These cash flow hedging relationships use either regression analysis or dollar-offset ratio analysis to assess whether the hedging relationships are highly effective at inception and on an ongoing basis.

For cash flow hedges, the entire change in the fair value of the hedging derivative is recognized in *AOCI* and then reclassified to earnings in the same period that the forecasted hedged cash flows impact earnings. The pretax change in *AOCI* from cash flow hedges is presented below:

In millions of dollars	2023	2022	2021			
Amount of gain (loss) recognized in <i>AOCI</i> on derivatives						
Interest rate contracts	\$ (434)	\$ (3,640)	\$ (847)			
Foreign exchange contracts	13	34	(51)			
Total gain (loss) recognized in <i>AOCI</i>	\$ (421)	\$ (3,606)	\$ (898)			
	Other revenue	Net interest income	Other revenue	Net interest income	Other revenue	Net interest income
Amount of gain (loss) reclassified from <i>AOCI</i> to earnings⁽¹⁾						
Interest rate contracts	\$ —	\$ (1,897)	\$ —	\$ (125)	\$ —	\$ 1,075
Foreign exchange contracts	(4)	—	(4)	—	(4)	—
Total gain (loss) reclassified from <i>AOCI</i> into earnings	\$ (4)	\$ (1,897)	\$ (4)	\$ (125)	\$ (4)	\$ 1,075
Net pretax change in cash flow hedges included within <i>AOCI</i>	\$ 1,480	\$ (3,477)	\$ (1,969)			

(1) All amounts reclassified into earnings for interest rate contracts are included in *Interest income/Interest expense (Net interest income)*. For all other hedges, the amounts reclassified to earnings are included primarily in *Other revenue* and *Net interest income* in the Consolidated Statement of Income.

The net gain (loss) associated with cash flow hedges expected to be reclassified from *AOCI* within 12 months of December 31, 2023 is approximately \$(0.8) billion. The maximum length of time over which forecasted cash flows are hedged is 15 years.

The after-tax impact of cash flow hedges on *AOCI* is presented in Note 21.

Net Investment Hedges

Consistent with ASC 830-20, *Foreign Currency Matters—Foreign Currency Transactions*, ASC 815 allows the hedging of the foreign currency risk of a net investment in a foreign operation. Citigroup uses foreign currency forwards, cross-currency swaps, options and foreign currency-denominated debt instruments to manage the foreign exchange risk associated with Citigroup's equity investments in several non-U.S.-dollar-functional-currency foreign subsidiaries. Citi records the change in the fair value of these hedging instruments and the translation adjustment for the investments in these foreign subsidiaries in *Foreign currency translation adjustment* (CTA) within *AOCI*.

For derivatives designated as net investment hedges, Citigroup follows the forward-rate method outlined in ASC 815-35-35. According to that method, all changes in fair value, including changes related to the forward-rate component of the foreign currency forward contracts and the time value of foreign currency options, are recorded in CTA within *AOCI*.

For foreign currency-denominated debt instruments that are designated as hedges of net investments, the translation gain or loss that is recorded in CTA is based on the spot exchange rate between the functional currency of the respective subsidiary and the U.S. dollar, which is the functional currency of Citigroup.

The pretax gain (loss) recorded in CTA within *AOCI*, related to net investment hedges, was \$(1.4) billion, \$370 million and \$855 million for the years ended December 31, 2023, 2022 and 2021, respectively. The year ended December 31, 2022 includes a \$36 million pretax loss related to net investment hedges, respectively, which were reclassified from *AOCI* into earnings (recorded in *Other revenue*).

Economic Hedges

Citigroup often uses economic hedges when hedge accounting would be too complex or operationally burdensome. End-user derivatives that are economic hedges are carried at fair value, with changes in value included in either *Principal transactions* or *Other revenue*.

For asset/liability management hedging, fixed-rate long-term debt is recorded at amortized cost under GAAP.

For other hedges that either do not meet the ASC 815 hedging criteria or for which management decides not to apply ASC 815 hedge accounting, the derivative is recorded at fair value on the balance sheet with the associated changes in fair value recorded in earnings, while the debt continues to be carried at amortized cost. Therefore, current earnings are affected by the interest rate shifts and other factors that cause a change in the swap's value, but for which no offsetting change in value is recorded on the debt.

Citigroup may alternatively elect to account for the debt at fair value under the fair value option. Once the irrevocable election is made upon issuance of the debt, the full change in fair value of the debt is reported in earnings. The changes in fair value of the related interest rate swap are also reflected in earnings, which provides a natural offset to the debt's fair value change. To the extent that the two amounts differ because the full change in the fair value of the debt includes

risks not offset by the interest rate swap, the difference is automatically captured in current earnings.

Additional economic hedges include hedges of the credit risk component of commercial loans and loan commitments. Citigroup periodically evaluates its hedging strategies in other areas and may designate either an accounting hedge or an economic hedge after considering the relative costs and benefits. Economic hedges are also employed when the hedged item itself is marked-to-market through current earnings, such as hedges of commitments to originate one- to four-family mortgage loans to be HFS and MSRs.

Credit Derivatives

Citi is a market maker and trades a range of credit derivatives. Through these contracts, Citi either purchases or writes protection on either a single name or a portfolio of reference credits. Citi also uses credit derivatives to help mitigate credit risk in its corporate and consumer loan portfolios and other cash positions and to facilitate client transactions.

Citi monitors its counterparty credit risk in credit derivative contracts. As of December 31, 2023 and 2022, approximately 98% and 98%, respectively, of the gross receivables are from counterparties with which Citi maintains master netting agreements, collateral agreements or settles daily. A majority of Citi's top 15 counterparties (by receivable balance owed to Citi) are central clearing houses, banks, financial institutions or other dealers. Contracts with these counterparties do not include ratings-based termination events. However, counterparty ratings downgrades may have an incremental effect by lowering the threshold at which Citi may call for additional collateral.

The range of credit derivatives entered into includes credit default swaps, total return swaps, credit options and credit-linked notes.

A credit default swap is a contract in which, for a fee, a protection seller agrees to reimburse a protection buyer for any losses that occur due to a predefined credit event on a reference entity. These credit events are defined by the terms of the derivative contract and the reference entity and are generally limited to the market standard of failure to pay on indebtedness and bankruptcy of the reference entity and, in a more limited range of transactions, debt restructuring. Credit derivative transactions that reference emerging market entities also typically include additional credit events to cover the acceleration of indebtedness and the risk of repudiation or a payment moratorium. In certain transactions, protection may be provided on a portfolio of reference entities or asset-backed securities. If there is no credit event, as defined by the specific derivative contract, then the protection seller makes no payments to the protection buyer and receives only the contractually specified fee. However, if a credit event occurs as defined in the specific derivative contract sold, the protection seller will be required to make a payment to the protection buyer. Under certain contracts, the seller of protection may not be required to make a payment until a specified amount of losses has occurred with respect to the portfolio and/or may only be required to pay for losses up to a specified amount.

A total return swap typically transfers the total economic performance of a reference asset, which includes all associated cash flows, as well as capital appreciation or depreciation. The protection buyer receives a floating rate of interest and any depreciation on the reference asset from the protection seller and, in return, the protection seller receives the cash flows associated with the reference asset plus any appreciation. Thus, according to the total return swap agreement, the protection seller will be obligated to make a payment any time the floating interest rate payment plus any depreciation of the reference asset exceeds the cash flows associated with the underlying asset. A total return swap may terminate upon a default of the reference asset or a credit event with respect to the reference entity, subject to the provisions of the related total return swap agreement between the protection seller and the protection buyer.

A credit option is a credit derivative that allows investors to trade or hedge changes in the credit quality of a reference entity. For example, in a credit spread option, the option writer assumes the obligation to purchase or sell credit protection on the reference entity at a specified “strike” spread level. The option purchaser buys the right to sell credit default protection on the reference entity to, or purchase it from, the option writer at the strike spread level. The payments on credit spread options depend either on a particular credit spread or the price of the underlying credit-sensitive asset or other reference entity. The options usually terminate if a credit event occurs with respect to the underlying reference entity.

A credit-linked note is a form of credit derivative structured as a debt security with an embedded credit default swap. The purchaser of the note effectively provides credit protection to the issuer by agreeing to receive a return that could be negatively affected by credit events on the underlying reference entity. If the reference entity defaults, the note may be cash settled or physically settled by delivery of a debt security of the reference entity. Thus, the maximum amount of the note purchaser’s exposure is the amount paid for the credit-linked note.

The following tables summarize the key characteristics of Citi's credit derivatives portfolio by counterparty and derivative form:

In millions of dollars at December 31, 2023	Fair values		Notionals	
	Receivable ⁽¹⁾	Payable ⁽²⁾	Protection purchased	Protection sold
By instrument				
Credit default swaps and options	\$ 7,686	\$ 7,243	\$ 539,522	\$ 491,514
Total return swaps and other	653	839	28,105	5,185
Total by instrument	\$ 8,339	\$ 8,082	\$ 567,627	\$ 496,699
By rating of reference entity				
Investment grade	\$ 4,282	\$ 4,138	\$ 444,989	\$ 393,115
Non-investment grade	4,057	3,944	122,638	103,584
Total by rating of reference entity	\$ 8,339	\$ 8,082	\$ 567,627	\$ 496,699
By maturity				
Within 1 year	\$ 986	\$ 1,713	\$ 155,910	\$ 128,874
From 1 to 5 years	5,816	4,939	366,156	337,583
After 5 years	1,537	1,430	45,561	30,242
Total by maturity	\$ 8,339	\$ 8,082	\$ 567,627	\$ 496,699

(1) The fair value amount receivable is composed of \$2,770 million under protection purchased and \$5,569 million under protection sold.

(2) The fair value amount payable is composed of \$6,097 million under protection purchased and \$1,985 million under protection sold.

In millions of dollars at December 31, 2022	Fair values		Notionals	
	Receivable ⁽¹⁾	Payable ⁽²⁾	Protection purchased	Protection sold
By instrument				
Credit default swaps and options	\$ 6,867	\$ 7,360	\$ 623,981	\$ 586,504
Total return swaps and other	1,522	417	17,658	6,632
Total by instrument	\$ 8,389	\$ 7,777	\$ 641,639	\$ 593,136
By rating of reference entity				
Investment grade	\$ 3,796	\$ 2,970	\$ 499,339	\$ 462,873
Non-investment grade	4,593	4,807	142,300	130,263
Total by rating of reference entity	\$ 8,389	\$ 7,777	\$ 641,639	\$ 593,136
By maturity				
Within 1 year	\$ 1,753	\$ 1,801	\$ 147,031	\$ 148,721
From 1 to 5 years	4,577	4,134	443,113	407,293
After 5 years	2,059	1,842	51,495	37,122
Total by maturity	\$ 8,389	\$ 7,777	\$ 641,639	\$ 593,136

(1) The fair value amount receivable is composed of \$5,094 million under protection purchased and \$3,295 million under protection sold.

(2) The fair value amount payable is composed of \$3,573 million under protection purchased and \$4,204 million under protection sold.

Fair values included in the above tables are prior to application of any netting agreements and cash collateral. For notional amounts, Citi generally has a mismatch between the total notional amounts of protection purchased and sold, and it may hold the reference assets directly rather than entering into offsetting credit derivative contracts as and when desired. The open risk exposures from credit derivative contracts are largely matched after certain cash positions in reference assets are considered and after notional amounts are adjusted, either to a duration-based equivalent basis or to reflect the level of subordination in tranches structures. The ratings of the credit derivatives portfolio presented in the tables and used to evaluate payment/performance risk are based on the assigned internal or external ratings of the reference asset or entity.

Where external ratings are used, investment-grade ratings are considered to be "Baa/BBB" and above, while anything below is considered non-investment grade. Citi's internal ratings are in line with the related external rating system.

Citigroup evaluates the payment/performance risk of the credit derivatives for which it stands as a protection seller based on the credit rating assigned to the underlying reference credit. Credit derivatives written on an underlying non-investment-grade reference entity represent greater payment risk to the Company. The non-investment-grade category in the table above also includes credit derivatives where the underlying reference entity has been downgraded subsequent to the inception of the derivative.

The maximum potential amount of future payments under credit derivative contracts presented in the table above is based on the notional value of the derivatives. The Company believes that the notional amount for credit protection sold is not representative of the actual loss exposure based on historical experience. This amount has not been reduced by the value of the reference assets and the related cash flows. In accordance with most credit derivative contracts, should a credit event occur, the Company usually is liable for the difference between the protection sold and the value of the reference assets. Furthermore, the notional amount for credit protection sold has not been reduced for any cash collateral paid to a given counterparty, as such payments would be calculated after netting all derivative exposures, including any credit derivatives with that counterparty in accordance with a related master netting agreement. Due to such netting processes, determining the amount of collateral that corresponds to credit derivative exposures alone is not possible. The Company actively monitors open credit-risk exposures and manages this exposure by using a variety of strategies, including purchased credit derivatives, cash collateral or direct holdings of the referenced assets. This risk mitigation activity is not captured in the table above.

Credit Risk-Related Contingent Features in Derivatives

Certain derivative instruments contain provisions that require the Company to either post additional collateral or immediately settle any outstanding liability balances upon the occurrence of a specified event related to the credit risk of the Company. These events, which are defined by the existing derivative contracts, are primarily downgrades in the credit ratings of the Company and its affiliates.

The fair value (excluding CVA) of all derivative instruments with credit risk-related contingent features that were in a net liability position at December 31, 2023 and 2022 was \$15 billion and \$18 billion, respectively. The Company posted \$12 billion and \$15 billion as collateral for this exposure in the normal course of business as of December 31, 2023 and 2022, respectively.

A downgrade could trigger additional collateral or cash settlement requirements for the Company and certain affiliates. In the event that Citigroup and Citibank were downgraded a single notch by all three major rating agencies as of December 31, 2023, the Company could be required to post an additional \$0.5 billion as either collateral or settlement of the derivative transactions. In addition, the Company could be required to segregate with third-party custodians collateral previously received from existing derivative counterparties in the amount of \$33 million upon the single notch downgrade, resulting in aggregate cash obligations and collateral requirements of approximately \$0.5 billion.

Derivatives Accompanied by Financial Asset Transfers

The Company executes total return swaps that provide it with synthetic exposure to substantially all of the economic return of the securities or other financial assets referenced in the contract. In certain cases, the derivative transaction is accompanied by the Company's transfer of the referenced financial asset to the derivative counterparty, most typically in response to the derivative counterparty's desire to hedge, in whole or in part, its synthetic exposure under the derivative contract by holding the referenced asset in funded form. In certain jurisdictions these transactions qualify as sales, resulting in derecognition of the securities transferred (see Note 1 for further discussion of the related sale conditions for transfers of financial assets). For a significant portion of the transactions, the Company has also executed another total return swap where the Company passes on substantially all of the economic return of the referenced securities to a different third party seeking the exposure. In those cases, the Company is not exposed, on a net basis, to changes in the economic return of the referenced securities.

These transactions generally involve the transfer of the Company's liquid government bonds, convertible bonds or publicly traded corporate equity securities from the trading portfolio and are executed with third-party financial institutions. The accompanying derivatives are typically total return swaps. The derivatives are cash settled and subject to ongoing margin requirements.

When the conditions for sale accounting are met, the Company reports the transfer of the referenced financial asset as a sale and separately reports the accompanying derivative transaction. These transactions generally do not result in a gain or loss on the sale of the security, because the transferred security was held at fair value in the Company's trading portfolio. For transfers of financial assets accounted for as a sale by the Company, and for which the Company has retained substantially all of the economic exposure to the transferred asset through a total return swap executed with the same counterparty in contemplation of the initial sale (and still outstanding), the asset amounts derecognized and the gross cash proceeds received as of the date of derecognition were \$4.3 billion and \$1.4 billion as of December 31, 2023 and 2022, respectively.

At December 31, 2023, the fair value of these previously derecognized assets was \$4.3 billion. The fair value of the total return swaps as of December 31, 2023 was \$121 million recorded as gross derivative assets and \$29 million recorded as gross derivative liabilities. At December 31, 2022, the fair value of these previously derecognized assets was \$1.4 billion, and the fair value of the total return swaps was \$27 million recorded as gross derivative assets and \$32 million recorded as gross derivative liabilities.

The balances for the total return swaps are on a gross basis, before the application of counterparty and cash collateral netting, and are included primarily as equity derivatives in the tabular disclosures in this Note.

25. CONCENTRATIONS OF CREDIT RISK

Concentrations of credit risk exist when changes in economic, industry or geographic factors similarly affect groups of counterparties whose aggregate credit exposure is material in relation to Citigroup's total credit exposure. Although Citigroup's portfolio of financial instruments is broadly diversified along industry, product and geographic lines, material transactions are completed with other financial institutions, particularly in the securities trading, derivatives and foreign exchange businesses.

In connection with the Company's efforts to maintain a diversified portfolio, the Company limits its exposure to any one geographic region, country or individual creditor and monitors this exposure on a continuous basis. At December 31, 2023, Citigroup's most significant concentration of credit risk was with the U.S. government and its agencies. The Company's exposure, which primarily results from trading assets and investments issued by the U.S. government and its agencies, amounted to \$517.2 billion and \$431.6 billion at December 31, 2023 and 2022, respectively. The German, Mexican, Japanese and United Kingdom governments and their agencies, which are rated investment grade by both Moody's and S&P, were the next largest exposures. The Company's exposure to Germany amounted to \$39.8 billion and \$48.3 billion at December 31, 2023 and 2022, respectively. The Company's exposure to Mexico amounted to \$32.8 billion and \$31.1 billion at December 31, 2023 and 2022, respectively. The Company's exposure to Japan amounted to \$29.6 billion and \$40.0 billion at December 31, 2023 and 2022, respectively. The Company's exposure to the United Kingdom amounted to \$23.8 billion and \$31.7 billion at December 31, 2023 and 2022, respectively. The foreign government exposures are composed of investment securities, loans and trading assets.

The Company's exposure to states and municipalities amounted to \$17.6 billion and \$20.1 billion at December 31, 2023 and 2022, respectively, and was composed of trading assets, investment securities, derivatives and lending activities.

26. FAIR VALUE MEASUREMENT

ASC 820-10, *Fair Value Measurement*, defines fair value, establishes a consistent framework for measuring fair value and requires disclosures about fair value measurements. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, and therefore represents an exit price. Among other things, the standard requires the Company to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

Under ASC 820-10, the probability of counterparty default is factored into the valuation of derivatives and other positions, and the impact of Citigroup's own credit risk is factored into the valuation of derivatives and other liabilities that are measured at fair value.

Fair Value Hierarchy

ASC 820-10 specifies a hierarchy of inputs based on whether the inputs are observable or unobservable. Observable inputs are developed using market data and reflect market participant assumptions, while unobservable inputs reflect the Company's market assumptions. These two types of inputs have created the following fair value hierarchy:

- Level 1: Quoted prices for *identical* instruments in active markets.
- Level 2: Quoted prices for *similar* instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-derived valuations in which all significant inputs and value drivers are *observable* in the market.
- Level 3: Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are *unobservable*.

As required under the fair value hierarchy, the Company considers relevant and observable market inputs in its valuations where possible.

The fair value hierarchy classification approach typically utilizes rules-based and data-driven criteria to determine whether an instrument is classified as Level 1, Level 2 or Level 3:

- The determination of whether an instrument is quoted in an active market and therefore considered a Level 1 instrument is based upon the frequency of observed transactions and the quality of independent market data available on the measurement date.
- A Level 2 classification is assigned where there is observability of prices/market inputs to models, or where any unobservable inputs are not significant to the valuation. The determination of whether an input is considered observable is based on the availability of independent market data and its corroboration, for example through observed transactions in the market.
- Otherwise, an instrument is classified as Level 3.

Determination of Fair Value

For assets and liabilities carried at fair value, the Company measures fair value using the procedures set out below, irrespective of whether the assets and liabilities are measured at fair value as a result of an election, a non-recurring lower-of-cost-or-market (LOCOM) adjustment, or because they are required to be measured at fair value.

When available, the Company uses quoted market prices from active markets to determine fair value and classifies such items as Level 1. In some specific cases where a market price is available, the Company will apply practical expedients (such as matrix pricing) to calculate fair value, in which case the items may be classified as Level 2.

The Company may also apply a price-based methodology that utilizes, where available, quoted prices or other market information obtained from recent trading activity in positions with the same or similar characteristics to the position being valued. If relevant and observable prices are available, those valuations may be classified as Level 2. However, when there are one or more significant unobservable "price" inputs, those valuations will be classified as Level 3. Furthermore, when a quoted price is considered stale, a significant adjustment to the price of a similar security is necessary to reflect differences in the terms of the actual security being valued, or alternatively, when prices from independent sources are insufficient to corroborate a valuation, the "price" inputs are considered unobservable and the fair value measurements are classified as Level 3.

If quoted market prices are not available, fair value is based upon internally developed valuation techniques that use, where possible, current market-based parameters, such as interest rates, currency rates and option volatilities. Items valued using such internally generated valuation techniques are classified according to the lowest level input or value driver that is significant to the valuation. Thus, an item may be classified as Level 3 even though there may be some significant inputs that are readily observable.

Fair value estimates from internal valuation techniques are verified, where possible, to prices obtained from independent vendors or brokers. Vendor and broker valuations may be based on a variety of inputs ranging from observed prices to proprietary valuation models, and the Company assesses the quality and relevance of this information in determining the estimate of fair value. The following section describes the valuation methodologies used by the Company to measure various financial instruments at fair value. Where appropriate, the description includes details of the valuation models, the key inputs to those models and any significant assumptions.

Market Valuation Adjustments

Generally, the unit of account for a financial instrument is the individual financial instrument. The Company applies market valuation adjustments that are consistent with the unit of account, which do not include adjustments due to the size of the Company's position, except as follows. ASC 820-10 permits an exception, through an accounting policy election, to measure the fair value of a portfolio of financial assets and financial liabilities on the basis of the net open risk position when certain criteria are met. Citi has elected to measure

certain portfolios of financial instruments that meet those criteria, such as derivatives, on the basis of the net open risk position. The Company applies market valuation adjustments, including adjustments to account for the size of the net open risk position, consistent with market participant assumptions.

Valuation adjustments are applied to items classified as Level 2 or Level 3 in the fair value hierarchy to ensure that the fair value reflects the price at which the net open risk position could be exited. These valuation adjustments are based on the bid/offer spread for an instrument in the market. When Citi has elected to measure certain portfolios of financial investments, such as derivatives, on the basis of the net open risk position, the valuation adjustment may take into account the size of the position.

Credit valuation adjustments (CVA) and funding valuation adjustments (FVA) are applied to certain over-the-counter (OTC) derivative instruments where adjustments to reflect counterparty credit risk, own credit risk and term funding risk are required to estimate fair value. This principally includes derivatives with a base valuation (e.g., discounted using overnight indexed swap (OIS)) requiring adjustment for these effects, such as uncollateralized interest rate swaps. The CVA represents a portfolio-level adjustment to reflect the risk premium associated with the counterparty's (assets) or Citi's (liabilities) non-performance risk.

The FVA represents a market funding risk premium inherent in the uncollateralized portion of a derivative portfolio and in certain collateralized derivative portfolios that do not include standard credit support annexes (CSAs), such as where the CSA does not permit the reuse of collateral received. Citi's FVA methodology leverages the existing CVA methodology to estimate a funding exposure profile. The calculation of this exposure profile considers collateral agreements in which the terms do not permit the Company to reuse the collateral received, including where counterparties post collateral to third-party custodians. Citi's CVA and FVA methodologies consist of two steps:

- First, the exposure profile for each counterparty is determined using the terms of all individual derivative positions and a Monte Carlo simulation or other quantitative analysis to generate a series of expected cash flows at future points in time. The calculation of this exposure profile considers the effect of credit risk mitigants and sources of funding, including pledged cash or other collateral and any legal right of offset that exists with a counterparty through arrangements such as netting agreements. Individual derivative contracts that are subject to an enforceable master netting agreement with a counterparty are aggregated as a netting set for this purpose, since it is those net cash flows that are subject to nonperformance risk. This process identifies specific, point-in-time future cash flows that are subject to nonperformance and term funding risk, rather than using the current recognized net asset or liability as a basis to measure the CVA and FVA.
- Second, for CVA, market-based views of default probabilities derived from observed credit spreads in the credit default swap (CDS) market are applied to the expected future cash flows determined in step one. Citi's

own credit CVA is determined using Citi-specific CDS spreads for the relevant tenor. Generally, counterparty CVA is determined using CDS spread indices for each credit rating and tenor. For certain identified netting sets where individual analysis is practicable (e.g., exposures to counterparties with liquid CDSs), counterparty-specific CDS spreads are used. For FVA, a term structure of spreads is applied to the expected funding exposures (e.g., the market liquidity spread used to represent the term funding premium associated with certain OTC derivatives).

The CVA and FVA are designed to incorporate a market view of the credit and funding risk, respectively, inherent in the derivative portfolio. However, most unsecured derivative instruments are negotiated bilateral contracts and are not commonly transferred to third parties. Derivative instruments are normally settled contractually or, if terminated early, are terminated at a value negotiated bilaterally between the parties. Thus, the CVA and FVA may not be realized upon a settlement or termination in the normal course of business. In addition, all or a portion of these adjustments may be reversed or otherwise adjusted in future periods in the event of changes in the credit or funding risk associated with the derivative instruments.

The table below summarizes the CVA and FVA applied to the fair value of derivative instruments at December 31, 2023 and 2022:

	Credit and funding valuation adjustments contra-liability (contra-asset)	
<i>In millions of dollars</i>	December 31, 2023	December 31, 2022
Counterparty CVA	\$ (580)	\$ (816)
Asset FVA	(562)	(622)
Citigroup (own credit) CVA	381	607
Liability FVA	255	263
Total CVA and FVA—derivative instruments	\$ (506)	\$ (568)

The table below summarizes pretax gains (losses) related to changes in CVA on derivative instruments, net of hedges, FVA on derivatives and debt valuation adjustments (DVA) on Citi's own fair value option (FVO) liabilities for the years indicated:

<i>In millions of dollars</i>	Credit/funding/debt valuation adjustments gain (loss)	2023	2022	2021
Counterparty CVA	\$ (31)	\$ (227)	\$ 79	
Asset FVA	64	(102)	96	
Own credit CVA	(212)	157	(33)	
Liability FVA	(23)	155	(22)	
Total CVA and FVA— derivative instruments	\$ (202)	\$ (17)	\$ 120	
DVA related to own FVO liabilities ⁽¹⁾	\$ (2,078)	\$ 2,685	\$ 296	
Total CVA, DVA and FVA	\$ (2,280)	\$ 2,668	\$ 416	

(1) See Note 21.

Securities Purchased Under Agreements to Resell and Securities Sold Under Agreements to Repurchase

No quoted prices exist for these instruments, since fair value is determined using a discounted cash flow technique. Cash flows are estimated based on the terms of the contract, taking into account any embedded derivatives or other features. These cash flows are discounted using interest rates appropriate to the maturity of the instrument as well as the nature of the underlying collateral. Generally, when such instruments are recorded at fair value, they are classified within Level 2 of the fair value hierarchy, as the inputs used in the valuation are readily observable. However, certain long-dated positions are classified within Level 3 of the fair value hierarchy.

Trading Account Assets and Liabilities—Trading Securities and Trading Loans

When available, the Company uses quoted market prices in active markets to determine the fair value of trading securities; such items are classified within Level 1 of the fair value hierarchy. Examples include government securities and exchange-traded equity securities.

For bonds and secondary market loans traded over the counter, the Company generally determines fair value utilizing various valuation techniques, including discounted cash flows, price-based and internal models. Fair value estimates from these internal valuation techniques are verified, where possible, to prices obtained from independent sources, including third-party vendors. A price-based methodology utilizes, where available, quoted prices or other market information obtained from recent trading activity of instruments with similar characteristics to the bond or loan being valued. The yields used in discounted cash flow models are derived from the same price information. Trading securities and loans priced using such methods are generally classified as Level 2. However, when the primary inputs to the valuation are unobservable, or prices from independent sources are insufficient to corroborate valuation, a loan or

security is generally classified as Level 3. Fair value estimates from these internal valuation techniques are verified, where possible, to prices obtained from independent sources, including third-party vendors.

When the Company's principal exit market for a portfolio of loans is through securitization, the Company uses the securitization price as a key input into the fair value of the loan portfolio. The securitization price is determined from the assumed proceeds of a hypothetical securitization within the current market environment. Where such a price verification is possible, loan portfolios are typically classified within Level 2 of the fair value hierarchy.

For most of the subprime mortgage backed security (MBS) exposures, fair value is determined utilizing observable transactions where available, or other valuation techniques such as discounted cash flow analysis utilizing valuation assumptions derived from similar, more observable securities as market proxies. The valuation of certain asset-backed security (ABS) CDO positions is inferred through the net asset value of the underlying assets of the ABS CDO.

Trading Account Assets and Liabilities—Derivatives

Exchange-traded derivatives, measured at fair value using quoted (i.e., exchange) prices in active markets, where available, are classified as Level 1 within the fair value hierarchy.

Derivatives without a quoted price in an active market and derivatives executed over the counter are valued using internal valuation techniques. These derivative instruments are classified as either Level 2 or Level 3 depending on the observability of the significant inputs to the valuation.

The valuation techniques depend on the type of derivative and the nature of the underlying instrument. The principal techniques used to value these instruments are discounted cash flows and internal models, such as derivative pricing models (e.g., Black-Scholes and Monte Carlo simulations).

The key inputs depend upon the type of derivative and the nature of the underlying instrument and include interest rate yield curves, foreign exchange rates, volatilities and correlation.

Investments

The investments category includes available-for-sale debt and marketable equity securities whose fair values are generally determined by utilizing similar procedures described for trading securities above or, in some cases, using vendor pricing as the primary source.

Also included in investments are nonpublic investments in private equity and real estate entities. Determining the fair value of nonpublic securities involves a significant degree of management judgment, as no quoted prices exist and such securities are not generally traded. In addition, there may be transfer restrictions on private equity securities. The Company's process for determining the fair value of such securities utilizes commonly accepted valuation techniques, including guideline public company analysis and comparable transactions. In determining the fair value of nonpublic securities, the Company also considers events such as a proposed sale of the investee company, initial public offerings, equity issuances or other observable transactions. Private

equity securities are generally classified within Level 3 of the fair value hierarchy.

Short-Term Borrowings and Long-Term Debt

Where fair value accounting has been elected, the fair value of non-structured liabilities is determined by utilizing internal models using the appropriate discount rate for the applicable maturity. Such instruments are classified within Level 2 of the fair value hierarchy when all significant inputs are readily observable.

The Company determines the fair value of hybrid financial instruments, including structured liabilities, using the appropriate derivative valuation methodology (described above in “Trading Account Assets and Liabilities—Derivatives”) given the nature of the embedded risk profile. Such instruments are classified within Level 2 or Level 3 depending on the observability of significant inputs to the valuation.

Items Measured at Fair Value on a Recurring Basis

The following tables present for each of the fair value hierarchy levels the Company's assets and liabilities that are measured at fair value on a recurring basis at December 31, 2023 and 2022. The Company may hedge positions that have

been classified in the Level 3 category with other financial instruments (hedging instruments) that may be classified as Level 3, but also with financial instruments classified as Level 1 or Level 2. The effects of these hedges are presented gross in the following tables:

Fair Value Levels

<i>In millions of dollars at December 31, 2023</i>	Level 1	Level 2	Level 3	Gross inventory	Netting ⁽¹⁾	Net balance
Assets						
Securities borrowed and purchased under agreements to resell	\$ —	\$ 453,715	\$ 139	\$ 453,854	\$ (247,795)	\$ 206,059
Trading non-derivative assets						
Trading mortgage-backed securities						
U.S. government-sponsored agency guaranteed	—	79,795	581	80,376	—	80,376
Residential	1	597	116	714	—	714
Commercial	—	464	202	666	—	666
Total trading mortgage-backed securities	\$ 1	\$ 80,856	\$ 899	\$ 81,756	\$ —	\$ 81,756
U.S. Treasury and federal agency securities	\$ 112,851	\$ 2,398	\$ 7	\$ 115,256	\$ —	\$ 115,256
State and municipal	—	594	3	597	—	597
Foreign government	44,203	28,238	54	72,495	—	72,495
Corporate	1,858	16,716	500	19,074	—	19,074
Equity securities	32,966	12,135	292	45,393	—	45,393
Asset-backed securities	—	1,223	531	1,754	—	1,754
Other trading assets ⁽²⁾	97	16,784	833	17,714	—	17,714
Total trading non-derivative assets	\$ 191,976	\$ 158,944	\$ 3,119	\$ 354,039	\$ —	\$ 354,039
Trading derivatives						
Interest rate contracts	\$ 49	\$ 156,307	\$ 2,138	\$ 158,494		
Foreign exchange contracts	—	158,672	1,022	159,694		
Equity contracts	8	41,870	1,400	43,278		
Commodity contracts	2	16,456	1,111	17,569		
Credit derivatives	—	7,564	775	8,339		
Total trading derivatives—before netting and collateral	\$ 59	\$ 380,869	\$ 6,446	\$ 387,374		
Netting agreements					\$ (308,431)	
Netting of cash collateral received					(21,226)	
Total trading derivatives—after netting and collateral	\$ 59	\$ 380,869	\$ 6,446	\$ 387,374	\$ (329,657)	\$ 57,717
Investments						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	—	\$ 29,640	\$ 75	\$ 29,715	—	\$ 29,715
Residential	—	307	116	423	—	423
Commercial	—	1	—	1	—	1
Total investment mortgage-backed securities	\$ —	\$ 29,948	\$ 191	\$ 30,139	\$ —	\$ 30,139
U.S. Treasury and federal agency securities	\$ 80,062	\$ 299	\$ —	\$ 80,361	\$ —	\$ 80,361
State and municipal	—	1,589	542	2,131	—	2,131
Foreign government	60,133	70,871	194	131,198	—	131,198
Corporate	2,680	2,370	362	5,412	—	5,412
Marketable equity securities	159	72	27	258	—	258
Asset-backed securities	—	938	—	938	—	938
Other debt securities	—	6,757	—	6,757	—	6,757
Non-marketable equity securities	—	—	483	483	—	483
Total investments	\$ 143,034	\$ 112,844	\$ 1,799	\$ 257,677	\$ —	\$ 257,677

Table continues on the next page.

<i>In millions of dollars at December 31, 2023</i>	Level 1	Level 2	Level 3	Gross inventory	Netting⁽¹⁾	Net balance
Loans	\$ —	\$ 7,167	\$ 427	\$ 7,594	\$ —	\$ 7,594
Mortgage servicing rights	—	—	691	691	—	691
Non-trading derivatives and other financial assets measured on a recurring basis	\$ 4,677	\$ 8,321	\$ 30	\$ 13,028	\$ —	\$ 13,028
Total assets	\$ 339,746	\$ 1,121,860	\$ 12,651	\$ 1,474,257	\$(577,452)	\$896,805
Total as a percentage of gross assets⁽³⁾	23.0 %	76.1 %	0.9 %			
Liabilities						
Interest-bearing deposits	\$ —	\$ 2,411	\$ 29	\$ 2,440	\$ —	\$ 2,440
Securities loaned and sold under agreements to repurchase	—	228,048	390	228,438	(165,953)	62,485
Trading account liabilities						
Securities sold, not yet purchased	91,163	13,460	35	104,658	—	104,658
Other trading liabilities	—	8	—	8	—	8
Total trading account liabilities	\$ 91,163	\$ 13,468	\$ 35	\$ 104,666	\$ —	\$ 104,666
Trading derivatives						
Interest rate contracts	\$ 49	\$ 149,914	\$ 3,223	\$ 153,186		
Foreign exchange contracts	—	156,474	727	157,201		
Equity contracts	18	44,894	3,034	47,946		
Commodity contracts	—	17,964	832	18,796		
Credit derivatives	—	7,234	848	8,082		
Total trading derivatives—before netting and collateral	\$ 67	\$ 376,480	\$ 8,664	\$ 385,211		
Netting agreements					\$ (308,431)	
Netting of cash collateral paid					(26,101)	
Total trading derivatives—after netting and collateral	\$ 67	\$ 376,480	\$ 8,664	\$ 385,211	\$(334,532)	\$ 50,679
Short-term borrowings	\$ —	\$ 6,064	\$ 481	\$ 6,545	\$ —	\$ 6,545
Long-term debt	—	77,958	38,380	116,338	—	116,338
Total non-trading derivatives and other financial liabilities measured on a recurring basis	\$ 4,298	\$ 130	\$ 6	\$ 4,434	\$ —	\$ 4,434
Total liabilities	\$ 95,528	\$ 704,559	\$ 47,985	\$ 848,072	\$(500,485)	\$347,587
Total as a percentage of gross liabilities⁽³⁾	11.3 %	83.0 %	5.7 %			

- (1) Represents netting of (i) the amounts due under securities purchased under agreements to resell and the amounts owed under securities sold under agreements to repurchase and (ii) derivative exposures covered by a qualifying master netting agreement and cash collateral offsetting.
- (2) Amounts exclude \$25 million of investments measured at net asset value (NAV) in accordance with ASU 2015-07, *Fair Value Measurement (Topic 820): Disclosure for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)*.
- (3) Because the amount of the cash collateral paid/received has not been allocated to the Level 1, 2 and 3 subtotals, these percentages are calculated based on total assets and liabilities measured at fair value on a recurring basis, excluding the cash collateral paid/received on derivatives.

Fair Value Levels

<i>In millions of dollars at December 31, 2022</i>	Level 1	Level 2	Level 3	Gross inventory	Netting ⁽¹⁾	Net balance
Assets						
Securities borrowed and purchased under agreements to resell	\$ —	\$ 350,145	\$ 149	\$ 350,294	\$ (110,767)	\$239,527
Trading non-derivative assets						
Trading mortgage-backed securities						
U.S. government-sponsored agency guaranteed	—	34,878	600	35,478	—	35,478
Residential	1	1,821	166	1,988	—	1,988
Commercial	—	798	145	943	—	943
Total trading mortgage-backed securities	\$ 1	\$ 37,497	\$ 911	\$ 38,409	\$ —	\$ 38,409
U.S. Treasury and federal agency securities	\$ 63,067	\$ 4,513	\$ 1	\$ 67,581	\$ —	\$ 67,581
State and municipal	—	2,256	7	2,263	—	2,263
Foreign government	38,383	25,850	119	64,352	—	64,352
Corporate	1,593	11,955	394	13,942	—	13,942
Equity securities	43,990	10,179	192	54,361	—	54,361
Asset-backed securities	—	1,597	668	2,265	—	2,265
Other trading assets ⁽²⁾	24	14,963	648	15,635	—	15,635
Total trading non-derivative assets	\$ 147,058	\$ 108,810	\$ 2,940	\$ 258,808	\$ —	\$ 258,808
Trading derivatives						
Interest rate contracts	\$ 297	\$ 174,156	\$ 3,751	\$ 178,204		
Foreign exchange contracts	—	186,897	766	187,663		
Equity contracts	20	40,683	1,704	42,407		
Commodity contracts	—	26,823	1,501	28,324		
Credit derivatives	—	7,484	905	8,389		
Total trading derivatives—before netting and collateral	\$ 317	\$ 436,043	\$ 8,627	\$ 444,987		
Netting agreements					\$ (346,545)	
Netting of cash collateral received					(23,136)	
Total trading derivatives—after netting and collateral	\$ 317	\$ 436,043	\$ 8,627	\$ 444,987	\$ (369,681)	\$ 75,306
Investments						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	\$ —	\$ 11,232	\$ 30	\$ 11,262	\$ —	\$ 11,262
Residential	—	444	41	485	—	485
Commercial	—	2	—	2	—	2
Total investment mortgage-backed securities	\$ —	\$ 11,678	\$ 71	\$ 11,749	\$ —	\$ 11,749
U.S. Treasury and federal agency securities	\$ 91,851	\$ 439	\$ —	\$ 92,290	\$ —	\$ 92,290
State and municipal	—	1,637	586	2,223	—	2,223
Foreign government	58,419	74,250	608	133,277	—	133,277
Corporate	2,230	2,343	343	4,916	—	4,916
Marketable equity securities	254	165	10	429	—	429
Asset-backed securities	—	1,029	1	1,030	—	1,030
Other debt securities	—	4,194	—	4,194	—	4,194
Non-marketable equity securities	—	9	430	439	—	439
Total investments	\$ 152,754	\$ 95,744	\$ 2,049	\$ 250,547	\$ —	\$ 250,547

Table continues on the next page.

In millions of dollars at December 31, 2022	Level 1	Level 2	Level 3	Gross inventory	Netting ⁽¹⁾	Net balance
Loans	\$ —	\$ 3,999	\$ 1,361	\$ 5,360	\$ —	\$ 5,360
Mortgage servicing rights	—	—	665	665	—	665
Non-trading derivatives and other financial assets measured on a recurring basis	\$ 4,310	\$ 6,291	\$ 57	\$ 10,658	\$ —	\$ 10,658
Total assets	\$ 304,439	\$ 1,001,032	\$ 15,848	\$ 1,321,319	\$ (480,448)	\$ 840,871
Total as a percentage of gross assets ⁽³⁾	23.0 %	75.8 %	1.2 %			
Liabilities						
Interest-bearing deposits	\$ —	\$ 1,860	\$ 15	\$ 1,875	\$ —	\$ 1,875
Securities loaned and sold under agreements to repurchase	—	155,822	1,031	156,853	(85,967)	70,886
Trading account liabilities						
Securities sold, not yet purchased	97,559	13,111	50	110,720	—	110,720
Other trading liabilities	—	8	3	11	—	11
Total trading account liabilities	\$ 97,559	\$ 13,119	\$ 53	\$ 110,731	\$ —	\$ 110,731
Trading derivatives						
Interest rate contracts	\$ 175	\$ 169,049	\$ 3,396	\$ 172,620		
Foreign exchange contracts	—	185,279	716	185,995		
Equity contracts	70	40,905	2,808	43,783		
Commodity contracts	2	25,093	1,223	26,318		
Credit derivatives	—	6,715	1,062	7,777		
Total trading derivatives—before netting and collateral	\$ 247	\$ 427,041	\$ 9,205	\$ 436,493		
Netting agreements					\$ (346,545)	
Netting of cash collateral paid					(30,032)	
Total trading derivatives—after netting and collateral	\$ 247	\$ 427,041	\$ 9,205	\$ 436,493	\$ (376,577)	\$ 59,916
Short-term borrowings	\$ —	\$ 6,184	\$ 38	\$ 6,222	\$ —	\$ 6,222
Long-term debt	—	69,878	36,117	105,995	—	105,995
Non-trading derivatives and other financial liabilities measured on a recurring basis	\$ 4,197	\$ 240	\$ 2	\$ 4,439	\$ —	\$ 4,439
Total liabilities	\$ 102,003	\$ 674,144	\$ 46,461	\$ 822,608	\$ (462,544)	\$ 360,064
Total as a percentage of gross liabilities ⁽³⁾	12.4 %	82.0 %	5.6 %			

- (1) Represents netting of (i) the amounts due under securities purchased under agreements to resell and the amounts owed under securities sold under agreements to repurchase and (ii) derivative exposures covered by a qualifying master netting agreement and cash collateral offsetting.
- (2) Amounts exclude \$27 million of investments measured at NAV in accordance with ASU 2015-07, *Fair Value Measurement (Topic 820): Disclosure for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)*.
- (3) Because the amount of the cash collateral paid/received has not been allocated to the Level 1, 2 and 3 subtotals, these percentages are calculated based on total assets and liabilities measured at fair value on a recurring basis, excluding the cash collateral paid/received on derivatives.

Changes in Level 3 Fair Value Category

The following tables present the changes in the Level 3 fair value category for the years ended December 31, 2023 and 2022. The gains and losses presented below include changes in the fair value related to both observable and unobservable inputs.

The Company often hedges positions with offsetting positions that are classified in a different level. For example,

the gains and losses for assets and liabilities in the Level 3 category presented in the tables below do not reflect the effect of offsetting losses and gains on hedging instruments that may be classified in the Level 1 and Level 2 categories. In addition, the Company hedges items classified in the Level 3 category with instruments also classified in Level 3 of the fair value hierarchy. The hedged items and related hedges are presented gross in the following tables:

Level 3 Fair Value Rollforward

In millions of dollars	Dec. 31, 2022	Net realized/unrealized gains (losses) included in ⁽¹⁾		Transfers				Dec. 31, 2023	Unrealized gains (losses) still held ⁽³⁾	
		Principal transactions	Other ⁽¹⁾⁽²⁾	into Level 3	out of Level 3	Purchases	Issuances	Sales		
Assets										
Securities borrowed and purchased under agreements to resell	\$ 149	\$ 8	\$ —	\$ —	\$ (2)	\$ 308	\$ —	\$ —	\$ (324)	\$ 139 \$ 13
Trading non-derivative assets										
Trading mortgage-backed securities										
U.S. government-sponsored agency guaranteed	600	7	—	396	(543)	616	—	(495)	—	581 14
Residential	166	2	—	103	(110)	197	—	(242)	—	116 (20)
Commercial	145	(25)	—	202	(88)	118	—	(150)	—	202 (15)
Total trading mortgage-backed securities	\$ 911	\$ (16)	\$ —	\$ 701	\$ (741)	\$ 931	\$ —	\$ (887)	\$ —	\$ 899 \$ (21)
U.S. Treasury and federal agency securities	\$ 1	\$ (4)	\$ —	\$ 10	\$ —	\$ —	\$ —	\$ —	\$ 7 \$ —	
State and municipal	7	(3)	—	21	(2)	—	—	(20)	—	3 —
Foreign government	119	(18)	—	8	(66)	174	—	(163)	—	54 (1)
Corporate	394	289	—	285	(691)	1,163	—	(940)	—	500 (6)
Marketable equity securities	192	68	—	99	(39)	146	—	(174)	—	292 62
Asset-backed securities	668	25	—	105	(138)	801	—	(930)	—	531 12
Other trading assets	648	184	—	609	(437)	919	2	(1,086)	(6)	833 28
Total trading non-derivative assets	\$ 2,940	\$ 525	\$ —	\$ 1,838	\$ (2,114)	\$ 4,134	\$ 2	\$ (4,200)	\$ (6)	\$ 3,119 \$ 74
Trading derivatives, net⁽⁴⁾										
Interest rate contracts	\$ 355	\$ (1,588)	\$ —	\$ (172)	\$ (314)	\$ 21	\$ 6	\$ 58	\$ 549	\$ (1,085) \$ (1,481)
Foreign exchange contracts	50	412	—	91	46	135	—	(107)	(332)	295 (144)
Equity contracts	(1,104)	(672)	—	32	858	(819)	—	(114)	185	(1,634) (927)
Commodity contracts	278	324	—	235	77	(389)	—	(34)	(212)	279 (284)
Credit derivatives	(157)	(220)	—	(1)	307	(8)	—	—	6	(73) (54)
Total trading derivatives, net⁽⁴⁾	\$ (578)	\$ (1,744)	\$ —	\$ 185	\$ 974	\$ (1,060)	\$ 6	\$ (197)	\$ 196	\$ (2,218) \$ (2,890)

Table continues on the next page.

In millions of dollars	Dec. 31, 2022	Net realized/unrealized gains (losses) included in ⁽¹⁾				Transfers				Dec. 31, 2023	Unrealized gains (losses) still held ⁽³⁾
		Principal transactions	Other ⁽¹⁾⁽²⁾	into Level 3	out of Level 3	Purchases	Issuances	Sales	Settlements		
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	\$ 30	\$ —	\$ 4	\$ —	\$ (3)	\$ 47	\$ —	\$ (3)	\$ —	\$ 75	\$ 2
Residential	41	—	1	—	—	90	—	(16)	—	116	1
Total investment mortgage-backed securities	\$ 71	\$ —	\$ 5	\$ —	\$ (3)	\$ 137	\$ —	\$ (19)	\$ —	\$ 191	\$ 3
U.S. Treasury and federal agency securities	\$ —	\$ —	\$ (1)	\$ —	\$ (20)	\$ 51	\$ —	\$ (30)	\$ —	\$ —	\$ —
State and municipal	586	—	27	2	(86)	64	—	(51)	—	542	31
Foreign government	608	—	(13)	27	(327)	850	—	(951)	—	194	(3)
Corporate	343	—	(2)	49	(61)	131	—	(98)	—	362	(4)
Marketable equity securities	10	—	17	—	—	—	—	—	—	27	—
Asset-backed securities	1	—	(1)	30	—	—	—	(30)	—	—	—
Other debt securities	—	—	1	—	(63)	62	—	—	—	—	—
Non-marketable equity securities	430	—	31	8	—	42	—	(28)	—	483	82
Total investments	\$ 2,049	\$ —	\$ 64	\$ 116	\$ (560)	\$ 1,337	\$ —	\$ (1,207)	\$ —	\$ 1,799	\$ 109
Loans	\$ 1,361	\$ —	\$ (236)	\$ 32	\$ (309)	\$ —	\$ 241	\$ —	\$ (662)	\$ 427	\$ (16)
Mortgage servicing rights	665	—	28	—	—	—	66	—	(68)	691	20
Other financial assets measured at fair value on a recurring basis	57	—	(24)	—	(2)	50	22	(32)	(41)	30	—
Liabilities											
Interest-bearing deposits	\$ 15	\$ (7)	\$ (4)	\$ 50	\$ (118)	\$ —	\$ 84	\$ —	\$ (13)	\$ 29	\$ 9
Securities loaned and sold under agreements to repurchase	1,031	(5)	—	—	(24)	1,335	61	—	(2,018)	390	—
Trading account liabilities											
Securities sold, not yet purchased	50	(30)	—	22	(49)	123	—	—	(141)	35	(13)
Other trading liabilities	3	1	—	4	(2)	3	—	—	(7)	—	—
Short-term borrowings	38	44	—	62	(31)	2	488	—	(34)	481	(27)
Long-term debt	36,117	(1,039)	—	4,913	(10,215)	—	9,811	—	(3,285)	38,380	(2,644)
Other financial liabilities measured on a recurring basis	2	—	6	—	(1)	6	49	(20)	(24)	6	—

- (1) Net realized/unrealized gains (losses) are presented as increase (decrease) to Level 3 assets, and as (increase) decrease to Level 3 liabilities. Changes in fair value of available-for-sale debt securities are recorded in *AOCI*, unless related to credit impairment, while gains and losses from sales are recorded in *Realized gains (losses) from sales of investments* in the Consolidated Statement of Income.
- (2) Unrealized gains (losses) on MSRs are recorded in *Other revenue* in the Consolidated Statement of Income.
- (3) Represents the amount of total gains or losses for the period, included in earnings (and *AOCI* for changes in fair value of available-for-sale debt securities and DVA on fair value option liabilities), attributable to the change in fair value relating to assets and liabilities classified as Level 3 that are still held at December 31, 2023.
- (4) Total Level 3 trading derivative assets and liabilities have been netted in these tables for presentation purposes only.

In millions of dollars	Dec. 31, 2021	Net realized/unrealized gains (losses) included in ⁽¹⁾				Transfers				Dec. 31, 2022	Unrealized gains (losses) still held ⁽³⁾
		Principal transactions	Other ⁽¹⁾⁽²⁾	into Level 3	out of Level 3	Purchases	Issuances	Sales	Settlements		
Assets											
Securities borrowed and purchased under agreements to resell	\$ 231	\$ 12	\$ —	\$ 3	\$ —	\$ 252	\$ —	\$ —	\$ (349)	\$ 149	\$ 18
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	496	(81)	—	244	(475)	969	—	(553)	—	600	(59)
Residential	104	(5)	—	112	(87)	187	—	(145)	—	166	(1)
Commercial	81	(13)	—	167	(78)	37	—	(49)	—	145	(3)
Total trading mortgage-backed securities	\$ 681	\$ (99)	\$ —	\$ 523	\$ (640)	\$ 1,193	\$ —	\$ (747)	\$ —	\$ 911	\$ (63)
U.S. Treasury and federal agency securities	\$ 4	\$ (4)	\$ —	\$ 2	\$ (1)	\$ 1	\$ —	\$ —	\$ (1)	\$ 1	\$ (1)
State and municipal	37	9	—	77	(35)	16	—	(97)	—	7	—
Foreign government	23	(41)	—	308	(326)	248	—	(93)	—	119	(22)
Corporate	412	101	—	499	(451)	1,068	—	(1,235)	—	394	(136)
Marketable equity securities	174	45	—	161	(105)	155	—	(238)	—	192	(42)
Asset-backed securities	613	(41)	—	243	(239)	835	—	(743)	—	668	(36)
Other trading assets	576	249	—	407	(594)	774	27	(779)	(12)	648	(122)
Total trading non-derivative assets	\$ 2,520	\$ 219	\$ —	\$ 2,220	\$ (2,391)	\$ 4,290	\$ 27	\$ (3,932)	\$ (13)	\$ 2,940	\$ (422)
Trading derivatives, net ⁽⁴⁾											
Interest rate contracts	\$ 1,726	\$ 176	\$ —	\$ 33	\$ (792)	\$ (163)	\$ 7	\$ 79	\$ (711)	\$ 355	\$ (588)
Foreign exchange contracts	(89)	734	—	(422)	(22)	124	20	(459)	164	50	(81)
Equity contracts	(2,140)	1,604	—	(572)	673	176	—	(370)	(475)	(1,104)	1,057
Commodity contracts	422	822	—	194	(716)	100	—	(211)	(333)	278	413
Credit derivatives	(31)	(266)	—	(7)	131	(36)	—	—	52	(157)	(198)
Total trading derivatives, net ⁽⁴⁾	\$ (112)	\$ 3,070	\$ —	\$ (774)	\$ (726)	\$ 201	\$ 27	\$ (961)	\$ (1,303)	\$ (578)	\$ 603
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	\$ 51	\$ —	\$ (7)	\$ 1	\$ (10)	\$ 7	\$ —	\$ (12)	\$ —	\$ 30	\$ (24)
Residential	94	—	(5)	—	(42)	3	—	(9)	—	41	(5)
Commercial	—	—	—	—	—	—	—	—	—	—	—
Total investment mortgage-backed securities	\$ 145	\$ —	\$ (12)	\$ 1	\$ (52)	\$ 10	\$ —	\$ (21)	\$ —	\$ 71	\$ (29)
U.S. Treasury and federal agency securities	\$ 1	\$ —	\$ (1)	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
State and municipal	772	—	(65)	82	(164)	2	—	(41)	—	586	(49)
Foreign government	786	—	(72)	256	(276)	706	—	(792)	—	608	(23)
Corporate	188	—	(4)	197	(4)	24	—	(58)	—	343	(2)
Marketable equity securities	16	—	(7)	—	—	1	—	—	—	10	—
Asset-backed securities	3	—	22	41	(1)	—	—	(64)	—	1	(5)
Other debt securities	—	—	—	—	—	82	—	(82)	—	—	—
Non-marketable equity securities	316	—	(11)	11	(12)	155	—	(29)	—	430	4
Total investments	\$ 2,227	\$ —	\$ (150)	\$ 588	\$ (509)	\$ 980	\$ —	\$ (1,087)	\$ —	\$ 2,049	\$ (104)

Table continues on the next page.

In millions of dollars	Dec. 31, 2021	Net realized/unrealized gains (losses) included in ⁽¹⁾					Transfers				Dec. 31, 2022	Unrealized gains (losses) still held ⁽³⁾
		Principal transactions	Other ⁽¹⁾⁽²⁾	into Level 3	out of Level 3		Purchases	Issuances	Sales	Settlements		
Loans	\$ 711	\$ —	\$ 15	\$ 426	\$ (208)		\$ —	\$ 569	\$ —	\$ (152)	\$ 1,361	\$ 145
Mortgage servicing rights	404	—	201	—	—		—	120	—	(60)	665	199
Other financial assets measured at fair value on a recurring basis	73	—	(12)	29	(26)		46	39	(26)	(66)	57	—
Liabilities												
Interest-bearing deposits	\$ 183	\$ —	\$ 6	\$ 8	\$ (122)		\$ —	\$ 20	\$ —	\$ (68)	\$ 15	\$ —
Securities loaned and sold under agreements to repurchase	643	86	—	3	(3)		453	196	—	(175)	1,031	7
Trading account liabilities												
Securities sold, not yet purchased	65	2	—	55	(36)		135	—	—	(167)	50	(65)
Other trading liabilities	—	(3)	—	—	—		—	—	—	—	3	—
Short-term borrowings	105	109	—	46	(69)		—	96	—	(31)	38	(14)
Long-term debt	25,509	9,796	—	9,873	(7,612)		—	18,847	—	(704)	36,117	7,805
Other financial liabilities measured on a recurring basis	1	—	(6)	5	(5)		—	2	—	(7)	2	—

- (1) Net realized/unrealized gains (losses) are presented as increase (decrease) to Level 3 assets, and as (increase) decrease to Level 3 liabilities. Changes in fair value of available-for-sale debt securities are recorded in *AOCI*, unless related to credit impairment, while gains and losses from sales are recorded in *Realized gains (losses) from sales of investments* in the Consolidated Statement of Income.
- (2) Unrealized gains (losses) on MSRs are recorded in *Other revenue* in the Consolidated Statement of Income.
- (3) Represents the amount of total gains or losses for the period, included in earnings (and *AOCI* for changes in fair value of available-for-sale debt securities and DVA on fair value option liabilities), attributable to the change in fair value relating to assets and liabilities classified as Level 3 that are still held at December 31, 2022.
- (4) Total Level 3 derivative assets and liabilities have been netted in these tables for presentation purposes only.

Level 3 Fair Value Transfers

The following were the significant Level 3 transfers for the period December 31, 2022 to December 31, 2023:

- During the 12 months ended December 31, 2023, transfers of *Long-term debt* were \$4.9 billion from Level 2 to Level 3. Of the \$4.9 billion transfer, approximately \$4.2 billion related to interest rate option volatility inputs becoming unobservable and/or significant relative to their overall valuation, and \$0.6 billion related to equity and credit derivative inputs (in addition to other volatility inputs, e.g., interest rate volatility inputs) becoming unobservable and/or significant to their overall valuation. In other instances, market changes have resulted in some inputs becoming more observable, and some unobservable inputs becoming less significant to the overall valuation of the instruments (e.g., when an option becomes deep-in or deep-out of the money). This has primarily resulted in \$10.2 billion of certain structured long-term debt products being transferred from Level 3 to Level 2 during the 12 months ended December 31, 2023.

The following were the significant Level 3 transfers for the period December 31, 2021 to December 31, 2022:

- During the 12 months ended December 31, 2022, transfers of *Long-term debt* were \$9.9 billion from Level 2 to Level 3. Of the \$9.9 billion transfer, approximately \$7.0 billion related to interest rate option volatility inputs becoming unobservable and/or significant relative to their overall valuation, and \$2.9 billion related to equity and credit derivative inputs (in addition to other volatility inputs, e.g., interest rate volatility inputs) becoming unobservable and/or significant to their overall valuation. In other instances, market changes have resulted in some inputs becoming more observable, and some unobservable inputs becoming less significant to the overall valuation of the instruments (e.g., when an option becomes deep-in or deep-out of the money). This has primarily resulted in \$7.6 billion of certain structured long-term debt products being transferred from Level 3 to Level 2 during the 12 months ended December 31, 2022.

Valuation Techniques and Inputs for Level 3 Fair Value Measurements

The Company's Level 3 inventory consists of both cash instruments and derivatives of varying complexity.

The following tables present the valuation techniques covering the majority of Level 3 inventory and the most significant unobservable inputs used in Level 3 fair value measurements. Methodologies are applied consistently.

Changes in listed inputs period versus period represent variables that become more, or less, significant, hence their addition or removal from the table below. Differences between this table and amounts presented in the Level 3 Fair Value Rollforward table represent individually immaterial items that have been measured using a variety of valuation techniques other than those listed.

<i>As of December 31, 2023</i>	Fair value⁽¹⁾ <i>(in millions)</i>	Methodology	Input	Low⁽²⁾⁽³⁾	High⁽²⁾⁽³⁾	Weighted average⁽⁴⁾
Assets						
Securities borrowed and purchased under agreements to resell						
	\$ 139	Model-based	Credit spread	15 bps	15 bps	15 bps
			Interest rate	4.00 %	4.00 %	4.00 %
Mortgage-backed securities	\$ 679	Price-based	Price	\$ 1.67	\$ 124.63	\$ 55.39
	401	Yield analysis	Yield	4.63 %	19.08 %	8.93 %
State and municipal, foreign government, corporate and other debt securities						
	\$ 1,582	Price-based	Price	\$ 0.01	\$ 123.74	\$ 79.71
	778	Model-based	Credit spread	35 bps	550 bps	304 bps
Marketable equity securities ⁽⁵⁾	\$ 259	Price-based	Price	\$ —	\$ 12,189.17	\$ 168.09
	38	Model-based	WAL	2.24 years	2.24 years	2.24 years
			Recovery <i>(in millions)</i>	\$ 7,398	\$ 7,398	\$ 7,398
Asset-backed securities	\$ 475	Price-based	Price	\$ 3.50	\$ 129.00	\$ 65.87
	57	Yield analysis	Yield	5.93 %	18.86 %	8.57 %
Non-marketable equities	\$ 366	Comparables analysis	Illiquidity discount	8.00 %	10.00 %	8.82 %
			PE ratio	9.30x	16.50x	11.37x
			Revenue multiple	2.80x	13.40x	12.28x
			EBITDA multiples	15.80x	15.80x	15.80x
	56	Cash flow	Discount to price	8.50 %	8.50 %	8.50 %
	50	Price-based	Price	\$ 0.40	\$ 158.92	\$ 56.78
Derivatives—gross⁽⁶⁾						
Interest rate contracts (gross)	\$ 5,237	Model-based	IR normal volatility	(0.07)%	15.00 %	1.44 %
			Interest rate	2.70 %	5.40 %	3.20 %
Foreign exchange contracts (gross)	\$ 1,652	Model-based	IR normal volatility	(0.07)%	12.05 %	1.50 %
			IR basis	(1.45)%	147.79 %	7.11 %
Equity contracts (gross) ⁽⁷⁾	\$ 4,239	Model-based	Equity volatility	0.10 %	334.35 %	38.35 %
			Equity forward	54.14 %	273.54 %	101.44 %
			Equity-FX correlation	(79.00)%	70.00 %	(7.66)%
			Equity-Equity correlation	(6.49)%	97.44 %	80.42 %
			WAL	2.24 years	2.24 years	2.24 years
			Recovery <i>(in millions)</i>	\$ 7,398	\$ 7,398	\$ 7,398
Commodity and other contracts (gross)	\$ 1,943	Model-based	Forward price	31.70 %	425.51 %	134.65 %
			Commodity volatility	14.72 %	149.99 %	37.03 %
			Commodity correlation	(45.33)%	93.02 %	45.03 %
Credit derivatives (gross)	\$ 1,135	Model-based	Credit spread	11.43 bps	1,519 bps	140.34 bps
			Credit spread volatility	23.94 %	115.66 %	42.76 %

<i>As of December 31, 2023</i>	Fair value⁽¹⁾ (in millions)	Methodology	Input	Low⁽²⁾⁽³⁾	High⁽²⁾⁽³⁾	Weighted average⁽⁴⁾
			Recovery rate	15.00 %	75.00 %	36.56 %
378	Price-based	Upfront points		1.25 %	117.31 %	58.10 %
		Price	\$ 37.67	\$ 97.00	\$ 79.54	
Non-trading derivatives and other financial assets and liabilities measured on a recurring basis (gross)	\$ 36	Price-based	Price	\$ 0.01	\$ 104.79	\$ 90.87
Loans and leases	\$ 316	Price-based	Price	\$ 98.80	\$ 98.80	\$ 98.80
	111	Model-based	Forward price	33.48 %	348.43 %	115.47 %
			Commodity volatility	26.51 %	66.80 %	31.79 %
			Commodity correlation	(45.33)%	93.02 %	(7.28)%
			Equity volatility	41.61 %	45.40 %	43.17 %
Mortgage servicing rights	\$ 595	Cash flow	WAL	1.00 years	8.76 years	1.29 years
	66	Model-based	Yield	— %	12.00 %	8.06 %
Liabilities						
Interest-bearing deposits	\$ 29	Model-based	Forward price	100.00 %	100.00 %	100.00 %
Securities loaned and sold under agreements to repurchase	\$ 390	Model-based	Interest rate	3.92 %	5.27 %	3.96 %
Trading account liabilities						
Securities sold, not yet purchased and other trading liabilities	\$ 23	Price-based	Price	\$ —	\$ 12,189.17	\$ 28.70
	7	Yield analysis	Yield	7.46 %	7.46 %	7.46 %
	5	Model-based	FX volatility	3.56 %	28.13 %	13.17 %
Short-term borrowings and long-term debt	\$ 38,794	Model-based	IR normal volatility	0.32 %	20.00 %	1.25 %

<i>As of December 31, 2022</i>	Fair value⁽¹⁾ (in millions)	Methodology	Input	Low⁽²⁾⁽³⁾	High⁽²⁾⁽³⁾	Weighted average⁽⁴⁾
Assets						
Securities borrowed and purchased under agreements to resell	\$ 146	Model-based	Credit spread	15 bps	15 bps	15 bps
			Interest rate	2.61 %	2.61 %	2.61 %
Mortgage-backed securities	\$ 732	Yield analysis	Yield	4.41 %	20.30 %	9.74 %
	228	Price-based	Price	\$ 1.04	\$ 99.71	\$ 51.51
State and municipal, foreign government, corporate and other debt securities	\$ 2,360	Price-based	Price	\$ 0.01	\$ 994.68	\$ 245.85
Marketable equity securities⁽⁵⁾	\$ 147	Price-based	Price	\$ —	\$ 9,087.76	\$ 114.29
	31	Model-based	WAL	2.24 years	2.24 years	2.24 years
			Recovery (in millions)	\$ 7,148	\$ 7,148	\$ 7,148
Asset-backed securities	\$ 304	Price-based	Price	\$ 10.50	\$ 145.00	\$ 74.97
	308	Yield analysis	Yield	5.76 %	18.58 %	9.34 %
Non-marketable equities	\$ 287	Comparables analysis	Revenue multiple	3.60x	13.90x	12.40x
			PE ratio	14.00x	15.70x	15.16x
			Illiquidity discount	8.60 %	17.00 %	10.16 %
	101	Price-based	Cost of capital	8.10 %	17.50 %	10.44 %
Derivatives—gross⁽⁶⁾						
Interest rate contracts (gross)	\$ 7,108	Model-based	IR normal volatility	0.33 %	1.82 %	0.96 %
Foreign exchange contracts (gross)	\$ 1,437	Model-based	IR normal volatility	0.33 %	1.47 %	0.67 %

<i>As of December 31, 2022</i>		<i>Fair value⁽¹⁾ (in millions)</i>	<i>Methodology</i>	<i>Input</i>	<i>Low⁽²⁾⁽³⁾</i>	<i>High⁽²⁾⁽³⁾</i>	<i>Weighted average⁽⁴⁾</i>
				IR basis	(4.23)%	9.68 %	(0.03)%
				Equity volatility	0.05 %	300.72 %	33.91 %
				Credit spread	116 bps	626 bps	594 bps
Equity contracts (gross) ⁽⁷⁾	\$ 4,430	Model-based		Equity volatility	0.05 %	300.72 %	41.47 %
				Equity forward	68.34 %	271.61 %	103.50 %
				Equity-FX correlation	(95.00)%	50.00 %	(16.33)%
				Equity-Equity correlation	(3.98)%	98.68 %	85.63 %
				WAL	2.24 years	2.24 years	2.24 years
				Recovery (in millions)	\$ 7,148.00	\$ 7,148.00	\$ 7,148.00
				Equity-IR correlation	(18.83)%	60.00 %	32.37 %
Commodity and other contracts (gross)	\$ 2,724	Model-based		Forward price	14.27 %	385.50 %	106.08 %
				Commodity volatility	10.43 %	151.50 %	33.55 %
				Commodity correlation	(32.00)%	91.94 %	36.70 %
Credit derivatives (gross)	\$ 1,520	Model-based		Credit spread	2.50 bps	955.10 bps	101.27 bps
				Credit correlation	25.00 %	80.00 %	42.38 %
				Recovery rate	25.00 %	75.00 %	42.27 %
				Credit spread volatility	35.58 %	64.79 %	40.47 %
	439	Price-based		Price	\$ 31.71	\$ 99.00	\$ 78.75
Non-trading derivatives and other financial assets and liabilities measured on a recurring basis (gross)	\$ 57	Price-based		Price	\$ 80.16	\$ 105.32	\$ 92.65
Loans and leases	\$ 1,059	Model-based		Equity volatility	0.05 %	300.72 %	42.62 %
				Forward price	14.27 %	324.85 %	105.07 %
				Equity forward	68.34 %	271.61 %	103.49 %
	304	Price-based		Price	\$ 0.01	\$ 100.53	\$ 84.77
Mortgage servicing rights	\$ 580	Cash flow		WAL	3.92 years	9.33 years	7.71 years
	84	Model-based		Yield	(0.40)%	13.20 %	5.36 %
Liabilities							
Interest-bearing deposits	\$ 15	Model-based		Forward price	100.00 %	101.30 %	100.07 %
Securities loaned and sold under agreements to repurchase	\$ 970	Model-based		Interest rate	4.01 %	4.97 %	4.07 %
Trading account liabilities							
Securities sold, not yet purchased and other trading liabilities	\$ 47	Price-based		Price	\$ —	\$ 9,087.76	\$ 41.22
	6	Model-based		FX volatility	2.00 %	40.00 %	12.85 %
Short-term borrowings and long-term debt	\$ 36,155	Model-based		IR normal volatility	0.33 %	1.82 %	0.89 %

- (1) The tables above include the fair values for the items listed and may not foot to the total population for each category.
- (2) Some inputs are shown as zero due to rounding.
- (3) When the low and high inputs are the same, there is either a constant input applied to all positions, or the methodology involving the input applies to only one large position.
- (4) Weighted averages are calculated based on the fair values of the instruments.
- (5) For equity securities, the price inputs are expressed on an absolute basis, not as a percentage of the notional amount.
- (6) Both trading and non-trading account derivatives—assets and liabilities—are presented on a gross absolute value basis.
- (7) Includes hybrid products.

Uncertainty of Fair Value Measurements Relating to Unobservable Inputs

Valuation uncertainty arises when there is insufficient or dispersed market data to allow a precise determination of the exit value of a fair-valued position or portfolio in today's market. This is especially prevalent in Level 3 fair value instruments, where uncertainty exists in valuation inputs that may be both unobservable and significant to the instrument's (or portfolio's) overall fair value measurement. The uncertainties associated with key unobservable inputs on the Level 3 fair value measurements may not be independent of one another. In addition, the amount and direction of the uncertainty on a fair value measurement for a given change in an unobservable input depends on the nature of the instrument as well as whether the Company holds the instrument as an asset or a liability. For certain instruments, the pricing, hedging and risk management are sensitive to the correlation between various inputs rather than on the analysis and aggregation of the individual inputs.

The following section describes some of the most significant unobservable inputs used by the Company in Level 3 fair value measurements.

Correlation

Correlation is a measure of the extent to which two or more variables change in relation to each other. A variety of correlation-related assumptions are required for a wide range of instruments, including equity and credit baskets, foreign exchange options, Credit Index Tranches and many other instruments. For almost all of these instruments, correlations are not directly observable in the market and must be calculated using alternative sources, including historical information. Estimating correlation can be especially difficult where it may vary over time, and calculating correlation information from market data requires significant assumptions regarding the informational efficiency of the market (e.g., swaption markets). Uncertainty therefore exists when an estimate of the appropriate level of correlation as an input into some fair value measurements is required.

Changes in correlation levels can have a substantial impact, favorable or unfavorable, on the value of an instrument, depending on its nature. A change in the default correlation of the fair value of the underlying bonds comprising a CDO structure would affect the fair value of the senior tranche. For example, an increase in the default correlation of the underlying bonds would reduce the fair value of the senior tranche, because highly correlated instruments produce greater losses in the event of default and a portion of these losses would become attributable to the senior tranche. That same change in default correlation would have a different impact on junior tranches of the same structure.

Volatility

Volatility represents the speed and severity of market price changes and is a key factor in pricing options. Volatility generally depends on the tenor of the underlying instrument and the strike price or level defined in the contract. Volatilities for certain combinations of tenor and strike are not observable and need to be estimated using alternative methods, such as comparable instruments, historical analysis or other sources of

market information. This leads to uncertainty around the final fair value measurement of instruments with unobservable volatilities.

The general relationship between changes in the value of an instrument (or a portfolio) to changes in volatility also depends on changes in interest rates and the level of the underlying index. Generally, long option positions (assets) benefit from increases in volatility, whereas short option positions (liabilities) will suffer losses. Some instruments are more sensitive to changes in volatility than others. For example, an at-the-money option would experience a greater percentage change in its fair value than a deep-in-the-money option. In addition, the fair value of an option with more than one underlying security (e.g., an option on a basket of equities) depends on the volatility of the individual underlying securities as well as their correlations.

Yield

In some circumstances, the yield of an instrument is not observable in the market and must be estimated from historical data or from yields of similar securities. This estimated yield may need to be adjusted to capture the characteristics of the security being valued. Whenever the amount of the adjustment is significant to the value of the security, the fair value measurement is classified as Level 3.

Adjusted yield is generally used to discount the projected future principal and interest cash flows on instruments, such as asset-backed securities. Adjusted yield is impacted by changes in the interest rate environment and relevant credit spreads.

Prepayment

Voluntary unscheduled payments (prepayments) change the future cash flows for the investor and thereby change the fair value of the security. The effect of prepayments is more pronounced for residential mortgage-backed securities. Prepayment is generally negatively correlated with delinquency and interest rate. A combination of low prepayments and high delinquencies amplifies each input's negative impact on a mortgage security's valuation. As prepayment speeds change, the weighted-average life of the security changes, which impacts the valuation either positively or negatively, depending upon the nature of the security and the direction of the change in the weighted-average life.

Recovery

Recovery is the proportion of the total outstanding balance of a bond or loan that is expected to be collected in a liquidation scenario. For many credit securities (e.g., commercial mortgage-backed securities), the expected recovery amount of a defaulted property is typically unknown until a liquidation of the property is imminent. The assumed recovery of a security may differ from its actual recovery that will be observable in the future. Generally, an increase in the recovery rate assumption increases the fair value of the security. An increase in loss severity, the inverse of the recovery rate, reduces the amount of principal available for distribution and, as a result, decreases the fair value of the security.

Credit Spread

Credit spread is a component of the security representing its credit quality. Credit spread reflects the market perception of changes in prepayment, delinquency and recovery rates, therefore capturing the impact of other variables on the fair value. Changes in credit spread affect the fair value of securities differently depending on the characteristics and maturity profile of the security. For example, credit spread is a more significant driver of the fair value measurement of a high-yield bond as compared to an investment-grade bond. Generally, the credit spread for an investment-grade bond is also more observable and less volatile than its high-yield counterpart.

Items Measured at Fair Value on a Nonrecurring Basis

Certain assets and liabilities are measured at fair value on a nonrecurring basis and, therefore, are not included in the tables above. These include assets measured at cost that have been written down to fair value during the periods as a result of an impairment. These also include non-marketable equity securities that have been measured using the measurement alternative and are either (i) written down to fair value during the periods as a result of an impairment or (ii) adjusted upward or downward to fair value as a result of a transaction observed during the periods for an identical or similar investment in the same issuer. In addition, these assets include loans held-for-sale and other real estate owned that are measured at the lower of cost or market value.

The following tables present the carrying amounts of all assets that were still held for which a nonrecurring fair value measurement was recorded:

<i>In millions of dollars</i>	Fair value	Level 2	Level 3
December 31, 2023			
Loans HFS ⁽¹⁾	\$ 1,171	\$ 495	\$ 676
Other real estate owned	4	—	4
Loans ⁽²⁾	328	—	328
Non-marketable equity securities measured using the measurement alternative	359	—	359
Total assets at fair value on a nonrecurring basis	\$ 1,862	\$ 495	\$ 1,367

<i>In millions of dollars</i>	Fair value	Level 2	Level 3
December 31, 2022			
Loans HFS ⁽¹⁾	\$ 2,336	\$ 457	\$ 1,879
Other real estate owned	1	—	1
Loans ⁽²⁾	69	—	69
Non-marketable equity securities measured using the measurement alternative	597	—	597
Total assets at fair value on a nonrecurring basis	\$ 3,003	\$ 457	\$ 2,546

- (1) Net of mark-to-market amounts on the unfunded portion of loans HFS recognized as *Other liabilities* on the Consolidated Balance Sheet.
- (2) Represents impaired loans held for investment whose carrying amount is based on the fair value of the underlying collateral less costs to sell, primarily real estate.

The fair value of loans HFS is determined where possible using quoted secondary-market prices. If no such quoted price exists, the fair value of a loan is determined using quoted prices for a similar asset or assets, adjusted for the specific attributes of that loan. Fair value for the other real estate owned is based on appraisals. For loans whose carrying amount is based on the fair value of the underlying collateral, the fair values depend on the type of collateral. Fair value of the collateral is typically estimated based on quoted market prices if available, appraisals or other internal valuation techniques.

Where the fair value of the related collateral is based on an appraised value, the loan is generally classified as Level 3. In addition, for corporate loans, appraisals of the collateral are often based on sales of similar assets; however, because the prices of similar assets require significant adjustments to reflect the unique features of the underlying collateral, these fair value measurements are generally classified as Level 3.

The fair value of non-marketable equity securities under the measurement alternative is based on observed transaction prices for the identical or similar investment of the same issuer, or an internal valuation technique in the case of an impairment. Where there are insufficient market observations to conclude the inputs are observable, where significant adjustments are made to the observed transaction prices or when an internal valuation technique is used, the security is classified as Level 3. Fair value may differ from the observed transaction price due to a number of factors, including marketability adjustments and differences in rights and obligations when the observed transaction is not for the identical investment held by Citi.

Valuation Techniques and Inputs for Level 3 Nonrecurring Fair Value Measurements

The following tables present the valuation techniques covering the majority of Level 3 nonrecurring fair value measurements and the most significant unobservable inputs used in those measurements:

<i>As of December 31, 2023</i>	Fair value⁽¹⁾ (in millions)	Methodology	Input	Low⁽²⁾	High	Weighted average⁽³⁾
Loans HFS	\$ 674	Price-based	Price	\$ 67.50	\$ 100.00	\$ 93.39
Loans⁽⁵⁾	\$ 296	Recovery analysis	Appraised value ⁽⁴⁾	\$ 12,000	\$ 75,997,078	\$ 46,121,923
Non-marketable equity securities measured using the measurement alternative	\$ 250	Price-based	Price	\$ 1.57	\$ 2,637.00	\$ 1,114.06
	109	Comparable analysis	Revenue multiple	2.3x	35.7x	11.69x
Other real estate owned	\$ 3	Price-based	Appraised value ⁽⁴⁾	\$ 401,042	\$ 2,061,700	\$ 155,696

<i>As of December 31, 2022</i>	Fair value⁽¹⁾ (in millions)	Methodology	Input	Low⁽²⁾	High	Weighted average⁽³⁾
Loans HFS	\$ 1,830	Price-based	Price	\$ 0.88	\$ 100.23	\$ 65.91
Other real estate owned	\$ 1	Price-based	Appraised value ⁽⁴⁾	\$ 30,000	\$ 441,750	\$ 310,552
Loans⁽⁵⁾	\$ 45	Recovery analysis	Appraised value ⁽⁴⁾	\$ 12,000	\$ 14,022,820	\$ 3,714,342
	24	Appraised value				
Non-marketable equity securities measured using the measurement alternative	\$ 363	Price-based	Price	\$ 0.46	\$ 2,416.43	\$ 557.86
	234	Comparable analysis	Revenue multiple	4.95x	73.10x	19.68x

(1) The tables above include the fair values for the items listed and may not foot to the total population for each category.

(2) Some inputs are shown as zero due to rounding.

(3) Weighted averages are calculated based on the fair values of the instruments.

(4) Appraised values are disclosed in whole dollars.

(5) Represents impaired loans held for investment whose carrying amount is based on the fair value of the underlying collateral less costs to sell, primarily real estate.

Nonrecurring Fair Value Changes

The following table presents total nonrecurring fair value measurements for the period, included in earnings, attributable to the change in fair value relating to assets that were still held:

	Year ended December 31,	
<i>In millions of dollars</i>	2023	2022
Loans HFS	\$ (119)	\$ (58)
Other real estate owned	—	—
Loans⁽¹⁾	(148)	13
Non-marketable equity securities measured using the measurement alternative	(72)	315
Total nonrecurring fair value gains (losses)	\$ (339)	\$ 270

(1) Represents loans held for investment whose carrying amount is based on the fair value of the underlying collateral less costs to sell, primarily real estate.

Estimated Fair Value of Financial Instruments Not Carried at Fair Value

The following tables present the carrying value and fair value of Citigroup's financial instruments that are not carried at fair value. The tables below therefore exclude items measured at fair value on a recurring basis presented in the tables above.

The disclosure also excludes leases, affiliate investments, pension and benefit obligations, certain insurance contracts and tax-related items. Also, as required, the disclosure excludes the effect of taxes, any premium or discount that could result from offering for sale at one time the entire holdings of a particular instrument, excess fair value

associated with deposits with no fixed maturity and other expenses that would be incurred in a market transaction. In addition, the tables exclude the values of non-financial assets and liabilities, as well as a wide range of franchise, relationship and intangible values, which are integral to a full assessment of Citigroup's financial position and the value of its net assets.

Fair values vary from period to period based on changes in a wide range of factors, including interest rates, credit quality and market perceptions of value, and as existing assets and liabilities run off and new transactions are entered into.

	December 31, 2023			Estimated fair value		
	Carrying value	Estimated fair value	Level 1	Level 2	Level 3	
<i>In billions of dollars</i>						
Assets						
HTM debt securities, net of allowance ⁽¹⁾	\$ 259.7	\$ 240.6	\$ 124.0	\$ 114.1	\$ 2.5	
Securities borrowed and purchased under agreements to resell	139.6	139.7	—	139.7	—	
Loans ⁽²⁾⁽³⁾	663.3	673.2	—	—	673.2	
Other financial assets ⁽³⁾⁽⁴⁾	347.5	347.5	243.1	17.8	86.6	
Liabilities						
Deposits	\$ 1,306.2	\$ 1,305.9	\$ —	\$ 1,116.5	\$ 189.4	
Securities loaned and sold under agreements to repurchase	215.6	215.6	—	215.6	—	
Long-term debt ⁽⁵⁾	170.3	173.4	—	168.0	5.4	
Other financial liabilities ⁽⁶⁾	132.8	132.8	—	29.2	103.6	

	December 31, 2022			Estimated fair value		
	Carrying value	Estimated fair value	Level 1	Level 2	Level 3	
<i>In billions of dollars</i>						
Assets						
HTM debt securities, net of allowance ⁽¹⁾	\$ 274.3	\$ 249.2	\$ 123.2	\$ 123.1	\$ 2.9	
Securities borrowed and purchased under agreements to resell	125.9	125.9	—	125.9	—	
Loans ⁽²⁾⁽³⁾	634.5	634.9	—	—	634.9	
Other financial assets ⁽³⁾⁽⁴⁾	427.1	427.1	320.0	22.0	85.1	
Liabilities						
Deposits	\$ 1,364.1	\$ 1,345.4	\$ —	\$ 1,159.4	\$ 186.0	
Securities loaned and sold under agreements to repurchase	131.6	131.6	—	131.6	—	
Long-term debt ⁽⁵⁾	165.6	160.5	—	151.1	9.4	
Other financial liabilities ⁽⁶⁾	142.4	142.4	—	26.5	115.9	

- (1) Includes \$5.5 billion and \$5.5 billion of non-marketable equity securities carried at cost at December 31, 2023 and 2022, respectively.
- (2) The carrying value of loans is net of the allowance for credit losses on loans of \$18.1 billion for December 31, 2023 and \$17.0 billion for December 31, 2022. In addition, the carrying values exclude \$0.3 billion and \$0.4 billion of lease finance receivables at December 31, 2023 and 2022, respectively.
- (3) Includes items measured at fair value on a nonrecurring basis.
- (4) Includes cash and due from banks, deposits with banks, brokerage receivables, reinsurance recoverables and other financial instruments included in *Other assets* on the Consolidated Balance Sheet, for all of which the carrying value is a reasonable estimate of fair value.
- (5) The carrying value includes long-term debt balances under qualifying fair value hedges.
- (6) Includes brokerage payables, separate and variable accounts, short-term borrowings (carried at cost) and other financial instruments included in *Other liabilities* on the Consolidated Balance Sheet, for all of which the carrying value is a reasonable estimate of fair value.

The estimated fair values of the Company's corporate unfunded lending commitments at December 31, 2023 and 2022 were off-balance sheet liabilities of \$14.2 billion and \$13.7 billion, respectively, substantially all of which are classified as Level 3. The Company does not estimate the fair values of consumer unfunded lending commitments, which are generally cancelable by providing notice to the borrower.

27. FAIR VALUE ELECTIONS

The Company may elect to report most financial instruments and certain other items at fair value on an instrument-by-instrument basis with changes in fair value reported in earnings, other than DVA (see below). The election is made upon the initial recognition of an eligible financial asset, financial liability or firm commitment or when certain specified reconsideration events occur. The fair value election

may not otherwise be revoked once an election is made. The changes in fair value are recorded in current earnings.

Movements in DVA are reported as a component of *AOCI*.

The Company has elected fair value accounting for its mortgage servicing rights (MSRs). See Note 23 for additional details on Citi's MSRs.

Additional discussion regarding other applicable areas in which fair value elections were made is presented in Note 26.

The following table presents the changes in fair value of those items for which the fair value option has been elected:

	Changes in fair value—gains (losses) for the years ended December 31,	
	2023	2022
<i>In millions of dollars</i>		
Assets		
Securities borrowed and purchased under agreements to resell	\$ 267	\$ (109)
Trading account assets	97	(296)
Loans		
Certain corporate loans	2,038	(1,763)
Certain consumer loans	6	(1)
Total loans	\$ 2,044	\$ (1,764)
Other assets		
MSRs	\$ 28	\$ 201
Certain mortgage loans HFS ⁽¹⁾	(23)	(455)
Total other assets	\$ 5	\$ (254)
Total assets	\$ 2,413	\$ (2,423)
Liabilities		
Interest-bearing deposits	\$ (97)	\$ 42
Securities loaned and sold under agreements to repurchase	(217)	110
Trading account liabilities	138	(239)
Short-term borrowings ⁽²⁾	(18)	1,424
Long-term debt ⁽²⁾	(12,998)	15,589
Total liabilities	\$ (13,192)	\$ 16,926

(1) Includes gains (losses) associated with interest rate lock commitments for originated loans for which the Company has elected the fair value option.

(2) Includes DVA that is included in *AOCI*. See Notes 21 and 26.

Own Debt Valuation Adjustments (DVA)

Own debt valuation adjustments are recognized on Citi's liabilities for which the fair value option has been elected using Citi's credit spreads observed in the bond market. Changes in fair value of fair value option liabilities related to changes in Citigroup's own credit spreads (DVA) are reflected as a component of *AOCI*. See Note 21 for additional information.

Among other variables, the fair value of liabilities for which the fair value option has been elected (other than non-recourse debt and similar liabilities) is impacted by the narrowing or widening of the Company's credit spreads.

The estimated changes in the fair value of these non-derivative liabilities due to such changes in the Company's own credit spread (or instrument-specific credit risk) were a loss of \$2,078 million and gain of \$2,685 million for the years ended December 31, 2023 and 2022, respectively. Changes in fair value resulting from changes in instrument-specific credit risk were estimated by incorporating the Company's current credit spreads observable in the bond market into the relevant valuation technique used to value each liability as described above.

The Fair Value Option for Financial Assets and Financial Liabilities

Selected Portfolios of Securities Purchased Under Agreements to Resell, Securities Borrowed, Securities Sold Under Agreements to Repurchase, Securities Loaned and Certain Uncollateralized Short-Term Borrowings

The Company elected the fair value option for certain portfolios of fixed income securities purchased under agreements to resell and fixed income securities sold under

agreements to repurchase, securities borrowed, securities loaned and certain uncollateralized short-term borrowings held primarily by broker-dealer entities in the United States, the United Kingdom and Japan. In each case, the election was made because the related interest rate risk is managed on a portfolio basis, primarily with offsetting derivative instruments that are accounted for at fair value through earnings.

Changes in fair value for transactions in these portfolios are recorded in *Principal transactions*. The related interest income and interest expense are measured based on the contractual rates specified in the transactions and are reported as *Interest income* and *Interest expense* in the Consolidated Statement of Income.

Certain Loans and Other Credit Products

Citigroup has also elected the fair value option for certain other originated and purchased loans, including certain unfunded loan products, such as guarantees and letters of credit, executed by Citigroup's lending and trading businesses. None of these credit products are highly leveraged financing commitments. Significant groups of transactions include loans and unfunded loan products that are expected to be either sold or securitized in the near term, or transactions where the economic risks are hedged with derivative instruments, such as purchased credit default swaps or total return swaps where the Company pays the total return on the underlying loans to a third party. Citigroup has elected the fair value option to mitigate accounting mismatches in cases where hedge accounting is complex and to achieve operational simplifications. Fair value was not elected for most lending transactions across the Company.

The following table provides information about certain credit products carried at fair value:

In millions of dollars	December 31, 2023		December 31, 2022	
	Trading assets	Loans	Trading assets	Loans
Carrying amount reported on the Consolidated Balance Sheet	\$ 4,518	\$ 7,594	\$ 6,011	\$ 5,360
Aggregate unpaid principal balance in excess of (less than) fair value	88	10	167	51
Balance of non-accrual loans or loans more than 90 days past due	—	1	—	2
Aggregate unpaid principal balance in excess of (less than) fair value for non-accrual loans or loans more than 90 days past due	—	1	—	1

In addition to the amounts reported above, \$391 million and \$729 million of unfunded commitments related to certain credit products selected for fair value accounting were outstanding as of December 31, 2023 and 2022, respectively.

Changes in the fair value of funded and unfunded credit products are classified in *Principal transactions* in Citi's Consolidated Statement of Income. Related interest income is measured based on the contractual interest rates and reported as *Interest income on Trading account assets* or loan interest depending on the balance sheet classifications of the credit products. The changes in fair value for the years ended December 31, 2023 and 2022 due to instrument-specific credit risk totaled to a gain of \$39 million and loss of \$155 million, respectively. Changes in fair value due to instrument-specific credit risk are estimated based on changes in borrower-specific credit spreads and recovery assumptions.

Certain Investments in Unallocated Precious Metals

Citigroup invests in unallocated precious metals accounts (e.g., gold, silver, platinum and palladium) as part of its commodity trading activities. Under ASC 815, the investment is bifurcated into a debt host contract and a commodity derivative instrument. Citigroup elects the fair value option for the debt host contract, and reports the contract within *Trading account assets* on the Company's Consolidated Balance Sheet. The total carrying amount of debt host contracts across unallocated precious metals accounts was approximately \$0.6 billion and \$0.3 billion at December 31, 2023 and 2022, respectively.

The following table provides information about certain mortgage loans HFS carried at fair value:

<i>In millions of dollars</i>	December 31, 2023	December 31, 2022
Carrying amount reported on the Consolidated Balance Sheet	\$ 571	\$ 793
Aggregate fair value in excess of (less than) unpaid principal balance	17	(10)
Balance of non-accrual loans or loans more than 90 days past due	3	1
Aggregate unpaid principal balance in excess of fair value for non-accrual loans or loans more than 90 days past due	—	—

The changes in the fair values of these mortgage loans are reported in *Other revenue* in the Company's Consolidated Statement of Income. There was no net change in fair value during the years ended December 31, 2023 and 2022 due to instrument-specific credit risk. Changes in fair value due to instrument-specific credit risk are estimated based on changes in the borrower default, prepayment and recovery forecasts in addition to instrument-specific credit spread. Related interest income continues to be measured based on the contractual interest rates and reported as *Interest revenue* in the Consolidated Statement of Income.

As part of its commodity trading activities, Citi trades unallocated precious metals investments and executes forward purchase and forward sale derivative contracts with trading counterparties. When Citi sells an unallocated precious metals investment, Citi's receivable from its depository bank is repaid and Citi derecognizes its investment in the unallocated precious metal. The forward purchase or sale contract with the trading counterparty indexed to unallocated precious metals is accounted for as a derivative, at fair value through earnings.

Certain Mortgage Loans Held-for-Sale (HFS)

Citigroup has elected the fair value option for certain purchased and originated prime fixed-rate and conforming adjustable-rate first mortgage loans HFS. These loans are intended for sale or securitization and are economically hedged with derivative instruments. The Company has elected the fair value option to mitigate accounting mismatches in cases where hedge accounting is complex and to achieve operational simplifications.

Certain Debt Liabilities

The Company has elected the fair value option for certain debt liabilities, because these exposures are considered to be trading-related positions and, therefore, are managed on a fair value basis. These positions are classified as *Long-term debt* or *Short-term borrowings* on the Company's Consolidated Balance Sheet.

The following table provides information about the carrying value of notes carried at fair value, disaggregated by type of risk:

In billions of dollars	December 31, 2023	December 31, 2022
Interest rate linked	\$ 60.4	\$ 53.4
Foreign exchange linked	—	0.1
Equity linked	45.9	42.5
Commodity linked	5.3	5.0
Credit linked	4.7	5.0
Total	\$ 116.3	\$ 106.0

The portion of the changes in fair value attributable to changes in Citigroup's own credit spreads (DVA) is reflected as a component of *AOCI* while all other changes in fair value are reported in *Principal transactions*. Changes in the fair value of these liabilities include accrued interest, which is also included in the change in fair value reported in *Principal transactions*.

Certain Non-Structured Liabilities

The Company has elected the fair value option for certain non-structured liabilities with fixed and floating interest rates. The Company has elected the fair value option where the interest rate risk of such liabilities may be economically hedged with derivative contracts or the proceeds are used to purchase

financial assets that will also be accounted for at fair value through earnings. The elections have been made to mitigate accounting mismatches and to achieve operational simplifications. These positions are reported in *Short-term borrowings* and *Long-term debt* on the Company's Consolidated Balance Sheet. The portion of the changes in fair value attributable to changes in Citigroup's own credit spreads (i.e., DVA) is reflected as a component of *AOCI* while all other changes in fair value are reported in *Principal transactions*.

Interest expense on non-structured liabilities is measured based on the contractual interest rates and reported as *Interest expense* in the Consolidated Statement of Income.

The following table provides information about long-term debt carried at fair value:

In millions of dollars	December 31, 2023	December 31, 2022
Carrying amount reported on the Consolidated Balance Sheet	\$ 116,338	\$ 105,995
Aggregate unpaid principal balance in excess of (less than) fair value	(2,842)	(2,944)

The following table provides information about short-term borrowings carried at fair value:

In millions of dollars	December 31, 2023	December 31, 2022
Carrying amount reported on the Consolidated Balance Sheet	\$ 6,545	\$ 6,222
Aggregate unpaid principal balance in excess of (less than) fair value	(60)	(9)

28. PLEDGED ASSETS, RESTRICTED CASH, COLLATERAL, GUARANTEES AND COMMITMENTS

Pledged Assets

In connection with Citi's financing and trading activities, Citi has pledged assets to collateralize its obligations under repurchase agreements, secured financing agreements, secured liabilities of consolidated VIEs and other borrowings. The approximate carrying values of the significant components of pledged assets recognized on Citi's Consolidated Balance Sheet included the following:

<i>In billions of dollars</i>	December 31, 2023	December 31, 2022
Investment securities	\$ 229.2	\$ 246.3
Loans	292.3	261.4
Trading account assets	199.3	136.0
Total	\$ 720.8	\$ 643.7

At December 31, 2023 and 2022, \$511.6 billion and \$502.0 billion, respectively, of these pledged assets may not be sold or repledged by the secured parties.

Restricted Cash

Citigroup defines restricted cash (as cash subject to withdrawal restrictions) to include cash deposited with central banks that must be maintained to meet minimum regulatory requirements, and cash set aside for the benefit of customers or for other purposes such as compensating balance arrangements or debt retirement. Restricted cash may include minimum reserve requirements at certain central banks and cash segregated to satisfy rules regarding the protection of customer assets as required by Citigroup broker-dealers' primary regulators, including the SEC, the Commodity Futures Trading Commission and the United Kingdom's Prudential Regulation Authority.

Restricted cash is included on the Consolidated Balance Sheet within the following balance sheet lines:

<i>In millions of dollars</i>	December 31, 2023	December 31, 2022
Cash and due from banks	\$ 3,479	\$ 4,820
Deposits with banks, net of allowance	15,538	12,156
Total	\$ 19,017	\$ 16,976

In addition to the restricted cash amounts presented above, at December 31, 2023 approximately \$3.9 billion was held at the Deposit Insurance Agency (DIA) and was subject to restrictions imposed by the Russian government. At December 31, 2022, \$1.8 billion was held at the National Settlements Depository (NSD) and was also subject to restrictions imposed by the Russian government. In April 2023, the balances held in the NSD were transferred to the DIA. For the rest of 2023, all balances that previously would have been transferred to the NSD were transferred to the DIA. These restricted amounts are reported within *Other assets* on the Consolidated Balance Sheet.

Collateral

At December 31, 2023 and 2022, the approximate fair value of securities collateral received by Citi that may be resold or repledged, excluding the impact of allowable netting, was \$817.9 billion and \$725.5 billion, respectively. This collateral was received in connection with resale agreements, securities borrowings and loans, securities for securities lending transactions, derivative transactions and margined broker loans.

At December 31, 2023 and 2022, a substantial portion of the collateral received by Citi had been sold or repledged in connection with repurchase agreements, securities sold, not yet purchased, securities lendings, pledges to clearing organizations, segregation requirements under securities laws and regulations, derivative transactions and bank loans.

Guarantees

Citi provides a variety of guarantees and indemnifications to its customers to enhance their credit standing and enable them to complete a wide range of business transactions. For certain contracts meeting the definition of a guarantee, the guarantor must recognize, at inception, a liability for the fair value of the obligation undertaken in issuing the guarantee.

In addition, the guarantor must disclose the maximum potential amount of future payments that the guarantor could be required to make under the guarantee, if there were a total

default by the guaranteed parties. The determination of the maximum potential future payments is based on the notional amount of the guarantees without consideration of possible recoveries under recourse provisions or from collateral held or pledged. As such, Citi believes such amounts bear no relationship to the anticipated losses, if any, on these guarantees.

The following tables present information about Citi's guarantees:

In billions of dollars at December 31, 2023	Maximum potential amount of future payments				Carrying value (in millions of dollars)
	Expire within 1 year	Expire after 1 year	Total amount outstanding		
Financial standby letters of credit	\$ 17.8	\$ 63.5	\$ 81.3	\$ 674	
Performance guarantees	4.8	5.8	10.6	49	
Derivative instruments considered to be guarantees	24.2	16.3	40.5	362	
Loans sold with recourse	0.6	1.2	1.8	16	
Securities lending indemnifications ⁽¹⁾	104.1	—	104.1	—	
Credit card merchant processing ⁽²⁾	138.0	—	138.0	—	
Credit card arrangements with partners	0.2	0.2	0.4	5	
Other ⁽³⁾	27.7	7.7	35.4	50	
Total	\$ 317.4	\$ 94.7	\$ 412.1	\$ 1,156	

In billions of dollars at December 31, 2022	Maximum potential amount of future payments				Carrying value (in millions of dollars)
	Expire within 1 year	Expire after 1 year	Total amount outstanding		
Financial standby letters of credit	\$ 31.3	\$ 58.3	\$ 89.6	\$ 905	
Performance guarantees	6.1	5.6	11.7	65	
Derivative instruments considered to be guarantees	18.5	30.0	48.5	353	
Loans sold with recourse	—	1.7	1.7	13	
Securities lending indemnifications ⁽¹⁾	95.9	—	95.9	—	
Credit card merchant processing ⁽²⁾	129.6	—	129.6	1	
Credit card arrangements with partners	—	0.6	0.6	7	
Other	0.1	8.4	8.5	32	
Total	\$ 281.5	\$ 104.6	\$ 386.1	\$ 1,376	

(1) The carrying values of securities lending indemnifications were not material for either period presented, as the probability of potential liabilities arising from these guarantees is minimal.

(2) At December 31, 2023 and 2022, this maximum potential exposure was estimated to be approximately \$138 billion and \$130 billion, respectively. However, Citi believes that the maximum exposure is not representative of the actual potential loss exposure based on its historical experience. This contingent liability is unlikely to arise, as most products and services are delivered when purchased and amounts are refunded when items are returned to merchants.

(3) Includes guarantees to the Fixed Income Clearing Corporation under the sponsored member repo program.

Financial Standby Letters of Credit

Citi issues standby letters of credit, which substitute its own credit for that of the borrower. If a letter of credit is drawn down, the borrower is obligated to repay Citi. Standby letters of credit protect a third party from defaults on contractual obligations. Financial standby letters of credit include (i) guarantees of payment of insurance premiums and reinsurance risks that support industrial revenue bond underwriting, (ii) settlement of payment obligations to clearing houses, including futures and over-the-counter derivatives clearing (see further discussion below), (iii) support options and purchases of securities in lieu of escrow deposit accounts and (iv) letters of credit that backstop loans, credit facilities, promissory notes and trade acceptances.

Performance Guarantees

Performance guarantees and letters of credit are issued to guarantee a customer's tender bid on a construction or systems-installation project or to guarantee completion of such projects in accordance with contract terms. They are also issued to support a customer's obligation to supply specified products, commodities or maintenance or warranty services to a third party.

Derivative Instruments Considered to Be Guarantees

Derivatives are financial instruments whose cash flows are based on a notional amount and an underlying instrument, reference credit or index, where there is little or no initial investment and whose terms require or permit net settlement. See Note 24 for a discussion of Citi's derivatives activities.

Derivative instruments considered to be guarantees include only those instruments that require Citi to make payments to the counterparty based on changes in an underlying instrument that is related to an asset, a liability or an equity security held by the guaranteed party. More specifically, derivative instruments considered to be guarantees include certain over-the-counter written put options where the counterparty is not a bank, hedge fund or broker-dealer (such counterparties are considered to be dealers in these markets and may, therefore, not hold the underlying instruments). Credit derivatives sold by Citi are excluded from the tables above as they are disclosed separately in Note 24. In instances where Citi's maximum potential future payment is unlimited, the notional amount of the contract is disclosed.

Loans Sold with Recourse

Loans sold with recourse represent Citi's obligations to reimburse the buyers for loan losses under certain circumstances. Recourse refers to the clause in a sales agreement under which a seller/lender will fully reimburse the buyer/investor for any losses resulting from the purchased loans. This may be accomplished by the sellers taking back any loans that become delinquent.

In addition to the amounts presented in the tables above, Citi has recorded a repurchase reserve for its potential repurchases or make-whole liability regarding residential mortgage representation and warranty claims related to its whole loan sales to U.S. government-sponsored agencies and, to a lesser extent, private investors. The repurchase reserve was approximately \$11 million and \$10 million at

December 31, 2023 and 2022, respectively, and these amounts are included in *Other liabilities* on the Consolidated Balance Sheet.

Securities Lending Indemnifications

Owners of securities frequently lend those securities for a fee to other parties who may sell them short or deliver them to another party to satisfy some other obligation. Banks may administer such securities lending programs for their clients. Securities lending indemnifications are issued by the bank to guarantee that a securities lending customer will be made whole in the event that the security borrower does not return the security subject to the lending agreement and collateral held is insufficient to cover the market value of the security.

Credit Card Merchant Processing

Credit card merchant processing guarantees represent the Company's indirect obligations in connection with (i) providing transaction processing services to various merchants with respect to its private label cards and (ii) potential liability for bank card transaction processing services. The nature of the liability in either case arises as a result of a billing dispute between a merchant and a cardholder that is ultimately resolved in the cardholder's favor. The merchant is liable to refund the amount to the cardholder. In general, if the credit card processing company is unable to collect this amount from the merchant, the credit card processing company bears the loss for the amount of the credit or refund paid to the cardholder.

With regard to (i) above, Citi has the primary contingent liability with respect to its portfolio of private label merchants. The risk of loss is mitigated as the cash flows between Citi and the merchant are settled on a net basis, and Citi has the right to offset any payments with cash flows otherwise due to the merchant. To further mitigate this risk, Citi may delay settlement, require a merchant to make an escrow deposit, include event triggers to provide Citi with more financial and operational control in the event of the financial deterioration of the merchant or require various credit enhancements (including letters of credit and bank guarantees). In the unlikely event that a private label merchant is unable to deliver products, services or a refund to its private label cardholders, Citi is contingently liable to credit or refund cardholders.

With regard to (ii) above, Citi has a potential liability for bank card transactions where Citi provides the transaction processing services as well as those where a third party provides the services and Citi acts as a secondary guarantor, should that processor fail to perform.

Citi's maximum potential contingent liability related to both bank card and private label merchant processing services is estimated to be the total volume of credit card transactions that meet the requirements to be valid charge-back transactions at any given time. At December 31, 2023 and 2022, this maximum potential exposure was estimated to be \$138.0 billion and \$129.6 billion, respectively.

However, Citi believes that the maximum exposure is not representative of the actual potential loss exposure based on its historical experience. This contingent liability is unlikely to arise, as most products and services are delivered when purchased and amounts are refunded when items are returned

to merchants. Citi assesses the probability and amount of its contingent liability related to merchant processing based on the financial strength of the primary guarantor, the extent and nature of unresolved charge-backs and its historical loss experience. At December 31, 2023 and 2022, the losses incurred and the carrying amounts of Citi's contingent obligations related to merchant processing activities were immaterial.

Credit Card Arrangements with Partners

Citi, in one of its credit card partner arrangements, provides guarantees to the partner regarding the volume of certain customer originations during the term of the agreement. To the extent that such origination targets are not met, the guarantees serve to compensate the partner for certain payments that otherwise would have been generated in connection with such originations.

Other Guarantees and Indemnifications

Credit Card Protection Programs

Citi, through its credit card businesses, provides various cardholder protection programs on several of its card products, including programs that provide coverage for certain losses associated with purchased products, and protection for certain travel-related purchases. These guarantees are not included in the table, since the total outstanding amount of the guarantees and Citi's maximum exposure to loss cannot be quantified. The protection is limited to certain types of purchases and losses, and it is not possible to quantify the purchases that would qualify for these benefits at any given time. Citi assesses the probability and amount of its potential liability related to these programs based on the extent and nature of its historical loss experience. At December 31, 2023 and 2022, the actual and estimated losses incurred and the carrying value of Citi's obligations related to these programs were immaterial.

Other Representation and Warranty Indemnifications

In the normal course of business, Citi provides standard representations and warranties to counterparties in contracts in connection with numerous transactions and also provides indemnifications, including indemnifications that protect the counterparties to the contracts in the event that additional taxes are owed, due either to a change in the tax law or an adverse interpretation of the tax law. Counterparties to these transactions provide Citi with comparable indemnifications. While such representations, warranties and indemnifications are essential components of many contractual relationships, they do not represent the underlying business purpose for the transactions. The indemnification clauses are often standard contractual terms related to Citi's own performance under the terms of a contract and are entered into in the normal course of business based on an assessment that the risk of loss is remote. Often these clauses are intended to ensure that terms of a contract are met at inception. No compensation is received for these standard representations and warranties, and it is not possible to determine their fair value because they rarely, if ever, result in a payment. In many cases, there are no stated or notional amounts included in the indemnification clauses, and

the contingencies potentially triggering the obligation to indemnify have not occurred and are not expected to occur. As a result, these indemnifications are not included in the tables above.

Value-Transfer Networks (Including Exchanges and Clearing Houses) (VTNs)

Citi is a member of, or shareholder in, hundreds of value-transfer networks (VTNs) (payment, clearing and settlement systems as well as exchanges) around the world. As a condition of membership, many of these VTNs require that members stand ready to pay a pro rata share of the losses incurred by the organization due to another member's default on its obligations. Citi's potential obligations may be limited to its membership interests in the VTNs, contributions to the VTN's funds, or, in certain narrow cases, to the full pro rata share. The maximum exposure is difficult to estimate as this would require an assessment of claims that have not yet occurred; however, Citi believes the risk of loss is remote given historical experience with the VTNs. Accordingly, Citi's participation in VTNs is not reported in the guarantees tables above, and there are no amounts reflected on the Consolidated Balance Sheet as of December 31, 2023 or 2022 for potential obligations that could arise from Citi's involvement with VTN associations.

Long-Term Care Insurance Indemnification

In 2000, Travelers Life & Annuity (Travelers), then a subsidiary of Citi, entered into a reinsurance agreement to transfer the risks and rewards of its long-term care (LTC) business to GE Life (now Genworth Financial Inc., or Genworth), then a subsidiary of the General Electric Company (GE). As part of this transaction, the reinsurance obligations were provided by two regulated insurance subsidiaries of GE Life, which funded two collateral trusts with securities.

Presently, as discussed below, the trusts are referred to as the Genworth Trusts.

As part of GE's spin-off of Genworth in 2004, GE retained the risks and rewards associated with the 2000 Travelers reinsurance agreement by providing a reinsurance contract to Genworth through GE's Union Fidelity Life Insurance Company (UFLIC) subsidiary that covers the Travelers LTC policies. In addition, GE provided a capital maintenance agreement in favor of UFLIC that is designed to assure that UFLIC will have the funds to pay its reinsurance obligations. As a result of these reinsurance agreements and the spin-off of Genworth, Genworth has reinsurance protection from UFLIC (supported by GE) and has reinsurance obligations in connection with the Travelers LTC policies. As noted below, the Genworth reinsurance obligations now benefit Brighthouse Financial, Inc. (Brighthouse). While neither Brighthouse nor Citi are direct beneficiaries of the capital maintenance agreement between GE and UFLIC, Brighthouse and Citi benefit indirectly from the existence of the capital maintenance agreement, which helps assure that UFLIC will continue to have funds necessary to pay its reinsurance obligations to Genworth.

In connection with Citi's 2005 sale of Travelers to MetLife Inc. (MetLife), Citi provided an indemnification to MetLife for losses (including policyholder claims) relating to

the LTC business for the entire term of the Travelers LTC policies, which, as noted above, are reinsured by subsidiaries of Genworth. In 2017, MetLife spun off its retail insurance business to Brighthouse. As a result, the Travelers LTC policies now reside with Brighthouse. The original reinsurance agreement between Travelers (now Brighthouse) and Genworth remains in place and Brighthouse is the sole beneficiary of the Genworth Trusts. The Genworth Trusts are designed to provide collateral to Brighthouse in an amount equal to the statutory liabilities of Brighthouse in respect of the Travelers LTC policies. The assets in the Genworth Trusts are evaluated and adjusted periodically to ensure that the fair value of the assets continues to provide collateral in an amount equal to these estimated statutory liabilities, as the liabilities change over time.

If both (i) Genworth fails to perform under the original Travelers/GE Life reinsurance agreement for any reason, including its insolvency or the failure of UFLIC to perform under its reinsurance contract or GE to perform under the capital maintenance agreement, and (ii) the assets of the two Genworth Trusts are insufficient or unavailable, then Citi, through its LTC reinsurance indemnification, must reimburse Brighthouse for any losses incurred in connection with the LTC policies. Since both events would have to occur before Citi would become responsible for any payment to Brighthouse pursuant to its indemnification obligation, and the likelihood of such events occurring is currently not probable, there is no liability reflected on the Consolidated Balance Sheet as of December 31, 2023 and 2022 related to this indemnification. However, if both events become reasonably possible (meaning more than remote but less than probable), Citi will be required to estimate and disclose a reasonably possible loss or range of loss to the extent that such an estimate could be made. In addition, if both events become probable, Citi will be required to accrue for such liability in accordance with applicable accounting principles.

Futures and Over-the-Counter Derivatives Clearing

Citi provides clearing services on central clearing parties (CCP) for clients that need to clear exchange-traded and over-the-counter (OTC) derivatives contracts with CCPs. Based on all relevant facts and circumstances, Citi has concluded that it acts as an agent for accounting purposes in its role as clearing member for these client transactions. As such, Citi does not reflect the underlying exchange-traded or OTC derivatives contracts in its Consolidated Financial Statements. See Note 24 for a discussion of Citi's derivatives activities that are reflected in its Consolidated Financial Statements.

As a clearing member, Citi collects and remits cash and securities collateral (margin) between its clients and the respective CCP. In certain circumstances, Citi collects a higher amount of cash (or securities) from its clients than it needs to remit to the CCPs. This excess cash is then held at depository institutions such as banks or carry brokers.

There are two types of margin: initial and variation. Where Citi obtains benefits from or controls cash initial margin (e.g., retains an interest spread), cash initial margin collected from clients and remitted to the CCP or depository institutions is reflected within *Brokerage payables* (payables to customers) and *Brokerage receivables* (receivables from

brokers, dealers and clearing organizations) or *Cash and due from banks*, respectively.

However, for exchange-traded and OTC-cleared derivatives contracts where Citi does not obtain benefits from or control the client cash balances, the client cash initial margin collected from clients and remitted to the CCP or depository institutions is not reflected on Citi's Consolidated Balance Sheet. These conditions are met when Citi has contractually agreed with the client that (i) Citi will pass through to the client all interest paid by the CCP or depository institutions on the cash initial margin, (ii) Citi will not utilize its right as a clearing member to transform cash margin into other assets, (iii) Citi does not guarantee and is not liable to the client for the performance of the CCP or the depository institution and (iv) the client cash balances are legally isolated from Citi's bankruptcy estate. The total amount of cash initial margin collected and remitted in this manner was approximately \$17.8 billion and \$18.0 billion as of December 31, 2023 and 2022, respectively.

Variation margin due from clients to the respective CCP, or from the CCP to clients, reflects changes in the value of the client's derivative contracts for each trading day. As a clearing member, Citi is exposed to the risk of non-performance by clients (e.g., failure of a client to post variation margin to the CCP for negative changes in the value of the client's derivative contracts). In the event of non-performance by a client, Citi would move to close out the client's positions. The CCP would typically utilize initial margin posted by the client and held by the CCP, with any remaining shortfalls required to be paid by Citi as clearing member. Citi generally holds incremental cash or securities margin posted by the client, which would typically be expected to be sufficient to mitigate Citi's credit risk in the event that the client fails to perform.

As required by ASC 860-30-25-5, securities collateral posted by clients is not recognized on Citi's Consolidated Balance Sheet.

FICC Sponsored Member Repo Program

Citi acts as a sponsoring member of the Government Securities Division of the Fixed Income Clearing Corporation (FICC) to clear eligible resale and repurchase agreements on behalf of its clients that become sponsored members of the FICC. Citi, as sponsoring member, is required to provide a guarantee to the FICC with respect to the prompt payment and performance of its sponsored members. Because Citi obtains a security interest in the cash or high-quality securities collateral that the clients place with the clearing house, Citi expects the risk of loss from this guarantee to be remote. See Note 12 for additional information on Citi's resale and repurchase agreements, including risk mitigation practices for these transactions.

Carrying Value—Guarantees and Indemnifications

At December 31, 2023 and 2022, the total carrying amounts of the liabilities related to the guarantees and indemnifications included in the tables above amounted to approximately \$1.2 billion and \$1.4 billion, respectively. The carrying value of financial and performance guarantees is included in *Other liabilities*. For loans sold with recourse, the carrying value of the liability is included in *Other liabilities*.

Collateral

Cash collateral available to Citi to reimburse losses realized under these guarantees and indemnifications amounted to \$52.5 billion and \$51.8 billion at December 31, 2023 and 2022, respectively. Securities and other marketable assets held as collateral amounted to \$67.7 billion and \$63.7 billion at December 31, 2023 and 2022, respectively. The majority of collateral is held to reimburse losses realized under securities lending indemnifications. In addition, letters of credit in favor of Citi held as collateral amounted to \$3.1 billion and \$3.7 billion at December 31, 2023 and 2022, respectively. Other property may also be available to Citi to cover losses under certain guarantees and indemnifications; however, the value of such property has not been determined.

Performance Risk

Citi evaluates the performance risk of its guarantees based on the assigned referenced counterparty internal or external ratings. Where external ratings are used, investment-grade

ratings are considered to be Baa/BBB and above, while anything below is considered non-investment grade. Citi's internal ratings are in line with the related external rating system. On certain underlying referenced assets or entities, ratings are not available. Such referenced assets are included in the "not rated" category. The maximum potential amount of the future payments related to the outstanding guarantees is determined to be the notional amount of these contracts, which is the par amount of the assets guaranteed.

Presented in the tables below are the maximum potential amounts of future payments that are classified based on internal and external credit ratings. The determination of the maximum potential future payments is based on the notional amount of the guarantees without consideration of possible recoveries under recourse provisions or from collateral held or pledged. As such, Citi believes such amounts bear no relationship to the anticipated losses, if any, on these guarantees.

In billions of dollars at December 31, 2023

	Maximum potential amount of future payments			
	Investment grade	Non-investment grade	Not rated	Total
Financial standby letters of credit	\$ 70.5	\$ 10.8	\$ —	\$ 81.3
Loans sold with recourse	—	—	1.8	1.8
Other	—	7.7	—	7.7
Total	\$ 70.5	\$ 18.5	\$ 1.8	\$ 90.8

In billions of dollars at December 31, 2022

	Maximum potential amount of future payments			
	Investment grade	Non-investment grade	Not rated	Total
Financial standby letters of credit	\$ 77.9	\$ 10.4	\$ 1.3	\$ 89.6
Loans sold with recourse	—	—	1.7	1.7
Other	—	8.5	—	8.5
Total	\$ 77.9	\$ 18.9	\$ 3.0	\$ 99.8

Credit Commitments and Lines of Credit

The table below summarizes Citigroup's credit commitments:

In millions of dollars	U.S.	Outside of U.S. ⁽¹⁾	December 31, 2023	December 31, 2022
Commercial and similar letters of credit	\$ 942	\$ 4,403	\$ 5,345	\$ 5,316
One- to four-family residential mortgages	638	607	1,245	2,394
Revolving open-end loans secured by one- to four-family residential properties	5,471	24	5,495	6,380
Commercial real estate, construction and land development	13,629	1,637	15,266	15,170
Credit card lines	612,101	64,904	677,005	683,232
Commercial and other consumer loan commitments	203,851	108,449	312,300	297,399
Other commitments and contingencies ⁽²⁾	4,983	163	5,146	5,673
Total	\$ 841,615	\$ 180,187	\$ 1,021,802	\$ 1,015,564

- (1) Consumer commitments related to the business HFS countries under sales agreements are reflected in their original categories until the respective sales are completed.
(2) Other commitments and contingencies include commitments to purchase certain debt and equity securities.

The majority of unused commitments are contingent upon customers maintaining specific credit standards. Commercial commitments generally have floating interest rates and fixed expiration dates and may require payment of fees. Such fees (net of certain direct costs) are deferred and, upon exercise of the commitment, amortized over the life of the loan or, if exercise is deemed remote, amortized over the commitment period.

Commercial and Similar Letters of Credit

A commercial letter of credit is an instrument by which Citigroup substitutes its credit for that of a customer to enable the customer to finance the purchase of goods or to incur other commitments. Citigroup issues a letter on behalf of its client to a supplier and agrees to pay the supplier upon presentation of documentary evidence that the supplier has performed in accordance with the terms of the letter of credit. When a letter of credit is drawn, the customer is then required to reimburse Citigroup.

One- to Four-Family Residential Mortgages

A one- to four-family residential mortgage commitment is a written confirmation from Citigroup to a seller of a property that the bank will advance the specified sums enabling the buyer to complete the purchase.

Revolving Open-End Loans Secured by One- to Four-Family Residential Properties

Revolving open-end loans secured by one- to four-family residential properties are essentially home equity lines of credit. A home equity line of credit is a loan secured by a primary residence or second home to the extent of the excess of fair market value over the debt outstanding for the first mortgage.

Commercial Real Estate, Construction and Land Development

Commercial real estate, construction and land development include unused portions of commitments to extend credit for the purpose of financing commercial and multifamily residential properties as well as land development projects.

Both secured-by-real-estate and unsecured commitments are included in this line, as well as undistributed loan proceeds, where there is an obligation to advance for construction progress payments. However, this line only includes those extensions of credit that, once funded, will be classified as *Total loans, net* on the Consolidated Balance Sheet.

Credit Card Lines

Citigroup provides credit to customers by issuing credit cards. The credit card lines are cancelable by providing notice to the cardholder or without such notice as permitted by local law.

Commercial and Other Consumer Loan Commitments

Commercial and other consumer loan commitments include overdraft and liquidity facilities as well as commercial commitments to make or purchase loans, purchase third-party receivables, provide note issuance or revolving underwriting facilities and invest in the form of equity.

Other Commitments

As a Federal Reserve member bank, Citi is required to subscribe to half of a certain amount of shares issued by its Federal Reserve District Bank. As of December 31, 2023 and 2022, Citi holds shares with a carrying value of \$4.5 billion, with the remaining half subject to call by the Federal Reserve District Bank Board.

In the normal course of business, Citigroup enters into reverse repurchase and securities borrowing agreements, as well as repurchase and securities lending agreements, which settle at a future date. At December 31, 2023 and 2022, Citigroup had approximately \$120.9 billion and \$111.6 billion of unsettled reverse repurchase and securities borrowing agreements, and approximately \$96.4 billion and \$37.3 billion of unsettled repurchase and securities lending agreements, respectively. See Note 12 for a further discussion of securities purchased under agreements to resell and securities borrowed, and securities sold under agreements to repurchase and securities loaned, including the Company's policy for offsetting repurchase and reverse repurchase agreements.

These amounts are not included in the table above.

29. LEASES

The Company's operating leases, where Citi is a lessee, include real estate, such as office space and branches, and various types of equipment. These leases may contain renewal and extension options and early termination features; however, these options do not impact the lease term unless the Company is reasonably certain that it will exercise options. These leases have a weighted-average remaining lease term of approximately six years as of December 31, 2023 and 2022.

For additional information regarding Citi's leases, see Note 1.

The following table presents information on the right-of-use (ROU) asset and lease liabilities included in *Premises and equipment* and *Other liabilities*, respectively:

<i>In millions of dollars</i>	December 31, 2023	December 31, 2022
ROU asset	\$ 2,801	\$ 2,892
Lease liability	2,974	3,076

The Company recognizes fixed lease costs on a straight-line basis throughout the lease term in the Consolidated Statement of Income. In addition, variable lease costs are recognized in the period in which the obligation for those payments is incurred.

The following table presents the total operating lease expense (principally for offices, branches and equipment) included in the Consolidated Statement of Income:

<i>In millions of dollars</i>	Dec. 31, 2023	Dec. 31, 2022	Dec. 31, 2021
Operating lease expense	\$ 842	\$ 852	\$ 872
Variable lease expense	208	199	201
Total lease costs ⁽¹⁾	\$ 1,050	\$ 1,051	\$ 1,073

- (1) Balances do not include \$3 million, \$3 million and \$12 million of sublease income for the years ended December 31, 2023, 2022 and 2021, respectively.

The table below provides the supplemental Statement of Cash Flows information:

<i>In millions of dollars</i>	December 31, 2023	December 31, 2022
Cash paid for amounts included in the measurement of lease liabilities	\$ 714	\$ 725
ROU assets obtained in exchange for new operating lease liabilities ⁽¹⁾	456	775

- (1) Represents non-cash activity and, accordingly, is not reflected in the Consolidated Statement of Cash Flows.

Citi's future lease payments are as follows:

<i>In millions of dollars</i>	
2024	\$ 728
2025	647
2026	539
2027	406
2028	307
Thereafter	710
Total future lease payments	\$ 3,337
Less imputed interest (based on weighted-average discount rate of 3.7%)	\$ (363)
Lease liability	\$ 2,974

30. CONTINGENCIES

Accounting and Disclosure Framework

ASC 450 governs the disclosure and recognition of loss contingencies, including potential losses from litigation, regulatory, tax, and other matters. ASC 450 defines a “loss contingency” as “an existing condition, situation, or set of circumstances involving uncertainty as to possible loss to an entity that will ultimately be resolved when one or more future events occur or fail to occur.” It imposes different requirements for the recognition and disclosure of loss contingencies based on the likelihood of occurrence of the contingent future event or events. It distinguishes among degrees of likelihood using the following three terms: “probable,” meaning that “the future event or events are likely to occur”; “remote,” meaning that “the chance of the future event or events occurring is slight”; and “reasonably possible,” meaning that “the chance of the future event or events occurring is more than remote but less than likely.” These three terms are used below as defined in ASC 450.

Accruals. ASC 450 requires accrual for a loss contingency when it is “probable that one or more future events will occur confirming the fact of loss” and “the amount of the loss can be reasonably estimated.” In accordance with ASC 450, Citigroup establishes accruals for contingencies, including any litigation, regulatory or tax matters disclosed herein, when Citigroup believes it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. When the reasonable estimate of the loss is within a range of amounts, the minimum amount of the range is accrued, unless some higher amount within the range is a better estimate than any other amount within the range. Once established, accruals are adjusted from time to time, as appropriate, in light of additional information. The amount of loss ultimately incurred in relation to those matters may be substantially higher or lower than the amounts accrued for those matters.

Disclosure. ASC 450 requires disclosure of a loss contingency if “there is at least a reasonable possibility that a loss or an additional loss may have been incurred” and there is no accrual for the loss because the conditions described above are not met or an exposure to loss exists in excess of the amount accrued. In accordance with ASC 450, if Citigroup has not accrued for a matter because Citigroup believes that a loss is reasonably possible but not probable, or that a loss is probable but not reasonably estimable, and the reasonably possible loss is material, it discloses the loss contingency. In addition, Citigroup discloses matters for which it has accrued if it believes a reasonably possible exposure to material loss exists in excess of the amount accrued. In accordance with ASC 450, Citigroup’s disclosure includes an estimate of the reasonably possible loss or range of loss for those matters as to which an estimate can be made. ASC 450 does not require disclosure of an estimate of the reasonably possible loss or range of loss where an estimate cannot be made. Neither accrual nor disclosure is required for losses that are deemed remote.

Litigation, Regulatory, and Other Contingencies

Overview. In addition to the matters described below, in the ordinary course of business, Citigroup, its affiliates and subsidiaries, and current and former officers, directors, and employees (for purposes of this section, sometimes collectively referred to as Citigroup and Related Parties) routinely are named as defendants in, or as parties to, various legal actions and proceedings. Certain of these actions and proceedings assert claims or seek relief in connection with alleged violations of consumer protection, fair lending, securities, banking, antifraud, antitrust, anti-money laundering, employment, and other statutory and common laws. Certain of these actual or threatened legal actions and proceedings include claims for substantial or indeterminate compensatory or punitive damages, or for injunctive relief, and in some instances seek recovery on a class-wide basis.

In the ordinary course of business, Citigroup and Related Parties also are subject to governmental and regulatory examinations, information-gathering requests, investigations, and proceedings (both formal and informal), certain of which may result in adverse judgments, settlements, fines, penalties, restitution, disgorgement, injunctions or other relief. In addition, certain affiliates and subsidiaries of Citigroup are banks, registered broker-dealers, futures commission merchants, investment advisors or other regulated entities and, in those capacities, are subject to regulation by various U.S., state, and foreign securities, banking, commodity futures, consumer protection, and other regulators. In connection with formal and informal inquiries by these regulators, Citigroup and such affiliates and subsidiaries receive numerous requests, subpoenas, and orders seeking documents, testimony, and other information in connection with various aspects of their regulated activities. From time to time Citigroup and Related Parties also receive grand jury subpoenas and other requests for information or assistance, formal or informal, from federal or state law enforcement agencies including, among others, various United States Attorneys’ Offices, the Money Laundering and Asset Recovery Section and other divisions of the Department of Justice, the Financial Crimes Enforcement Network of the United States Department of the Treasury, and the Federal Bureau of Investigation relating to Citigroup and its customers.

Because of the global scope of Citigroup’s operations and its presence in countries around the world, Citigroup and Related Parties are subject to litigation and governmental and regulatory examinations, information-gathering requests, investigations, and proceedings (both formal and informal) in multiple jurisdictions with legal, regulatory, and tax regimes that may differ substantially, and present substantially different risks, from those Citigroup and Related Parties are subject to in the United States. In some instances, Citigroup and Related Parties may be involved in proceedings involving the same subject matter in multiple jurisdictions, which may result in overlapping, cumulative or inconsistent outcomes.

Citigroup seeks to resolve all litigation, regulatory, tax, and other matters in the manner management believes is in the best interests of Citigroup and its shareholders, and contests liability, allegations of wrongdoing, and, where applicable, the amount of damages or scope of any penalties or other relief sought as appropriate in each pending matter.

Inherent Uncertainty of the Matters Disclosed. Certain of the matters disclosed below involve claims for substantial or indeterminate damages. The claims asserted in these matters typically are broad, often spanning a multiyear period and sometimes a wide range of business activities, and the plaintiffs' or claimants' alleged damages frequently are not quantified or factually supported in the complaint or statement of claim. Other matters relate to regulatory investigations or proceedings, as to which there may be no objective basis for quantifying the range of potential fine, penalty or other remedy. As a result, Citigroup is often unable to estimate the loss in such matters, even if it believes that a loss is probable or reasonably possible, until developments in the case, proceeding or investigation have yielded additional information sufficient to support a quantitative assessment of the range of reasonably possible loss. Such developments may include, among other things, discovery from adverse parties or third parties, rulings by the court on key issues, analysis by retained experts, and engagement in settlement negotiations.

Depending on a range of factors, such as the complexity of the facts, the novelty of the legal theories, the pace of discovery, the court's scheduling order, the timing of court decisions, and the adverse party's, regulator's or other authority's willingness to negotiate in good faith toward a resolution, it may be months or years after the filing of a case or commencement of a proceeding or an investigation before an estimate of the range of reasonably possible loss can be made.

Matters as to Which an Estimate Can Be Made. For some of the matters disclosed below, Citigroup is currently able to estimate a reasonably possible loss or range of loss in excess of amounts accrued (if any). For some of the matters included within this estimation, an accrual has been made because a loss is believed to be both probable and reasonably estimable, but a reasonably possible exposure to loss exists in excess of the amount accrued. In these cases, the estimate reflects the reasonably possible range of loss in excess of the accrued amount. For other matters included within this estimation, no accrual has been made because a loss, although estimable, is believed to be reasonably possible, but not probable; in these cases, the estimate reflects the reasonably possible loss or range of loss. As of December 31, 2023, Citigroup estimates that the reasonably possible unaccrued loss for these matters ranges up to approximately \$1.3 billion in the aggregate.

These estimates are based on currently available information. As available information changes, the matters for which Citigroup is able to estimate will change, and the estimates themselves will change. In addition, while many estimates presented in financial statements and other financial disclosures involve significant judgment and may be subject to significant uncertainty, estimates of the range of reasonably possible loss arising from litigation, regulatory, and tax proceedings are subject to particular uncertainties. For example, at the time of making an estimate, (i) Citigroup may have only preliminary, incomplete or inaccurate information about the facts underlying the claim, (ii) its assumptions about the future rulings of the court, other tribunal or authority on significant issues, or the behavior and incentives of adverse parties, regulators or other authorities, may prove to be wrong and (iii) the outcomes it is attempting to predict are often not

amenable to the use of statistical or other quantitative analytical tools. In addition, from time to time an outcome may occur that Citigroup had not accounted for in its estimate because it had deemed such an outcome to be remote. For all of these reasons, the amount of loss in excess of amounts accrued in relation to matters for which an estimate has been made could be substantially higher or lower than the range of loss included in the estimate.

Matters as to Which an Estimate Cannot Be Made. For other matters disclosed below, Citigroup is not currently able to estimate the reasonably possible loss or range of loss. Many of these matters remain in very preliminary stages (even in some cases where a substantial period of time has passed since the commencement of the matter), with few or no substantive legal decisions by the court, tribunal or other authority defining the scope of the claims, the class (if any) or the potentially available damages or other exposure, and fact discovery is still in progress or has not yet begun. In many of these matters, Citigroup has not yet answered the complaint or statement of claim or asserted its defenses, nor has it engaged in any negotiations with the adverse party (whether a regulator, taxing authority or private party). For all these reasons, Citigroup cannot at this time estimate the reasonably possible loss or range of loss, if any, for these matters.

Opinion of Management as to Eventual Outcome. Subject to the foregoing, it is the opinion of Citigroup's management, based on current knowledge and after taking into account its current accruals, that the eventual outcome of all matters described in this Note would not likely have a material adverse effect on the consolidated financial condition of Citigroup.

Nonetheless, given the substantial or indeterminate amounts sought in certain of these matters, and the inherent unpredictability of such matters, an adverse outcome in certain of these matters could, from time to time, have a material adverse effect on Citigroup's consolidated results of operations or cash flows in particular quarterly or annual periods.

FDIC Special Assessment

On November 29, 2023, the FDIC published a final rule implementing a special assessment—primarily on large banks—to recover the uninsured deposit losses from the failures of Silicon Valley Bank and Signature Bank. The FDIC estimated the total cost of the failures to be approximately \$16.3 billion, which is attributable to the protection of uninsured depositors, an estimate that will be periodically adjusted when warranted. The FDIC will collect the special assessment at an annual rate of approximately 13.44 basis points of December 31, 2022 estimated uninsured deposits exceeding \$5 billion, over eight quarterly assessment periods beginning in 2024. In the fourth quarter of 2023, Citi accrued an estimated liability of \$1.7 billion within *Other liabilities* and reported the corresponding expense in *Other operating expenses* in the Consolidated Statement of Income for the special assessment.

Foreign Exchange Litigation

In 2015, a putative class of consumers and businesses in the U.S. who directly purchased supracompetitive foreign currency at benchmark exchange rates filed an action against Citigroup and other defendants, captioned NYPL v. JPMORGAN CHASE & CO., ET AL., in the United States District Court for the Northern District of California (later transferred to the United States District Court for the Southern District of New York). Subsequently, plaintiffs filed an amended class action complaint against Citigroup, Citibank, and Citicorp as defendants. Plaintiffs allege that they suffered losses as a result of defendants' alleged manipulation of, and collusion with respect to, the foreign exchange market. Plaintiffs assert claims under federal and California antitrust and consumer protection laws, and seek compensatory damages, treble damages, and declaratory and injunctive relief. On March 8, 2022, the court denied plaintiffs' motion for class certification. On March 30, 2023, the court granted defendants' motion for summary judgment and dismissed all remaining claims. On April 13, 2023, plaintiffs appealed the district court's decision to the United States Court of Appeals for the Second Circuit. Additional information concerning this action is publicly available in court filings under the docket numbers 15-CV-2290 (N.D. Cal.) (Chhabria, J.), 15-CV-9300 (S.D.N.Y.) (Schofield, J.), 22-698 (2d Cir.), and 23-619 (2d Cir.).

In 2019, two applications, captioned MICHAEL O'HIGGINS FX CLASS REPRESENTATIVE LIMITED v. BARCLAYS BANK PLC AND OTHERS and PHILLIP EVANS v. BARCLAYS BANK PLC AND OTHERS, were made to the U.K.'s Competition Appeal Tribunal requesting permission to commence collective proceedings against Citigroup, Citibank, and other defendants. The applications seek compensatory damages for losses alleged to have arisen from the actions at issue in the European Commission's foreign exchange spot trading infringement decision (European Commission Decision of May 16, 2019 in Case AT.40135-FOREX (Three Way Banana Split) C(2019) 3631 final). After claimants appealed the U.K. Competition Appeal Tribunal's judgment on certification, the Court of Appeal issued a judgment on November 9, 2023, that the U.K. Competition Appeal Tribunal should not have declined to certify the proceedings. In December 2023, Citigroup, Citibank and the other defendants applied to the U.K.'s Supreme Court for permission to appeal the Court of Appeal's judgment. Additional information concerning these actions is publicly available in court filings under the case numbers 1329/7/7/19 and 1336/7/7/19 in the U.K. Competition Appeal Tribunal, CA-2022-002002 and CA-2022-002003 in the Court of Appeal, and UKSC 2023/0177 in the U.K. Supreme Court.

In 2019, a putative class action was filed against Citibank and other defendants, captioned J WISBEY & ASSOCIATES PTY LTD v. UBS AG & ORS, in the Federal Court of Australia. Plaintiffs allege that defendants manipulated the foreign exchange markets. Plaintiffs assert claims under antitrust laws, and seek compensatory damages and declaratory and injunctive relief. Additional information concerning this action is publicly available in court filings under the docket number VID567/2019.

In 2019, two motions for certification of class actions filed against Citigroup, Citibank, Citicorp, and other defendants were consolidated, under the caption GERTLER, ET AL. v. DEUTSCHE BANK AG, in the Tel Aviv Central District Court in Israel. Plaintiffs allege that defendants manipulated the foreign exchange markets. In August 2021, Citibank's motion to dismiss plaintiffs' petition for certification was denied. In April 2022, the Supreme Court of Israel denied Citibank's motion for leave to appeal the Central District Court's denial of its motion to dismiss. Additional information concerning this action is publicly available in court filings under the docket number CA 29013-09-18.

On December 13, 2021, a Dutch foundation filed a writ of summons against Citigroup, Citibank, and other defendants, captioned STICHTING FX CLAIMS v. NATWEST MARKETS N.V., ET AL., in the Amsterdam District Court in the Netherlands. Claimant seeks damages on behalf of certain institutional investors for losses alleged to have arisen from the actions at issue in the European Commission's foreign exchange spot trading infringement decision (European Commission Decision of May 16, 2019 in Case AT.40135-FOREX (Three Way Banana Split) C(2019) 3631 final). On March 29, 2023, the court dismissed claims made on behalf of parties located outside the Netherlands, and permitted the other claims to go forward. Claimant appealed that decision and on September 14, 2023, filed a new writ of summons asserting similar claims on behalf of additional institutional investors. Additional information concerning this action is publicly available in court filings under the case numbers C/13/718639 / HA ZA 22-460 and C/13/743903 / HA ZA 23-1143 in the Amsterdam District Court and under the case number 200.329.379/01 in the Amsterdam Court of Appeal.

Fund Administration Matter

In 2016, an arbitration proceeding was commenced in Brazil's Market Arbitration Chamber against an asset manager of a Brazilian real estate investment fund and Citibank Distribuidora de Titulos e Valores Mob S.A. (Citi DTVM). The claimant alleged that the asset manager had engaged in fraud in connection with investments in real estate projects and that Citi DTVM, as fund administrator, should be held jointly and severally liable for its investment losses. In 2020, the arbitration panel concluded that the asset manager had engaged in fraudulent activities in certain real estate projects and that Citi DTVM was jointly and severally liable pursuant to the terms of the fund administration contract. The damages phase of the arbitration proceeding is ongoing.

Interbank Offered Rates-Related Litigation and Other Matters

In August 2020, individual borrowers and consumers of loans and credit cards filed an action against Citigroup, Citibank, CGMI, and other defendants, captioned MCCARTHY, ET AL. v. INTERCONTINENTAL EXCHANGE, INC., ET AL., in the United States District Court for the Northern District of California. Plaintiffs allege that defendants conspired to fix ICE LIBOR, assert claims under the Sherman Act and the Clayton Act, and seek declaratory relief, injunctive relief, and treble damages. In October 2022, plaintiffs filed an amended complaint. On October 10, 2023, the court granted defendants'

motion to dismiss the amended complaint with prejudice for all claims against Citigroup, Citibank, and CGMI. Plaintiffs have appealed the decision to the United States Court of Appeals for the Ninth Circuit. Additional information concerning this action is publicly available in court filings under the docket numbers 20-CV-5832 (N.D. Cal.) (Donato, J.) and 23-3458 (9th Cir.).

Interchange Fee Litigation

Beginning in 2005, several putative class actions were filed against Citigroup, Citibank, and Citicorp, together with Visa, MasterCard, and other banks and their affiliates, in various federal district courts and consolidated with other related individual cases in a multi-district litigation proceeding in the United States District Court for the Eastern District of New York. This proceeding is captioned IN RE PAYMENT CARD INTERCHANGE FEE AND MERCHANT DISCOUNT ANTITRUST LITIGATION.

The plaintiffs, merchants that accept Visa and MasterCard branded payment cards, as well as various membership associations that claim to represent certain groups of merchants, allege, among other things, that defendants have engaged in conspiracies to set the price of interchange and merchant discount fees on credit and debit card transactions and to restrain trade unreasonably through various Visa and MasterCard rules governing merchant conduct, all in violation of Section 1 of the Sherman Act and certain California statutes. Plaintiffs further allege violations of Section 2 of the Sherman Act. Supplemental complaints also were filed against defendants in the putative class actions alleging that Visa's and MasterCard's respective initial public offerings were anticompetitive and violated Section 7 of the Clayton Act, and that MasterCard's initial public offering constituted a fraudulent conveyance.

In 2014, the district court entered a final judgment approving the terms of a class settlement. Various objectors appealed from the final class settlement approval order to the United States Court of Appeals for the Second Circuit.

In 2016, the Court of Appeals reversed the district court's approval of the class settlement and remanded for further proceedings. The district court thereafter appointed separate interim counsel for a putative class seeking damages and a putative class seeking injunctive relief. Amended or new complaints on behalf of the putative classes and various individual merchants were subsequently filed, including a further amended complaint on behalf of a putative damages class and a new complaint on behalf of a putative injunctive class, both of which named Citigroup, Citibank, and Citicorp LLC. In addition, numerous merchants have filed amended or new complaints against Visa, MasterCard, and in some instances one or more issuing banks, including Citigroup, Citibank, and Citicorp Payment Services.

In 2019, the district court granted the damages class plaintiffs' motion for final approval of a new settlement with the defendants. The settlement involves the damages class only and does not settle the claims of the injunctive relief class or any actions brought on a non-class basis by individual merchants. The settlement provides for a cash payment to the damages class of \$6.24 billion, later reduced by \$700 million based on the transaction volume of class members that opted

out from the settlement. Several merchants and merchant groups have appealed the final approval order. On September 27, 2021, the court granted the injunctive relief class plaintiffs' motion to certify a non-opt-out class. On March 15, 2023, the United States Court of Appeals for the Second Circuit affirmed the district court's final approval of the damages class settlement and remanded the case back to the trial court for administration of the settlement claims process. On January 8, 2024, the district court issued decisions on two pending motions for summary judgment. It granted in part and denied in part defendants' motions for summary judgment. The district court also denied Mastercard's motion for summary judgment as to Mastercard's lack of market power. Other motions for summary judgment remain pending. Additional information concerning these consolidated actions is publicly available in court filings under the docket number MDL 05-1720 (E.D.N.Y.) (Brodie, J.).

Interest Rate and Credit Default Swap Litigation

Beginning in 2015, Citigroup, Citibank, CGMI, CGML, and numerous other parties were named as defendants in a number of industry-wide putative class actions related to interest rate swap (IRS) trading. These actions have been consolidated in the United States District Court for the Southern District of New York under the caption IN RE INTEREST RATE SWAPS ANTITRUST LITIGATION. The actions allege that defendants colluded to prevent the development of exchange-like trading for IRS and assert federal and state antitrust claims and claims for unjust enrichment. Also consolidated under the same caption are individual actions filed by swap execution facilities, asserting federal and state antitrust claims, as well as claims for unjust enrichment and tortious interference with business relations. Plaintiffs in these actions seek treble damages, fees, costs, and injunctive relief. Lead plaintiffs in the class action moved for class certification in 2019 and subsequently filed an amended complaint. On December 15, 2023, the court denied plaintiffs' motion for class certification. On December 28, 2023, plaintiffs filed a petition seeking interlocutory review of the decision by the United States Court of Appeals for the Second Circuit. Additional information concerning these actions is publicly available in court filings under the docket numbers 18-CV-5361 (S.D.N.Y.) (Oetken, J.) and 16-MD-2704 (S.D.N.Y.) (Oetken, J.).

In 2017, Citigroup, Citibank, CGMI, CGML, and numerous other parties were named as defendants in an action filed in the United States District Court for the Southern District of New York under the caption TERA GROUP, INC., ET AL. v. CITIGROUP, INC., ET AL. The complaint alleges that defendants colluded to prevent the development of exchange-like trading for credit default swaps and asserts federal and state antitrust claims and state law tort claims. In January 2020, plaintiffs filed an amended complaint, which defendants later moved to dismiss. On August 14, 2023, the court granted defendants' motion to dismiss with prejudice for all claims against Citigroup, Citibank, CGMI, and CGML. On January 10, 2024, plaintiffs filed a notice of appeal. Additional information concerning this action is publicly available in court filings under the docket number 17-CV-4302 (S.D.N.Y.) (Sullivan, J.).

Madoff-Related Litigation

In 2008, a Securities Investor Protection Act (SIPA) trustee was appointed for the SIPA liquidation of Bernard L. Madoff Investment Securities LLC (BLMIS) in the United States Bankruptcy Court for the Southern District of New York. Beginning in 2010, the SIPA trustee commenced actions against multiple Citi entities, including Citibank, Citicorp North America, Inc., and CGML, captioned PICARD v. CITIBANK, N.A., ET AL., seeking recovery of monies that originated at BLMIS and were allegedly received by the Citi entities as subsequent transferees.

In February 2022, the SIPA trustee filed an amended complaint against Citibank, Citicorp North America, Inc., and CGML. In April 2022, these Citi entities moved to dismiss the amended complaint, which the bankruptcy court denied. In November 2022, the remaining Citi entities moved to file an interlocutory appeal of the bankruptcy court's decision and answered the amended complaint. Additional information concerning these actions is publicly available in court filings under the docket numbers 10-5345 (Bankr. S.D.N.Y.) (Morris, J.) and 22-9597 (S.D.N.Y.) (Gardepehe, J.).

Beginning in 2010, the British Virgin Islands liquidators of Fairfield Sentry Limited, whose assets were invested with BLMIS, commenced multiple actions against CGML, Citibank (Switzerland) AG, Citibank, NA London, Citivic Nominees Ltd., Cititrust Bahamas Ltd., and Citibank Korea Inc., captioned FAIRFIELD SENTRY LTD., ET AL. v. CITIGROUP GLOBAL MARKETS LTD., ET AL.; FAIRFIELD SENTRY LTD., ET AL. v. CITIBANK (SWITZERLAND) AG, ET AL.; FAIRFIELD SENTRY LTD., ET AL. v. ZURICH CAPITAL MARKETS COMPANY, ET AL.; FAIRFIELD SENTRY LTD., ET AL. v. CITIBANK NA LONDON, ET AL.; FAIRFIELD SENTRY LTD., ET AL. v. CITIVIC NOMINEES LTD., ET AL.; FAIRFIELD SENTRY LTD., ET AL. v. DON CHIMANGO SA, ET AL.; and FAIRFIELD SENTRY LTD., ET AL. v. CITIBANK KOREA INC. ET AL., in the United States Bankruptcy Court for the Southern District of New York. The actions seek recovery of monies that were allegedly received directly or indirectly from Fairfield Sentry.

In August 2022, the United States District Court for the Southern District of New York affirmed various decisions of the bankruptcy court, which dismissed claims against CGML, Citibank (Switzerland) AG, Citibank, NA London, Citivic Nominees Ltd., Cititrust Bahamas Ltd., and Citibank Korea Inc., and permitted a single claim against Citibank, NA London, CGML, Citivic Nominees Ltd., and Citibank (Switzerland) AG to proceed. In late September 2022, the liquidators appealed the district court's decision dismissing the liquidators' claims. In September 2022, CGML, Citibank (Switzerland) AG, Citibank, NA London, and Citivic Nominees Ltd. moved for leave to appeal the district court's decision permitting the single claim to proceed against them. On July 5, 2023, the United States Court of Appeals for the Second Circuit granted CGML, Citibank (Switzerland) AG, Citivic Nominees Ltd., and Citibank, NA London leave to appeal the district court's decision permitting a single claim to proceed against them and ordered those appeals to be heard in tandem with the liquidators' pending consolidated direct appeal.

On May 5, 2023, the liquidators voluntarily dismissed the pending claims against Citibank (Switzerland) AG and Citivic Nominees Ltd. without prejudice. The claims previously dismissed against Citibank (Switzerland) AG and Citivic Nominees Ltd. remain subject to the pending consolidated direct appeal in the United States Court of Appeals for the Second Circuit and are unaffected by the liquidators' voluntary dismissal. Additional information is publicly available in court filings under the docket numbers 10-13164, 10-3496, 10-3622, 10-3634, 10-4100, 10-3640, 11-2770, 12-1142, 12-1298 (Bankr. S.D.N.Y.) (Mastando, J.); 19-3911, 19-4267, 19-4396, 19-4484, 19-5106, 19-5135, 19-5109, 21-2997, 21-3243, 21-3526, 21-3529, 21-3530, 21-3998, 21-4307, 21-4498, 21-4496 (S.D.N.Y.) (Broderick, J.); and 22-2101 (consolidated lead appeal), 22-2557, 22-2122, 23-697, 22-2562, 22-2216, 22-2545, 22-2308, 22-2591, 22-2502, 22-2553, 22-2398, 22-2582, 23-965 (consolidated lead appeal), 23-549, 23-572, 23-573, 23-975, 23-982, 23-987 (2d Cir.).

Parmalat Litigation

In 2004, an Italian commissioner appointed to oversee the administration of various Parmalat companies filed a complaint against Citigroup, Citibank, and related parties, alleging that the defendants facilitated a number of frauds by Parmalat insiders. In 2008, a jury rendered a verdict in Citigroup's favor and awarded Citi \$431 million. In 2019, the Italian Supreme Court affirmed the decision in the full amount of \$431 million. Citigroup has taken steps to enforce the judgment in Italian and Belgian courts. Additional information concerning these actions is publicly available in court filings under the docket numbers 4133/2019 and 22098/2019 (Italy), and 20/3617/A, 2021/AR/1658, and 2022/AR/945 (Brussels).

In 2015, Parmalat filed a claim in an Italian civil court in Milan claiming damages of €1.8 billion against Citigroup, Citibank, and related parties. The Milan court dismissed Parmalat's claim on grounds that it was duplicative of Parmalat's previously unsuccessful claims. In 2019, the Milan Court of Appeal rejected Parmalat's appeal of the Milan court's dismissal. In June 2019, Parmalat filed a further appeal with the Italian Supreme Court. Additional information concerning this action is publicly available in court filings under the docket number 20598/2019.

On January 29, 2020, Parmalat, its three directors, and its sole shareholder, Sofil S.a.s., as co-plaintiffs, filed a claim before the Italian civil court in Milan seeking a declaratory judgment that they do not owe compensatory damages of €990 million to Citibank. On November 5, 2020, Citibank joined the proceedings, seeking dismissal of the declaratory judgment application and raised a counterclaim, seeking €990 million as damages. Additional information concerning this action is publicly available in court filings under the docket number 8611/2020.

Shareholder Derivative and Securities Litigation

Beginning in October 2020, four derivative actions were filed in the United States District Court for the Southern District of New York, purportedly on behalf of Citigroup (as nominal defendant) against certain of Citigroup's current and former directors. The actions were later consolidated under the case

name IN RE CITIGROUP INC. SHAREHOLDER DERIVATIVE LITIGATION. The consolidated complaint asserts claims for breach of fiduciary duty, unjust enrichment, and contribution and indemnification in connection with defendants' alleged failures to implement adequate internal controls. In addition, the consolidated complaint asserts derivative claims for violations of Sections 10(b) and 14(a) of the Securities Exchange Act of 1934 in connection with statements in Citigroup's 2019 and 2020 annual meeting proxy statements. In February 2021, the court stayed the action pending resolution of defendants' motion to dismiss in IN RE CITIGROUP SECURITIES LITIGATION. In April 2023, after defendants' motion to dismiss was granted in IN RE CITIGROUP SECURITIES LITIGATION, the court maintained the stay in this action pending resolution of the securities plaintiffs' motion for leave to amend the complaint and, if leave is granted, any subsequent motion to dismiss. Additional information concerning this action is publicly available in court filings under the docket number 1:20-CV-09438 (S.D.N.Y.) (Preska, J.).

Beginning in December 2020, two derivative actions were filed in the Supreme Court of the State of New York, purportedly on behalf of Citigroup (as nominal defendant) against certain of Citigroup's current and former directors, and certain current and former officers. The actions were later consolidated under the case name IN RE CITIGROUP INC. DERIVATIVE LITIGATION, and the court stayed the action pending resolution of defendants' motion to dismiss in IN RE CITIGROUP SECURITIES LITIGATION. In April 2023, a third related derivative action also filed in the Supreme Court of the State of New York was consolidated for all purposes into this action. That same month, following the dismissal of the securities complaint in IN RE CITIGROUP SECURITIES LITIGATION, the court maintained the stay in this action pending resolution of the securities plaintiffs' motion for leave to amend the complaint and, if leave is granted, any subsequent motion to dismiss. Additional information concerning this action is publicly available in court filings under the docket number 656759/2020 (N.Y. Sup. Ct.) (Schecter, J.).

On August 2, 2022, a shareholder derivative action captioned LIPSHUTZ ET AL. v. COSTELLO ET AL. was filed in the United States District Court for the Eastern District of New York, purportedly on behalf of Citigroup (as nominal defendant) against Citigroup's current directors. The action raises substantially the same claims and allegations as IN RE CITIGROUP INC. SHAREHOLDER DERIVATIVE LITIGATION. The LIPSHUTZ action additionally asserts that plaintiffs made a litigation demand on the Citigroup Board of Directors and that the demand was wrongfully refused. In May 2023, on defendants' motion, the action was transferred to the United States District Court for the Southern District of New York so that it could be litigated along with IN RE CITIGROUP INC. SHAREHOLDER DERIVATIVE LITIGATION and IN RE CITIGROUP SECURITIES LITIGATION. Additional information concerning this action is publicly available in court filings under the docket number 1:23-CV-04058 (S.D.N.Y.) (Preska, J.).

Beginning in October 2020, three putative class action complaints were filed in the United States District Court for

the Southern District of New York against Citigroup and certain of its current and former officers, asserting violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 in connection with defendants' alleged misstatements concerning Citigroup's internal controls. The actions were later consolidated under the case name IN RE CITIGROUP SECURITIES LITIGATION. The consolidated complaint later added certain of Citigroup's current and former directors as defendants. On March 24, 2023, the court granted defendants' motion to dismiss without prejudice. On May 24, 2023, plaintiffs moved for leave to file a second amended complaint against Citigroup and certain of Citigroup's current or former officers for alleged violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 based on alleged misstatements concerning risk management and internal controls. Additional information concerning this action is publicly available in court filings under the docket number 1:20-CV-09132 (S.D.N.Y.) (Preska, J.).

Sovereign Securities Litigation

In 2015, putative class actions filed against CGMI and other defendants were consolidated under the caption IN RE TREASURY SECURITIES AUCTION ANTITRUST LITIGATION in the United States District Court for the Southern District of New York. Plaintiffs allege that defendants colluded to fix U.S. Treasury auction bids by sharing competitively sensitive information ahead of the auctions, and that defendants colluded to boycott and prevent the emergence of an anonymous, all-to-all electronic trading platform in the U.S. Treasuries secondary market. Plaintiffs assert claims under antitrust laws, and seek damages, including treble damages where authorized by statute, and injunctive relief. In March 2021, the court granted defendants' motion to dismiss, without prejudice. In May 2021, plaintiffs filed an amended consolidated complaint. In June 2021, certain defendants, including CGMI, moved to dismiss the amended complaint. In March 2022, the court dismissed the amended complaint with prejudice, and the plaintiffs appealed. On February 1, 2024, the United States Court of Appeals for the Second Circuit affirmed the dismissal. Additional information concerning this action is publicly available in court filings under the docket numbers 15-MD-2673 (S.D.N.Y.) (Gardepehe, J.) and 22-943 (2d Cir.).

In 2018, a putative class action was filed against Citigroup, CGMI, Citigroup Financial Products Inc., Citigroup Global Markets Holdings Inc., Citibanamex, Grupo Banamex, and other banks, captioned IN RE MEXICAN GOVERNMENT BONDS ANTITRUST LITIGATION, in the United States District Court for the Southern District of New York. The complaint alleges that defendants colluded in the Mexican sovereign bond market. In September 2019, the court granted defendants' motion to dismiss. In December 2019, plaintiffs filed an amended complaint against Citibanamex and other market makers in the Mexican sovereign bond market. Plaintiffs no longer assert any claims against Citigroup or any other U.S. Citi affiliates. The amended complaint alleges a conspiracy to fix prices in the Mexican sovereign bond market, asserts antitrust and unjust enrichment claims, and seeks treble damages, restitution, and injunctive relief. In February 2020, certain defendants, including Citibanamex,

moved to dismiss the amended complaint. In November 2020, the court granted defendants' motion to dismiss, and the plaintiffs appealed. On February 9, 2024, the United States Court of Appeals for the Second Circuit vacated the dismissal and remanded the case to the district court for further proceedings. Additional information concerning this action is publicly available in court filings under the docket numbers 18-CV-2830 (S.D.N.Y.) (Oetken, J.) and 22-2039 (2d Cir.).

In February 2021, purchasers of Euro-denominated sovereign debt issued by European central governments added CGMI, CGML, and others as defendants to a putative class action, captioned IN RE EUROPEAN GOVERNMENT BONDS ANTITRUST LITIGATION, in the United States District Court for the Southern District of New York. Plaintiffs allege that defendants engaged in a conspiracy to inflate prices of European government bonds in primary market auctions and to fix the prices of European government bonds in secondary markets. Plaintiffs assert a claim under the Sherman Act and seek treble damages and attorneys' fees. In March 2022, the court granted defendants' motion to dismiss the fourth amended complaint as to certain defendants, but denied defendants' motion to dismiss as to other defendants, including CGMI and CGML. In November 2022, plaintiffs moved for leave to amend the complaint, which the court granted on September 25, 2023. On October 16, 2023, plaintiffs filed a fifth amended complaint. Additional information concerning this action is publicly available in court filings under the docket number 19-CV-2601 (S.D.N.Y.) (Marrero, J.).

Variable Rate Demand Obligation Litigation

In 2019, plaintiffs in the consolidated actions CITY OF PHILADELPHIA v. BANK OF AMERICA CORP., ET AL. and MAYOR AND CITY COUNCIL OF BALTIMORE v. BANK OF AMERICA CORP., ET AL. filed a consolidated complaint naming as defendants Citigroup, Citibank, CGMI, CGML, and numerous other industry participants. The consolidated complaint asserts violations of the Sherman Act, as well as claims for breach of contract, breach of fiduciary duty, and unjust enrichment, and seeks damages and injunctive relief based on allegations that defendants served as remarketing agents for municipal bonds called variable rate demand obligations (VRDOs) and colluded to set artificially high VRDO interest rates. On November 6, 2020, the court granted in part and denied in part defendants' motion to dismiss the consolidated complaint.

On June 2, 2021, the Board of Directors of the San Diego Association of Governments, acting as the San Diego County Regional Transportation Commission, filed a parallel putative class action against the same defendants named in the already pending nationwide consolidated class action. The two actions were consolidated and on August 6, 2021, plaintiffs in the nationwide putative class action filed a consolidated amended complaint, captioned THE CITY OF PHILADELPHIA, MAYOR AND CITY COUNCIL OF BALTIMORE, THE BOARD OF DIRECTORS OF THE SAN DIEGO ASSOCIATION OF GOVERNMENTS, ACTING AS THE SAN DIEGO COUNTY REGIONAL TRANSPORTATION COMMISSION v. BANK OF AMERICA CORP., ET AL. In September 2021, defendants moved to dismiss the

consolidated amended complaint in part. In June 2022, the court granted in part and denied in part defendants' partial motion to dismiss the consolidated amended complaint. In October 2022, plaintiffs filed a motion to certify a class of persons and entities who, from February 2008 to November 2015, paid interest rates on VRDOs with respect to the antitrust claim. Plaintiffs also moved to certify a subclass of individuals who entered into remarketing agreements with the defendants during that same period. On September 21, 2023, the court granted plaintiffs' motion for class certification, certifying both an antitrust class and a breach-of-contract subclass. On October 5, 2023, defendants filed a Rule 23(f) petition seeking leave to appeal the certification ruling. On November 8, 2023, the court dismissed certain defendants from the case, including Citigroup, Citibank, and CGML. The United States Court of Appeals for the Second Circuit heard oral argument on defendants' Rule 23(f) petition on January 23, 2024. Additional information concerning this action is publicly available in court filings under the docket numbers 19-CV-1608 (S.D.N.Y.) (Furman, J.) and 23-7328 (2d Cir.).

Since April 2018, Citigroup and certain of its affiliates, including Citibank and CGMI, have been named in state court *qui tam* lawsuits in which Edelweiss Fund, LLC alleges that Citi and other financial institutions defrauded certain state and municipal VRDO issuers in connection with resetting VRDO interest rates. Filed under each state's respective false claims act, these actions are pending in state courts in California, Illinois, New Jersey, and New York, and are captioned STATE OF CALIFORNIA EX REL. EDELWEISS FUND, LLC v. JP MORGAN CHASE & CO., ET AL., STATE OF ILLINOIS EX REL. EDELWEISS FUND, LLC v. JP MORGAN CHASE & CO., ET AL., STATE OF NEW JERSEY EX REL. EDELWEISS FUND, LLC v. JP MORGAN CHASE & CO., ET AL., and STATE OF NEW YORK EX REL. EDELWEISS FUND, LLC v. JP MORGAN CHASE & CO., ET AL., respectively. Additional information concerning these actions is publicly available in court filings under the docket numbers CGC-14-540777 (Cal. Super. Ct.) (Schulman, J.), 2017 L 000289 (Ill. Cir. Ct.) (Donnelly, J.), L-885-15 (N.J. Super. Ct.) (Hurd, J.), and 100559/2014 (N.Y. Sup. Ct.) (Borrok, J.).

Settlement Payments

Payments required in settlement agreements described above have been made or are covered by existing litigation or other accruals.

31. SUBSIDIARY GUARANTEES

Citigroup Inc. has fully and unconditionally guaranteed the payments due on debt securities issued by Citigroup Global Markets Holdings Inc. (CGMHI), a wholly owned subsidiary, under the Senior Debt Indenture dated as of March 8, 2016, between CGMHI, Citigroup Inc. and The Bank of New York Mellon, as trustee. In addition, Citigroup Capital III and Citigroup Capital XIII (collectively, the Capital Trusts), each of which is a wholly owned finance subsidiary of Citigroup Inc., have issued trust preferred securities. Citigroup Inc. has guaranteed the payments due on the trust preferred securities

to the extent that the Capital Trusts have insufficient available funds to make payments on the trust preferred securities. The guarantee, together with Citigroup Inc.'s other obligations with respect to the trust preferred securities, effectively provides a full and unconditional guarantee of amounts due on the trust preferred securities (see Note 19). No other subsidiary of Citigroup Inc. guarantees the debt securities issued by CGMHI or the trust preferred securities issued by the Capital Trusts.

Summarized financial information for Citigroup Inc. and CGMHI is presented in the tables below:

SUMMARIZED INCOME STATEMENT

	2023	
<i>In millions of dollars</i>	Citigroup parent company	CGMHI
Total revenues, net of interest expense	\$ 14,079	\$ 10,615
Total operating expenses	202	11,593
Provision for credit losses	—	53
Equity in undistributed income of subsidiaries	(5,572)	—
Income (loss) from continuing operations before income taxes	\$ 8,305	\$ (1,031)
Provision (benefit) for income taxes	(923)	57
Net income	\$ 9,228	\$ (1,088)

SUMMARIZED BALANCE SHEET

	December 31, 2023		December 31, 2022	
<i>In millions of dollars</i>	Citigroup parent company	CGMHI	Citigroup parent company	CGMHI
Cash and deposits with banks	\$ 3,011	\$ 23,756	\$ 3,015	\$ 27,122
Securities borrowed and purchased under resale agreements	—	283,174	—	306,273
Trading account assets	461	273,379	306	209,957
Advances to subsidiaries	150,845	—	146,843	—
Investments in subsidiary bank holding company	172,125	—	172,721	—
Investments in non-bank subsidiaries	46,870	—	48,295	—
Other assets	14,202	167,609	13,788	163,819
Total assets	\$ 387,514	\$ 747,918	\$ 384,968	\$ 707,171
Securities loaned and sold under agreements to repurchase	\$ —	\$ 309,862	\$ —	\$ 245,916
Trading account liabilities	300	111,233	604	115,929
Short-term borrowings	—	20,481	—	43,850
Long-term debt	162,309	184,083	166,257	172,068
Advances from subsidiaries	16,724	—	14,562	—
Other liabilities	2,728	85,079	2,356	90,570
Stockholders' equity	205,453	37,180	201,189	38,838
Total liabilities and equity	\$ 387,514	\$ 747,918	\$ 384,968	\$ 707,171

32. CONDENSED PARENT COMPANY FINANCIAL STATEMENTS

The following are the Condensed Statements of Income and Comprehensive Income for the years ended December 31, 2023, 2022 and 2021, Condensed Balance Sheet as of December 31, 2023 and 2022 and Condensed Statement of Cash Flows for the years ended December 31, 2023, 2022 and 2021 for Citigroup Inc., the parent holding company.

Condensed Statements of Income and Comprehensive Income

Parent Company Only

<i>In millions of dollars</i>	Year ended December 31,		
	2023	2022	2021
Revenues			
Dividends from subsidiaries	\$ 16,811	\$ 8,992	\$ 6,482
Interest revenue—intercompany	6,955	4,628	3,757
Interest expense	6,339	5,250	4,791
Interest expense—intercompany	1,460	715	294
Net interest income	\$ (844)	\$ (1,337)	\$ (1,328)
Commissions and fees	\$ —	\$ —	\$ —
Commissions and fees—intercompany	(31)	(1)	(36)
Principal transactions	(928)	5,147	976
Principal transactions—intercompany	(771)	(5,686)	(1,375)
Other revenue	(23)	210	(64)
Other revenue—intercompany	(135)	(220)	(133)
Total non-interest revenues	\$ (1,888)	\$ (550)	\$ (632)
Total revenues, net of interest expense	\$ 14,079	\$ 7,105	\$ 4,522
Operating expenses			
Compensation and benefits	\$ 9	\$ 9	\$ 10
Compensation and benefits—intercompany	18	12	69
Other operating	160	85	83
Other operating—intercompany	15	15	11
Total operating expenses	\$ 202	\$ 121	\$ 173
Equity in undistributed income of subsidiaries	\$ (5,572)	\$ 6,173	\$ 16,596
Income from continuing operations before income taxes	\$ 8,305	\$ 13,157	\$ 20,945
Provision (benefit) for income taxes	(923)	(1,688)	(1,007)
Net income	\$ 9,228	\$ 14,845	\$ 21,952
Comprehensive income			
Add: Other comprehensive income (loss)	2,235	(8,297)	(6,707)
Total Citigroup comprehensive income	\$ 11,463	\$ 6,548	\$ 15,245

Condensed Balance Sheet

Parent Company Only

<i>In millions of dollars</i>	December 31,	
	2023	2022
Assets		
Cash and due from banks	\$ —	\$ —
Cash and due from banks—intercompany	11	15
Deposits with banks—intercompany	3,000	3,000
Trading account assets	113	130
Trading account assets—intercompany	348	176
Investments, net of allowance	1	1
Advances to subsidiaries	\$ 150,845	\$ 146,843
Investments in subsidiary bank holding company	172,125	172,721
Investments in non-bank subsidiaries	46,870	48,295
Other assets, net of allowance ⁽¹⁾	10,031	10,441
Other assets—intercompany	4,170	3,346
Total assets	\$ 387,514	\$ 384,968
Liabilities and equity		
Trading account liabilities	\$ 34	\$ 23
Trading account liabilities—intercompany	266	581
Long-term debt	162,309	166,257
Advances from subsidiary bank holding company	8,677	6,629
Advances from non-bank subsidiaries	8,047	7,933
Other liabilities	2,560	2,321
Other liabilities—intercompany	168	35
Stockholders' equity	205,453	201,189
Total liabilities and equity	\$ 387,514	\$ 384,968

(1) Citigroup parent company at December 31, 2023 and 2022 included \$56.9 billion and \$40.2 billion, respectively, of placements to Citibank and its branches, of which \$33.8 billion and \$29.2 billion, respectively, had a remaining term of less than 30 days.

Condensed Statement of Cash Flows
Parent Company Only

<i>In millions of dollars</i>	Year ended December 31,		
	2023	2022	2021
Net cash provided by operating activities of continuing operations	\$ 17,163	\$ 156	\$ 3,947
Cash flows from investing activities of continuing operations			
Changes in investments and advances—intercompany	\$ (3,450)	\$ (7,815)	\$ 8,260
Net cash provided by (used in) investing activities of continuing operations	\$ (3,450)	\$ (7,815)	\$ 8,260
Cash flows from financing activities of continuing operations			
Dividends paid	\$ (5,212)	\$ (5,003)	\$ (5,198)
Issuance of preferred stock	2,739	—	3,300
Redemption of preferred stock	(4,145)	—	(3,785)
Treasury stock acquired	(1,977)	(3,250)	(7,601)
Proceeds (repayments) from issuance of long-term debt, net	(6,955)	14,661	(86)
Net change in short-term borrowings and other advances—intercompany	2,162	1,093	501
Other financing activities	(329)	(344)	(337)
Net cash provided by (used in) financing activities of continuing operations	\$ (13,717)	\$ 7,157	\$ (13,206)
Change in cash and due from banks and deposits with banks	\$ (4)	\$ (502)	\$ (999)
Cash and due from banks and deposits with banks at beginning of year	3,015	3,517	4,516
Cash and due from banks and deposits with banks at end of year	\$ 3,011	\$ 3,015	\$ 3,517
Cash and due from banks (including segregated cash and other deposits)	\$ 11	\$ 15	\$ 17
Deposits with banks, net of allowance	3,000	3,000	3,500
Cash and due from banks and deposits with banks at end of year	\$ 3,011	\$ 3,015	\$ 3,517
Supplemental disclosure of cash flow information for continuing operations			
Cash paid (received) during the year for income taxes	\$ (2,000)	\$ (1,269)	\$ (2,406)
Cash paid during the year for interest	5,704	1,309	(3,101)

FINANCIAL DATA SUPPLEMENT

RATIOS

	2023	2022	2021
Return on average assets	0.38%	0.62 %	0.94%
Return on average common stockholders' equity ⁽¹⁾	4.3	7.7	11.5
Return on average total stockholders' equity ⁽²⁾	4.5	7.5	10.9
Total average equity to average assets ⁽³⁾	8.5	8.3	8.6
Dividend payout ratio ⁽⁴⁾	51	29	20

- (1) Based on Citigroup's net income less preferred stock dividends as a percentage of average common stockholders' equity.
- (2) Based on Citigroup's net income as a percentage of average total Citigroup stockholders' equity.
- (3) Based on average Citigroup stockholders' equity as a percentage of average assets.
- (4) Dividends declared per common share as a percentage of diluted EPS.

AVERAGE DEPOSIT LIABILITIES IN OFFICES OUTSIDE THE U.S.⁽¹⁾

In millions of dollars at year end, except ratios	2023		2022		2021	
	Average interest rate	Average balance	Average interest rate	Average balance	Average interest rate	Average balance
Banks	5.33%	\$ 33,682	1.95%	\$ 33,327	0.16%	\$ 42,222
Other demand deposits	2.20	349,371	0.70	390,702	0.15	412,815
Other time and savings deposits	2.60	239,495	1.17	187,780	0.55	200,194
Total	2.52%	\$ 622,548	0.91%	\$ 611,809	0.28%	\$ 655,231

- (1) Interest rates and amounts include the effects of risk management activities and also reflect the impact of the local interest rates prevailing in certain countries.

UNINSURED DEPOSITS

The table below presents the estimated amount of uninsured time deposits by maturity profile:

In millions of dollars at December 31, 2023	Under 3 months or less	Over 3 months but within 6 months	Over 6 months but within 12 months	Over 12 months	Total
In U.S. offices⁽¹⁾					
Time deposits in excess of FDIC insurance limits ⁽²⁾	\$ 32,746	\$ 12,805	\$ 22,142	\$ 2,041	\$ 69,734
In offices outside the U.S.⁽¹⁾					
Time deposits in excess of foreign jurisdiction insurance limits ⁽³⁾⁽⁴⁾	122,638	14,916	9,709	2,675	149,938
Total uninsured time deposits⁽⁵⁾	\$ 155,384	\$ 27,721	\$ 31,851	\$ 4,716	\$ 219,672

- (1) The classification between offices in the U.S. and outside the U.S. is based on the domicile of the booking unit, rather than the domicile of the depositor.
- (2) The standard insurance amount is \$250,000 per depositor, per insured bank, for single ownership categories.
- (3) Time deposits in offices outside the U.S. are assumed to be a depositor's account as single account ownership.
- (4) The insurance coverage is applied in sequence of checking, savings and short- and long-term time deposits accounts.
- (5) The maturity term is based on the remaining term of the time deposit rather than the original maturity date.

Total uninsured deposits as of December 31, 2023 were \$1.04 trillion (see footnotes 1, 2 and 3 to the table above).

SUPERVISION, REGULATION AND OTHER

SUPERVISION AND REGULATION

Citi is subject to regulation under U.S. federal and state laws, as well as applicable laws in the other jurisdictions in which it does business.

General

Citigroup is a registered bank holding company and financial holding company and is regulated and supervised by the Federal Reserve Board (FRB). Citigroup's nationally chartered subsidiary banks, including Citibank, are regulated and supervised by the Office of the Comptroller of the Currency (OCC). The Federal Deposit Insurance Corporation (FDIC) also has examination authority for banking subsidiaries whose deposits it insures. Overseas branches of Citibank are regulated and supervised by the FRB and OCC and overseas subsidiary banks by the FRB. These overseas branches and subsidiary banks are also regulated and supervised by regulatory authorities in the host countries. In addition, the Consumer Financial Protection Bureau regulates consumer financial products and services. Citi is also subject to laws and regulations concerning the collection, use, sharing and disposition of certain customer, employee and other personal and confidential information, including those imposed by the Gramm-Leach-Bliley Act, the Fair Credit Reporting Act and the EU General Data Protection Regulation. For more information on U.S. and foreign regulation affecting or potentially affecting Citi, see "Capital Resources," "Managing Global Risk—Liquidity Risk" and "Risk Factors" above.

Other Bank and Bank Holding Company Regulation

Citi, including its banking subsidiaries, is subject to regulatory limitations, including requirements as to liquidity, risk-based capital and leverage (see "Capital Resources" above and Note 20), restrictions on the types and amounts of loans that may be made and the interest that may be charged, and limitations on investments that can be made and services that can be offered. The FRB may also expect Citi to commit resources to its subsidiary banks in certain circumstances. Citi is also subject to anti-money laundering and financial transparency laws, including standards for verifying client identification at account opening and obligations to monitor client transactions and report suspicious activities.

Securities and Commodities Regulation

Citi conducts securities underwriting, brokerage and dealing activities in the U.S. through Citigroup Global Markets Inc. (CGMI), its primary broker-dealer, and other broker-dealer subsidiaries, which are subject to regulations of the U.S. Securities and Exchange Commission (SEC), the Financial Industry Regulatory Authority and certain exchanges. Citi conducts similar securities activities outside the U.S., subject to local requirements, through various subsidiaries and affiliates, principally Citigroup Global Markets Limited in London (CGML), which is regulated principally by the U.K. Financial Conduct Authority and Prudential Regulation Authority (PRA), and Citigroup Global Markets Japan Inc. in

Tokyo, which is regulated principally by the Financial Services Agency of Japan.

Citi also has subsidiaries that are members of futures exchanges and derivatives clearinghouses. In the U.S., CGMI is a member of the principal U.S. futures exchanges and clearinghouses, and Citi has subsidiaries that are registered as futures commission merchants and commodity pool operators with the Commodity Futures Trading Commission (CFTC). Citibank, CGMI, Citigroup Energy Inc., Citigroup Global Markets Europe AG (CGME) and CGML are also registered as swap dealers with the CFTC (see below). CGMI is also subject to SEC and CFTC rules that specify uniform minimum net capital requirements. Compliance with these rules could limit those operations of CGMI that require the intensive use of capital and also limits the ability of broker-dealers to transfer large amounts of capital to parent companies and other affiliates. See "Capital Resources" above and Note 20 for a further discussion of capital considerations of Citi's non-banking subsidiaries.

Recent Rules Regarding Swap Dealers/Security-Based Swap Dealers

On July 22, 2020, the CFTC adopted final rules establishing capital and financial reporting requirements for swap dealers that took effect in October 2021.

In addition, the SEC has adopted rules governing the registration and regulation of security-based swap dealers. The regulations include requirements related to (i) capital, margin and segregation, (ii) record-keeping, reporting and notification, and (iii) risk management practices for uncleared security-based swaps and the cross-border application of certain security-based swap requirements. These requirements took effect in November 2021. Citibank, CGML and CGME registered with the SEC as security-based swap dealers.

Transactions with Affiliates

Transactions between Citi's U.S. subsidiary depository institutions and their non-bank affiliates are regulated by the FRB, and are generally required to be on arm's-length terms. See "Managing Global Risk—Liquidity Risk" above.

COMPETITION

The financial services industry is highly competitive. Citi's competitors include a variety of financial services and advisory companies, as well as certain non-financial services firms. Citi competes for clients and capital (including deposits and funding in the short- and long-term debt markets) with some of these competitors globally and with others on a regional or product basis. Citi's competitive position depends on many factors, including, among others, the value of Citi's brand name and reputation, and the types of clients and geographies served; the quality, range, performance, innovation and pricing of products and services; the effectiveness of and access to distribution channels, maintenance of partner relationships, emerging technologies and technology advances, customer service and convenience; the effectiveness of transaction execution, interest rates, lending limits and risk appetite; regulatory constraints and

compliance; and changes in the macroeconomic business environment or societal norms. Citi's ability to compete effectively also depends upon its ability to attract new colleagues and retain and motivate existing colleagues, while managing compensation and other costs. For additional information on competitive factors and uncertainties impacting Citi's businesses, see "Risk Factors—Strategic Risks" above.

DISCLOSURE PURSUANT TO SECTION 219 OF THE IRAN THREAT REDUCTION AND SYRIA HUMAN RIGHTS ACT

Pursuant to Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012 (Section 219), which added Section 13(r) to the Securities Exchange Act of 1934, as amended, Citi is required to disclose in its annual or quarterly reports, as applicable, whether it or any of its affiliates knowingly engaged in certain activities, transactions or dealings relating to Iran or with certain individuals or entities that are the subject of sanctions under U.S. law. Disclosure is generally required even where the activities, transactions or dealings were conducted in compliance with applicable law. To the extent that transactions or dealings for its clients are permitted by U.S. law, Citi may continue to engage in such activities. Citi, in its First Quarter of 2023 Form 10-Q, identified and reported certain activities pursuant to Section 219 for the fourth quarter of 2022. Citi identified and reported certain activities pursuant to Section 219 for the second quarter of 2023 in its Second Quarter of 2023 Form 10-Q and for the third quarter of 2023 in its Third Quarter of 2023 Form 10-Q.

During the fourth quarter of 2023, Citi identified two transactions pursuant to Section 219. On October 20, 2023, Citibank Europe plc processed two transactions to the Iranian Embassy in Poland for the payment of fees for tourist visas. The total value of the transactions was EUR 100.00 (approximately USD 106.58). These transactions were permissible under the travel exemption of the Iranian Transactions and Sanctions Regulations. Citi did not realize any fees for the processing of these transactions.

UNREGISTERED SALES OF EQUITY SECURITIES, REPURCHASES OF EQUITY SECURITIES AND DIVIDENDS

Unregistered Sales of Equity Securities

None.

Equity Security Repurchases

All large banks, including Citi, are subject to limitations on capital distributions in the event of a breach of any regulatory capital buffers, including the Stress Capital Buffer, with the degree of such restrictions based on the extent to which the buffers are breached. For additional information, see “Capital Resources—Regulatory Capital Buffers” and “Risk Factors—Strategic Risks,” “—Operational Risks” and “—Compliance Risks” above.

During the quarter, pursuant to Citigroup’s Board of Directors’ authorization, Citi withheld an insignificant number of shares of common stock, added to treasury stock, related to activity on employee stock programs to satisfy employee tax requirements.

The following table summarizes Citi’s common share repurchases for the fourth quarter of 2023:

<i>In thousands, except per share amounts</i>	Total shares purchased	Average price paid per share
October 2023		
Open market repurchases ⁽¹⁾	1,080	\$ 38.80
Employee transactions ⁽²⁾	—	—
November 2023		
Open market repurchases ⁽¹⁾	5,238	43.45
Employee transactions ⁽²⁾	—	—
December 2023		
Open market repurchases ⁽¹⁾	4,658	49.48
Employee transactions ⁽²⁾	—	—
Total for 4Q23		10,976 \$ 45.55

(1) Repurchases not made pursuant to any publicly announced plan or program.

(2) During the fourth quarter, pursuant to Citigroup’s Board of Directors’ authorization, Citi withheld an insignificant number of shares of common stock, added to treasury stock, related to activity on employee stock programs to satisfy the employee tax requirements.

Dividends

Citi paid common dividends of \$0.53 per share for the fourth quarter of 2023 and the first quarter of 2024. Citi intends to maintain a quarterly common dividend of at least \$0.53 per share, subject to financial and macroeconomic conditions and its Board of Directors’ approval.

As discussed above, Citi’s ability to pay common stock dividends is subject to limitations on capital distributions in the event of a breach of any regulatory capital buffers, including the Stress Capital Buffer, with the degree of such restrictions based on the extent to which the buffers are breached. For additional information, see “Capital Resources—Regulatory Capital Buffers” and “Risk Factors—Strategic Risks,” “—Operational Risks” and “—Compliance Risks” above.

Any dividend on Citi’s outstanding common stock would also need to be in compliance with Citi’s obligations on its outstanding preferred stock.

During 2023, Citi distributed \$1,198 million in dividends on its outstanding preferred stock. On January 11, 2024, Citi declared preferred dividends of approximately \$279 million for the first quarter of 2024.

See Note 20 for information on the ability of Citigroup’s subsidiary depository institutions to pay dividends.

OTHER INFORMATION

Insider Trading Arrangements

During the fourth quarter of 2023, no director or executive officer of Citi adopted or terminated any Rule 10b5-1 or non-Rule 10b5-1 trading arrangement (each, as defined in Item 408 of Regulation S-K).

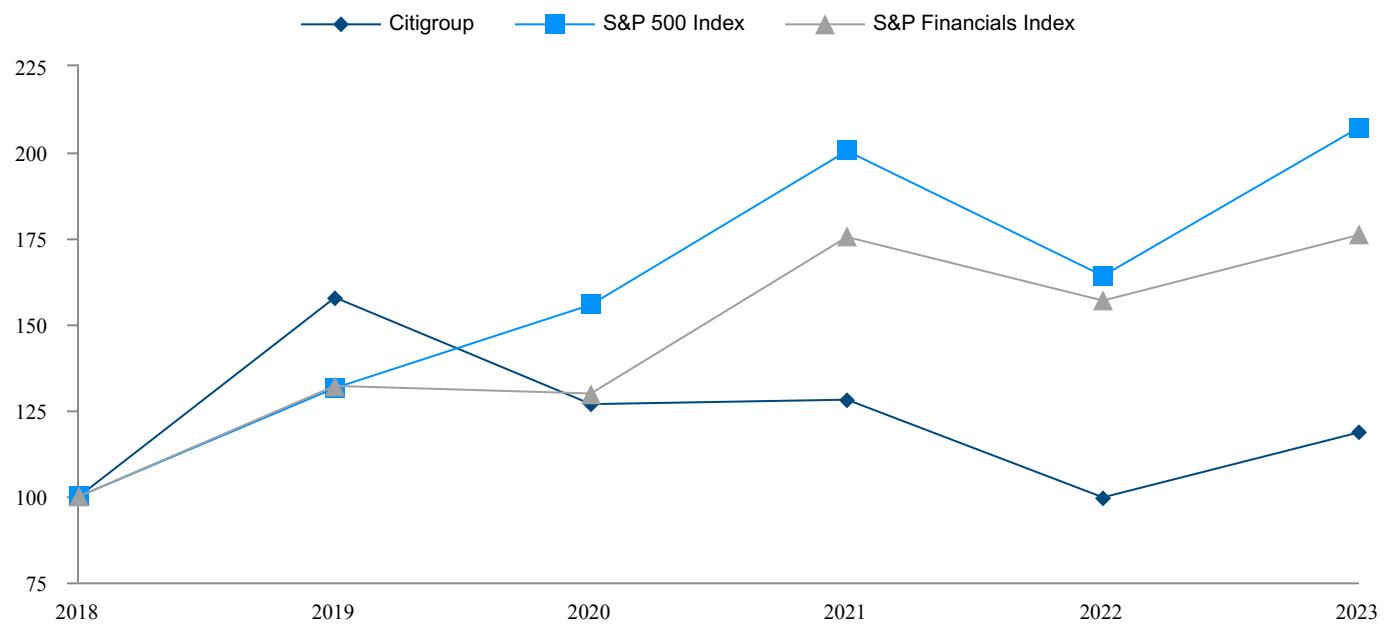
PERFORMANCE GRAPH

Comparison of Five-Year Cumulative Total Return

The following graph and table compare the cumulative total return on Citi's common stock with the cumulative total return of the S&P 500 Index and the S&P Financials Index over the five-year period through December 31, 2023. The graph and table assume that \$100 was invested on December 31, 2018 in Citi's common stock, the S&P 500 Index and the S&P Financials Index, and that all dividends were reinvested.

Comparison of Five-Year Cumulative Total Return

For the years ended



DATE	Citigroup	S&P 500 Index	S&P Financials Index
31-Dec-2018	100.0	100.0	100.0
31-Dec-2019	157.8	131.5	132.1
31-Dec-2020	126.8	155.7	129.9
31-Dec-2021	128.1	200.4	175.4
31-Dec-2022	99.7	164.1	156.9
31-Dec-2023	118.6	207.2	176.0

Note: Citi's common stock is listed on the NYSE under the ticker symbol "C" and held by 60,712 common stockholders of record as of January 31, 2024.

CORPORATE INFORMATION

EXECUTIVE OFFICERS

Citigroup's executive officers as of February 23, 2024 are:

Name	Age	Position and office held
Peter Babej	60	Head of Banking
Titi Cole	51	Head of Legacy Franchises
Jane Fraser	56	Chief Executive Officer, Citigroup Inc.
Sunil Garg	58	CEO, Citibank, N.A., and Head of North America
Shahmir Khalil	53	Head of Services
David Livingstone	60	Chief Client Officer
Gonzalo Luchetti	50	Head of U.S. Personal Banking
Mark A. L. Mason	54	Chief Financial Officer
Brent McIntosh	50	Chief Legal Officer and Corporate Secretary
Andrew Morton	62	Head of Markets
Johnbull Okpara	52	Controller and Chief Accounting Officer
Anand Selvakesari	56	Chief Operating Officer
Andy Sieg	56	Head of Wealth
Edward Skyler	50	Head of Enterprise Services & Public Affairs
Ernesto Torres Cantú	59	Head of International
Zdenek Turek	59	Chief Risk Officer
Sara Wechter	43	Chief Human Resources Officer
Mike Whitaker	60	Head of Operations and Technology

The following executive officers have not held their current executive officer positions with Citigroup for at least five years:

- Mr. Babej joined Citi in 2010 and assumed his current position in September 2023. Previously, he served as *ICG*'s Global Head of the Financial Institutions Group (FIG) from January 2017 to October 2019 and Global Co-Head of FIG from 2010 to January 2017. Prior to joining Citi, Mr. Babej served as Co-Head, Financial Institutions —Americas at Deutsche Bank, among other roles.
- Ms. Cole joined Citi in her current position in February 2022. Previously, she served as Head of Global Operations and Fraud Prevention and Chief Client Officer for Citi's Personal Banking and Wealth Management (PBWM). Prior to joining Citi, Ms. Cole served as Head of Consumer and Small Business Banking Operations and Contact Centers at Wells Fargo, and before that, led Retail Products and Underwriting for Bank of America.
- Ms. Fraser joined Citi in 2004 and assumed her current position in March 2021. Previously, she served as CEO of *Global Consumer Banking* from October 2019 to December 2020. Before that, she served as CEO of Citi Latin America from June 2015 to October 2019. She held a number of other roles across the organization, including CEO of U.S. Consumer and Commercial Banking and CitiMortgage, CEO of Citi's Global Private Bank and Global Head of Strategy and M&A.

- Mr. Garg joined Citi in May 1988 and assumed his current position in February 2021, and in January 2023 also assumed the position of Head of North America. Previously, he was global CEO of the Commercial Bank beginning in 2011. Prior to that, Mr. Garg led the U.S. Commercial Banking business from 2008 until 2011. In addition, he held various other roles at Citi in Operations and Technology, Treasury and Trade Solutions, Corporate and Investment Banking and Commercial Banking.
- Mr. Khalil joined Citi in 1991 and assumed his current position in 2023. He served as the Global Head of TTS from 2021 to 2023. Prior to that, he was Head of Operations and Technology for the business.
- Mr. Livingstone joined Citi in 2016 and assumed his current position in September 2023. Previously, he served as CEO of Citi's EMEA region from February 2019, and as Country Officer for Australia and New Zealand from June 2016. Prior to joining Citi, he spent nine years at Credit Suisse, where he was Vice Chairman of the Investment Banking and Capital Markets Division for the EMEA region, Head of M&A and CEO of Credit Suisse Australia, and over 16 years at the Goldman Sachs Group, Inc. in a variety of senior roles in the investment banking division.
- Mr. Luchetti joined Citi in 2006 and assumed his current position in February 2021. Prior to his current role, he served as Head of the Consumer Bank in Asia and EMEA. He also served as the Head of the Asia Retail Bank and Global Head of Wealth Management and Insurance. Prior to joining Citi, Mr. Luchetti worked for JPMorgan Chase and Bain & Company.
- Mr. McIntosh joined Citi in his current position in October 2021. Previously, he served as Under Secretary for International Affairs at the U.S. Treasury from 2019 to 2021. From 2017 to 2019, Mr. McIntosh served as the U.S. Treasury's General Counsel. Prior to that, he was a partner in the law firm of Sullivan & Cromwell and served in the U.S. White House from 2006 until 2009.
- Mr. Morton joined Citi in 2008 and assumed his current position in March 2022. Prior to his current role, he was appointed Co-Head of Markets in November 2019, and prior to that, he was Head of the G10 Rates and Financing businesses. Prior to joining Citi, Mr. Morton spent 15 years at Lehman Brothers, holding several positions including European Head of Fixed Income and Global Head of Fixed Income.
- Mr. Okpara joined Citi in his current position in November 2020. Previously he served as Managing Director, Global Head of Financial Planning and Analysis and CFO, Infrastructure Groups at Morgan Stanley since 2016. Prior to that, Mr. Okpara was Managing Vice President, Finance and Deputy Controller at Capital One Financial Corporation.
- Mr. Selvakesari joined Citi in 1991 and assumed his current position in March 2023. Previously, he served as CEO of Citi's PBWM franchise. Mr. Selvakesari also served as Head of the U.S. Consumer Bank from 2019 to 2020, and Head of Consumer Banking for Asia Pacific from 2015 to 2018, as well as in a number of regional and country roles, including Head of Consumer Banking for

- ASEAN and India, leading the consumer banking businesses in Singapore, Malaysia, Indonesia, the Philippines, Thailand and Vietnam, as well as India.
- Mr. Sieg joined Citi in his current position in September 2023. Previously, he served as the president of Merrill Wealth Management and held various senior strategy, product and field leadership roles in the wealth management business. Mr. Sieg served as a senior wealth management executive at Citi from 2005 to 2009, and earlier in his career in the White House as an aide to the Assistant to the President for Economic and Domestic Policy.
- Mr. Torres Cantú joined Citi in 1989 and assumed his current position in September 2023. Previously, he served as CEO of Latin America. From 2014 to 2019, Mr. Torres Cantú served as CEO of Citibancamex, and from 2012 to 2014 as CEO of Citibancamex Consumer Banking.
- Mr. Turek joined Citi in 1991 and assumed his current position in February 2021. Prior to being named Interim Chief Risk Officer for Citi in December 2020, he served as EMEA Chief Risk Officer. Mr. Turek held various other roles at Citi, including CEO of Citibank Europe, as well as leading significant franchises across Citi, including in Russia, South Africa and Hungary.

Code of Conduct, Code of Ethics

Citi has a Code of Conduct that maintains its commitment to the highest standards of conduct. The Code of Conduct is supplemented by a Code of Ethics for Financial Professionals (including accounting, controllers, financial reporting operations, financial planning and analysis, treasury, capital planning, tax, productivity and strategy, M&A, investor relations and regional/product finance professionals and administrative staff) that applies worldwide. The Code of Ethics for Financial Professionals applies to Citi's principal executive officer, principal financial officer and principal accounting officer. Amendments and waivers, if any, to the Code of Ethics for Financial Professionals will be disclosed on Citi's website, www.citigroup.com. The Audit Committee has responsibility for the oversight of Citi's Code of Ethics for Financial Professionals.

Both the Code of Conduct and the Code of Ethics for Financial Professionals can be found on the Citi website by clicking on "Investors" and then "Corporate Governance." Citi's Corporate Governance Guidelines can also be found there, as well as the charters for the Audit Committee, the Compensation, Performance and Culture Committee, the Nomination, Governance and Public Affairs Committee, the Risk Management Committee and the Technology Committee of Citigroup's Board of Directors. These materials are also available by writing to Citigroup Inc., Corporate Governance, 388 Greenwich Street, 17th Floor, New York, New York 10013.

CITIGROUP BOARD OF DIRECTORS

Ellen M. Costello

Former President and CEO
BMO Financial Corporation and
Former U.S. Country Head
BMO Financial Group

Grace E. Dailey

Former Senior Deputy Comptroller
for Bank Supervision Policy and
Chief National Bank Examiner
Office of the Comptroller of the
Currency (OCC)

Barbara J. Desoer

Chair
Citibank, N.A.

John C. Dugan

Chair
Citigroup Inc.

Jane Fraser

Chief Executive Officer
Citigroup Inc.

Duncan P. Hennes

Co-Founder and Partner
Atrevida Partners, LLC

Peter Blair Henry

Class of 1984 Senior Fellow, Hoover
Institution, and Senior Fellow,
Freeman Spogli Institute for
International Studies, Stanford
University

S. Leslie Ireland

Former Assistant Secretary for
Intelligence and Analysis
U.S. Department of the Treasury and
National Intelligence Manager for
Threat Finance, Office of the
Director of National Intelligence

Renée J. James

Founder, Chair and CEO
Ampere Computing

Gary M. Reiner

Operating Partner
General Atlantic LLC

Diana L. Taylor

Former Superintendent of Banks
State of New York

James S. Turley

Former Chairman and CEO
Ernst & Young

Casper W. von Koskull

Former President and Group Chief
Executive Officer
Nordea Bank Abp

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 23rd day of February, 2024.

Citigroup Inc.
(Registrant)

/s/ Mark A. L. Mason

Mark A. L. Mason
Chief Financial Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on the 23rd day of February, 2024.

Citigroup's Principal Executive Officer and a Director:

/s/ Jane Fraser

Jane Fraser

Citigroup's Principal Financial Officer:

/s/ Mark A. L. Mason

Mark A. L. Mason

Citigroup's Principal Accounting Officer:

/s/ Johnbull E. Okpara

Johnbull E. Okpara

The Directors of Citigroup listed below executed a power of attorney appointing Mark A. L. Mason their attorney-in-fact, empowering him to sign this report on their behalf.

Ellen M. Costello	S. Leslie Ireland
Grace E. Dailey	Renée J. James
Barbara J. Desoer	Gary M. Reiner
John C. Dugan	Diana L. Taylor
Duncan P. Hennes	James S. Turley
Peter Blair Henry	Casper W. von Koskull

/s/ Mark A. L. Mason

Mark A. L. Mason

GLOSSARY OF TERMS AND ACRONYMS

The following is a list of terms and acronyms that are used in this report and other Citigroup presentations.

* Denotes a Citi metric

2023 Annual Report on Form 10-K: Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC.

90+ days past due delinquency rate*: Represents consumer loans that are past due by 90 or more days, divided by that period's total EOP loans.

ABS: Asset-backed securities

ACL: Allowance for credit losses, which is composed of the allowance for credit losses on loans (ACLL), allowance for credit losses on unfunded lending commitments (ACLUC), allowance for credit losses on HTM securities and allowance for credit losses on other assets.

ACLL: Allowance for credit losses on loans

ACLUC: Allowance for credit losses on unfunded lending commitments

Advanced Approaches: The Advanced Approaches capital framework, established through Basel III rules by the FRB, requires certain banking organizations to use an internal ratings-based approach and other methodologies to calculate risk-based capital requirements for credit risk and advanced measurement approaches to calculate risk-based capital requirements for operational risk.

AFS: Available-for-sale

ALCO: Asset Liability Committee

Amortized cost: Amount at which a financing receivable or investment is originated or acquired, adjusted for accretion or amortization of premium, discount, and net deferred fees or costs, collection of cash, charge-offs, foreign exchange, and fair value hedge accounting adjustments. For AFS securities, amortized cost is also reduced by any impairment losses recognized in earnings. Amortized cost is not reduced by the allowance for credit losses, except where explicitly presented net.

AOCI: Accumulated other comprehensive income (loss)

ARM: Adjustable rate mortgage(s)

ASC: Accounting Standards Codification under GAAP issued by the FASB.

Asia Consumer: Asia Consumer Banking

ASU: Accounting Standards Update under GAAP issued by the FASB.

AUA: Assets under administration

AUC: Assets under custody

Available liquidity resources*: Resources available at the balance sheet date to support Citi's client and business needs, including HQLA assets; additional unencumbered securities,

including excess liquidity held at bank entities that is non-transferable to other entities within Citigroup; and available assets not already accounted for within Citi's HQLA to support Federal Home Loan Bank (FHLB) and Federal Reserve Bank discount window borrowing capacity.

Basel III: Liquidity and capital rules adopted by the FRB based on an internationally agreed set of measures developed by the Basel Committee on Banking Supervision.

Beneficial interests issued by consolidated VIEs: Represents the interest of third-party holders of debt, equity securities or other obligations, issued by VIEs that Citi consolidates.

Benefit obligation: Refers to the projected benefit obligation for pension plans and the accumulated postretirement benefit obligation for OPEB plans.

BHC: Bank holding company

Board: Citigroup's Board of Directors

Book value per share*: EOP common equity divided by EOP common shares outstanding.

Bps: Basis points. One basis point equals 1/100th of one percent.

Branded Cards: Citi's branded cards business with a portfolio of proprietary cards (Cash, Rewards and Value) and co-branded cards (including Costco and American Airlines).

Build: A net increase in ACL through the provision for credit losses.

Cards: Citi's credit cards' businesses or activities.

CCAR: Comprehensive Capital Analysis and Review

CCO: Chief Compliance Officer

CDS: Credit default swaps

CECL: Current expected credit losses

CEO: Chief Executive Officer

CET1 Capital: Common Equity Tier 1 Capital. See "Capital Resources—Components of Citigroup Capital" above for the components of CET1.

CET1 Capital ratio*: Common Equity Tier 1 Capital ratio. A primary regulatory capital ratio representing end-of-period CET1 Capital divided by total risk-weighted assets.

CFO: Chief Financial Officer

CFTC: Commodity Futures Trading Commission

CGMHI: Citigroup Global Markets Holdings Inc.

CGMI: Citigroup Global Markets Inc.

CGML: Citigroup Global Markets Limited

Citi: Citigroup Inc.

Citibank or CBNA: Citibank, N.A. (National Association)

Classifiably managed: Loans primarily evaluated for credit risk based on internal risk rating classification.

Client investment assets: Represent assets under management, trust and custody assets.

CLO: Collateralized loan obligations

CODM: chief operating decision maker

Coincident NCL coverage ratio: A credit metric, representing the ACCL at period end divided by (the most recent quarter's NCLs divided by 3). This ratio is expressed in months of coverage.

Collateral dependent: A loan is considered collateral dependent when repayment of the loan is expected to be provided substantially through the operation or sale of the collateral when the borrower is experiencing financial difficulty, including when foreclosure is deemed probable based on borrower delinquency.

Commercial cards: Provides a wide range of payment services to corporate and public sector clients worldwide through commercial card products. Services include procurement, corporate travel and entertainment, expense management services and business-to-business payment solutions.

Consent orders: In October 2020, Citigroup and Citibank entered into consent orders with the Federal Reserve and OCC that require Citigroup and Citibank to make improvements in various aspects of enterprise-wide risk management, compliance, data quality management and governance and internal controls.

CRE: Commercial real estate

Credit card spend volume*: Dollar amount of card customers' gross purchases. Also known as purchase sales.

Credit cycle: A period of time over which credit quality improves, deteriorates and then improves again (or vice versa). The duration of a credit cycle can vary from a couple of years to several years.

Credit derivatives: Financial instruments whose value is derived from the credit risk associated with the debt of a third-party issuer (the reference entity), which allow one party (the protection purchaser) to transfer that risk to another party (the protection seller).

Critical Audit Matters: Audit matters communicated by KPMG to Citi's Audit Committee of the Board of Directors, relating to accounts or disclosures that are material to the Consolidated Financial Statements and involved especially challenging, subjective or complex judgments. See "Report of Independent Registered Public Accounting Firm" above.

Criticized: Criticized loans, lending-related commitments and derivative receivables that are classified as special mention, substandard and doubtful categories for regulatory purposes.

CRO: Chief Risk Officer

CTA: Cumulative translation adjustment (also known as currency translation adjustment). A separate component of equity within *AOCI* reported net of tax. For Citi, represents the impact of translating non-USD balance sheet items into USD each period. The CTA amount in EOP *AOCI* is a cumulative balance, net of tax.

CVA: Credit valuation adjustment

DCM: Debt Capital Markets

Delinquency managed: Loans primarily evaluated for credit risk based on delinquencies, FICO scores and the value of underlying collateral.

Divestiture-related impacts: Citi's results excluding divestiture-related impacts represent as reported, or GAAP, financial results adjusted for items that are incurred and recognized, which are wholly and necessarily a consequence of actions taken to sell (including through a public offering), dispose of or wind down business activities associated with Citi's announced 14 exit markets.

Dividend payout ratio*: Represents dividends declared per common share as a percentage of net income per diluted share.

Dodd-Frank Act: Wall Street Reform and Consumer Protection Act

DPD: Days past due

DSA: Deferred stock awards

DTA: Deferred tax asset

DVA: Debt valuation adjustment

EC: European Commission

ECM: Equity Capital Markets

Efficiency ratio*: A ratio signifying how much of a dollar in expenses (as a percentage) it takes to generate one dollar in revenue. Represents total operating expenses divided by total revenues, net.

EOP: End-of-period

EPS*: Earnings per share

ERISA: Employee Retirement Income Security Act of 1974

ESG: Environmental, Social and Governance

ETR: Effective tax rate

EU: European Union

Fannie Mae: Federal National Mortgage Association

FASB: Financial Accounting Standards Board

FCA: Financial Conduct Authority

FDIC: Federal Deposit Insurance Corporation

Federal Reserve: The Board of the Governors of the Federal Reserve System

FFIEC: Federal Financial Institutions Examination Council

FHA: Federal Housing Administration

FHLB: Federal Home Loan Bank

FICO: Fair Isaac Corporation

FICO score: A measure of consumer credit risk provided by credit bureaus, typically produced from statistical models by Fair Isaac Corporation utilizing data collected by the credit bureaus.

FINRA: Financial Industry Regulatory Authority

Firm: Citigroup Inc.

FRB: Federal Reserve Board

FRBNY: Federal Reserve Bank of New York

Freddie Mac: Federal Home Loan Mortgage Corporation

FTCs: Foreign tax credit carry-forwards

FVA: Funding valuation adjustment

FX: Foreign exchange

FX translation: The impact of converting non-U.S.-dollar currencies into U.S. dollars.

G7: Group of Seven nations. Countries in the G7 are Canada, France, Germany, Italy, Japan, the U.K. and the U.S.

GAAP or U.S. GAAP: Generally accepted accounting principles in the United States of America.

Ginnie Mae: Government National Mortgage Association

GSIB: Global Systemically Important Bank

HELOC: Home equity line of credit

HFI loans: Loans that are held-for-investment (i.e., excludes loans held-for-sale).

HFS: Held-for-sale

HQLA: High-quality liquid assets. Consist of cash and certain high-quality liquid securities as defined in the LCR rule.

HTM: Held-to-maturity

Hyperinflation: Extreme economic inflation with prices rising at a very high rate in a very short time. Under U.S. GAAP, entities operating in a hyperinflationary economy need to change their functional currency to the U.S. dollar. Once the change is made, the CTA balance is frozen.

IBOR: Interbank Offered Rate

ICRM: Independent Compliance Risk Management

Interchange revenue: Fees earned from merchants based on Citi's credit and debit card customers' sales transactions.

International: The region representing all countries other than the U.S. and Canada.

IPO: Initial public offering

ISDA: International Swaps and Derivatives Association

KM: Key financial and non-financial metric used by management when evaluating consolidated and/or individual business results.

KPMG LLP: Citi's Independent Registered Public Accounting Firm.

LCR: Liquidity Coverage ratio. Represents HQLA divided by net outflows in the period.

LDA: Loss Distribution Approach

LGD: Loss given default

LIBOR: London Interbank Offered Rate

LLC: Limited Liability Company

LTD: Long-term debt

LTV: Loan-to-value. For residential real estate loans, the relationship, expressed as a percentage, between the principal amount of a loan and the estimated value of the collateral (i.e., residential real estate) securing the loan.

Managed basis: Results reflected on a managed basis exclude divestiture-related impacts.

Master netting agreement: A single agreement with a counterparty that permits multiple transactions governed by that agreement to be terminated or accelerated and settled through a single payment in a single currency in the event of a default (e.g., bankruptcy, failure to make a required payment or securities transfer or deliver collateral or margin when due).

MBS: Mortgage-backed securities

MCA: Manager's control assessment

MD&A: Management's discussion and analysis

Measurement alternative: Measures equity securities without readily determinable fair values at cost less impairment (if any), plus or minus observable price changes from an identical or similar investment of the same issuer.

Mexico Consumer: Mexico Consumer Banking

Mexico Consumer/SBMM: Mexico Consumer Banking and Small Business and Middle-Market Banking

Mexico SBMM: Mexico Small Business and Middle-Market Banking

Moody's: Moody's Investors Service

MSRs: Mortgage servicing rights

N/A: Data is not applicable or available for the period presented.

NAA: Non-accrual assets. Consists of non-accrual loans and OREO.

NAL: Non-accrual loans. Loans for which interest income is not recognized on an accrual basis. Loans (other than credit card loans and certain consumer loans insured by U.S. government-sponsored agencies) are placed on non-accrual status when full payment of principal and interest is not expected, regardless of delinquency status, or when principal and interest have been in default for a period of 90 days or more unless the loan is both well secured and in the process of collection. Collateral-dependent loans are typically maintained on non-accrual status.

NAV: Net asset value

NCL(s): Net credit losses. Represents gross credit losses, less gross credit recoveries.

NCL ratio*: Represents net credit losses (recoveries) (annualized), divided by average loans for the reporting period.

Net capital rule: Rule 15c3-1 under the Securities Exchange Act of 1934.

NII: Net interest income. Represents total interest revenue less total interest expenses.

NIM*: Net interest margin expressed as a yield percentage, calculated as annualized net interest income divided by average interest-earning assets for the period.

NIR: Non-interest revenues

NM: Not meaningful

Noncontrolling interests: The portion of an investment that has been consolidated by Citi that is not 100% owned by Citi.

Non-GAAP financial measure: Management uses these financial measures because it believes they provide information to enable investors to understand the underlying operational performance and trends of Citi and its businesses.

NSFR: Net stable funding ratio

O/S: Outstanding

OCC: Office of the Comptroller of the Currency

OCI: Other comprehensive income (loss)

OREO: Other real estate owned

OTTI: Other-than-temporary impairment

Over-the-counter cleared (OTC-cleared) derivatives:

Derivative contracts that are negotiated and executed bilaterally, but subsequently settled via a central clearing house, such that each derivative counterparty is only exposed to the default of that clearing house.

Over-the-counter (OTC) derivatives: Derivative contracts that are negotiated, executed and settled bilaterally between two derivative counterparties, where one or both counterparties is a derivatives dealer.

Parent company: Citigroup Inc.

Participating securities: Represents unvested share-based compensation awards containing nonforfeitable rights to dividends or dividend equivalents (collectively, “dividends”), which are included in the earnings per share calculation using the two-class method. Citi grants RSUs to certain employees under its share-based compensation programs, which entitle the recipients to receive non-forfeitable dividends during the vesting period on a basis equivalent to the dividends paid to holders of common stock. These unvested awards meet the definition of participating securities. Under the two-class method for calculating EPS, all earnings (distributed and undistributed) are allocated to each class of common stock and participating securities, based on their respective rights to receive dividends.

Partner payments: Payments made to credit card partners primarily based on program sales, profitability and customer acquisitions.

PD: Probability of default

Principal transactions revenue: Primarily trading-related revenues predominantly generated by the *Services, Markets and Banking* businesses. See Note 6.

Provision for credit losses: Composed of the provision for credit losses on loans, provision for credit losses on HTM investments, provision for credit losses on other assets and provision for credit losses on unfunded lending commitments.

Provisions: Provisions for credit losses and for benefits and claims.

PSUs: Performance share units

Purchased credit-deteriorated: Purchased credit-deteriorated assets are financial assets that as of the date of acquisition have experienced a more-than-insignificant deterioration in credit quality since origination, as determined by the Company.

R&S forecast period: Reasonable and supportable period over which Citi forecasts future macroeconomic conditions for CECL purposes.

Real GDP: Real gross domestic product is the inflation-adjusted value of the goods and services produced by labor and property located in a country.

Reconciling Items: Divestiture-related impacts excluded from the results of *All Other*, as well as *All Other—Legacy Franchises* on a managed basis. The Reconciling Items are fully reflected in Citi’s Consolidated Statement of Income for each respective line item.

Regulatory VAR: Daily aggregated VAR calculated in accordance with regulatory rules.

REITs: Real estate investment trusts

Release: A net decrease in ACL through the provision for credit losses.

Reported basis: Financial statements prepared under U.S. GAAP.

Results of operations that exclude certain impacts from gains or losses on sale, or one-time charges*: Represents GAAP items, excluding the impact of gains or losses on sales, or one-time charges (e.g., the loss on sale related to the sale of Citi’s consumer banking business in Australia).

Results of operations that exclude the impact of FX translation*: Represents GAAP items, excluding the impact of FX translation, whereby the prior periods’ foreign currency balances are translated into U.S. dollars at the current periods’ conversion rates (also known as constant dollar). GAAP measures excluding the impact of FX translation are non-GAAP financial measures.

Retail Services: Citi’s U.S. retail services cards business with a portfolio of co-brand and private label relationships (including, among others, The Home Depot, Best Buy, Sears and Macy’s).

Reward costs: The cost to Citi for rewards earned by cardholders enrolled in credit card rewards programs generally tied to card spend volumes.

RMI: A non-partisan, non-profit organization that works to transform global energy systems across the real economy. Citi joined the RMI Center for Climate-Aligned Finance in 2021.

ROA*: Return on assets. Represents net income (annualized), divided by average assets for the period.

ROCE*: Return on Common Equity. Represents net income less preferred dividends (both annualized), divided by average common equity for the period.

ROE: Return on equity. Represents net income less preferred dividends (both annualized), divided by average Citigroup equity for the period.

RoTCE*: Return on tangible common equity. Represents net income less preferred dividends (both annualized), divided by average tangible common equity for the period.

RSU(s): Restricted stock units

RWA: Risk-weighted assets. Basel III establishes two comprehensive approaches for calculating RWA (the Standardized Approach and the Advanced Approaches), which include capital requirements for credit risk, market risk and operational risk for Advanced Approaches. Key differences in the calculation of credit risk RWA between the Standardized and Advanced Approaches are that for Advanced, credit risk RWA is based on risk-sensitive approaches that largely rely on the use of internal credit models and parameters, whereas for Standardized, credit risk RWA is generally based on supervisory risk-weightings, which vary primarily by counterparty type and asset class. Market risk RWA is calculated on a generally consistent basis between Basel III Standardized Approach and Basel III Advanced Approaches.

S&P: Standard and Poor's Global Ratings

SCB: Stress Capital Buffer

SCF: Subscription credit facility. SCFs are revolving credit facilities provided to private equity funds that are secured against the fund's investors' capital commitments.

SEC: The U.S. Securities and Exchange Commission

Securities financing agreements: Include resale, repurchase, securities borrowed and securities loaned agreements.

SLR: Supplementary Leverage ratio. Represents Tier 1 Capital divided by Total Leverage Exposure.

SOFR: Secured Overnight Financing Rate

SPEs: Special purpose entities

Standardized Approach: Established through Basel III, the Standardized Approach aligns regulatory capital requirements more closely with the key elements of banking risk by introducing a wider differentiation of risk weights and a wider recognition of credit risk mitigation techniques, while avoiding excessive complexity. Accordingly, the Standardized Approach produces capital ratios more in line with the actual economic risks that banks are facing.

Structured notes: Financial instruments whose cash flows are linked to the movement in one or more indexes, interest rates, foreign exchange rates, commodities prices, prepayment rates or other market variables. The notes typically contain embedded (but not separable or detachable) derivatives. Contractual cash flows for principal, interest or both can vary in amount and timing throughout the life of the note based on

non-traditional indexes or non-traditional uses of traditional interest rates or indexes.

Tangible book value per share (TBVPS)*: Represents tangible common equity divided by EOP common shares outstanding.

Tangible common equity (TCE): Represents common stockholders' equity less goodwill and identifiable intangible assets, other than MSRs.

Taxable-equivalent basis: Represents the total revenue, net of interest expense for the business, adjusted for revenue from investments that receive tax credits and the impact of tax-exempt securities. This metric presents results on a level comparable to taxable investments and securities. GAAP measures on taxable equivalent basis, including the metrics derived from these measures, are non-GAAP financial measures.

TDR: Troubled debt restructuring. Prior to January 1, 2023, a TDR was deemed to occur when the Company modified the original terms of a loan agreement by granting a concession to a borrower that was experiencing financial difficulty. Loans with short-term and other insignificant modifications that are not considered concessions were not TDRs. The accounting guidance for TDRs was eliminated with the adoption of ASU 2022-02. See Note 1.

TLAC: Total loss-absorbing capacity

Total ACL: Allowance for credit losses, which comprises the allowance for credit losses on loans (ACLL), allowance for credit losses on unfunded lending commitments (ACLUC), allowance for credit losses on HTM securities and allowance for credit losses on other assets.

Total payout ratio*: Represents total common dividends declared plus common share repurchases as a percentage of net income available to common shareholders.

Transformation: Citi has embarked on a multiyear transformation, with the target outcome to change Citi's business and operating models such that they simultaneously strengthen risk and controls and improve Citi's value to customers, clients and shareholders.

Unaudited: Financial statements and information that have not been subjected to auditing procedures sufficient to permit an independent certified public accountant to express an opinion.

U.S. government agencies: U.S. government agencies include, but are not limited to, agencies such as Ginnie Mae and FHA, and do not include Fannie Mae and Freddie Mac, which are U.S. government-sponsored enterprises (U.S. GSEs). In general, obligations of U.S. government agencies are fully and explicitly guaranteed as to the timely payment of principal and interest by the full faith and credit of the U.S. government in the event of a default.

U.S. Treasury: U.S. Department of the Treasury

VAR: Value at risk. A measure of the dollar amount of potential loss from adverse market moves in an ordinary market environment.

VIEs: Variable interest entities

Wallet: Proportion of fee revenue based on estimates of investment banking fees generated across the industry (i.e., the revenue wallet) from investment banking transactions in M&A, equity and debt underwriting, and loan syndications.