UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended March 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

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 is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

Number of shares of Citigroup Inc. common stock outstanding on March 31, 2023: 1,946,751,837

Available on the web at www.citigroup.com

CITIGROUP'S FIRST QUARTER 2023—FORM 10-Q

OVERVIEW

This Quarterly Report on Form 10-Q should be read in conjunction with Citigroup's Annual Report on Form 10-K for the year ended December 31, 2022 (referred to as the 2022 Form 10-K).

Throughout this report, "Citigroup," "Citi" and "the Company" refer to Citigroup Inc. and its consolidated subsidiaries. All "Note" references correspond to the Notes to the Consolidated Financial Statements herein, unless otherwise indicated.

For a list of certain terms and acronyms used in this Quarterly Report on Form 10-Q and other Citigroup presentations, see "Glossary of Terms and Acronyms" at the end of this report.

Additional information about Citigroup is available on Citi's website at www.citigroup.com. Citigroup's recent 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.

Please see "Risk Factors" in Citi's 2022 Form 10-K 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. Non-GAAP measures are provided as additional useful information to assess Citi's financial condition and results of operations (including period-to-period operating performance). 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. For more information, including the reconciliation of these non-GAAP financial measures to their corresponding GAAP financial measures, see the respective sections where the measures are presented and described and the "Glossary of Terms and Acronyms" below.

Citigroup is managed pursuant to three operating segments: *Institutional Clients Group*, *Personal Banking and Wealth Management* and *Legacy Franchises*. Activities not assigned to the operating segments are included in *Corporate/Other.*

Citigroup Operating Segments

Institutional Clients Group (ICG)

- **Services**
  - Treasury and trade solutions (TTS)
  - Securities services
- **Markets**
  - Equity markets
  - Fixed income markets
- **Banking**
  - Investment banking
  - Corporate lending

Personal Banking and Wealth Management (PBWM)

- **U.S. Personal Banking**
  - Cards
    - Branded cards
    - Retail services
  - Retail banking
- **Global Wealth Management (Global Wealth)**
  - Private bank
  - Wealth at Work
  - Citigold

Legacy Franchises

- **Asia Consumer Banking (Asia Consumer)**
  - Retail banking and cards for the remaining 6 exit markets (China, Indonesia, Korea, Poland, Russia and Taiwan)
- **Mexico Consumer Banking (Mexico Consumer)** and **Mexico Small Business and Middle-Market Banking (Mexico SBMM)**
  - Retail banking and cards
- **Legacy Holdings Assets**
  - Certain North America consumer mortgage loans
  - Other legacy assets

Corporate/Other

- **Corporate Treasury managed activities**
- **Operations and technology**
- **Global staff functions and other corporate expenses**
- **Discontinued operations**

The following are the four regions in which Citigroup operates. The regional results are fully reflected in the operating segments and *Corporate/Other* above.

Citigroup Regions(1)

- **North America**
- **Europe, Middle East and Africa (EMEA)**
- **Latin America**
- **Asia**

(1) North America includes the U.S., Canada and Puerto Rico, Latin America includes Mexico and Asia includes Japan.

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

EXECUTIVE SUMMARY

First Quarter of 2023—Results Demonstrated Continued Progress Toward Achieving Priorities

As described further throughout this Executive Summary, during the first quarter of 2023:

- Citi's revenues increased 12% versus the prior-year period, including a gain on sale of Citi's India consumer banking business versus a loss related to the sale of Citi's Australia consumer banking business in the prior-year period (for additional information, see "First Quarter of 2023 Results Summary" below). Excluding these divestiture-related impacts, revenues increased 6%, primarily driven by higher net interest income, partially offset by lower non-interest revenues.
- Citi's expenses increased 1% versus the prior-year period, including divestiture-related impacts in both the current and prior-year periods (for additional information, see "First Quarter of 2023 Results Summary" below). Excluding these divestiture-related impacts, expenses increased 5%, primarily driven by continued investments in Citi's transformation, other risk and control investments, inflation and severance costs, all partially offset by the benefit of productivity savings, foreign exchange translation and expense reduction from the closed exit markets and wind-downs (for additional information, see "Expenses" below).
- Citi's cost of credit was $2.0 billion versus $0.8 billion in the prior-year period. The increase reflected a net build of $0.7 billion in the allowance for credit losses (ACL) for loans and unfunded commitments and other provisions, compared to a net ACL release of $0.1 billion in the prior-year period, primarily driven by macroeconomic deterioration and growth in card revolving balances, and higher net credit losses, primarily driven by ongoing normalization in Branded cards and Retail services.
- Citi returned $1.0 billion to common shareholders in the form of dividends.
- Citi's Common Equity Tier 1 (CET1) Capital ratio increased to 13.4% as of March 31, 2023, compared to 11.4% as of March 31, 2022 (for additional information, see "Capital Resources" below). This compares to Citi's required regulatory CET1 Capital ratio of 12.0% as of January 1, 2023 under the Basel III Standardized Approach.
- Citi continued to make further progress on its consumer banking business divestitures in the first quarter of 2023, including, among other things, completing the sales of its India and Vietnam consumer banking businesses and working toward closing two additional sale transactions in 2023, as well as progressing with the continued wind-downs of the Korea and China consumer banking businesses and the Russia consumer, local commercial and institutional businesses.

First Quarter of 2023 Results Summary

Citigroup

Citigroup reported net income of $4.6 billion, or $2.19 per share, compared to net income of $4.3 billion, or $2.02 per share in the prior-year period. The increase in net income was primarily driven by the higher revenues, partially offset by the higher expenses and the higher cost of credit. Citigroup's effective tax rate was approximately 25% in the current quarter, including the impact of divestitures, versus 18% in the prior-year period, which had higher discrete tax benefits (for additional information, see "Income Taxes" below). Earnings per share (EPS) increased 8%, reflecting the higher net income and an approximate 1% decline in average diluted shares outstanding.

Results for the first quarter of 2023 included divestiture-related impacts of $953 million in earnings before taxes ($648 million after-tax), primarily recorded in *Legacy Franchises*, reflecting the following:

- $1,018 million of net divestiture gains, primarily related to a gain on sale of the India consumer banking business, recorded in revenues
- $73 million of aggregate divestiture-related costs, recorded in expenses
- An $8 million benefit of divestiture-related credit costs
- $305 million of related taxes

These divestiture-related impacts, collectively, had a $0.33 positive impact on EPS in the current quarter. Excluding these divestiture-related impacts, EPS was $1.86. (As used throughout this Form 10-Q, Citi's results of operations and financial condition excluding the impact of divestiture-related impacts are non-GAAP financial measures.)

Results for the first quarter of 2022 included divestiture-related impacts of $(677) million in earnings before taxes ($(588) million after-tax), recorded in *Legacy Franchises*, reflecting the following:

- A $118 million pretax loss primarily related to the Asia markets, recorded in revenues; this pretax loss reflected an ACL release of $(104) million and a net revenue impact of $(14) million due to contractual adjustments
- A $71 million cost of credit reclassification to revenues, as once a divestiture is classified as held-for-sale, credit costs, including ACL builds/releases and net credit losses, are reclassified to revenues
- A $535 million goodwill impairment recorded in expenses, due to the re-segmentation and sequencing of divestitures, as well as $24 million of costs related to the Korea voluntary early retirement program, also recorded in expenses
- $(89) million of related tax benefits

These divestiture-related impacts, collectively, had a $(0.30) negative impact on EPS in the prior-year period. Excluding these divestiture-related impacts, EPS was $2.32.

Citigroup revenues of $21.4 billion in the first quarter of 2023 increased 12% from the prior-year period. As discussed above, reported revenues included net divestiture gains of approximately $1.0 billion this quarter, primarily related to the gain on sale of the India consumer banking business, compared to a loss of $47 million primarily related to the Asia markets in the prior-year period, both recorded in *Legacy Franchises*. Excluding these impacts, revenues increased 6%, reflecting strength across Services and Fixed income markets in *Institutional Clients Group (ICG)*, as well as strong average loan growth in U.S. Personal Banking in *Personal Banking and Wealth Management (PBWM).* The higher revenues were partially offset by a decline in Investment banking and Equity markets in *ICG* and lower investment product revenues in Global Wealth Management (Global Wealth) in *PBWM*, as well as impacts from the closed exit markets and wind-downs in *Legacy Franchises*.

Citigroup's end-of-period loans were $652 billion, down 1% versus the prior-year period, as growth in *PBWM* was more than offset by a decline in *ICG* and *Legacy Franchises*.

Citigroup's end-of-period deposits were approximately $1.3 trillion, largely unchanged versus the prior-year period, as a decrease in *PBWM*, largely reflecting Global Wealth clients reallocating deposits to higher-yielding investments on the business's platform, was offset by an increase in institutional certificates of deposit in *Corporate/Other.* 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 $13.3 billion increased 1% from the prior-year period. As discussed above, reported operating expenses included $73 million of divestiture-related costs this quarter, compared to $559 million in the prior-year period, both recorded in *Legacy Franchises*. Excluding these divestiture-related costs, expenses increased 5%, largely driven by the following:

- Approximately 1% by continued investments in Citi's transformation, largely related to risk and controls, data and finance programs.
- Approximately 4% by structural expenses, largely in compensation and benefits, which included the full-year impact of hiring in the prior year, as well as hiring in the first quarter of 2023; and the impact of inflation and severance costs.

The increase in expenses was partially offset by productivity savings, lower business-led investments and the impact of foreign exchange translation, as well as expense reduction from the closed exit markets and wind-downs in *Legacy Franchises*.

As previously announced, Citi expects to incur higher expenses in 2023, primarily reflecting continued investments in Citi's transformation, other risk and control investments, volume-related expenses and inflation.

Cost of Credit

Citi's total provisions for credit losses and for benefits and claims was a cost of $2.0 billion, compared to $0.8 billion in the prior-year period. This increase reflected higher net credit losses (see below) and a net build of $0.7 billion in the ACL for loans and unfunded commitments and other provisions, primarily driven by macroeconomic deterioration and growth in card revolving balances in *PBWM*. This compared to a net ACL release and other provisions of $(0.1) billion in the prior-year period. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates—Citi's Allowance for Credit Losses (ACL)" below.

Net credit losses of $1.3 billion increased 49% from the prior year. Consumer net credit losses of $1.3 billion increased 52%, reflecting ongoing normalization, particularly in Branded cards and Retail services. Corporate net credit losses decreased to $22 million from $31 million.

Citi also expects to incur higher net credit losses in 2023, primarily driven by continued normalization toward pre-pandemic levels, particularly in the cards business in *PBWM*.

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 March 31, 2023, compared to 11.4% as of March 31, 2022, based on the Basel III Standardized Approach for determining risk-weighted assets (RWA). The increase was primarily driven by net income, the impacts from the closing of the Asia consumer banking business sales, and business actions, including a reduction in RWA, partially offset by the payment of common dividends.

Citigroup's Supplementary Leverage ratio as of March 31, 2023 was 6.0%, compared to 5.6% as of March 31, 2022. The increase was driven by higher Tier 1 Capital, partially offset by a slight increase in Total Leverage Exposure. For additional information on Citi's capital ratios and related components, see "Capital Resources" below.

During the first quarter of 2023, Citi continued to pause common share repurchases, in anticipation of any temporary capital impacts related to any potential signing of a sale agreement for its Mexico Consumer/SBMM businesses (for additional information, see "Macroeconomic and Other Risks and Uncertainties" and the capital return risk factor in "Risk Factors" in Citi's 2022 Form 10-K) and to continue to have ample capital to serve its clients.

Institutional Clients Group

ICG net income of $3.3 billion increased 23%, primarily driven by lower cost of credit and higher revenues, partially offset by higher expenses. *ICG* operating expenses of $7.0 billion increased 4%, largely driven by continued investments in Citi's transformation, other risk and control investments, volume-related expenses and other structural expenses, including severance costs, partially offset by productivity savings and the impact of foreign exchange translation.

ICG revenues of $11.2 billion increased 1% (including gain (loss) on loan hedges), as strength in Treasury and trade solutions (TTS), Securities services and Fixed income markets was partially offset by declines in Banking and Equity markets. Results included a loss on loan hedges of $199 million in the first quarter of 2023, compared with a gain on loan hedges of $169 million in the prior-year period.

Services revenues of $4.5 billion increased 29%. TTS revenues of $3.4 billion increased 31%, driven by 41% growth in net interest income and 13% growth in non-interest revenue. Strong performance in TTS was driven by higher interest rates and business actions, including growth in deposits, managing repricing and growth in fees. Securities services revenues of $1.1 billion increased 23%, as net interest income increased 94%, driven by higher interest rates across currencies, and were partially offset by a 6% decrease in non-interest revenue due to the impact of lower settlement volumes and lower market valuations on assets under custody and administration.

Markets revenues of $5.6 billion decreased 4%, as growth in Fixed income markets was more than offset by a decline in Equity markets. Fixed income markets revenues of $4.5 billion increased 4%, primarily driven by strength in rates and currencies, partially offset by lower revenues in spread products and other fixed income. Equity markets revenues of $1.1 billion declined 25%, primarily reflecting reduced client activity in cash and equity derivatives relative to a strong quarter in the prior-year period.

Banking revenues of $1.2 billion decreased 38%, including the gain (loss) on loan hedges in the current quarter and the prior-year period. Excluding the gain (loss) on loan hedges, Banking revenues of $1.4 billion decreased 21%, driven by lower revenues in Investment banking and Corporate lending. Investment banking revenues of $774 million decreased 25%, reflecting a decline in the overall market wallet, as continued geopolitical uncertainty, heightened macroeconomic uncertainty and volatility continued to impact client activity. Corporate lending revenues decreased 54%, including the impact of the gain (loss) on loan hedges. Excluding the impact of the gain (loss) on loan hedges, Corporate lending revenues decreased 14% versus the prior-year period, driven by lower volumes and higher hedging costs.

For additional information on the results of operations of *ICG* for the first quarter of 2023, see "*Institutional Clients Group*" below.

Personal Banking and Wealth Management

PBWM net income of $489 million decreased 74%, driven by higher cost of credit and higher expenses, partially offset by higher revenues. *PBWM* operating expenses of $4.3 billion increased 9%, primarily driven by continued investments in Citi's transformation, other risk and control investments and severance costs, partially offset by productivity savings.

PBWM revenues of $6.4 billion increased 9%, primarily due to higher net interest income, driven by strong loan growth across U.S. Personal Banking, partially offset by a decline in non-interest revenue, primarily driven by lower investment product revenues in Global Wealth.

U.S. Personal Banking revenues of $4.7 billion increased 18%. Branded cards revenues of $2.5 billion increased 18%, primarily driven by the higher net interest income, as card spend volume increased 9% and average loans increased 15%. Retail services revenues of $1.6 billion increased 24%, primarily driven by the higher net interest income. Retail banking revenues of $613 million increased 3%, primarily driven by higher mortgage revenue and strong growth in installment lending, partially offset by the impact of the transfer of relationships and the associated deposit balances to Global Wealth.

Global Wealth revenues of $1.8 billion decreased 9%, largely driven by investment product revenue headwinds and higher interest rates paid on deposits, particularly in the Private bank.

For additional information on the results of operations of *PBWM* for the first quarter of 2023, see "*Personal Banking and Wealth Management*" below.

Legacy Franchises

Legacy Franchises net income was $604 million, compared to a net loss of $383 million in the prior-year period, primarily driven by higher revenues and lower expenses, partially offset by higher cost of credit.

Legacy Franchises revenues of $2.9 billion increased 48%, primarily driven by the gain on sale of the India consumer banking business, partially offset by the absence of the closed exit markets and wind-downs.

Legacy Franchises expenses of $1.8 billion decreased 24%, largely driven by the absence of the goodwill impairment in Asia Consumer Banking (Asia Consumer) recorded in the prior-year period and the benefit of the closed exit markets and wind-downs.

For additional information on the results of operations of *Legacy Franchises* for the first quarter of 2023, see "*Legacy Franchises*" below.

Corporate/Other

Corporate/Other net income was $255 million, compared to $189 million in the prior-year period, reflecting higher revenues, partially offset by higher cost of credit, higher expenses and lower income tax benefits. *Corporate/Other* operating expenses of $310 million increased 19%, driven by continued investments in Citi's transformation and other risk and control investments, partially offset by lower consulting expenses.

Corporate/Other revenues of $914 million increased from $190 million in the prior-year period, driven by higher net interest income. The higher net interest income was primarily due to the investment portfolio, largely driven by higher interest rates.

For additional information on the results of operations of *Corporate/Other* for the first quarter of 2023, see "*Corporate/Other*" below.

Macroeconomic and Other Risks and Uncertainties

Various geopolitical and macroeconomic challenges and uncertainties continue to adversely impact economic conditions in the U.S. and globally, including continued elevated levels of inflation, central banks continuing to increase interest rates, recent bank failures and related volatility, uncertainty with respect to raising the U.S. federal debt limit, and economic and geopolitical challenges related to China and the Russia–Ukraine war. These and other factors have adversely affected financial markets, negatively impacted global economic growth rates and increased the risk of recession in the U.S., Europe and other countries. These and other factors could adversely affect Citi's customers, clients, businesses, funding costs, expenses and overall results of operations and financial condition during the remainder of 2023.

For example, on April 18, 2023, the Federal Deposit Insurance Corporation (FDIC) announced that in May 2023, it will propose a special assessment to recover the uninsured deposit losses from the failures of Silicon Valley Bank and Signature Bank. On May 1, 2023, the FDIC announced that its Deposit Insurance Fund will incur additional costs related to the resolution of First Republic Bank. The FDIC did not indicate how it proposes covering these costs, but First Republic Bank was not resolved under special emergency provisions. Citibank, N.A. could incur an increase in its non-interest expense from the imposition of additional costs by the FDIC, although the amount of such costs is not yet known or reasonably estimable.

In addition, Citi could incur a significant loss on sale due to currency translation adjustment (CTA) losses (net of hedges) in *Accumulated other comprehensive income (loss) (AOCI)*, allocated goodwill and intangibles and other *AOCI* loss components related to the potential signing of a sale agreement for its remaining consumer banking divestitures. The majority of these losses would be regulatory capital neutral at closing.

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 the remainder of 2023, see "First Quarter of 2023 Results Summary" above and each respective business's results of operations, "Managing Global Risk," including "Managing Global Risk—Other Risks—Country Risk—Russia" and "—Argentina," and "Forward-Looking Statements" below and "Risk Factors" in Citi's 2022 Form 10-K.

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RESULTS OF OPERATIONS

SUMMARY OF SELECTED FINANCIAL DATA

Citigroup Inc. and Consolidated Subsidiaries

	First Quarter		
In millions of dollars, except per share amounts	**2023**	2022	**% Change**
Net interest income	**$ 13,348**	$ 10,871	**23 %**
Non-interest revenue	**8,099**	8,315	**(3)**
Revenues, net of interest expense	**$ 21,447**	$ 19,186	**12 %**
Operating expenses	**13,289**	13,165	**1**
Provisions for credit losses and for benefits and claims	**1,975**	755	**NM**
Income from continuing operations before income taxes	**$ 6,183**	$ 5,266	**17 %**
Income taxes	**1,531**	941	**63**
Income from continuing operations	**$ 4,652**	$ 4,325	**8 %**
Income (loss) from discontinued operations, net of taxes	**(1)**	(2)	**50**
Net income before attribution of noncontrolling interests	**$ 4,651**	$ 4,323	**8 %**
Net income attributable to noncontrolling interests	**45**	17	**NM**
Citigroup's net income	**$ 4,606**	$ 4,306	**7 %**
Earnings per share			
Basic			
Income from continuing operations	**$ 2.21**	$ 2.03	**9 %**
Net income	**2.21**	2.03	**9**
Diluted			
Income from continuing operations	**$ 2.19**	$ 2.02	**8 %**
Net income	**2.19**	2.02	**8**
Dividends declared per common share	**0.51**	0.51	**—**
Common dividends	**$ 1,000**	$ 1,014	**(1)%**
Preferred dividends[1]	**277**	279	**(1)**
Common share repurchases	**—**	3,000	**NM**

Table continues on the next page, including footnotes.

SUMMARY OF SELECTED FINANCIAL DATA (Continued)

Citigroup Inc. and Consolidated Subsidiaries

In millions of dollars, except per share amounts, ratios and direct staff	First Quarter 2023	2022	% Change
At March 31:			
Total assets	**$2,455,113**	$2,394,105	**3 %**
Total deposits	**1,330,459**	1,333,711	**—**
Long-term debt	**279,684**	253,954	**10**
Citigroup common stockholders' equity	**188,050**	178,714	**5**
Total Citigroup stockholders' equity	**208,295**	197,709	**5**
Average assets	**2,462,244**	2,374,040	**4**
Direct staff *(in thousands)*	**240**	228	**5 %**
Performance metrics			
Return on average assets	**0.76 %**	0.74 %	
Return on average common stockholders' equity(2)	**9.5**	9.0	
Return on average total stockholders' equity(2)	**9.2**	8.7	
Return on tangible common equity (RoTCE)(3)	**10.9**	10.5	
Efficiency ratio (total operating expenses/total revenues, net)	**62.0**	68.6	
Basel III ratios			
CET1 Capital(4)(5)	**13.44 %**	11.43 %	
Tier 1 Capital(4)(5)	**15.31**	13.05	
Total Capital(4)	**15.57**	14.84	
Supplementary Leverage ratio(4)	**5.96**	5.58	
Citigroup common stockholders' equity to assets	**7.66 %**	7.46 %	
Total Citigroup stockholders' equity to assets	**8.48**	8.26	
Dividend payout ratio(6)	**23**	25	
Total payout ratio(7)	**23**	100	
Book value per common share	**$ 96.59**	$ 92.03	**5 %**
Tangible book value (TBV) per share(3)	**84.21**	79.03	**7**

(1) Certain series of preferred stock have semiannual payment dates. See Note 21 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.
(2) 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.
(3) RoTCE and TBV are non-GAAP financial measures. For information on RoTCE and TBV, see "Capital Resources—Tangible Common Equity, Book Value Per Share, Tangible Book Value Per Share and Return on Equity" below.
(4) 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.
(5) Certain of the above prior-period amounts have been revised to conform with enhancements made in the current period.
(6) Dividends declared per common share as a percentage of net income per diluted share.
(7) 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 9 and "Equity Security Repurchases" below for the component details.

NM Not meaningful

SEGMENT REVENUES AND INCOME (LOSS)

REVENUES

In millions of dollars	First Quarter 2023	First Quarter 2022	% Change
Institutional Clients Group	**$ 11,233**	$ 11,160	**1 %**
Personal Banking and Wealth Management	**6,448**	5,905	**9**
Legacy Franchises	**2,852**	1,931	**48**
Corporate/Other	**914**	190	**NM**
Total Citigroup net revenues	**$ 21,447**	$ 19,186	**12 %**

NM Not meaningful

INCOME

In millions of dollars	First Quarter 2023	First Quarter 2022	% Change
Income (loss) from continuing operations			
Institutional Clients Group	**$ 3,298**	$ 2,658	**24 %**
Personal Banking and Wealth Management	**489**	1,860	**(74)**
Legacy Franchises	**606**	(385)	**NM**
Corporate/Other	**259**	192	**35**
Income from continuing operations	**$ 4,652**	$ 4,325	**8 %**
Discontinued operations	**$ (1)**	$ (2)	**50 %**
Less: Net income attributable to noncontrolling interests	**45**	17	**NM**
Citigroup's net income	**$ 4,606**	$ 4,306	**7 %**

NM Not meaningful

SEGMENT BALANCE SHEET[1]—MARCH 31, 2023

In millions of dollars	Institutional Clients Group	Personal Banking and Wealth Management	Legacy Franchises	Corporate/Other and consolidating eliminations[2]	Citigroup parent company-issued long-term debt and stockholders' equity[3]	Total Citigroup consolidated
Assets						
Cash and deposits with banks, net of allowance	$ 96,751	$ 5,469	$ 3,433	$ 223,306	$ —	$ 328,959
Securities borrowed and purchased under agreements to resell, net of allowance	383,485	455	258	—	—	384,198
Trading account assets	370,311	1,275	730	11,590	—	383,906
Investments, net of allowance	140,816	13	1,572	370,177	—	512,578
Loans, net of unearned income and allowance for credit losses on loans	277,953	321,555	35,319	(1)	—	634,826
Other assets, net of allowance	114,351	25,473	26,520	44,302	—	210,646
Net intersegment liquid assets[4]	385,240	135,430	26,353	(547,023)	—	—
Total assets	$ 1,768,907	$ 489,670	$ 94,185	$ 102,351	$ —	$ 2,455,113
Liabilities and equity						
Total deposits	$ 819,387	$ 436,925	$ 52,690	$ 21,457	$ —	$ 1,330,459
Securities loaned and sold under agreements to repurchase	255,264	47	2,369	1	—	257,681
Trading account liabilities	183,763	514	246	487	—	185,010
Short-term borrowings	31,637	1	—	8,549	—	40,187
Long-term debt[3]	100,982	227	83	11,566	166,826	279,684
Other liabilities	105,245	10,850	23,353	13,625	—	153,073
Net intersegment funding (lending)[3]	272,629	41,106	15,444	45,942	(375,121)	—
Total liabilities	$ 1,768,907	$ 489,670	$ 94,185	$ 101,627	$ (208,295)	$ 2,246,094
Total equity[5]	—	—	—	724	208,295	209,019
Total liabilities and equity	$ 1,768,907	$ 489,670	$ 94,185	$ 102,351	$ —	$ 2,455,113

(1) The supplemental information presented in the table above reflects Citigroup's consolidated GAAP balance sheet by reportable segment and component. The respective segment information depicts the assets and liabilities managed by each segment.
(2) Consolidating eliminations for total Citigroup and Citigroup parent company assets and liabilities are recorded within *Corporate/Other*.
(3) The total equity and the majority of long-term debt of Citigroup are reflected on the Citigroup parent company balance sheet (see Notes 17 and 26). Citigroup allocates stockholders' equity and long-term debt to its businesses through intersegment allocations as shown above.
(4) Represents the attribution of Citigroup's liquid assets (primarily consisting of cash, marketable equity securities and AFS debt securities) to the various businesses based on Liquidity Coverage ratio (LCR) assumptions.
(5) *Corporate/Other* equity represents noncontrolling interests.

INSTITUTIONAL CLIENTS GROUP

Institutional Clients Group (ICG) includes Services, Markets and Banking (for additional information on these businesses, see “Citigroup Operating Segments” above). *ICG* provides corporate, institutional and public sector clients around the world with a full range of wholesale banking products and services, including fixed income and equity sales and trading, foreign exchange, prime brokerage, derivative services, equity and fixed income research, corporate lending, investment banking and advisory services, cash management, trade finance and securities services. *ICG* transacts with clients in both cash instruments and derivatives, including fixed income, foreign currency, equity and commodity products. For more information on *ICG*’s business activities, see “*Institutional Clients Group*” in Citi’s 2022 Form 10-K.

ICG’s international presence is supported by trading floors in approximately 80 countries and a proprietary network in 95 countries and jurisdictions. As part of previously disclosed plans, Citi has ended nearly all of the institutional banking services it offered in Russia as of March 31, 2023, with the remaining services only those necessary to fulfill its remaining legal and regulatory obligations. In connection with this wind-down, Citi expects to incur approximately $210 million in total estimated charges (excluding the impact from any portfolio sales), of which $60 million relates to *ICG*. For additional information about Citi’s continued efforts to reduce its operations and exposure in Russia, see “*Legacy Franchises*” and “Managing Global Risk—Other Risks—Country Risk—Russia” below.

At March 31, 2023, *ICG* had $1.8 trillion in assets and $819 billion in deposits. Securities services managed $23.0 trillion in assets under custody and administration at March 31, 2023, of which Citi provided both custody and administrative services to certain clients related to $1.9 trillion of such assets. Managed assets under trust were $3.9 trillion at March 31, 2023. For additional information on these operations, see “Administration and Other Fiduciary Fees” in Note 5.

	First Quarter		
In millions of dollars, except as otherwise noted	**2023**	2022	**% Change**
Commissions and fees	**$ 1,150**	$ 1,130	**2 %**
Administration and other fiduciary fees	**654**	672	**(3)**
Investment banking fees[1]	**834**	1,039	**(20)**
Principal transactions	**3,709**	4,442	**(17)**
Other	**(142)**	93	**NM**
Total non-interest revenue	**$ 6,205**	$ 7,376	**(16)%**
Net interest income (including dividends)	**5,028**	3,784	**33**
Total revenues, net of interest expense	**$ 11,233**	$ 11,160	**1 %**
Total operating expenses	**$ 6,973**	$ 6,723	**4 %**
Net credit losses on loans	**$ 22**	$ 30	**(27)%**
Credit reserve build (release) for loans	**(75)**	596	**NM**
Provision (release) for credit losses on unfunded lending commitments	**(170)**	352	**NM**
Provisions (releases) for credit losses on HTM debt securities and other assets	**151**	(7)	**NM**
Provisions (releases) for credit losses	**$ (72)**	$ 971	**NM**
Income from continuing operations before taxes	**$ 4,332**	$ 3,466	**25 %**
Income taxes	**1,034**	808	**28**
Income from continuing operations	**$ 3,298**	$ 2,658	**24 %**
Noncontrolling interests	**40**	18	**NM**
Net income	**$ 3,258**	$ 2,640	**23 %**
Balance Sheet data *(in billions of dollars)*			
EOP assets	**$ 1,769**	$ 1,704	**4 %**
Average assets	**1,774**	1,685	**5**
Efficiency ratio	**62 %**	60 %	
Average loans by reporting unit *(in billions of dollars)*			
Services	**$ 79**	$ 81	**(2)%**
Banking	**191**	194	**(2)**
Markets	**13**	14	**(7)**
Total	**$ 283**	$ 289	**(2)%**
Average deposits by reporting unit *(in billions of dollars)*			
TTS	**$ 704**	$ 670	**5 %**
Securities services	**125**	135	**(7)**

Services	$	**829**	$	805	**3 %**
Markets and Banking		**24**		21	**14**
Total	**$**	**853**	$	826	**3 %**

(1) Investment banking fees are substantially composed of underwriting and advisory revenues.
NM Not meaningful

ICG Revenue Details

		First Quarter			
In millions of dollars		**2023**		2022	**% Change**
Services					
Net interest income	**$**	**2,839**	$	1,924	**48 %**
Non-interest revenue		**1,628**		1,541	**6**
Total Services revenues	**$**	**4,467**	$	3,465	**29 %**
Net interest income	**$**	**2,358**	$	1,676	**41 %**
Non-interest revenue		**1,053**		931	**13**
TTS revenues	**$**	**3,411**	$	2,607	**31 %**
Net interest income	**$**	**481**	$	248	**94 %**
Non-interest revenue		**575**		610	**(6)**
Securities services revenues	**$**	**1,056**	$	858	**23 %**
Markets					
Net interest income	**$**	**1,470**	$	1,092	**35 %**
Non-interest revenue		**4,131**		4,717	**(12)**
Total Markets revenues(1)	**$**	**5,601**	$	5,809	**(4)%**
Fixed income markets	**$**	**4,454**	$	4,289	**4 %**
Equity markets		**1,147**		1,520	**(25)**
Total Markets revenues	**$**	**5,601**	$	5,809	**(4)%**
Rates and currencies	**$**	**3,640**	$	3,214	**13 %**
Spread products / other fixed income		**814**		1,075	**(24)**
Total Fixed income markets revenues	**$**	**4,454**	$	4,289	**4 %**
Banking					
Net interest income	**$**	**719**	$	768	**(6)%**
Non-interest revenue		**446**		1,118	**(60)**
Total Banking revenues	**$**	**1,165**	$	1,886	**(38)%**
Investment banking					
Advisory	**$**	**289**	$	347	**(17)%**
Equity underwriting		**109**		185	**(41)**
Debt underwriting		**376**		496	**(24)**
Total Investment banking revenues	**$**	**774**	$	1,028	**(25)%**
Corporate lending (excluding gains (losses) on loan hedges)(2)	**$**	**590**	$	689	**(14)%**
Total Banking revenues (excluding gains (losses) on loan hedges)(2)	**$**	**1,364**	$	1,717	**(21)%**
Gain (loss) on loan hedges(2)		**(199)**		169	**NM**
Total Banking revenues (including gains (losses) on loan hedges)(2)	**$**	**1,165**	$	1,886	**(38)%**
Total *ICG* revenues, net of interest expense	**$**	**11,233**	$	11,160	**1 %**

(1) 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 with 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.
(2) 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 include the mark-to-market on the credit derivatives and the mark-to-market on the loans in the portfolio that are at fair value. 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 are non-GAAP financial measures.
NM Not meaningful

The discussion of the results of operations for ICG 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.

1Q23 vs. 1Q22

Net income of $3.3 billion increased 23%, primarily driven by lower cost of credit and higher revenues, partially offset by higher expenses.

Revenues increased 1% (including gain (loss) on loan hedges), driven by higher Services revenues, partially offset by lower Banking and Markets revenues. Services revenues were up 29%, driven by higher revenues in both TTS and Securities services. Banking revenues were down 38% (including the impact of the gain (loss) on loan hedges), reflecting lower revenues in both Investment banking and Corporate lending. Markets revenues were down 4%, driven by Equity markets, partially offset by higher Fixed income markets revenues.

Within Services:

- TTS revenues increased 31%, driven by 41% growth in net interest income and 13% growth in non-interest revenue, reflecting strong growth across all client segments. The increase in net interest income was primarily driven by higher interest rates and business actions, including growth in deposits and managing repricing. Average deposits increased 5%, largely driven by growth in EMEA and North America. Average loans decreased 2%, largely reflecting loans sales, primarily in North America. The increase in non-interest revenue was primarily due to strong fee growth across both the cash and trade businesses, reflecting solid client engagement and continued growth of underlying drivers, with U.S. dollar clearing volumes up 6%, cross-border flows up 10% and commercial card spend up 40%.
- Securities services revenues increased 23%, as net interest income grew 94%, driven by higher interest rates across currencies. The increase in revenues was partially offset by lower non-interest revenues (decrease of 6%), driven by lower settlement volumes (decline of 3%), along with lower market valuations on assets under custody and administration. The decline in non-interest revenue was partially offset by higher existing client activity and new client onboarding and continued elevated levels of corporate activity in Issuer services.

Within Markets:

- Fixed income markets revenues increased 4%, driven by growth in rates and currencies, primarily in North America, partially offset by a decline in spread products and other fixed income, primarily in North America and EMEA.

  Rates and currencies increased 13%, driven by the rates business, reflecting increased interest rate volatility, partially offset by a decline in the currencies business due to a strong prior-year comparison. Spread products and other fixed income revenues decreased 24%, due to decreased institutional and corporate client activity in spread products and a decline in commodities, primarily in North America, driven by decreased volatility against a strong prior-year comparison.
- Equity markets revenues decreased 25%, driven by equity derivatives, primarily reflecting lower activity in both corporate and institutional clients compared to a strong prior-year period. The lower revenues also reflected a decline in equity cash, driven by lower institutional client activity. Prime finance balances continued to grow in the quarter.

Within Banking:

- Investment banking revenues declined 25%, reflecting a decline in the overall market wallet, as continued geopolitical uncertainty, heightened macroeconomic uncertainty and volatility continued to impact client activity. Advisory revenues decreased 17%, reflecting a decline in North America and Asia, partially offset by growth in EMEA. The decrease in advisory revenues was driven by the lower market wallet, partially offset by wallet share gains. Equity underwriting revenues decreased 41%, reflecting a decline in North America, Asia and EMEA, driven by the decline in the market wallet as well as wallet share loss. Debt underwriting revenues decreased 24%, reflecting a decline in North America and EMEA, driven by the decline in the market wallet, partially offset by wallet share gains largely in the investment-grade portfolio.
- Corporate lending revenues decreased 54%, including the impact of the gain (loss) on loan hedges. Excluding the impact of the gain (loss) on loan hedges, revenues decreased 14%, primarily driven by lower volumes and higher hedging costs.

Expenses increased 4%, primarily driven by continued investment in Citi's transformation, other risk and control investments, volume-related expenses and other structural expenses, including severance costs, partially offset by productivity savings and the impact of foreign exchange translation.

Provisions reflected a benefit of $72 million, compared to costs of $971 million in the prior-year period, largely driven by an ACL release for loans and unfunded lending commitments and other provisions, compared to an ACL build in the prior-year period. Net credit losses were $22 million, compared to $30 million in the prior-year period.

The ACL release was $94 million, compared to a build of $941 million in the prior-year period. The year-over-year decrease in the ACL build was due to the absence of Russia-related ACL builds in the prior-year period. The $94 million ACL release for the quarter was driven by a net ACL release for loans and unfunded lending commitments of $245 million, primarily due to reductions in Russia loan exposures, partially offset by $151 million related to an increase in transfer risk associated with exposures outside the U.S. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

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

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

For additional information about trends, uncertainties and risks related to *ICG*'s future results, see "Executive Summary" above, "Managing Global Risk—Other Risks—Country Risk—Argentina" and "—Russia" and "Forward-Looking Statements" below and "Risk Factors" in Citi's 2022 Form 10-K.

PERSONAL BANKING AND WEALTH MANAGEMENT

Personal Banking and Wealth Management (PBWM) consists of U.S. Personal Banking and Global Wealth Management (Global Wealth). U.S. Personal Banking includes Branded cards and Retail services, which have the following proprietary cards portfolios: Cash, Rewards and Value portfolios and co-branded cards within Branded cards (including American Airlines and Costco), and co-brand and private label relationships within Retail services (including, among others, The Home Depot, Best Buy, Sears and Macy's). U.S. Personal Banking also includes Retail banking, which provides traditional banking services to retail and small business customers. Global Wealth includes Private bank, Wealth at Work and Citigold and provides financial services to clients from affluent to ultra-high-net-worth 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.

At March 31, 2023, U.S. Personal Banking had 653 retail bank branches concentrated in the six key metropolitan areas of New York, Chicago, Los Angeles, San Francisco, Miami and Washington, D.C. U.S. Personal Banking had $146 billion in outstanding credit card balances, $115 billion in deposits and $39 billion in retail banking loans.

At March 31, 2023, Global Wealth had $322 billion in deposits, $85 billion in mortgage loans, $60 billion in personal and small business loans and $4 billion in outstanding credit card balances.

	First Quarter		
In millions of dollars, except as otherwise noted	**2023**	2022	**% Change**
Net interest income	**$ 5,934**	$ 5,385	**10 %**
Non-interest revenue	**514**	520	**(1)**
Total revenues, net of interest expense	**$ 6,448**	$ 5,905	**9 %**
Total operating expenses	**$ 4,254**	$ 3,889	**9 %**
Net credit losses on loans	**$ 1,094**	$ 691	**58 %**
Credit reserve build (release) for loans	**507**	(1,062)	**NM**
Provision (release) for credit losses on unfunded lending commitments	**(6)**	(2)	**NM**
Provisions for benefits and claims (PBC), and other assets	**(4)**	(3)	**(33)**
Provisions (releases) for credit losses and PBC	**$ 1,591**	$ (376)	**NM**
Income from continuing operations before taxes	**$ 603**	$ 2,392	**(75)%**
Income taxes	**114**	532	**(79)**
Income from continuing operations	**$ 489**	$ 1,860	**(74)%**
Noncontrolling interests	**—**	—	**—**
Net income	**$ 489**	$ 1,860	**(74)%**
Balance Sheet data *(in billions of dollars)*			
EOP assets	**$ 490**	$ 476	**3 %**
Average assets	**495**	474	**4**
Average loans	**333**	312	**7**
Average deposits	**434**	447	**(3)**
Efficiency ratio	**66 %**	66 %	
Net credit losses as a percentage of average loans	**1.33**	0.90	
Revenue by reporting unit and component			
Branded cards	**$ 2,466**	$ 2,090	**18 %**
Retail services	**1,613**	1,299	**24**
Retail banking	**613**	595	**3**
U.S. Personal Banking	**$ 4,692**	$ 3,984	**18 %**
Private bank	**$ 567**	$ 779	**(27)%**
Wealth at Work	**193**	183	**5**
Citigold	**996**	959	**4**
Global Wealth	**$ 1,756**	$ 1,921	**(9)%**
Total	**$ 6,448**	$ 5,905	**9 %**

NM Not meaningful

1Q23 vs. 1Q22

Net income was $489 million, compared to $1.9 billion in the prior-year period, driven by higher cost of credit and higher expenses, partially offset by higher revenues.

Revenues increased 9%, primarily due to higher net interest income, driven by strong loan growth across U.S. Personal Banking. The increase was partially offset by lower non-interest revenue, primarily reflecting lower investment product revenues in Global Wealth.

U.S. Personal Banking revenues increased 18%, reflecting higher revenues in both cards and Retail banking.

Cards revenues increased 20%. Branded cards revenues increased 18%, primarily driven by higher net interest income on higher card spend volumes and higher loan balances. Branded cards new account acquisitions increased 17% and card spend volumes increased 9%. Average loans increased 15%, reflecting the higher card spend volumes and lower payment rates.

Retail services revenues increased 24%, primarily driven by higher net interest income on higher loan balances. Retail services card spend volumes decreased 3% and average loans increased 10%, reflecting lower payment rates.

Retail banking revenues increased 3%, primarily driven by higher mortgage revenue and strong growth in installment lending, partially offset by the impact of the transfer of relationships and the associated deposit balances to Global Wealth. Average loans increased 14%, primarily driven by higher mortgage originations. Average deposits decreased 6%, reflecting the transfer of relationships and the associated deposit balances to Global Wealth.

Global Wealth revenues decreased 9%, largely reflecting investment product revenue headwinds and lower net interest income in the Private bank. Average deposits decreased 2% and average loans decreased 1%. The decline in average deposits largely reflected Global Wealth clients reallocating deposits to higher-yielding investments on the business's platform, partially offset by the transfer of deposit relationships from Retail banking. Client assets decreased 4%, driven by declines in equity market valuations and lower deposits. Global Wealth continued to grow client advisors, which increased 3%. Private bank revenues decreased 27%, driven by the investment product revenue headwinds and higher interest rates paid on deposits. In addition, Wealth at Work revenues increased 5% and Citigold revenues increased 4%.

Expenses increased 9%, primarily driven by continued investments in Citi's transformation, other risk and control investments and severance costs, partially offset by productivity savings.

Provisions were $1.6 billion, compared to a benefit of $376 million in the prior-year period, largely driven by a net ACL build for loans and higher net credit losses. Net credit losses increased 58%, reflecting ongoing normalization from historically low levels, particularly in Branded cards (net credit losses up 72% to $521 million) and Retail services (net credit losses up 95% to $491 million).

The net ACL build was $0.5 billion, compared to a net release of $1.1 billion in the prior-year period, primarily driven by a deterioration in macroeconomic assumptions and growth in U.S. cards revolving balances. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information on U.S. Personal Banking's Branded cards, Retail services and Retail banking portfolios, see "Credit Risk—Consumer Credit" below.

For additional information about trends, uncertainties and risks related to *PBWM*'s future results, see "Executive Summary" above and "Forward-Looking Statements" below, and "Risk Factors—Strategic Risks" in Citi's 2022 Form 10-K.

LEGACY FRANCHISES

As of March 31, 2023, *Legacy Franchises* included (i) Asia Consumer Banking (Asia Consumer), representing the consumer banking operations of the remaining six Asia and EMEA exit countries, (ii) Mexico Consumer Banking (Mexico Consumer) and Mexico Small Business and Middle-Market Banking (Mexico SBMM), collectively Mexico Consumer/SBMM, and (iii) Legacy Holdings Assets (certain North America consumer mortgage loans and other legacy assets). Asia Consumer provides traditional retail banking and branded card products to retail and small business customers. Mexico Consumer/SBMM 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 through Citibanamex.

Legacy Franchises also included the following seven consumer banking businesses prior to their sale: Australia, until its closing on June 1, 2022; the Philippines, until its closing on August 1, 2022; Thailand and Malaysia, until their closings on November 1, 2022; Bahrain, until its closing on December 1, 2022; and India and Vietnam, until their closings on March 1, 2023.

In addition, Citi has entered into agreements to sell its consumer banking businesses in Indonesia and Taiwan, and has continued to make progress on its wind-downs of consumer banking operations in Korea and China and consumer banking and local commercial banking operations in Russia (see below). See Note 2 for additional information on *Legacy Franchises*' consumer banking business sales and wind-downs.

In connection with Citi's consumer and local commercial banking wind-down in Russia, Citi expects to incur approximately $210 million in total estimated charges (excluding the impact from any portfolio sales), of which $150 million relates to *Legacy Franchises*, largely driven by restructuring, vendor termination fees and other related charges. Citi's previously disclosed referral agreement with a Russian bank to settle a portfolio of ruble-denominated credit card loans, subject to customer consents, can be terminated under certain circumstances and is being reevaluated as Citi reviews other alternatives. The credit card loans will remain held-for-investment as Citi continues to explore pathways to accelerate the wind-down in a manner that is compliant with all applicable regulatory and legal requirements. For additional information about Citi's continued efforts to reduce its operations and exposure in Russia, see "*Institutional Clients Group*" above and "Managing Global Risk—Other Risks—Country Risk—Russia" below, as well as "Risk Factors" in Citi's 2022 Form 10-K.

At March 31, 2023, on a combined basis, *Legacy Franchises* had 1,406 retail branches, $20 billion in retail banking loans and $53 billion in deposits. In addition, the businesses had $9 billion in outstanding card loan balances, and Mexico SBMM had $8 billion in outstanding corporate loan balances. These loan and deposit amounts exclude approximately $10 billion of loans ($9 billion of retail banking loans and $1 billion of credit card loan balances) and approximately $11 billion of deposits, all of which were reclassified to held-for-sale (HFS) (e.g., as *Other assets* and *Other liabilities* on the Consolidated Balance Sheet) as a result of Citi's entry into agreements to sell certain remaining consumer banking businesses. See Note 2 for additional information.

	First Quarter		
In millions of dollars, except as otherwise noted	**2023**	2022	**% Change**
Net interest income	**$ 1,290**	$ 1,508	**(14)%**
Non-interest revenue	**1,562**	423	**NM**
Total revenues, net of interest expense	**$ 2,852**	$ 1,931	**48 %**
Total operating expenses	**$ 1,752**	$ 2,293	**(24)%**
Net credit losses on loans	**$ 186**	$ 151	**23 %**
Credit reserve build (release) for loans	**3**	(146)	**NM**
Provision (release) for credit losses on unfunded lending commitments	**(18)**	124	**NM**
Provisions for benefits and claims (PBC), HTM debt securities and other assets	**174**	31	**NM**
Provisions (releases) for credit losses and PBC	**$ 345**	$ 160	**NM**
Income (loss) from continuing operations before taxes	**$ 755**	$ (522)	**NM**
Income taxes	**149**	(137)	**NM**
Income (loss) from continuing operations	**$ 606**	$ (385)	**NM**
Noncontrolling interests	**2**	(2)	**NM**
Net income (loss)	**$ 604**	$ (383)	**NM**
Balance Sheet data *(in billions of dollars)*			
EOP assets	**$ 94**	$ 122	**(23)%**
Average assets	**97**	124	**(22)**
EOP loans	**37**	44	**(16)**
EOP deposits	**53**	51	**3**
Efficiency ratio	**61 %**	119 %	
Revenue by reporting unit and component			

Asia Consumer	$	**1,509**	$	787	**92 %**
Mexico Consumer/SBMM		**1,322**		1,139	**16**
Legacy Holdings Assets		**21**		5	**NM**
Total	**$**	**2,852**	$	1,931	**48 %**

NM Not meaningful

1Q23 vs. 1Q22

Net income was $604 million, compared to a net loss of $383 million in the prior-year period, driven by higher revenues and lower expenses, partially offset by higher cost of credit.

Results for the first quarter of 2023 included divestiture-related impacts of $953 million in earnings before taxes ($648 million after-tax), recorded in *Legacy Franchises*, reflecting the following:

- $1,018 million of net divestiture gains, primarily related to a gain on sale of the India consumer banking business, recorded in other revenue
- $73 million of aggregate divestiture-related costs, recorded in expenses
- An $8 million benefit of divestiture-related credit costs
- $305 million of related taxes

Results for the first quarter of 2022 included divestiture-related impacts of $(677) million ($(588) million after-tax), recorded in *Legacy Franchises*, reflecting the following:

- A $118 million pretax loss primarily related to the Asia markets, recorded in revenues; this pretax loss reflected an ACL release of $(104) million and a net revenue impact of $(14) million due to contractual adjustments
- A $71 million cost of credit reclassification to revenues, as once a divestiture is classified as held-for-sale, credit costs, including ACL builds/releases and net credit losses, are reclassified to revenues
- A $535 million goodwill impairment, recorded in expenses, due to the re-segmentation and sequencing of divestitures, as well as $24 million of costs related to the Korea voluntary early retirement program, also recorded in expenses
- $(89) million of related tax benefits

Revenues increased 48%, primarily driven by higher revenues in Asia Consumer and Mexico Consumer/SBMM.

Asia Consumer revenues of $1.5 billion increased from $787 million in the prior-year period, primarily driven by the India gain on sale, partially offset by the absence of closed exit markets and wind-downs.

Mexico Consumer/SBMM revenues increased 16%, as cards revenues increased 29%, SBMM revenues increased 18% and retail banking revenues increased 11%, primarily due to the benefit of FX translation as well as higher interest rates and higher lending volumes.

Legacy Holdings Assets revenues were largely unchanged.

Expenses decreased 24%, primarily driven by the absence of the goodwill impairment in the prior-year period and the benefit of the closed exit markets and wind-downs.

Provisions were $345 million, compared to $160 million in the prior-year period, primarily driven by an increase of $174 million due to a reserve build related to macroeconomic deterioration and an increase in transfer risk associated with exposures outside the U.S. The higher cost of credit was also driven by higher net credit losses, primarily reflecting higher lending volumes in Mexico Consumer.

For additional information about trends, uncertainties and risks related to *Legacy Franchises*' future results, see "Executive Summary" above, "Managing Global Risk—Other Risks—Country Risk—Russia" and "Forward-Looking Statements" below and "Risk Factors—Strategic Risks" in Citi's 2022 Form 10-K.

CORPORATE/OTHER

Activities not assigned to the operating segments (*ICG*, *PBWM* and *Legacy Franchises*) are included in *Corporate/Other*. *Corporate/Other* included 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. At March 31, 2023, *Corporate/Other* had $102 billion in assets, including Corporate Treasury investment securities and the Company's deferred tax assets (DTAs). During the first quarter of 2023, Citi placed a $5 billion uninsured deposit with First Republic Bank, classified as *Deposits with banks*. On May 1, 2023, JPMorgan Chase Bank, N.A. (JPMorgan), as part of its purchase of certain assets and liabilities of First Republic Bank, assumed all of the deposits of First Republic Bank. As a result, Citi now has a $5 billion uninsured deposit with JPMorgan.

	First Quarter		
In millions of dollars	**2023**	2022	**% Change**
Net interest income	**$ 1,096**	$ 194	**NM**
Non-interest revenue	**(182)**	(4)	**NM**
Total revenues, net of interest expense	**$ 914**	$ 190	**NM**
Total operating expenses	**$ 310**	$ 260	**19 %**
Provisions for HTM debt securities and other assets	**$ 111**	$ —	**— %**
Income (loss) from continuing operations before taxes	**$ 493**	$ (70)	**NM**
Income taxes (benefits)	**234**	(262)	**NM**
Income from continuing operations	**$ 259**	$ 192	**35 %**
Income (loss) from discontinued operations, net of taxes	**(1)**	(2)	**50**
Net income before attribution to noncontrolling interests	**$ 258**	$ 190	**36 %**
Noncontrolling interests	**3**	1	**NM**
Net income	**$ 255**	$ 189	**35 %**

NM Not meaningful

1Q23 vs. 1Q22

Net income was $255 million, compared to $189 million in the prior-year period. The increase in net income was primarily driven by higher revenues, partially offset by lower discrete income tax benefits, higher cost of credit and higher expenses.

Revenues were $914 million, compared to $190 million in the prior-year period, primarily driven by higher net revenue from the investment portfolio, largely due to higher interest rates.

Expenses increased 19%, primarily driven by transformation and other risk and control investments, partially offset by lower consulting expenses.

Provisions were $111 million, primarily driven by a reserve build related to the uninsured deposit with First Republic Bank.

For additional information about trends, uncertainties and risks related to *Corporate/Other*'s future results, see "Executive Summary" above, "Forward-Looking Statements" below and "Risk Factors—Strategic Risks" in Citi's 2022 Form 10-K.

CAPITAL RESOURCES

For additional information about capital resources, including Citi's capital management, regulatory capital buffers, the stress testing component of capital planning and current regulatory capital standards and developments, see "Capital Resources" and "Risk Factors" in Citi's 2022 Form 10-K.

During the first quarter of 2023, Citi returned a total of \$1.0 billion of capital to common shareholders in the form of dividends. For additional information, see "Unregistered Sales of Equity Securities, Repurchases of Equity Securities and Dividends" below.

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 March 31, 2023, relative to a required regulatory CET1 Capital ratio of 12.0% as of such date under the Standardized Approach. This compares to a CET1 Capital ratio of 13.0% as of December 31, 2022, relative to a required regulatory CET1 Capital ratio of 11.5% as of such date under the Standardized Approach.

Citi's CET1 Capital ratio under the Basel III Advanced Approaches was 12.3% as of March 31, 2023, relative to a required regulatory CET1 Capital ratio of 10.5% as of such date 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 increased under both the Standardized Approach and Advanced Approaches from December 31, 2022, driven primarily by net income, beneficial net movements in *AOCI* and impacts from the closing of the Asia consumer banking business sales, partially offset by the payment of common dividends. The increase in CET1 Capital under the Advanced Approaches was partially offset by an increase in Advanced Approaches RWA.

Stress Capital Buffer

In August 2022, the Federal Reserve Board finalized and announced Citi's Stress Capital Buffer (SCB) requirement of 4.0% for the four-quarter window starting from October 1, 2022 to September 30, 2023.

In addition, as previously disclosed, commencing January 1, 2023, Citi's GSIB surcharge increased from 3.0% to 3.5%, which is applicable to both the Standardized and the Advanced Approaches.

Accordingly, as of January 1, 2023, Citi is required to maintain a 12.0% required regulatory CET1 Capital ratio under the Standardized Approach, incorporating the 4.0% SCB and its 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) increased to 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.

For additional information regarding regulatory capital buffers, including the SCB and GSIB surcharge, see "Capital Resources—Regulatory Capital Buffers" in Citi's 2022 Form 10-K.

Citigroup's Capital Resources

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

	Advanced Approaches		Standardized Approach	
	March 31, 2023	December 31, 2022	**March 31, 2023**	December 31, 2022
CET1 Capital ratio(1)	**10.5 %**	10.0 %	**12.0 %**	11.5 %
Tier 1 Capital ratio(1)	**12.0**	11.5	**13.5**	13.0
Total Capital ratio(1)	**14.0**	13.5	**15.5**	15.0

(1) As of January 1, 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). See "Stress Capital Buffer" above for more information.

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

	Advanced Approaches		Standardized Approach	
In millions of dollars, except ratios	**March 31, 2023**	December 31, 2022	**March 31, 2023**	December 31, 2022
CET1 Capital(1)	**$ 153,753**	$ 148,930	**$ 153,753**	$ 148,930
Tier 1 Capital(1)	**175,249**	169,145	**175,249**	169,145
Total Capital (Tier 1 Capital + Tier 2 Capital)(1)	**194,998**	188,839	**203,586**	197,543
Total Risk-Weighted Assets	**1,252,390**	1,221,538	**1,144,359**	1,142,985
Credit Risk(1)	**$ 883,746**	$ 851,875	**$ 1,072,110**	$ 1,069,992
Market Risk	**71,341**	71,889	**72,249**	72,993
Operational Risk	**297,303**	297,774	**—**	—
CET1 Capital ratio(2)	**12.28 %**	12.19 %	**13.44 %**	13.03 %
Tier 1 Capital ratio(2)	**13.99**	13.85	**15.31**	14.80
Total Capital ratio(2)	**15.57**	15.46	**17.79**	17.28

In millions of dollars, except ratios	**Required Capital Ratios**	**March 31, 2023**	December 31, 2022
Quarterly Adjusted Average Total Assets(1)(3)		**$ 2,426,430**	$ 2,395,863
Total Leverage Exposure(1)(4)		**2,939,744**	2,906,773
Leverage ratio	**4.0 %**	**7.22 %**	7.06 %
Supplementary Leverage ratio	**5.0**	**5.96**	5.82

(1) Citi's regulatory capital ratios and components reflect certain deferrals based on the modified regulatory capital transition provision related to the current expected credit losses (CECL) standard. For additional information, see "Capital Resources—Regulatory Capital Treatment—Modified Transition of the Current Expected Credit Losses Methodology" in Citi's 2022 Form 10-K.

(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 March 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 March 31, 2023.

Components of Citigroup Capital

In millions of dollars		**March 31, 2023**		December 31, 2022
CET1 Capital				
Citigroup common stockholders' equity[1]	**$**	**188,186**	$	182,325
Add: Qualifying noncontrolling interests		**207**		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		**(2,161)**		(2,522)
Less: Cumulative unrealized net gain (loss) related to changes in fair value of financial liabilities attributable to own creditworthiness, net of tax		**1,037**		1,441
Less: Intangible assets:				
Goodwill, net of related DTLs[3]		**18,844**		19,007
Identifiable intangible assets other than MSRs, net of related DTLs		**3,607**		3,411
Less: Defined benefit pension plan net assets; other		**1,999**		1,935
Less: DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards[4]		**11,783**		12,197
Less: Excess over 10%/15% limitations for other DTAs, certain common stock investments, and MSRs[4][5]		**1,045**		325
Total CET1 Capital (Standardized Approach and Advanced Approaches)	**$**	**153,753**	$	148,930
Additional Tier 1 Capital				
Qualifying noncumulative perpetual preferred stock[1]	**$**	**20,109**	$	18,864
Qualifying trust preferred securities[6]		**1,408**		1,406
Qualifying noncontrolling interests		**29**		30
Regulatory capital deductions:				
Less: Other		**50**		85
Total Additional Tier 1 Capital (Standardized Approach and Advanced Approaches)	**$**	**21,496**	$	20,215
Total Tier 1 Capital (CET1 Capital + Additional Tier 1 Capital) (Standardized Approach and Advanced Approaches)	**$**	**175,249**	$	169,145
Tier 2 Capital				
Qualifying subordinated debt	**$**	**15,180**	$	15,530
Qualifying noncontrolling interests		**36**		37
Eligible allowance for credit losses[2][7]		**13,476**		13,426
Regulatory capital deduction:				
Less: Other		**355**		595
Total Tier 2 Capital (Standardized Approach)	**$**	**28,337**	$	28,398
Total Capital (Tier 1 Capital + Tier 2 Capital) (Standardized Approach)	**$**	**203,586**	$	197,543
Adjustment for excess of eligible credit reserves over expected credit losses[2][7]	**$**	**(8,588)**	$	(8,704)
Total Tier 2 Capital (Advanced Approaches)	**$**	**19,749**	$	19,694
Total Capital (Tier 1 Capital + Tier 2 Capital) (Advanced Approaches)	**$**	**194,998**	$	188,839

(1) Issuance costs of $136 million and $131 million related to outstanding noncumulative perpetual preferred stock at March 31, 2023 and December 31, 2022, respectively, were excluded from common stockholders' equity and netted against such preferred stock in accordance with Federal Reserve Board 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. For additional information, see "Capital Resources—Regulatory Capital Treatment—Modified Transition of the Current Expected Credit Losses Methodology" in Citi's 2022 Form 10-K.

(3) Includes goodwill "embedded" in the valuation of significant common stock investments in unconsolidated financial institutions.

(4) Of Citi's $27.6 billion of net DTAs at March 31, 2023, $11.8 billion of net DTAs arising from net operating loss, foreign tax credit and general business credit tax carry-forwards, as well as $1.0 billion of DTAs arising from temporary differences that exceeded 10%/15% limitations, were excluded from Citi's CET1 Capital as of March 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.

Footnotes continue on the following page.

(5) Assets subject to 10%/15% limitations include MSRs, DTAs arising from temporary differences and significant common stock investments in unconsolidated financial institutions. At March 31, 2023 and December 31, 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 $4.9 billion and $4.7 billion at March 31, 2023 and December 31, 2022, respectively.

Citigroup Capital Rollforward

In millions of dollars		Three Months Ended March 31, 2023
CET1 Capital, beginning of period	**$**	**148,930**
Net income		**4,606**
Common and preferred dividends declared		**(1,277)**
Net decrease in treasury stock		**705**
Net decrease in common stock and additional paid-in capital		**(84)**
Net change in CTA net of hedges, net of tax		**842**
Net change in unrealized gains (losses) on debt securities AFS, net of tax		**836**
Net increase in defined benefit plans liability adjustment, net of tax		**(104)**
Net change in adjustment related to change in fair value of financial liabilities attributable to own creditworthiness, net of tax		**78**
Net decrease in excluded component of fair value hedges		**12**
Net decrease in goodwill, net of related DTLs		**163**
Net increase in identifiable intangible assets other than MSRs, net of related DTLs		**(196)**
Net decrease in defined benefit pension plan net assets		**7**
Net decrease in DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards		**414**
Net increase in excess over 10%/15% limitations for other DTAs, certain common stock investments and MSRs		**(720)**
Net decrease in CECL transition provision		**(757)**
Other		**298**
Net increase in CET1 Capital	**$**	**4,823**
CET1 Capital, end of period (Standardized Approach and Advanced Approaches)	**$**	**153,753**
Additional Tier 1 Capital, beginning of period	**$**	**20,215**
Net increase in qualifying perpetual preferred stock		**1,245**
Net increase in qualifying trust preferred securities		**2**
Other		**34**
Net increase in Additional Tier 1 Capital	**$**	**1,281**
Tier 1 Capital, end of period (Standardized Approach and Advanced Approaches)	**$**	**175,249**
Tier 2 Capital, beginning of period (Standardized Approach)	**$**	**28,398**
Net decrease in qualifying subordinated debt		**(350)**
Net increase in eligible allowance for credit losses		**50**
Other		**239**
Net decrease in Tier 2 Capital (Standardized Approach)	**$**	**(61)**
Tier 2 Capital, end of period (Standardized Approach)	**$**	**28,337**
Total Capital, end of period (Standardized Approach)	**$**	**203,586**
Tier 2 Capital, beginning of period (Advanced Approaches)	**$**	**19,694**
Net decrease in qualifying subordinated debt		**(350)**
Net increase in excess of eligible credit reserves over expected credit losses		**166**
Other		**239**
Net increase in Tier 2 Capital (Advanced Approaches)	**$**	**55**
Tier 2 Capital, end of period (Advanced Approaches)	**$**	**19,749**
Total Capital, end of period (Advanced Approaches)	**$**	**194,998**

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

In millions of dollars		Three Months Ended March 31, 2023
Total Risk-Weighted Assets, beginning of period	**$**	**1,142,985**
Changes in Credit Risk-Weighted Assets		
General credit risk exposures[1]		**(14,352)**
Derivatives		**1,157**
Repo-style transactions[2]		**10,925**
Securitization exposures		**456**
Equity exposures		**1,788**
Other exposures[3]		**2,144**
Net increase in Credit Risk-Weighted Assets	**$**	**2,118**
Changes in Market Risk-Weighted Assets		
Risk levels	**$**	**(2,082)**
Model and methodology updates		**1,338**
Net increase in Market Risk-Weighted Assets	**$**	**(744)**
Total Risk-Weighted Assets, end of period	**$**	**1,144,359**

(1) General credit risk exposures include cash and balances due from depository institutions, securities, and loans and leases. General credit risk exposures decreased during the three months ended March 31, 2023 primarily due to a decrease in lending exposures and card activities, accompanied by divestitures.

(2) Repo-style transactions include repurchase and reverse repurchase transactions, as well as securities borrowing and securities lending transactions. Repo-style transactions increased during the three months ended March 31, 2023 primarily driven by increased activities across multiple business areas.

(3) Other exposures increased during the three months ended March 31, 2023 mainly driven by broad-based increases in other assets.

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

In millions of dollars		Three Months Ended March 31, 2023
Total Risk-Weighted Assets, beginning of period	**$**	**1,221,538**
Changes in Credit Risk-Weighted Assets		
General credit risk exposures(1)		**17,608**
Derivatives(2)		**5,016**
Repo-style transactions		**1,297**
Securitization exposures(3)		**2,093**
Equity exposures(4)		**2,411**
Other exposures(5)		**3,446**
Net increase in Credit Risk-Weighted Assets	**$**	**31,871**
Changes in Market Risk-Weighted Assets		
Risk levels	**$**	**(1,886)**
Model and methodology updates		**1,338**
Net increase in Market Risk-Weighted Assets	**$**	**(548)**
Net decrease in Operational Risk-Weighted Assets	**$**	**(471)**
Total Risk-Weighted Assets, end of period	**$**	**1,252,390**

(1) General credit risk exposures increased during the three months ended March 31, 2023.
(2) Derivatives increased during the three months ended March 31, 2023 primarily due to increases across equity, interest rate and commodities derivatives.
(3) Securitization exposures increased during the three months ended March 31, 2023 primarily driven by new issuances.
(4) Equity exposures increased during the three months ended March 31, 2023 primarily due to increases in market value of various investments.
(5) Other exposures increased during the three months ended March 31, 2023 mainly driven by broad-based increases in other assets.

Supplementary Leverage Ratio

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

In millions of dollars, except ratios	**March 31, 2023**	December 31, 2022
Tier 1 Capital	**$ 175,249**	$ 169,145
Total Leverage Exposure		
On-balance sheet assets(1)(2)	**$ 2,463,758**	$ 2,432,823
Certain off-balance sheet exposures(3)		
Potential future exposure on derivative contracts	**143,328**	133,071
Effective notional of sold credit derivatives, net(4)	**30,931**	34,117
Counterparty credit risk for repo-style transactions(5)	**18,255**	17,169
Other off-balance sheet exposures	**320,800**	326,553
Total of certain off-balance sheet exposures	**$ 513,314**	$ 510,910
Less: Tier 1 Capital deductions	**37,328**	36,960
Total Leverage Exposure	**$ 2,939,744**	$ 2,906,773
Supplementary Leverage ratio	**5.96 %**	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. For additional information, see "Capital Resources—Regulatory Capital Treatment—Modified Transition of the Current Expected Credit Losses Methodology" in Citi's 2022 Form 10-K.
(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 and securities lending transactions.

As presented in the table above, Citigroup's Supplementary Leverage ratio was 6.0% at March 31, 2023, compared to 5.8% at December 31, 2022. The quarter-over-quarter increase was primarily driven by an increase in Tier 1 Capital due to net income in the first quarter of 2023, issuance of qualifying perpetual preferred stock and beneficial net movements in *AOCI*, partially offset by an increase in Total Leverage Exposure.

Capital Resources of Citigroup's Subsidiary U.S. Depository 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 Federal Reserve Board.

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

		Advanced Approaches		Standardized Approach	
In millions of dollars, except ratios	**Required Capital Ratios**[1]	**March 31, 2023**	December 31, 2022	**March 31, 2023**	December 31, 2022
CET1 Capital[2]		**$ 151,724**	$ 149,593	**$ 151,724**	$ 149,593
Tier 1 Capital[2]		**153,853**	151,720	**153,853**	151,720
Total Capital (Tier 1 Capital + Tier 2 Capital)[2][3]		**167,065**	165,131	**174,608**	172,647
Total Risk-Weighted Assets		**1,038,394**	1,003,747	**968,749**	982,914
Credit Risk[2]		**$ 762,148**	$ 728,082	**$ 932,787**	$ 948,150
Market Risk		**35,532**	34,403	**35,962**	34,764
Operational Risk		**240,714**	241,262	**—**	—
CET1 Capital ratio[4][5]	**7.0 %**	**14.61 %**	14.90 %	**15.66 %**	15.22 %
Tier 1 Capital ratio[4][5]	**8.5**	**14.82**	15.12	**15.88**	15.44
Total Capital ratio[4][5]	**10.5**	**16.09**	16.45	**18.02**	17.56

In millions of dollars, except ratios	**Required Capital Ratios**	**March 31, 2023**	December 31, 2022
Quarterly Adjusted Average Total Assets[2][6]		**$ 1,743,596**	$ 1,738,744
Total Leverage Exposure[2][7]		**2,191,870**	2,189,541
Leverage ratio[5]	**5.0 %**	**8.82 %**	8.73 %
Supplementary Leverage ratio[5]	**6.0**	**7.02**	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. For additional information, see "Capital Resources—Regulatory Capital Treatment—Modified Transition of the Current Expected Credit Losses Methodology" in Citi's 2022 Form 10-K.
(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 indicated in the table above, Citibank's capital ratios at March 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 March 31, 2023.

As presented in the table above, Citibank's Supplementary Leverage ratio was 7.0% at March 31, 2023, compared to 6.9% at December 31, 2022. The quarter-over-quarter increase was primarily driven by an increase in Tier 1 Capital due to net income in the first quarter of 2023 and beneficial net movements in *AOCI*, partially offset by dividends and an increase in Total Leverage Exposure.

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 March 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.

	Common Equity Tier 1 Capital ratio		Tier 1 Capital ratio		Total Capital ratio	
In basis points	Impact of $100 million change in Common Equity Tier 1 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**	**1.6**
Citibank						
Advanced Approaches	**1.0**	**1.4**	**1.0**	**1.4**	**1.0**	**1.6**
Standardized Approach	**1.0**	**1.6**	**1.0**	**1.6**	**1.0**	**1.9**

	Leverage ratio		Supplementary Leverage ratio	
In basis points	Impact of $100 million change in Tier 1 Capital	Impact of $1 billion change in quarterly adjusted average total assets	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 March 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 $15 billion, which exceeded the minimum requirement by $10 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 $28 billion at March 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 March 31, 2023.

Total Loss-Absorbing Capacity (TLAC)

The table below details Citi's eligible external TLAC and long-term debt (LTD) amounts and ratios, and each TLAC and LTD regulatory requirement, as well as the surplus amount in dollars in excess of each requirement:

	March 31, 2023	
In billions of dollars, except ratios	**External TLAC**	**LTD**
Total eligible amount	$ 340	$ 160
% of Advanced Approaches risk-weighted assets	27.2 %	12.8 %
Regulatory requirement[(1)(2)]	22.5	9.5
Surplus amount	$ 58	$ 41
% of Total Leverage Exposure	11.6 %	5.4 %
Regulatory requirement	9.5	4.5
Surplus amount	$ 61	$ 27

(1) External TLAC includes method 1 GSIB surcharge of 2.0%.
(2) LTD includes method 2 GSIB surcharge of 3.5%.

As of March 31, 2023, Citi exceeded each of the TLAC and LTD regulatory requirements, resulting in a $27 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 "Capital Resources—Total Loss-Absorbing Capacity (TLAC)" in Citi's 2022 Form 10-K.

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 March 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 %**	**12.0 %**	**12.13 %**	**13.28 %**	**7.0 %**	**14.48 %**	**15.52 %**
Tier 1 Capital ratio	**12.0**	**13.5**	**13.85**	**15.16**	**8.5**	**14.69**	**15.74**
Total Capital ratio	**14.0**	**15.5**	**15.43**	**17.64**	**10.5**	**15.96**	**17.89**

	Required Capital Ratios	Citigroup	Required Capital Ratios	Citibank
Leverage ratio	**4.0 %**	**7.14 %**	**5.0 %**	**8.75 %**
Supplementary Leverage ratio	**5.0**	**5.89**	**6.0**	**6.96**

(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.

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)). RoTCE represents annualized net income available to common shareholders as a percentage of average TCE. Tangible book value per share represents average TCE divided by average common shares outstanding. Other companies may calculate these measures differently. TCE, RoTCE and tangible book value per share are non-GAAP financial measures.

In millions of dollars or shares, except per share amounts	**March 31, 2023**	December 31, 2022
Total Citigroup stockholders' equity	**$ 208,295**	$ 201,189
Less: Preferred stock	**20,245**	18,995
Common stockholders' equity	**$ 188,050**	$ 182,194
Less:		
Goodwill	**19,882**	19,691
Identifiable intangible assets (other than MSRs)	**3,974**	3,763
Goodwill and identifiable intangible assets (other than MSRs) related to assets held-for-sale (HFS)	**246**	589
Tangible common equity (TCE)	**$ 163,948**	$ 158,151
Common shares outstanding (CSO)	**1,946.8**	1,937.0
Book value per share (common stockholders' equity/CSO)	**$ 96.59**	$ 94.06
Tangible book value per share (TCE/CSO)	**84.21**	81.65

	Three Months Ended March 31,	
In millions of dollars	**2023**	2022
Net income available to common shareholders	**$ 4,329**	$ 4,027
Average common stockholders' equity	**184,107**	181,169
Average TCE	**161,050**	155,270
Return on average common stockholders' equity	**9.5 %**	9.0 %
RoTCE	**10.9**	10.5

Managing Global Risk Table of Contents

(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

For Citi, effective risk management is of primary importance to its overall operations. Accordingly, Citi's risk management process has been designed to monitor, evaluate and manage the principal risks it assumes in conducting its activities. Specifically, the activities that Citi engages in, and the risks those activities generate, must be consistent with Citi's Mission and Value Proposition and the key Leadership Principles that support it, as well as Citi's risk appetite. For more information on managing global risk at Citi, see "Managing Global Risk" in Citi's 2022 Form 10-K.

CREDIT RISK

For more information on credit risk, including Citi's credit risk management, measurement and stress testing, and Citi's consumer and corporate credit portfolios, see "Credit Risk" and "Risk Factors" in Citi's 2022 Form 10-K.

CORPORATE CREDIT

The following table details Citi's corporate credit portfolio within *ICG* and the Mexico SBMM component of *Legacy Franchises* (excluding certain loans managed on a delinquency basis, loans carried at fair value and loans held-for-sale), and before consideration of collateral or hedges, by remaining tenor for the periods indicated:

	March 31, 2023				December 31, 2022				March 31, 2022			
In billions of dollars	**Due within 1 year**	**Greater than 1 year but within 5 years**	**Greater than 5 years**	**Total exposure**	Due within 1 year	Greater than 1 year but within 5 years	Greater than 5 years	Total exposure	Due within 1 year	Greater than 1 year but within 5 years	Greater than 5 years	Total exposure
Direct outstandings (on-balance sheet)(1)	**$ 124**	**$ 124**	**$ 35**	**$ 283**	$ 134	$ 122	$ 27	$ 283	$ 164	$ 117	$ 21	$ 302
Unfunded lending commitments (off-balance sheet)(2)	**126**	**256**	**16**	**398**	140	256	10	406	148	268	10	426
Total exposure	**$ 250**	**$ 380**	**$ 51**	**$ 681**	$ 274	$ 378	$ 37	$ 689	$ 312	$ 385	$ 31	$ 728

(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 shows the percentage of this portfolio by region based on Citi's internal management geography:

	March 31, 2023	December 31, 2022	March 31, 2022
North America	**56 %**	56 %	56 %
EMEA	**25**	25	25
Asia	**12**	12	13
Latin America	**7**	7	6
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		
	March 31, 2023	December 31, 2022	March 31, 2022
AAA/AA/A	**50 %**	50 %	49 %
BBB	**33**	34	33
BB/B	**15**	14	16
CCC or below	**2**	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 March 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 13 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		
	March 31, 2023	December 31, 2022	March 31, 2022
Transportation and industrials	**21 %**	20 %	20 %
Technology, media and telecom	**12**	12	12
Consumer retail	**12**	11	11
Real estate	**10**	10	9
Commercial	**8**	8	7
Residential	**2**	2	2
Banks and finance companies[1]	**10**	10	9
Power, chemicals, metals and mining	**9**	9	9
Energy and commodities	**7**	7	7
Health	**5**	6	5
Insurance	**4**	4	4
Asset managers and funds	**4**	5	8
Public sector	**3**	3	3
Financial markets infrastructure	**2**	2	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 March 31, 2023:

					Non-investment grade			Selected metrics		
In millions of dollars	**Total credit exposure**	**Funded**[1]	**Unfunded**[1]	**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	**$ 139,154**	**$ 57,779**	**$ 81,375**	**$ 109,177**	**$ 22,358**	**$ 7,225**	**$ 394**	**$ 354**	**$ 20**	**$ (8,157)**
Autos[4]	46,473	22,243	24,230	40,212	4,931	1,224	106	34	18	(2,846)
Transportation	26,249	10,646	15,603	19,261	3,887	2,965	136	35	—	(1,255)
Industrials	66,432	24,890	41,542	49,704	13,540	3,036	152	285	2	(4,056)
Technology, media and telecom	**80,282**	**28,020**	**52,262**	**64,516**	**11,504**	**3,997**	**265**	**137**	**2**	**(6,021)**
Consumer retail	**79,723**	**34,262**	**45,461**	**61,831**	**14,723**	**2,880**	**289**	**119**	**1**	**(5,437)**
Real estate	**70,827**	**50,446**	**20,381**	**62,632**	**4,536**	**3,606**	**53**	**421**	**4**	**(710)**
Commercial	54,464	35,892	18,572	46,445	4,530	3,436	53	415	4	(710)
Residential	16,363	14,554	1,809	16,187	6	170	—	6	—	—
Banks and finance companies	**70,155**	**44,224**	**25,931**	**60,570**	**6,980**	**2,464**	**141**	**85**	**—**	**(940)**
Power, chemicals, metals and mining	**61,814**	**18,759**	**43,055**	**48,853**	**10,907**	**1,902**	**152**	**82**	**—**	**(4,993)**
Power	24,393	5,022	19,371	20,415	3,284	575	119	8	—	(2,235)
Chemicals	23,747	8,175	15,572	18,289	4,545	903	10	51	—	(2,106)
Metals and mining	13,674	5,562	8,112	10,149	3,078	424	23	23	—	(652)
Energy and commodities[5]	**45,328**	**13,302**	**32,026**	**38,099**	**5,889**	**1,221**	**119**	**86**	**(13)**	**(3,878)**
Health	**36,678**	**9,220**	**27,458**	**31,695**	**3,800**	**1,032**	**151**	**61**	**7**	**(2,935)**
Insurance	**28,975**	**3,831**	**25,144**	**27,886**	**1,050**	**39**	**—**	**6**	**—**	**(4,512)**
Asset managers and funds	**28,473**	**7,697**	**20,776**	**26,969**	**1,407**	**97**	**—**	**32**	**—**	**(535)**
Public sector	**22,871**	**11,081**	**11,790**	**19,764**	**2,348**	**736**	**23**	**51**	**2**	**(1,644)**
Financial markets infrastructure	**9,145**	**91**	**9,054**	**9,075**	**70**	**—**	**—**	**8**	**—**	**(17)**
Securities firms	**1,606**	**623**	**983**	**736**	**835**	**33**	**2**	**1**	**—**	**(3)**
Other industries	**6,464**	**3,387**	**3,077**	**4,137**	**2,073**	**208**	**46**	**54**	**(1)**	**(7)**
Total	**$ 681,495**	**$ 282,722**	**$ 398,773**	**$ 565,940**	**$ 88,480**	**$ 25,440**	**$ 1,635**	**$ 1,497**	**$ 22**	**$ (39,789)**

(1) Excludes \$0.7 billion and \$0.1 billion of funded and unfunded exposure at March 31, 2023, respectively, primarily related to the delinquency-managed loans and unearned income. Funded balances also exclude loans carried at fair value of \$4.9 billion at March 31, 2023.
(2) Includes non-accrual loan exposures and 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, \$36.9 billion represents the total notional amount of purchased credit derivatives on individual reference entities. The remaining \$2.9 billion represents the first loss tranche of portfolios of purchased credit derivatives with a total notional of \$24.5 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 March 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 March 31, 2023, Citi’s total exposure to these energy-related entities was approximately \$4.6 billion, of which approximately \$2.6 billion consisted of direct outstanding funded loans.

Exposure to Commercial Real Estate

As of March 31, 2023, Citi’s total credit exposure to commercial real estate (CRE) was \$66 billion, inclusive of \$8 billion of exposure related to office buildings. This total CRE exposure consisted of (i) \$55 billion related to corporate clients, mainly included in the real estate category in the table above, and (ii) \$11 billion related to Private bank clients within *PBWM* that is not in the table above as they are not considered corporate exposures.

In addition, as of March 31, 2023, approximately 86% of Citi’s total CRE exposure was rated investment grade and more than 70% was to borrowers in the U.S.

As of March 31, 2023, the ACLL attributed to the total funded CRE exposure (including the Private bank) was approximately 1.2%, and there were \$38 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	Funded[1]	Unfunded[1]	Investment grade	Non-investment grade: Non-criticized	Non-investment grade: Criticized performing	Non-investment grade: Criticized non-performing[2]	Selected metrics: 30 days or more past due and accruing	Selected metrics: Net credit losses (recoveries)	Selected metrics: 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)
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	—	—
Banks and finance companies	65,623	42,276	23,347	57,368	5,718	2,387	150	266	65	(1,113)
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)
Asset managers and funds	35,983	13,162	22,821	34,431	1,492	60	—	95	—	(759)
Public sector	23,705	11,736	11,969	20,663	2,084	956	2	77	4	(1,633)
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	6,697	3,651	3,046	4,842	1,568	238	49	19	16	(8)
Total	$ 689,060	$ 283,465	$ 405,595	$ 576,779	$ 84,247	$ 26,403	$ 1,631	$ 1,898	$ 178	$ (39,830)

(1) Excludes $0.6 billion and $0.1 billion of funded and unfunded exposure at December 31, 2022, respectively, primarily related to the delinquency-managed loans and unearned income. Funded balances also exclude loans carried at fair value of $5.1 billion at December 31, 2022.

(2) Includes non-accrual loan exposures and 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) as of 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.

Credit Risk Mitigation

As part of its overall risk management activities, Citigroup uses credit derivatives and other risk mitigants to hedge portions of the credit risk in its corporate credit portfolio, in addition to outright asset sales. Citi may enter into partial-term hedges as well as full-term hedges. In advance of the expiration of partial-term 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 March 31, 2023, December 31, 2022 and March 31, 2022, *ICG* had economic hedges on the corporate credit portfolio of $39.8 billion, $39.8 billion and $37.9 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 *ICG* corporate credit portfolio exposures with the following risk rating distribution:

Rating of Hedged Exposure

	March 31, 2023	December 31, 2022	March 31, 2022
AAA/AA/A	**42 %**	39 %	38 %
BBB	**44**	45	46
BB/B	**11**	12	13
CCC or below	**3**	4	3
Total	**100 %**	100 %	100 %

CONSUMER CREDIT

Consumer Credit Portfolio

The following table shows Citi's quarterly end-of-period consumer loans[1]:

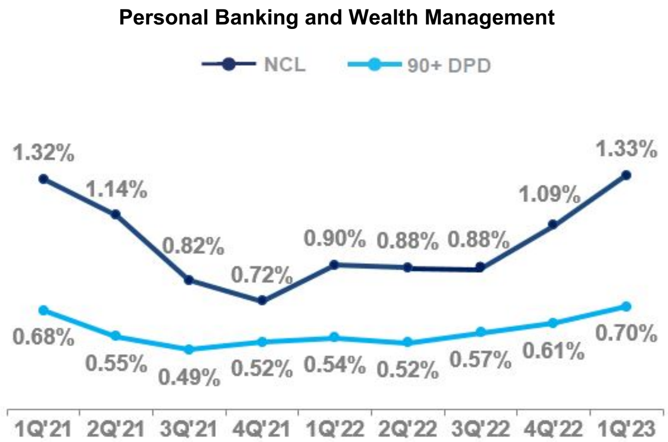
In billions of dollars		1Q22[2]		2Q22[2]		3Q22[2]		4Q22[2]		**1Q23[2]**
Personal Banking and Wealth Management										
U.S. Personal Banking										
Cards										
Branded cards	$	85.9	$	91.6	$	93.7	$	100.2	**$**	**97.1**
Retail services		44.1		45.8		46.7		50.5		**48.4**
Retail banking										
Mortgages[5]		30.5		32.3		32.3		33.4		**35.3**
Personal, small business and other		2.8		3.1		3.5		3.7		**3.9**
Global Wealth[3][4]										
Cards		3.8		4.0		4.0		4.6		**4.4**
Mortgages[5]		75.4		77.8		82.0		84.0		**85.2**
Personal, small business and other[6]		71.0		67.0		65.1		60.6		**60.3**
Total	**$**	**313.5**	**$**	**321.6**	**$**	**327.3**	**$**	**337.0**	**$**	**334.6**
Legacy Franchises										
Asia Consumer[7]	$	19.5	$	17.3	$	13.4	$	13.3	**$**	**10.0**
Mexico Consumer (excludes Mexico SBMM)		13.6		13.5		13.7		14.8		**16.3**
Legacy Holdings Assets[8]		3.7		3.2		3.2		3.0		**2.8**
Total	**$**	**36.8**	**$**	**34.0**	**$**	**30.3**	**$**	**31.1**	**$**	**29.1**
Total consumer loans	**$**	**350.3**	**$**	**355.6**	**$**	**357.6**	**$**	**368.1**	**$**	**363.7**

(1) End-of-period loans include interest and fees on credit cards.
(2) Asia Consumer loan balances, reported within *Legacy Franchises*, exclude any loans reclassified to held-for-sale (HFS) as of the date Citi enters into a sale agreement for the respective Asia Consumer banking business. These reclassified HFS loans are instead reported in *Other assets* on the Consolidated Balance Sheet until sale closing. The remaining Asia Consumer loan portfolios—China, Korea, Russia and Poland—are held-for-investment and included in end-of-period consumer loans for all periods presented. All HFS portfolios were reclassified prior to the end of 1Q22 except for a $1.8 billion portfolio, which was moved to HFS in 1Q23.
(3) Consists of $98.9 billion, $98.2 billion, $99.3 billion, $94.6 billion and $94.1 billion of loans in North America as of March 31, 2023, December 31, 2022, September 30, 2022, June 30, 2022 and March 31, 2022, respectively. For additional information on the credit quality of the Global Wealth portfolio, see Note 13.
(4) Consists of $51.0 billion, $51.0 billion, $51.8 billion, $54.2 billion and $56.1 billion of loans outside North America as of March 31, 2023, December 31, 2022, September 30, 2022, June 30, 2022 and March 31, 2022, respectively.
(5) See Note 13 for details on loan-to-value ratios for the portfolios and FICO scores for the U.S. portfolio.
(6) At March 31, 2023, includes approximately $49 billion of classifiably managed loans. Over 90% of these loans are fully collateralized (consisting primarily of marketable investment securities, commercial real estate and limited partner capital commitments in private equity) and have experienced very low historical NCLs. As discussed below, approximately 93% of the classifiably managed portion of these loans are investment grade. See "Consumer Loan Delinquencies Amounts and Ratios" below for details on the delinquency-managed portfolio.
(7) Asia Consumer also includes loans and leases in certain EMEA countries for all periods presented.
(8) Primarily consists of certain North America consumer mortgages.

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

Consumer Credit Trends

Personal Banking and Wealth Management (PBWM)

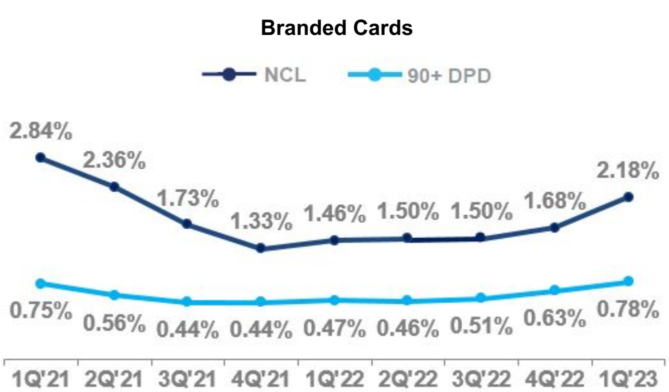


As indicated above, *PBWM* consists of U.S. Personal Banking and Global Wealth Management (Global Wealth). U.S. Personal Banking provides card products through Branded cards and Retail services, and also includes mortgages and home equity, small business and personal consumer loans through Citi's Retail banking network. The Retail bank is concentrated in six major U.S. metropolitan areas. Global Wealth provides investment services, cards, mortgages and personal, small business and other consumer loans through the Private bank, Wealth at Work and Citigold.

As of March 31, 2023, 43% of *PBWM* consumer loans consisted of Branded cards and Retail services card loans, which generally drives the overall credit performance of *PBWM*, as U.S. Cards net credit losses represented approximately 93% of total *PBWM* losses.

As shown in the chart above, the first quarter of 2023 net credit loss rate in *PBWM* increased quarter-over-quarter and year-over-year, driven by a continued increase in net flow rates, primarily reflecting ongoing normalization from historically low levels in U.S. Cards.

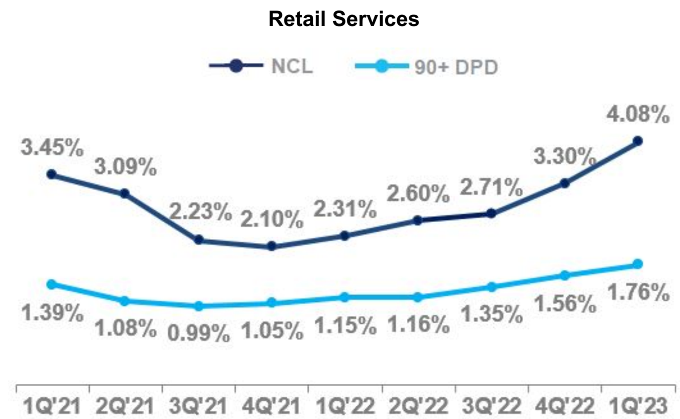
PBWM's 90+ days past due delinquency rate increased quarter-over-quarter and year-over-year, also driven by a continued increase in net flow rates, primarily reflecting the ongoing normalization in U.S. Cards.



U.S. Personal Banking's Branded cards portfolio includes proprietary and co-branded cards.

As shown in the chart above, the first quarter of 2023 net credit loss rate in Branded cards increased quarter-over-quarter and year-over-year, driven by a continued increase in net flow rates, primarily reflecting ongoing normalization toward pre-pandemic levels from historically low levels (4Q'19 and 1Q'20 NCL ratios were 3.10% and 3.40%, respectively).

The 90+ days past due delinquency rate increased quarter-over-quarter and year-over year, also driven by a continued increase in net flow rates, primarily reflecting the ongoing normalization toward pre-pandemic levels (4Q'19 and 1Q'20 90+ DPD ratios were 0.95% and 1.01%, respectively).



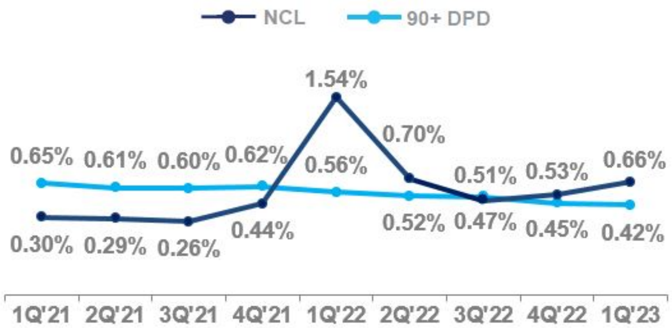
U.S. Personal Banking's Retail services partners directly with more than 20 retailers and dealers to offer private label and co-branded cards. Retail services' target market focuses on select industry segments such as home improvement, specialty retail, consumer electronics and fuel. Retail services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

As shown in the chart above, the first quarter of 2023 net credit loss rate in Retail services increased quarter-over-quarter and year-over-year, driven by a continued increase in net flow rates, primarily reflecting the ongoing normalization toward pre-pandemic levels from historically low levels (for 4Q'19 and 1Q'20, the NCL ratios were 5.05% and 5.35%, respectively, and the 90+ DPD ratios were 1.91% and 1.96%, respectively).

The 90+ days past due delinquency rate increased quarter-over-quarter and year-over-year, also driven by a continued increase in net flow rates, primarily reflecting the ongoing normalization.

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 13.

Retail Banking

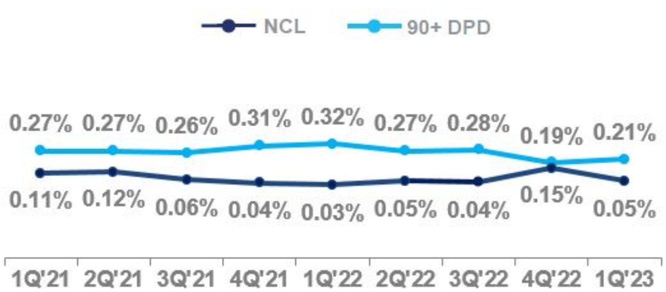


U.S. Personal Banking's Retail banking portfolio consists primarily of consumer mortgages (including home equity) and unsecured lending products, such as small business loans and personal loans. The portfolio is generally delinquency managed, where Citi evaluates credit risk based on FICO scores, delinquencies 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 13.

As shown in the chart above, the net credit loss rate in Retail banking for the first quarter of 2023 increased quarter-over-quarter, primarily due to a decrease in recoveries and normalization of losses in the personal loan portfolio, and decreased year-over-year, primarily driven by the impact of industry-wide episodic overdraft losses in the prior-year period.

The 90+ days past due delinquency rate decreased quarter-over-quarter and year-over-year, primarily driven by U.S. mortgages, which reflected the lasting effects of government stimulus, unemployment benefits and consumer relief programs.

Global Wealth



As discussed above, the Global Wealth credit portfolio primarily consists of consumer mortgages, cards and other lending products extended to customer segments that range from the 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.

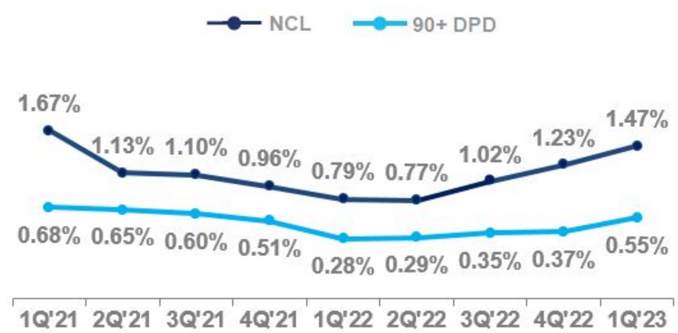
As of March 31, 2023, approximately $49 billion, or 33%, of the portfolio was classifiably managed and primarily consisted of margin lending, commercial real estate, subscription credit finance and other lending programs. These classifiably managed loans are primarily evaluated for credit risk based on their internal risk rating, of which 93% 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 shown in the chart above, the net credit loss rate in Global Wealth for the first quarter of 2023 decreased slightly quarter-over-quarter, due to a classifiably managed loan charge-off in the prior quarter, while the net credit loss rate year-over-year was broadly stable. The 90+ days past due delinquency rate was broadly stable quarter-over-quarter and year-over-year, reflecting the strong credit profiles of the portfolios. The low levels of net credit losses and the 90+ days past due delinquency rate continued to reflect the strong credit profiles of the portfolios.

Legacy Franchises

Legacy Franchises provides traditional retail banking and branded card products to retail and small business customers in Asia Consumer and Mexico Consumer.

Asia[(1)] Consumer

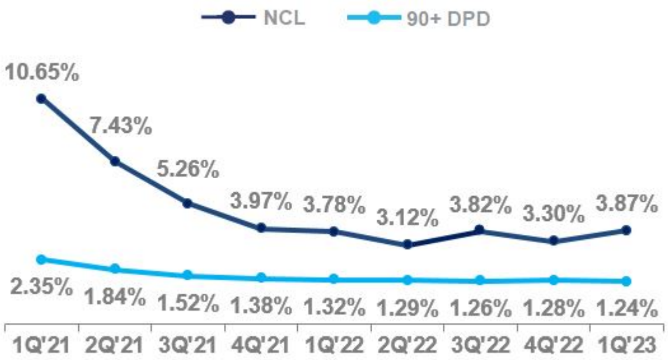


(1) Asia Consumer includes *Legacy Franchises* activities in certain EMEA countries for all periods presented.

As shown in the chart above, the net credit loss rate in Asia Consumer (for the remaining consumer banking portfolios held-for-investment (China, Korea, Russia and Poland)) for the first quarter of 2023 increased quarter-over-quarter and year-over-year. The increases were primarily driven by lower average loans due to the ongoing wind-downs of the remaining businesses, particularly Korea, and the reclassification of a portfolio to HFS in the first quarter of 2023.

The 90+ days past due delinquency rate increased quarter-over-quarter and year-over-year, mainly driven by lower loans due to the ongoing wind-downs of the remaining businesses and the reclassification of a portfolio to HFS in the first quarter of 2023. The overall performance of remaining Asia Consumer portfolios continues to reflect the strong credit profiles in the region's target customer segments.

Mexico Consumer



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 shown in the chart above, the net credit loss rate in Mexico Consumer for the first quarter of 2023 increased quarter-over-quarter and year-over-year, primarily driven by the gradual normalization of loss rates after peak losses experienced during the pandemic.

The 90+ days past due delinquency rate was largely unchanged 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 13.

U.S. Cards FICO Distribution

The following tables show 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)]	March 31, 2023	December 31, 2022	March 31, 2022
> 760	**45 %**	48 %	48 %
680–760	**39**	38	39
< 680	**16**	14	13
Total	**100 %**	100 %	100 %

Retail Services

FICO distribution[(1)]	March 31, 2023	December 31, 2022	March 31, 2022
> 760	**26 %**	27 %	27 %
680–760	**42**	42	44
< 680	**32**	31	29
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 trended down from the prior quarter and the prior year, reflecting the ongoing normalization in net credit loss and delinquency rates normalization in the portfolio. However, the FICO distribution continues to reflect strong underlying credit quality and a benefit from the continued impacts of government stimulus, unemployment benefits and customer relief programs. See Note 13 for additional information on FICO scores.

Additional Consumer Credit Details

Consumer Loan Delinquencies Amounts and Ratios

In millions of dollars, except EOP loan amounts in billions	EOP loans(1) March 31, 2023	90+ days past due(2) March 31, 2023	90+ days past due(2) December 31, 2022	90+ days past due(2) March 31, 2022	30–89 days past due(2) March 31, 2023	30–89 days past due(2) December 31, 2022	30–89 days past due(2) March 31, 2022
Personal Banking and Wealth Management(3)(4)(5)							
Total	**$ 334.6**	**$ 1,982**	$ 1,764	$ 1,383	**$ 1,987**	$ 2,037	$ 1,397
Ratio		**0.70 %**	0.61 %	0.54 %	**0.70 %**	0.71 %	0.55 %
U.S. Personal Banking							
Total	**$ 184.7**	**$ 1,772**	$ 1,578	$ 1,090	**$ 1,725**	$ 1,720	$ 1,159
Ratio		**0.96 %**	0.84 %	0.67 %	**0.94 %**	0.92 %	0.71 %
Cards(4)							
Total	**145.5**	**1,608**	1,415	910	**1,545**	1,511	987
Ratio		**1.11 %**	0.94 %	0.70 %	**1.06 %**	1.00 %	0.76 %
Branded cards	**97.1**	**754**	629	404	**740**	693	425
Ratio		**0.78 %**	0.63 %	0.47 %	**0.76 %**	0.69 %	0.49 %
Retail services	**48.4**	**854**	786	506	**805**	818	562
Ratio		**1.76 %**	1.56 %	1.15 %	**1.66 %**	1.62 %	1.27 %
Retail banking(3)	**39.2**	**164**	163	180	**180**	209	172
Ratio		**0.42 %**	0.45 %	0.56 %	**0.47 %**	0.57 %	0.53 %
Global Wealth delinquency-managed loans(5)	**$ 100.6**	**$ 210**	$ 186	$ 293	**$ 262**	$ 317	$ 238
Ratio		**0.21 %**	0.19 %	0.32 %	**0.26 %**	0.32 %	0.26 %
Global Wealth classifiably managed loans(6)	**$ 49.3**	**N/A**	N/A	N/A	**N/A**	N/A	N/A
Legacy Franchises							
Total	**$ 29.1**	**$ 393**	$ 389	$ 432	**$ 338**	$ 335	$ 316
Ratio		**1.36 %**	1.26 %	1.19 %	**1.17 %**	1.09 %	0.87 %
Asia Consumer(7)(8)	**10.0**	**55**	49	54	**65**	70	62
Ratio		**0.55 %**	0.37 %	0.28 %	**0.65 %**	0.53 %	0.32 %
Mexico Consumer	**16.3**	**202**	190	180	**205**	186	177
Ratio		**1.24 %**	1.28 %	1.32 %	**1.26 %**	1.26 %	1.30 %
Legacy Holdings Assets (consumer)(9)	**2.8**	**136**	150	198	**68**	79	77
Ratio		**5.44 %**	5.56 %	6.00 %	**2.72 %**	2.93 %	2.33 %
Total Citigroup consumer	**$ 363.7**	**$ 2,375**	$ 2,153	$ 1,815	**$ 2,325**	$ 2,372	$ 1,713
Ratio		**0.76 %**	0.68 %	0.63 %	**0.74 %**	0.75 %	0.59 %

(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 $80 million ($0.6 billion), $89 million ($0.6 billion) and $161 million ($0.9 billion) at March 31, 2023, December 31, 2022 and March 31, 2022, 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 $57 million, $70 million and $62 million at March 31, 2023, December 31, 2022 and March 31, 2022, 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 March 31, 2023, December 31, 2022 and March 31, 2022, 93%, 96% and 92% of Global Wealth classifiably managed loans were rated investment grade. For additional information on the credit quality of the Global Wealth portfolio, including classifiably managed portfolios, see "Consumer Credit Trends" above.
(7) Asia Consumer includes delinquencies and loans in certain EMEA countries for all periods presented.

(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). In addition, a portfolio was reclassified to HFS in the first quarter of 2023. See Note 2 for additional information.

(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 $81 million ($0.3 billion), $90 million ($0.3 billion) and $124 million ($0.4 billion) at March 31, 2023, December 31, 2022 and March 31, 2022, 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 $30 million, $37 million and $35 million at March 31, 2023, December 31, 2022 and March 31, 2022, respectively. The EOP loans in the table include the guaranteed loans.

N/A Not applicable

Consumer Loan Net Credit Losses and Ratios

	Average loans[1]	Net credit losses[2]		
In millions of dollars, except average loan amounts in billions	**1Q23**	**1Q23**	4Q22	1Q22
Personal Banking and Wealth Management[2]				
Total	**$ 333.1**	**$ 1,094**	$ 908	$ 691
Ratio		**1.33 %**	1.09 %	0.90 %
U.S. Personal Banking				
Total	**$ 183.6**	**$ 1,074**	$ 852	$ 681
Ratio		**2.37 %**	1.88 %	1.71 %
Cards				
Total	**145.6**	**1,012**	803	555
Ratio		**2.82 %**	2.22 %	1.76 %
Branded cards	**96.8**	**521**	404	303
Ratio		**2.18 %**	1.68 %	1.46 %
Retail services	**48.8**	**491**	399	252
Ratio		**4.08 %**	3.30 %	2.31 %
Retail banking	**38.0**	**62**	49	126
Ratio		**0.66 %**	0.53 %	1.54 %
Global Wealth	**$ 149.5**	**$ 20**	$ 56	$ 10
Ratio		**0.05 %**	0.15 %	0.03 %
Legacy Franchises				
Total	**$ 30.5**	**$ 186**	$ 154	$ 150
Ratio		**2.47 %**	2.00 %	1.51 %
Asia Consumer[3][4]	**12.1**	**44**	41	45
Ratio		**1.47 %**	1.23 %	0.79 %
Mexico Consumer	**15.5**	**148**	119	122
Ratio		**3.87 %**	3.30 %	3.78 %
Legacy Holdings Assets (consumer)	**2.9**	**(6)**	(6)	(17)
Ratio		**(0.84)%**	(0.77)%	(1.72)%
Total Citigroup	**$ 363.6**	**$ 1,280**	$ 1,062	$ 841
Ratio		**1.43 %**	1.17 %	0.97 %

(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) Asia Consumer includes NCLs and average loans in certain EMEA countries (Russia and Poland) for all periods presented.

(4) As of the end of the first quarter of 2022, Citi had entered into agreements to sell certain Asia consumer banking businesses, which have been reclassified as HFS in *Other assets* and *Other liabilities* on the Consolidated Balance Sheet. As a result, approximately $11 million, $18 million and $53 million in related net credit losses (NCLs) were recorded as a reduction in revenue (*Other revenue*) in 1Q23, 4Q22 and 1Q22, respectively. Accordingly, these NCLs 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). See Note 2 for additional information.

ADDITIONAL CONSUMER AND CORPORATE CREDIT DETAILS

Loans Outstanding

In millions of dollars	**1st Qtr. 2023**	4th Qtr. 2022	3rd Qtr. 2022	2nd Qtr. 2022	1st Qtr. 2022
Consumer loans					
In North America offices[1]					
Residential first mortgages[2]	**$ 98,790**	$ 96,039	$ 93,381	$ 88,662	$ 84,569
Home equity loans[2]	**4,244**	4,580	4,794	5,074	5,328
Credit cards	**145,543**	150,643	140,404	137,412	129,989
Personal, small business and other	**37,812**	37,752	40,110	39,436	41,297
Total	**$ 286,389**	$ 289,014	$ 278,689	$ 270,584	$ 261,183
In offices outside North America[1]					
Residential mortgages[2]	**$ 26,913**	$ 28,114	$ 27,281	$ 28,129	$ 29,017
Credit cards	**13,033**	12,955	11,764	11,858	11,546
Personal, small business and other	**37,361**	37,984	39,849	45,034	48,582
Total	**$ 77,307**	$ 79,053	$ 78,894	$ 85,021	$ 89,145
Consumer loans, net of unearned income[3]	**$ 363,696**	$ 368,067	$ 357,583	$ 355,605	$ 350,328
Corporate loans					
In North America offices[1]					
Commercial and industrial	**$ 59,790**	$ 56,176	$ 52,990	$ 55,823	$ 54,063
Financial institutions	**38,524**	43,399	43,667	46,088	47,930
Mortgage and real estate[2]	**18,562**	17,829	17,762	17,359	17,536
Installment and other	**23,578**	23,767	21,222	20,466	18,812
Lease financing	**299**	308	383	379	379
Total	**$ 140,753**	$ 141,479	$ 136,024	$ 140,115	$ 138,720
In offices outside North America[1]					
Commercial and industrial	**$ 92,803**	$ 93,967	$ 100,570	$ 108,274	$ 112,732
Financial institutions	**22,272**	21,931	23,604	24,654	27,657
Mortgage and real estate[2]	**4,975**	4,179	4,005	4,455	4,705
Installment and other	**24,800**	23,347	19,653	19,862	21,275
Lease financing	**49**	46	48	53	47
Governments and official institutions	**2,647**	4,205	4,473	4,315	4,205
Total	**$ 147,546**	$ 147,675	$ 152,353	$ 161,613	$ 170,621
Corporate loans, net of unearned income[4]	**$ 288,299**	$ 289,154	$ 288,377	$ 301,728	$ 309,341
Total loans—net of unearned income	**$ 651,995**	$ 657,221	$ 645,960	$ 657,333	$ 659,669
Allowance for credit losses on loans (ACLL)	**(17,169)**	(16,974)	(16,309)	(15,952)	(15,393)
Total loans—net of unearned income and ACLL	**$ 634,826**	$ 640,247	$ 629,651	$ 641,381	$ 644,276
ACLL as a percentage of total loans—net of unearned income[5]	**2.65 %**	2.60 %	2.54 %	2.44 %	2.35 %
ACLL for consumer loan losses as a percentage of total consumer loans—net of unearned income[5]	**3.96 %**	3.84 %	3.74 %	3.65 %	3.53 %
ACLL for corporate loan losses as a percentage of total corporate loans—net of unearned income[5]	**0.98 %**	1.01 %	1.04 %	1.00 %	1.00 %

(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 $748 million, $712 million, $671 million, $631 million and $591 million at March 31, 2023, December 31, 2022, September 30, 2022, June 30, 2022 and March 31, 2022, respectively. Unearned income on consumer loans primarily represents unamortized origination fees and costs, premiums and discounts.

(4) Corporate loans include Mexico SBMM loans and are net of unearned income of $(801) million, $(797) million, $(750) million, $(759) million and $(766) million at March 31, 2023, December 31, 2022, September 30, 2022, June 30, 2022 and March 31, 2022, respectively. Unearned income on corporate loans primarily represents interest received in advance, but not yet earned, on loans originated on a discounted basis.

(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

In millions of dollars	1st Qtr. 2023	4th Qtr. 2022	3rd Qtr. 2022	2nd Qtr. 2022	1st Qtr. 2022
Allowance for credit losses on loans (ACLL) at beginning of period	**$ 16,974**	$ 16,309	$ 15,952	$ 15,393	$ 16,455
Adjustment to opening balance:					
Financial instruments—TDRs and vintage disclosures(1)	**$ (352)**	$ —	$ —	$ —	$ —
Adjusted ACLL at beginning of period	**$ 16,622**	$ 16,309	$ 15,952	$ 15,393	$ 16,455
Provision for credit losses on loans (PCLL)					
Consumer	**$ 1,800**	$ 1,779	$ 1,281	$ 1,440	$ (372)
Corporate	**(63)**	(6)	47	(56)	632
Total	**$ 1,737**	$ 1,773	$ 1,328	$ 1,384	$ 260
Gross credit losses on loans					
Consumer					
In U.S. offices	**$ 1,329**	$ 1,117	$ 946	$ 934	$ 947
In offices outside the U.S.	**266**	220	248	221	245
Corporate					
In U.S. offices	**16**	51	8	21	29
In offices outside the U.S.	**23**	79	35	36	19
Total	**$ 1,634**	$ 1,467	$ 1,237	$ 1,212	$ 1,240
Gross recoveries on loans					
Consumer					
In U.S. offices	**$ 262**	$ 235	$ 252	$ 265	$ 293
In offices outside the U.S.	**53**	40	61	63	58
Corporate					
In U.S. offices	**10**	1	34	2	13
In offices outside the U.S.	**7**	11	3	32	4
Total	**$ 332**	$ 287	$ 350	$ 362	$ 368
Net credit losses on loans (NCLs)					
In U.S. offices	**$ 1,073**	$ 932	$ 668	$ 688	$ 670
In offices outside the U.S.	**229**	248	219	162	202
Total	**$ 1,302**	$ 1,180	$ 887	$ 850	$ 872
Other—net(2)(3)(4)(5)(6)(7)	**$ 112**	$ 72	$ (84)	$ 25	$ (450)
Allowance for credit losses on loans (ACLL) at end of period	**$ 17,169**	$ 16,974	$ 16,309	$ 15,952	$ 15,393
ACLL as a percentage of EOP loans(8)	**2.65 %**	2.60 %	2.54 %	2.44 %	2.35 %
Allowance for credit losses on unfunded lending commitments (ACLUC)(9)	**$ 1,959**	$ 2,151	$ 2,089	$ 2,193	$ 2,343
Total ACLL and ACLUC	**$ 19,128**	$ 19,125	$ 18,398	$ 18,145	$ 17,736
Net consumer credit losses on loans	**$ 1,280**	$ 1,062	$ 881	$ 827	$ 841
As a percentage of average consumer loans	**1.43 %**	1.17 %	0.98 %	0.94 %	0.97 %
Net corporate credit losses on loans	**$ 22**	$ 118	$ 6	$ 23	$ 31
As a percentage of average corporate loans	**0.03 %**	0.16 %	0.01 %	0.03 %	0.04 %
ACLL by type at end of period(10)					
Consumer	**$ 14,389**	$ 14,119	$ 13,361	$ 12,983	$ 12,368
Corporate	**2,780**	2,855	2,948	2,969	3,025
Total	**$ 17,169**	$ 16,974	$ 16,309	$ 15,952	$ 15,393

(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 eliminates 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*.

(2) 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.

(3) The first quarter of 2023 includes an increase of approximately $112 million related to FX translation.

(4) The fourth quarter of 2022 includes an increase of approximately $72 million related to FX translation.
(5) The third quarter of 2022 includes a decrease of approximately $84 million related to FX translation.
(6) The second quarter of 2022 includes an increase of approximately $25 million related to FX translation.
(7) The first quarter of 2022 includes an approximate $350 million reclass related to the announced sales of Citi's consumer banking businesses in Thailand, India, Malaysia, Taiwan, Indonesia, Bahrain and Vietnam. The ACLL was reclassified to *Other assets* during 1Q22. 1Q22 consumer also includes a decrease of approximately $100 million related to FX translation.
(8) March 31, 2023, December 31, 2022, September 30, 2022, June 30, 2022 and March 31, 2022 exclude $5.1 billion, $5.4 billion, $3.9 billion, $4.5 billion and $5.7 billion, respectively, of loans that are carried at fair value.
(9) Represents additional credit reserves recorded as *Other liabilities* on the Consolidated Balance Sheet.
(10) See "Significant Accounting Policies and Significant Estimates" below. Attribution of the allowance is made for analytical purposes only and is available to absorb probable credit losses inherent in the overall portfolio.

Allowance for Credit Losses on Loans (ACLL)

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

	March 31, 2023		
In billions of dollars	**ACLL**	**EOP loans, net of unearned income**	**ACLL as a percentage of EOP loans[1]**
Consumer			
North America cards[2]	**$ 11.8**	**$ 145.5**	**8.1 %**
North America mortgages[3]	**0.4**	**103.0**	**0.4**
North America other[3]	**0.6**	**37.8**	**1.6**
International cards	**0.8**	**13.0**	**6.2**
International other[3]	**0.8**	**64.2**	**1.2**
Total[1]	**$ 14.4**	**$ 363.5**	**4.0 %**
Corporate			
Commercial and industrial	**$ 1.7**	**$ 150.3**	**1.1 %**
Financial institutions	**0.3**	**60.4**	**0.5**
Mortgage and real estate	**0.4**	**23.5**	**1.7**
Installment and other	**0.4**	**49.2**	**0.8**
Total[1]	**$ 2.8**	**$ 283.4**	**1.0 %**
Loans at fair value[1]	**N/A**	**$ 5.1**	**N/A**
Total Citigroup	**$ 17.2**	**$ 652.0**	**2.7 %**

	December 31, 2022		
In billions of dollars	ACLL	EOP loans, net of unearned income	ACLL as a percentage 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 March 31, 2023, the $11.8 billion of ACLL represented approximately 35 months of coincident net credit loss coverage (based on 1Q23 NCLs). As of March 31, 2023, Branded cards ACLL as a percentage of EOP loans was 6.6% 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). 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:

In millions of dollars, except percentages	March 31, 2023 Funded exposure[1]	ACLL	ACLL as a % of funded exposure
Transportation and industrials	**$ 57,779**	**$ 685**	**1.2 %**
Technology, media and telecom	**28,020**	**325**	**1.2**
Consumer retail	**34,262**	**298**	**0.9**
Real estate[2]	**50,446**	**579**	**1.1**
Commercial	**35,892**	**494**	**1.4**
Residential	**14,554**	**85**	**0.6**
Banks and finance companies	**44,224**	**249**	**0.6**
Power, chemicals, metals and mining	**18,759**	**224**	**1.2**
Energy and commodities	**13,302**	**170**	**1.3**
Health	**9,220**	**85**	**0.9**
Insurance	**3,832**	**19**	**0.5**
Asset managers and funds	**7,697**	**24**	**0.3**
Public sector	**11,081**	**50**	**0.5**
Financial markets infrastructure	**91**	**1**	**1.1**
Securities firms	**623**	**12**	**1.9**
Other industries	**3,386**	**51**	**1.5**
Total classifiably managed loans[3]	**$ 282,722**	**$ 2,772**	**1.0 %**
Loans managed on a delinquency basis[4]	**$ 681**	**$ 8**	**1.2 %**
Total	**$ 283,403**	**$ 2,780**	**1.0 %**

(1) Funded exposure excludes loans carried at fair value of $4.9 billion that are not subject to ACLL under the CECL standard.
(2) As of March 31, 2023, the portion of the ACLL attributed to the total funded CRE exposure (including the Private bank) was approximately 1.2%.
(3) As of March 31, 2023, the ACLL shown above reflects coverage of 0.4% of funded investment-grade exposure and 2.9% of funded non-investment-grade exposure.
(4) Primarily associated with delinquency-managed loans including commercial credit cards and other loans, and unearned income at March 31, 2023.

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

In millions of dollars, except percentages	December 31, 2022 Funded exposure[1]	ACLL	ACLL as a % of funded exposure
Transportation and industrials	$ 57,271	$ 699	1.2 %
Technology, media and telecom	28,931	330	1.1
Consumer retail	32,687	358	1.1
Real estate	48,539	500	1.0
Commercial	34,112	428	1.3
Residential	14,427	72	0.5
Power, chemicals, metals and mining	18,326	288	1.6
Banks and finance companies	42,276	225	0.5
Energy and commodities	13,069	188	1.4
Asset managers and funds	13,162	38	0.3
Health	8,771	81	0.9
Insurance	4,417	11	0.2
Public sector	11,736	58	0.5
Financial markets infrastructure	60	—	—
Securities firms	569	11	1.9
Other industries	3,651	59	1.6
Total classifiably managed loans[2]	$ 283,465	$ 2,846	1.0 %
Loans managed on a delinquency basis[3]	$ 566	$ 9	1.6 %
Total	$ 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) As of December 31, 2022, the ACLL shown above reflects coverage of 0.4% of funded investment-grade exposure and 3.0% of funded non-investment-grade exposure.
(3) Primarily associated with delinquency-managed loans including commercial credit cards and other loans, and unearned income at December 31, 2022.

Non-Accrual Loans and Assets

For additional information on Citi's non-accrual loans and assets, see "Non-Accrual Loans and Assets" in Citi's 2022 Form 10-K.

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.

In millions of dollars	**Mar. 31, 2023**	Dec. 31, 2022	Sept. 30, 2022	Jun. 30, 2022	Mar. 31, 2022
Corporate non-accrual loans by region(1)(2)(3)					
North America	**$ 285**	$ 138	$ 276	$ 304	$ 462
EMEA	**383**	502	598	712	688
Latin America	**462**	429	555	563	631
Asia	**83**	53	56	76	85
Total	**$ 1,213**	$ 1,122	$ 1,485	$ 1,655	$ 1,866
Corporate non-accrual loans(1)(2)(3)					
Banking	**$ 868**	$ 767	$ 1,085	$ 1,015	$ 1,323
Services	**133**	153	185	353	297
Markets	**3**	3	—	11	13
Mexico SBMM	**209**	199	215	276	233
Total	**$ 1,213**	$ 1,122	$ 1,485	$ 1,655	$ 1,866
Consumer non-accrual loans(1)					
U.S. Personal Banking and Global Wealth	**$ 608**	$ 541	$ 585	$ 536	$ 586
Asia Consumer(4)	**29**	30	30	34	38
Mexico Consumer	**480**	457	486	493	512
Legacy Holdings Assets—Consumer	**278**	289	300	317	381
Total	**$ 1,395**	$ 1,317	$ 1,401	$ 1,380	$ 1,517
Total non-accrual loans	**$ 2,608**	$ 2,439	$ 2,886	$ 3,035	$ 3,383

(1) Corporate loans are placed on non-accrual status based upon 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 61%, 50%, 68%, 52% and 66% of Citi's corporate non-accrual loans were performing at March 31, 2023, December 31, 2022, September 30, 2022, June 30, 2022 and March 31, 2022, respectively.

(3) The March 31, 2023 total corporate non-accrual loans represented 0.42% of total corporate loans.

(4) Asia Consumer includes balances in certain EMEA countries for all periods presented.

Modified Loans

On January 1, 2023, Citi adopted ASU 2022-02, which eliminated the accounting and disclosure requirements for TDRs (see Note 1 for additional information). See Note 13 for information on loan modifications during the three months ended March 31, 2023.

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

In millions of dollars	Three Months Ended March 31, 2023			Three Months Ended March 31, 2022		
	Corporate	**Consumer**	**Total**	Corporate	Consumer	Total
Non-accrual loans at beginning of quarter	**$ 1,122**	**$ 1,317**	**$ 2,439**	$ 1,553	$ 1,826	$ 3,379
Additions	**400**	**442**	**842**	820	299	1,119
Sales and transfers to HFS	**(25)**	**(6)**	**(31)**	(1)	(188)	(189)
Returned to performing	**(75)**	**(48)**	**(123)**	(133)	(179)	(312)
Paydowns/settlements	**(169)**	**(136)**	**(305)**	(323)	(96)	(419)
Charge-offs	**(32)**	**(192)**	**(224)**	(49)	(155)	(204)
Other	**(8)**	**18**	**10**	(1)	10	9
Ending balance	**$ 1,213**	**$ 1,395**	**$ 2,608**	$ 1,866	$ 1,517	$ 3,383

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	**Mar. 31, 2023**	Dec. 31, 2022	Sept. 30, 2022	Jun. 30, 2022	Mar. 31, 2022
OREO					
North America	**$ 15**	$ 10	$ 9	$ 7	$ 14
EMEA	**—**	—	—	—	—
Latin America	**5**	4	5	5	7
Asia	**1**	1	2	1	5
Total OREO	**$ 21**	$ 15	$ 16	$ 13	$ 26
Non-accrual assets					
Corporate non-accrual loans	**$ 1,213**	$ 1,122	$ 1,485	$ 1,655	$ 1,866
Consumer non-accrual loans	**1,395**	1,317	1,401	1,380	1,517
Non-accrual loans (NAL)	**$ 2,608**	$ 2,439	$ 2,886	$ 3,035	$ 3,383
OREO	**$ 21**	$ 15	$ 16	$ 13	$ 26
Non-accrual assets (NAA)	**$ 2,629**	$ 2,454	$ 2,902	$ 3,048	$ 3,409
NAL as a percentage of total loans	**0.40 %**	0.37 %	0.45 %	0.46 %	0.51 %
NAA as a percentage of total assets	**0.11**	0.10	0.12	0.13	0.14
ACLL as a percentage of NAL[(1)]	**658**	696	565	526	455

(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).

LIQUIDITY RISK

For additional information on funding and liquidity at Citi, including its objectives, management and measurement, see "Liquidity Risk" and "Risk Factors—Liquidity Risks" in Citi's 2022 Form 10-K.

High-Quality Liquid Assets (HQLA)

	Citibank			Citi non-bank and other entities			Total		
In billions of dollars	**Mar. 31, 2023**	Dec. 31, 2022	Mar. 31, 2022	**Mar. 31, 2023**	Dec. 31, 2022	Mar. 31, 2022	**Mar. 31, 2023**	Dec. 31, 2022	Mar. 31, 2022
Available cash	**$ 267.1**	$ 241.2	$ 214.9	**$ 3.9**	$ 4.3	$ 2.2	**$ 271.0**	$ 245.5	$ 217.1
U.S. sovereign	**111.9**	130.0	139.7	**77.9**	68.7	57.5	**189.8**	198.7	197.2
U.S. agency/agency MBS	**42.5**	46.3	49.8	**3.9**	4.0	5.2	**46.4**	50.3	55.0
Foreign government debt[(1)]	**54.9**	59.1	53.8	**20.6**	19.4	13.8	**75.5**	78.5	67.6
Other investment grade	**1.3**	1.7	1.9	**0.3**	0.5	1.4	**1.6**	2.2	3.3
Total HQLA (AVG)	**$ 477.7**	$ 478.3	$ 460.1	**$ 106.6**	$ 96.9	$ 80.1	**$ 584.3**	$ 575.2	$ 540.2

Note: The amounts shown 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, Mexico, Korea, Singapore and India.

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 increased quarter-over-quarter as of the first quarter of 2023, primarily driven by an increase in customer-related debt at the non-bank entities.

As of March 31, 2023, Citigroup had approximately $1,033 billion of available liquidity resources to support client and business needs, including end-of-period HQLA ($588 billion); additional unencumbered HQLA, including excess liquidity held at bank entities that is non-transferable to other entities within Citigroup ($252 billion); and unused borrowing capacity from available assets not already accounted for within Citi's HQLA to support the Federal Home Loan Bank (FHLB) and the Federal Reserve Bank discount window ($193 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 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	**Mar. 31, 2023**	Dec. 31, 2022	Mar. 31, 2022
HQLA	**$ 584.3**	$ 575.2	$ 540.2
Net outflows	**488.2**	489.0	466.2
LCR	**120 %**	118 %	116 %
HQLA in excess of net outflows	**$ 96.1**	$ 86.2	$ 74.0

Note: The amounts are presented on an average basis.

As of March 31, 2023, Citigroup's average LCR increased, from the quarter ended December 31, 2022. The increase was primarily driven by the increase in average HQLA, primarily driven by the increase in customer-related debt at the non-bank entities.

In addition, considering Citi's total available liquidity resources at quarter end of $1,033 billion, Citi maintained approximately $545 billion of excess liquidity above the stressed average net outflow of $488 billion, as noted in the table above for LCR.

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.

The rule became effective beginning July 1, 2021, while public disclosure of the ratio is required to occur on a semiannual basis beginning June 30, 2023. Citi was in compliance with the rule as of March 31, 2023.

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 March 31, 2023, Citi's cash and investment securities comprised approximately 34% of Citigroup's total assets:

In billions of dollars	**1Q23**	4Q22	1Q22
Cash and due from banks	**$ 28**	$ 30	$ 32
Deposits with banks	**326**	306	261
Investments	**516**	519	519
Total Citigroup cash and investments (AVG)	**$ 870**	$ 855	$ 812
Total Citigroup cash and investments (EOP)	**$ 837**	$ 869	$ 787

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:

In billions of dollars	**1Q23**	4Q22	1Q22
Personal Banking and Wealth Management			
U.S. Retail banking	**$ 38**	$ 37	$ 33
U.S. Cards	**146**	143	128
Global Wealth	**149**	150	151
Total	**$ 333**	$ 330	$ 312
Institutional Clients Group			
Services	**$ 79**	$ 79	$ 81
Banking	**191**	194	194
Markets	**13**	12	14
Total	**$ 283**	$ 285	$ 289
Total *Legacy Franchises*(1)	**$ 38**	$ 38	$ 48
Total Citigroup loans (AVG)	**$ 654**	$ 653	$ 649
Total Citigroup loans (EOP)	**$ 652**	$ 657	$ 660

(1) See footnote 2 to the table in "Credit Risk—Consumer Credit—Consumer Credit Portfolio" above.

Citi's loan portfolio is well diversified across consumer and corporate loans, with an aggregate duration of 1.3 years, as a majority of loans are at variable rates.

On an average basis, loans increased 1% year-over-year and were largely unchanged sequentially. The year-over-year increase was primarily due to growth in *PBWM*, partially offset by a decline in *ICG* and lower balances in *Legacy Franchises*. *PBWM* average loans increased 7% year-over-year, primarily driven by loan growth in cards, mortgages and installment lending. *ICG* average loans decreased 2% year-over-year, driven by continued strategic actions to manage the balance sheet, including trade loan sales. The decline in *Legacy Franchises* primarily reflected the impact of the ongoing wind-downs of the remaining businesses, particularly Korea, and the reclassification of a portfolio to *Other assets* to reflect held-for-sale accounting in the current quarter.

End-of-period loans decreased 1% year-over-year, as growth in *PBWM* was more than offset by a decline in *ICG* and *Legacy Franchises.* End-of-period loans declined 1% sequentially.

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:

In billions of dollars	**1Q23**	4Q22	1Q22
Personal Banking and Wealth Management			
U.S. Personal Banking	**$ 111**	$ 111	$ 118
Global Wealth	**323**	320	329
Total	**$ 434**	$ 431	$ 447
Institutional Clients Group			
TTS	**$ 704**	$ 694	$ 670
Securities services	**125**	129	135
Markets and Banking	**24**	25	21
Total	**$ 853**	$ 848	$ 826
Legacy Franchises(1)	**$ 50**	$ 50	$ 55
Corporate/Other	**$ 26**	$ 32	$ 6
Total Citigroup deposits (AVG)	**$ 1,363**	$ 1,361	$ 1,334
Total Citigroup deposits (EOP)	**$ 1,330**	$ 1,366	$ 1,334

(1) See footnote 2 to the table in "Credit Risk—Consumer Credit—Consumer Credit Portfolio" above.

Citi's deposit base is spread across a diversified set of countries, industries, clients and currencies.

On an average basis, deposits increased 2% year-over-year and were up slightly sequentially. The year-over-year increase primarily reflected an increase in *Corporate/Other* and *ICG*, partially offset by a decline in *PBWM* and *Legacy Franchises*. *Corporate/Other* average deposits increased $20 billion year-over-year, primarily driven by the issuance of institutional certificates of deposit. *ICG* average deposits increased 3% year-over-year, driven by TTS. *PBWM* average deposits decreased 3% year-over-year, largely reflecting the Global Wealth reallocation of deposits to higher-yielding investments. The decline in *Legacy Franchises* was primarily due to the impact of the ongoing Korea and Russia wind-downs.

End-of-period deposits were largely unchanged year-over-year, as a decrease in *PBWM*, largely reflecting Global Wealth clients reallocating deposits to higher-yielding investments on the business's platform, was offset by an increase in institutional certificates of deposit in *Corporate/Other*. End-of-period deposits decreased 3% sequentially, reflecting seasonal activity in TTS and the reallocation of Global Wealth clients' deposits to higher-yielding investments. On a sequential basis, end-of-period deposits were down $36 billion, primarily driven by *ICG*, largely reflecting seasonal client activity.

The majority of Citi's $1.3 trillion of end-of-period deposits are institutional (approximately $819 billion), and span 90 countries. A large majority of these institutional deposits are within TTS, and of these, approximately 80% are from clients that use all three TTS integrated services: payments and collections, liquidity management and working capital solutions. In addition, nearly 80% of TTS deposits are from clients that have a greater than 15-year relationship with Citi. Over the past year, TTS deposits grew at a faster rate than total Citi deposits on both an average and end-of-period basis. Citi also has a strong consumer and wealth deposit base, with $437 billion of U.S. Retail banking and Global Wealth deposits as of end-of-period, which are diversified across the Private bank, Citigold, Retail banking and Wealth at Work. As of year-end 2022, approximately 75% of U.S. Citigold clients have been with Citi for more than 10 years and approximately 50% of Private bank ultra-high-net-worth clients have been with Citi for more than 10 years. U.S. Personal Banking deposits are spread across six core urban centers.

Long-Term Debt

The weighted-average maturity of unsecured long-term debt issued by Citigroup and its affiliates (including Citibank) with a remaining life greater than one year was approximately 7.5 years as of March 31, 2023, compared to 8.5 years as of the prior year and 7.6 years as of the prior quarter. The weighted-average maturity is calculated based on the contractual maturity of each security. For securities that are redeemable prior to maturity at the option of the holder, the weighted-average maturity is calculated based on the earliest date an option becomes exercisable.

Citi's long-term debt outstanding at the Citigroup parent company includes benchmark senior and subordinated debt and what Citi refers to as customer-related debt, consisting of structured notes, such as equity- and credit-linked notes, as well as non-structured notes. Citi's issuance of customer-related debt is generally driven by customer demand and complements benchmark debt issuance as a source of funding for Citi's non-bank entities. Citi's long-term debt at the bank includes bank notes, FHLB advances and securitizations.

Long-Term Debt Outstanding

The following table presents Citi's end-of-period total long-term debt outstanding for each of the dates indicated:

In billions of dollars	**Mar. 31, 2023**	Dec. 31, 2022	Mar. 31, 2022
Non-bank[(1)]			
Benchmark debt:			
Senior debt	**$ 117.1**	$ 117.5	$ 122.2
Subordinated debt	**22.7**	22.5	24.7
Trust preferred	**1.6**	1.6	1.6
Customer-related debt	**109.7**	101.1	78.4
Local country and other[(2)]	**8.7**	7.8	7.8
Total non-bank	**$ 259.8**	$ 250.5	$ 234.7
Bank			
FHLB borrowings	**$ 7.3**	$ 7.3	$ 1.0
Securitizations[(3)]	**6.6**	7.6	9.5
Citibank benchmark senior debt	**2.6**	2.6	3.5
Local country and other[(2)]	**3.4**	3.6	5.3
Total bank	**$ 19.9**	$ 21.1	$ 19.3
Total long-term debt	**$ 279.7**	$ 271.6	$ 254.0

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 March 31, 2023, non-bank included $92.9 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 10% year-over-year, largely driven by the issuance of customer-related debt at the non-bank entities and increased FHLB borrowings at the bank. The increase was partially offset by a decline in senior benchmark debt at both the bank and non-bank entities, as well as lower securitizations at the bank. Sequentially, long-term debt outstanding increased 3%, largely driven by the issuance of customer-related debt at the non-bank entities.

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 the first quarter of 2023, Citi redeemed or repurchased an aggregate of approximately $4.8 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:

	1Q23		4Q22		1Q22	
In billions of dollars	**Maturities**	**Issuances**	Maturities	Issuances	Maturities	Issuances
Non-bank						
Benchmark debt:						
Senior debt	**$ 1.7**	**$ —**	$ 0.1	$ 2.8	$ 4.4	$ 13.8
Subordinated debt	**—**	**—**	—	—	—	—
Trust preferred	**—**	**—**	—	—	0.1	—
Customer-related debt	**9.0**	**14.1**	6.9	14.3	7.5	14.5
Local country and other	**0.4**	**1.5**	0.9	1.4	0.4	0.9
Total non-bank	**$ 11.1**	**$ 15.6**	$ 7.9	$ 18.5	$ 12.4	$ 29.2
Bank						
FHLB borrowings	**$ —**	**$ —**	$ —	$ —	$ 4.3	$ —
Securitizations	**1.0**	**—**	1.0	0.2	—	—
Citibank benchmark senior debt	**—**	**—**	—	—	—	—
Local country and other	**0.3**	**0.1**	1.2	0.6	0.4	0.5
Total bank	**$ 1.3**	**$ 0.1**	$ 2.2	$ 0.8	$ 4.7	$ 0.5
Total	**$ 12.4**	**$ 15.7**	$ 10.1	$ 19.3	$ 17.1	$ 29.7

The table below shows Citi's aggregate long-term debt maturities (including repurchases and redemptions) during the first quarter of 2023, as well as its aggregate expected remaining long-term debt maturities by year as of March 31, 2023:

		Maturities							
In billions of dollars	**1Q23**	2023	2024	2025	2026	2027	2028	Thereafter	Total
Non-bank									
Benchmark debt:									
Senior debt	**$ 1.7**	$ 3.3	$ 10.6	$ 11.9	$ 23.7	$ 7.0	$ 14.9	$ 45.7	$ 117.1
Subordinated debt	**—**	1.2	0.9	4.8	2.3	3.7	2.0	7.8	22.7
Trust preferred	**—**	—	—	—	—	—	—	1.6	1.6
Customer-related debt	**9.0**	13.1	22.5	14.9	7.9	9.9	5.8	35.6	109.7
Local country and other	**0.4**	1.5	0.9	1.8	0.7	—	0.9	2.9	8.7
Total non-bank	**$ 11.1**	$ 19.1	$ 34.9	$ 33.4	$ 34.6	$ 20.6	$ 23.6	$ 93.6	$ 259.8
Bank									
FHLB borrowings	**$ —**	$ 4.3	$ 3.0	$ —	$ —	$ —	$ —	$ —	$ 7.3
Securitizations	**1.0**	1.2	1.3	1.6	—	0.8	1.0	0.7	6.6
Citibank benchmark senior debt	**—**	—	2.6	—	—	—	—	—	2.6
Local country and other	**0.3**	0.5	1.0	0.2	0.2	—	0.3	1.2	3.4
Total bank	**$ 1.3**	$ 6.0	$ 7.9	$ 1.8	$ 0.2	$ 0.8	$ 1.3	$ 1.9	$ 19.9
Total long-term debt	**$ 12.4**	$ 25.1	$ 42.8	$ 35.2	$ 34.8	$ 21.4	$ 24.9	$ 95.5	$ 279.7

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 $258 billion as of March 31, 2023 increased 26% year-over-year and 27% sequentially, largely driven by additional financing to support increases in trading-related assets within Citi's broker-dealer subsidiaries. As of the quarter ended March 31, 2023, on an average basis, secured funding was $224 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 $40 billion as of the first quarter of 2023 increased 33% year-over-year, reflecting an increase in FHLB advances and commercial paper issuance. Short-term borrowings decreased 15% sequentially, reflecting a decline in outstanding FHLB advances (see Note 17 for further information on Citigroup's and its affiliates' outstanding short-term borrowings).

Credit Ratings

The table below shows the ratings for Citigroup and Citibank as of March 31, 2023. While not included in the table below, the long-term and short-term ratings of Citigroup Global Markets Holdings Inc. (CGMHI) were A+/F1 at Fitch, A2/P-1 at Moody's Investors Service and A/A-1 at S&P Global Ratings as of March 31, 2023.

Ratings as of March 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.

For additional information on the impact of credit rating changes on Citi and its applicable subsidiaries, see "Risk Factors—Liquidity Risks" and "Credit Ratings" in Citi's 2022 Form 10-K.

Citigroup Inc. and Citibank—Potential Derivative Triggers

As of March 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 $0.3 billion, compared to $0.5 billion as of December 31, 2022. 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 March 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 December 31, 2022. Other funding sources, such as secured funding transactions and other margin requirements, for which there are no explicit triggers, could also be adversely impacted.

In total, as of March 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 $0.6 billion, compared to $0.9 billion as of December 31, 2022 (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.

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 March 31, 2023, Citibank had liquidity commitments of approximately $10.9 billion to consolidated asset-backed commercial paper conduits, compared to $11.0 billion as of December 31, 2022 (see Note 19 for additional information).

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 reevaluate their deposit relationships with Citibank. This reevaluation 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

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 "Market Risk—Overview" and "Risk Factors" in Citi's 2022 Form 10-K.

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 *ICG*'s 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.

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	**Mar. 31, 2023**	Dec. 31, 2022	Mar. 31, 2022
Parallel interest rate shock +100 bps			
Interest rate exposure(1)(2)			
U.S. dollar	**$ 304**	$ 186	$ 631
All other currencies	**1,361**	1,650	2,293
Total	**$ 1,665**	$ 1,836	$ 2,924
As a percentage of average interest-earning assets	**0.07 %**	0.08 %	0.14 %
Estimated initial negative impact to *AOCI* (after-tax)(3)	**$ (1,557)**	$ (1,102)	$ (3,439)
Estimated initial impact on CET1 Capital ratio (bps) from *AOCI* scenario	**(11)**	(10)	(18)

(1) Excludes trading book and fair value option banking book portfolios and replaces them with the associated transfer pricing.
(2) IRE as of March 31, 2022 does not reflect certain IRE methodology enhancements that were subsequently implemented in September 2022, most notably the Banking Book revisions to the treatment of certain business activities.
(3) Includes the effect of changes in interest rates on *AOCI* related to investment securities, cash flow hedges and pension liability adjustments.

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 the first quarter of 2023 decreased modestly quarter-over-quarter and decreased year-over-year. 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 $1.6 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 six 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 five different scenarios of changes in interest rate for the U.S. dollar and all other currencies in which Citi has invested capital as of March 31, 2023. The rate scenarios are also impacted by convexity related to mortgage products.

In millions of dollars, except as otherwise noted	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
Overnight rate change (bps)	100	100	—	—	(100)
10-year rate change (bps)	100	—	100	(100)	(100)
Interest rate exposure					
U.S. dollar	$ 304	$ 209	$ 96	$ (128)	$ (520)
All other currencies	1,361	1,161	207	(199)	(1,252)
Total	$ 1,665	$ 1,370	$ 303	$ (327)	$ (1,772)
Estimated initial impact to *AOCI* (after-tax)[1]	$ (1,557)	$ (1,223)	$ (353)	$ 265	$ 1,504
Estimated initial impact to CET1 Capital ratio (bps) from *AOCI* scenario	(11)	(8)	(3)	3	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.

(1) Includes the effect of changes in interest rates on *AOCI* related to investment securities, cash flow hedges and pension liability adjustments.

As shown 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 parallel 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 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 March 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 $1.6 billion, or 0.91%, 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 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 shown in the table below. See Note 18 for additional information on the changes in *AOCI*.

	For the quarter ended		
In millions of dollars, except as otherwise noted	**Mar. 31, 2023**	Dec. 31, 2022	Mar. 31, 2022
Change in FX spot rate[1]	**1.5 %**	4.0 %	0.1 %
Change in TCE due to FX translation, net of hedges	**$ 636**	$ 1,193	$ (40)
As a percentage of TCE	**0.4 %**	0.8 %	— %
Estimated impact to CET1 Capital ratio (on a fully implemented basis) due to changes in FX translation, net of hedges (bps)	**1**	(3)	1

(1) FX spot rate change is a weighted average based on Citi's quarterly average GAAP capital exposure to foreign countries.

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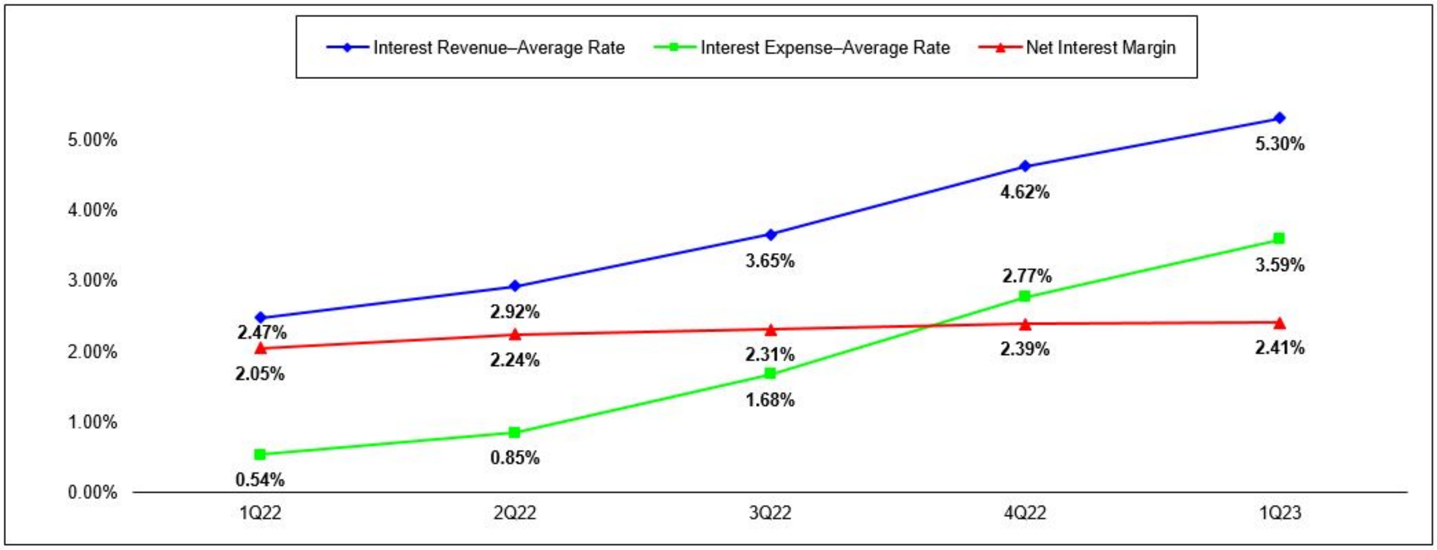
Interest Revenue/Expense and Net Interest Margin (NIM)

Average Rates—Interest Revenue, Interest Expense and Net Interest Margin



In millions of dollars, except as otherwise noted	**1st Qtr. 2023**	4th Qtr. 2022	1st Qtr. 2022	**Change 1Q23 vs. 1Q22**
Interest revenue[1]	**$ 29,439**	$ 25,741	$ 13,193	**123 %**
Interest expense[2]	**16,047**	12,438	2,280	**604**
Net interest income, taxable equivalent basis[1]	**$ 13,392**	$ 13,303	$ 10,913	**23 %**
Interest revenue—average rate[3]	**5.30 %**	4.62 %	2.47 %	**283 bps**
Interest expense—average rate	**3.59**	2.77	0.54	**305 bps**
Net interest margin[3][4]	**2.41**	2.39	2.05	**36 bps**
Interest rate benchmarks				
Two-year U.S. Treasury note—average rate	**4.34 %**	4.39 %	1.46 %	**288 bps**
10-year U.S. Treasury note—average rate	**3.65**	3.83	1.95	**170 bps**
10-year vs. two-year spread	**(69) bps**	(56) bps	49 bps	

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments primarily related to the tax-exempt bond portfolio and certain tax-advantaged loan programs (based on the U.S. federal statutory tax rate of 21%) of $44 million, $33 million and $42 million for the three months ended March 31, 2023, December 31, 2022 and March 31, 2022, 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 revenue 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-*ICG* Markets Net Interest Income

In millions of dollars	**1st Qtr. 2023**	4th Qtr. 2022	1st Qtr. 2022	**Change 1Q23 vs. 1Q22**
Net interest income—taxable equivalent basis(1) per above	**$ 13,392**	$ 13,303	$ 10,913	**23 %**
ICG Markets net interest income—taxable equivalent basis(1)	**1,471**	1,491	1,094	**34**
Non-*ICG* Markets net interest income—taxable equivalent basis(1)	**$ 11,921**	$ 11,812	$ 9,819	**21 %**

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments discussed in the table above.

Citi's net interest income in the first quarter of 2023 increased 23% to $13.4 billion versus the prior-year period. As presented in the table above, Citi's net interest income on a taxable equivalent basis also increased 23% year-over-year, or $2.5 billion. The increase was driven by higher net interest income in non-*ICG* Markets, which increased 21%, and *ICG* Markets, which increased 34%. The increase in net interest income in non-*ICG* Markets primarily reflected higher interest rates, growth in U.S. Cards interest-earning balances and higher income from Citi's investment portfolio, partially offset by the impact of the closed exit markets and wind-downs in *Legacy Franchises.* The increase in *ICG* Markets net interest income largely reflected a change in the mix of trading positions in support of client activity.

Citi's net interest margin was 2.41% on a taxable equivalent basis in the first quarter of 2023, an increase of 2 basis points from the prior quarter, primarily driven by the impact of higher interest rates and growth in U.S. Cards interest-earning balances, partially offset by lower deposit spreads in Services.

Additional Interest Rate Details

Average Balances and Interest Rates—Assets[1][2][3]

Taxable Equivalent Basis

Quarterly—Assets	**Average balance**			**Interest revenue**			**% Average rate**		
In millions of dollars, except rates	**1st Qtr. 2023**	4th Qtr. 2022	1st Qtr. 2022	**1st Qtr. 2023**	4th Qtr. 2022	1st Qtr. 2022	**1st Qtr. 2023**	4th Qtr. 2022	1st Qtr. 2022
Deposits with banks[4]	**$ 328,141**	$ 305,658	$ 260,536	**$ 3,031**	$ 2,343	$ 296	**3.75 %**	3.04 %	0.46 %
Securities borrowed and purchased under agreements to resell[5]									
In U.S. offices	**$ 186,573**	$ 185,678	$ 177,996	**$ 2,840**	$ 2,081	$ 109	**6.17 %**	4.45 %	0.25 %
In offices outside the U.S.[4]	**181,476**	172,835	165,640	**2,334**	1,698	285	**5.22**	3.90	0.70
Total	**$ 368,049**	$ 358,513	$ 343,636	**$ 5,174**	$ 3,779	$ 394	**5.70 %**	4.18 %	0.46 %
Trading account assets[6][7]									
In U.S. offices	**$ 164,217**	$ 149,536	$ 136,857	**$ 1,773**	$ 1,585	$ 592	**4.38 %**	4.21 %	1.75 %
In offices outside the U.S.[4]	**134,607**	127,838	133,603	**975**	1,041	556	**2.94**	3.23	1.69
Total	**$ 298,824**	$ 277,374	$ 270,460	**$ 2,748**	$ 2,626	$ 1,148	**3.73 %**	3.76 %	1.72 %
Investments									
In U.S. offices									
Taxable	**$ 344,776**	$ 353,602	$ 353,906	**$ 2,149**	$ 1,968	$ 1,021	**2.53 %**	2.21 %	1.17 %
Exempt from U.S. income tax	**11,608**	11,648	11,612	**116**	111	95	**4.05**	3.78	3.32
In offices outside the U.S.[4]	**160,140**	153,822	153,302	**1,894**	1,733	951	**4.80**	4.47	2.52
Total	**$ 516,524**	$ 519,072	$ 518,820	**$ 4,159**	$ 3,812	$ 2,067	**3.27 %**	2.91 %	1.62 %
Consumer loans[8]									
In U.S. offices	**$ 283,493**	$ 280,818	$ 257,257	**$ 7,051**	$ 6,670	$ 5,045	**10.09 %**	9.42 %	7.95 %
In offices outside the U.S.[4]	**80,176**	79,700	94,973	**1,573**	1,478	1,217	**7.96**	7.36	5.20
Total	**$ 363,669**	$ 360,518	$ 352,230	**$ 8,624**	$ 8,148	$ 6,262	**9.62 %**	8.97 %	7.21 %
Corporate loans[8]									
In U.S. offices	**$ 137,733**	$ 139,031	$ 136,876	**$ 1,736**	$ 1,571	$ 1,112	**5.11 %**	4.48 %	3.29 %
In offices outside the U.S.[4]	**152,335**	152,953	159,470	**2,951**	2,550	1,365	**7.86**	6.61	3.47
Total	**$ 290,068**	$ 291,984	$ 296,346	**$ 4,687**	$ 4,121	$ 2,477	**6.55 %**	5.60 %	3.39 %
Total loans[8]									
In U.S. offices	**$ 421,226**	$ 419,849	$ 394,133	**$ 8,787**	$ 8,241	$ 6,157	**8.46 %**	7.79 %	6.34 %
In offices outside the U.S.[4]	**232,511**	232,653	254,443	**4,524**	4,028	2,582	**7.89**	6.87	4.12
Total	**$ 653,737**	$ 652,502	$ 648,576	**$ 13,311**	$ 12,269	$ 8,739	**8.26 %**	7.46 %	5.46 %
Other interest-earning assets[9]	**$ 87,758**	$ 98,131	$ 119,815	**$ 1,016**	$ 912	$ 549	**4.70 %**	3.69 %	1.86 %
Total interest-earning assets	**$ 2,253,033**	$ 2,211,250	$2,161,843	**$ 29,439**	$ 25,741	$ 13,193	**5.30 %**	4.62 %	2.47 %
Non-interest-earning assets[6]	**$ 209,211**	$ 219,302	$ 212,197						
Total assets	**$ 2,462,244**	$ 2,430,552	$2,374,040						

(1) *Interest revenue* and *Net interest income* include the taxable equivalent adjustments primarily related to the tax-exempt bond portfolio and certain tax-advantaged loan programs (based on the U.S. federal statutory tax rate of 21%) of $44 million, $33 million and $42 million for the three months ended March 31, 2023, December 31, 2022 and March 31, 2022, 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 *ICG* 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.
(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

Quarterly—Liabilities	**Average balance**			**Interest expense**			**% Average rate**		
In millions of dollars, except rates	**1st Qtr. 2023**	4th Qtr. 2022	1st Qtr. 2022	**1st Qtr. 2023**	4th Qtr. 2022	1st Qtr. 2022	**1st Qtr. 2023**	4th Qtr. 2022	1st Qtr. 2022
Deposits									
In U.S. offices[(4)]	**$ 603,997**	$ 605,473	$ 560,018	**$ 4,432**	$ 3,461	$ 237	**2.98 %**	2.27 %	0.17 %
In offices outside the U.S.[(5)]	**543,179**	525,952	520,087	**3,276**	2,537	634	**2.45**	1.91	0.49
Total	**$ 1,147,176**	$ 1,131,425	$1,080,105	**$ 7,708**	$ 5,998	$ 871	**2.72 %**	2.10 %	0.33 %
Securities loaned and sold under agreements to repurchase[(6)]									
In U.S. offices	**$ 131,235**	$ 109,767	$ 117,793	**$ 2,232**	$ 1,400	$ 161	**6.90 %**	5.06 %	0.55 %
In offices outside the U.S.[(5)]	**92,473**	95,371	92,308	**1,334**	867	121	**5.85**	3.61	0.53
Total	**$ 223,708**	$ 205,138	$ 210,101	**$ 3,566**	$ 2,267	$ 282	**6.46 %**	4.38 %	0.54 %
Trading account liabilities[(7)(8)]									
In U.S. offices	**$ 52,236**	$ 50,910	$ 48,593	**$ 412**	$ 382	$ 36	**3.20 %**	2.98 %	0.30 %
In offices outside the U.S.[(5)]	**77,125**	70,513	65,720	**375**	299	111	**1.97**	1.68	0.68
Total	**$ 129,361**	$ 121,423	$ 114,313	**$ 787**	$ 681	$ 147	**2.47 %**	2.23 %	0.52 %
Short-term borrowings and other interest-bearing liabilities[(9)]									
In U.S. offices	**$ 96,092**	$ 104,152	$ 78,662	**$ 1,482**	$ 1,277	$ 13	**6.25 %**	4.86 %	0.07 %
In offices outside the U.S.[(5)]	**47,930**	49,174	60,199	**167**	143	42	**1.41**	1.15	0.28
Total	**$ 144,022**	$ 153,326	$ 138,861	**$ 1,649**	$ 1,420	$ 55	**4.64 %**	3.67 %	0.16 %
Long-term debt[(10)]									
In U.S. offices	**$ 167,852**	$ 166,615	$ 166,974	**$ 2,285**	$ 2,021	$ 889	**5.52 %**	4.81 %	2.16 %
In offices outside the U.S.[(5)]	**2,681**	3,027	3,953	**52**	51	36	**7.87**	6.68	3.69
Total	**$ 170,533**	$ 169,642	$ 170,927	**$ 2,337**	$ 2,072	$ 925	**5.56 %**	4.85 %	2.19 %
Total interest-bearing liabilities	**$ 1,814,800**	$ 1,780,954	$1,714,307	**$ 16,047**	$ 12,438	$ 2,280	**3.59 %**	2.77 %	0.54 %
Demand deposits in U.S. offices	**$ 120,670**	$ 129,853	$ 129,349						
Other non-interest-bearing liabilities[(7)]	**322,776**	319,824	329,572						
Total liabilities	**$ 2,258,246**	$ 2,230,631	$2,173,228						
Citigroup stockholders' equity	**$ 203,415**	$ 199,518	$ 200,164						
Noncontrolling interests	**583**	403	648						
Total equity	**$ 203,998**	$ 199,921	$ 200,812						
Total liabilities and stockholders' equity	**$ 2,462,244**	$ 2,430,552	$2,374,040						
Net interest income as a percentage of average interest-earning assets[(11)]									
In U.S. offices	**$ 1,340,929**	$ 1,315,436	$1,247,057	**$ 7,455**	$ 7,416	$ 6,858	**2.25 %**	2.24 %	2.23 %
In offices outside the U.S.[(6)]	**912,104**	895,814	914,786	**5,937**	5,887	4,055	**2.64**	2.61	1.80
Total	**$ 2,253,033**	$ 2,211,250	$2,161,843	**$ 13,392**	$ 13,303	$ 10,913	**2.41 %**	2.39 %	2.05 %

(1) *Interest revenue* 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 *ICG* 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.
(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)]

	1Q23 vs. 4Q22			1Q23 vs. 1Q22		
	Increase (decrease) due to change in:			Increase (decrease) due to change in:		
In millions of dollars	Average balance	Average rate	Net change	Average balance	Average rate	Net change
Deposits with banks[(3)]	$ 182	$ 506	$ 688	$ 96	$ 2,639	$ 2,735
Securities borrowed and purchased under agreements to resell						
In U.S. offices	$ 10	$ 749	$ 759	$ 5	$ 2,726	$ 2,731
In offices outside the U.S.[(3)]	89	547	636	30	2,019	2,049
Total	$ 99	$ 1,296	$ 1,395	$ 35	$ 4,745	$ 4,780
Trading account assets[(4)]						
In U.S. offices	$ 158	$ 30	$ 188	$ 139	$ 1,042	$ 1,181
In offices outside the U.S.[(3)]	53	(119)	(66)	4	415	419
Total	$ 211	$ (89)	$ 122	$ 143	$ 1,457	$ 1,600
Investments[(1)]						
In U.S. offices	$ (52)	$ 238	$ 186	$ (28)	$ 1,177	$ 1,149
In offices outside the U.S.[(3)]	73	88	161	44	899	943
Total	$ 21	$ 326	$ 347	$ 16	$ 2,076	$ 2,092
Consumer loans (net of unearned income)[(5)]						
In U.S. offices	$ 64	$ 317	$ 381	$ 552	$ 1,454	$ 2,006
In offices outside the U.S.[(3)]	9	86	95	(212)	568	356
Total	$ 73	$ 403	$ 476	$ 340	$ 2,022	$ 2,362
Corporate loans (net of unearned income)[(5)]						
In U.S. offices	$ (15)	$ 180	$ 165	$ 7	$ 617	$ 624
In offices outside the U.S.[(3)]	(10)	411	401	(64)	1,650	1,586
Total	$ (25)	$ 591	$ 566	$ (57)	$ 2,267	$ 2,210
Loans (net of unearned income)[(5)]						
In U.S. offices	$ 49	$ 497	$ 546	$ 559	$ 2,071	$ 2,630
In offices outside the U.S.[(3)]	(1)	497	496	(276)	2,218	1,942
Total	$ 48	$ 994	$ 1,042	$ 283	$ 4,289	$ 4,572
Other interest-earning assets[(6)]	$ (104)	$ 208	$ 104	$ (180)	$ 647	$ 467
Total interest revenue	$ 457	$ 3,241	$ 3,698	$ 393	$ 15,853	$ 16,246

(1) *Interest revenue* 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 *ICG* 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.
(5) Includes cash-basis loans.
(6) Includes *Brokerage receivables*.

Analysis of Changes in Interest Expense and Net Interest Income(1)(2)(3)

	1Q23 vs. 4Q22			1Q23 vs. 1Q22		
	Increase (decrease) due to change in:			Increase (decrease) due to change in:		
In millions of dollars	Average balance	Average rate	Net change	Average balance	Average rate	Net change
Deposits						
In U.S. offices	$ (9)	$ 980	$ 971	$ 20	$ 4,175	$ 4,195
In offices outside the U.S.(3)	86	653	739	29	2,613	2,642
Total	$ 77	$ 1,633	$ 1,710	$ 49	$ 6,788	$ 6,837
Securities loaned and sold under agreements to repurchase						
In U.S. offices	$ 307	$ 525	$ 832	$ 21	$ 2,050	$ 2,071
In offices outside the U.S.(3)	(27)	494	467	—	1,213	1,213
Total	$ 280	$ 1,019	$ 1,299	$ 21	$ 3,263	$ 3,284
Trading account liabilities(4)						
In U.S. offices	$ 10	$ 20	$ 30	$ 3	$ 373	$ 376
In offices outside the U.S.(3)	30	46	76	22	242	264
Total	$ 40	$ 66	$ 106	$ 25	$ 615	$ 640
Short-term borrowings and other interest-bearing liabilities(5)						
In U.S. offices	$ (104)	$ 309	$ 205	$ 3	$ 1,466	$ 1,469
In offices outside the U.S.(3)	(4)	28	24	(10)	135	125
Total	$ (108)	$ 337	$ 229	$ (7)	$ 1,601	$ 1,594
Long-term debt						
In U.S. offices	$ 15	$ 249	$ 264	$ 4	$ 1,392	$ 1,396
In offices outside the U.S.(3)	(6)	7	1	(14)	30	16
Total	$ 9	$ 256	$ 265	$ (10)	$ 1,422	$ 1,412
Total interest expense	$ 298	$ 3,311	$ 3,609	$ 78	$ 13,689	$ 13,767
Net interest income	$ 159	$ (70)	$ 89	$ 315	$ 2,164	$ 2,479

(1) *Interest revenue* 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 *ICG* 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.
(5) Includes *Brokerage payables*.

Market Risk of Trading Portfolios

Value at Risk (VAR)

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. As of March 31, 2023, Citi estimates that the conservative features of the VAR calibration contribute an approximate 65% add-on to what would be a VAR estimated under the assumption of stable and perfectly, normally distributed markets. As of December 31, 2022, the add-on was 46%.

As presented in the table below, Citi's average trading VAR for the first quarter of 2023 decreased modestly quarter-over-quarter, mainly due to lower market volatility earlier in the current quarter. As of March 31, 2023, VAR included updates to the market historical data series to reflect increased March volatility in the rates markets.

Quarter-end and Average Trading VAR and Trading and Credit Portfolio VAR

In millions of dollars	**March 31, 2023**	**First Quarter 2023 Average**	December 31, 2022	Fourth Quarter 2022 Average	March 31, 2022	First Quarter 2022 Average
Interest rate	**$ 172**	**$ 131**	$ 130	$ 133	$ 84	$ 57
Credit spread	**80**	**76**	78	82	70	66
Covariance adjustment(1)	**(55)**	**(52)**	(45)	(58)	(51)	(32)
Fully diversified interest rate and credit spread(2)	**$ 197**	**$ 155**	$ 163	$ 157	$ 103	$ 91
Foreign exchange	**15**	**19**	20	25	35	36
Equity	**22**	**24**	27	26	29	30
Commodity	**43**	**36**	32	41	65	42
Covariance adjustment(1)	**(94)**	**(93)**	(94)	(105)	(116)	(100)
Total trading VAR—all market risk factors, including general and specific risk (excluding credit portfolios)(2)	**$ 183**	**$ 141**	$ 148	$ 144	$ 116	$ 99
Specific risk-only component(3)	**$ (4)**	**$ (6)**	$ (4)	$ (6)	$ —	$ 6
Total trading VAR—general market risk factors only (excluding credit portfolios)	**$ 187**	**$ 147**	$ 152	$ 150	$ 116	$ 93
Incremental impact of the credit portfolio(4)	**$ 8**	**$ 20**	$ 30	$ 40	$ 29	$ 38
Total trading and credit portfolio VAR	**$ 191**	**$ 161**	$ 178	$ 184	$ 145	$ 137

(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 in *ICG*, with the exception of hedges to 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, with the CVA relating to derivative counterparties and all associated CVA hedges. FVA and DVA are not included. The credit portfolio also includes hedges to the loan portfolio, fair value option loans and hedges to the leveraged finance pipeline within capital markets origination in *ICG*.

The table below provides the range of market factor VARs associated with Citi's total trading VAR, inclusive of specific risk:

	First Quarter 2023		Fourth Quarter 2022		First Quarter 2022	
In millions of dollars	**Low**	**High**	Low	High	Low	High
Interest rate	**$ 100**	**$ 172**	$ 102	$ 165	$ 45	$ 102
Credit spread	**67**	**88**	60	108	59	71
Fully diversified interest rate and credit spread	**$ 123**	**$ 197**	$ 124	$ 183	$ 72	$ 125
Foreign exchange	**12**	**23**	12	98	33	61
Equity	**3**	**39**	21	39	12	44
Commodity	**30**	**45**	27	104	29	65
Total trading	**$ 112**	**$ 183**	$ 108	$ 167	$ 78	$ 127
Total trading and credit portfolio	**125**	**198**	131	226	110	159

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 *ICG*, excluding the CVA relating to derivative counterparties, hedges of CVA, fair value option loans and hedges to the loan portfolio:

In millions of dollars		March 31, 2023
Total—all market risk factors, including general and specific risk		
Average—during quarter	$	**140**
High—during quarter		**180**
Low—during quarter		**111**

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.

As of March 31, 2023, there were two back-testing exceptions observed for Citi's Regulatory VAR in the last 12 months.

OTHER RISKS
For additional information regarding other risks, including Citi's management of other risks, see "Managing Global Risk—Other Risks" in Citi's 2022 Form 10-K.

LIBOR Transition Risk
On April 3, 2023, the U.K. Financial Conduct Authority announced its decision to require the LIBOR administrator, ICE Benchmark Administration Limited (IBA), to continue the publication of one-, three- and six-month USD LIBOR after June 30, 2023 using an unrepresentative synthetic methodology. The synthetic USD LIBOR rates are expected to cease on September 30, 2024. The publication of synthetic USD LIBOR would provide additional time for certain USD LIBOR contracts to be remediated or mature.

During April 2023, certain central counterparties (CCPs) completed conversions of certain USD LIBOR-cleared derivatives to alternative reference rate positions, with the remaining cleared derivative conversions expected to be completed in May 2023. In addition, on February 27, 2023, Citi provided notice that, after the June 30, 2023 cessation date, the relevant USD LIBOR rate for certain debt securities, certificates of deposit, preferred stock, asset-backed securities and trust preferred securities issued by Citigroup Inc. and certain of its consolidated subsidiaries is planned to be replaced with the CME Term SOFR Reference Rate published for the one-, three- or six-month tenor corresponding to the relevant USD LIBOR rate as administered by CME Group Benchmark Administration, Ltd., plus a tenor spread adjustment.

For additional information about Citi's actions to address a transition away from and discontinuance of LIBOR, see "Managing Global Risk—Other Risks—LIBOR Transition Risk" in Citi's 2022 Form 10-K. For information about Citi's LIBOR transition risks, see "Risk Factors—Other Risks" in the 2022 Form 10-K.

Country Risk

Top 25 Country Exposures

The following table presents Citi's top 25 exposures by country (excluding the U.S.) as of March 31, 2023. (Including the U.S., the total exposure as of March 31, 2023 to the top 25 countries would represent approximately 98% of Citi's exposure to all countries.)

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 (40% for unfunded commitments), with the balance of the loans predominately to European domiciled counterparties. Approximately 89% of the total U.K. funded loans and 89% of the total U.K. unfunded commitments were investment grade as of March 31, 2023.

Trading account assets and investment securities are generally categorized based on the domicile of the issuer of the security of 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	ICG loans	PBWM 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)	Investment securities[(5)]	Trading account assets[(6)]	Total as of 1Q23	Total as of 4Q22	Total as of 1Q22	Total as a % of Citi as of 1Q23
United Kingdom	$34.6	$ 5.0	$ —	$ —	$ 1.3	$ 40.3	$ 12.7	$ (5.5)	$ 3.4	$ 2.1	**$93.9**	$88.5	$102.1	**5.4 %**
Mexico	9.6	0.1	24.0	—	0.5	7.8	1.9	(2.3)	18.9	3.0	**63.5**	61.2	60.3	**3.7**
Ireland	13.9	—	—	—	0.3	33.6	0.2	(0.2)	—	0.7	**48.5**	47.4	48.9	**2.8**
Singapore	9.0	18.5	—	—	0.2	6.7	0.9	(0.5)	8.4	1.9	**45.1**	45.2	48.6	**2.6**
Hong Kong	9.2	20.6	—	—	0.3	6.6	1.5	(1.0)	8.1	(0.5)	**44.8**	48.3	51.8	**2.6**
Brazil	12.7	—	—	—	0.3	2.7	8.7	(1.1)	7.4	1.9	**32.6**	28.7	30.4	**1.9**
India	6.8	—	—	—	0.9	3.6	2.6	(0.6)	9.5	1.4	**24.2**	25.3	26.4	**1.4**
South Korea	3.8	—	7.4	—	0.1	1.7	1.7	(1.0)	8.2	0.4	**22.3**	23.7	31.3	**1.3**
China	5.3	—	0.9	1.8	0.7	1.6	1.2	(1.3)	8.2	0.4	**18.8**	20.7	22.7	**1.1**
Australia	8.6	0.4	—	—	—	5.5	0.9	(1.0)	0.7	1.4	**16.5**	14.4	17.2	**1.0**
United Arab Emirates	6.1	1.5	—	—	0.7	5.0	0.4	(0.3)	2.9	—	**16.3**	17.4	15.5	**0.9**
Japan	1.5	—	—	—	—	3.8	6.3	(2.2)	4.6	1.9	**15.9**	19.0	17.3	**0.9**
Jersey	2.1	2.7	—	—	—	10.7	—	(0.1)	—	—	**15.4**	15.9	16.1	**0.9**
Poland	3.3	—	1.4	—	—	2.5	0.6	(0.1)	7.5	0.1	**15.3**	15.6	14.2	**0.9**
Canada	1.6	1.5	—	—	0.1	7.0	1.5	(1.9)	2.9	2.4	**15.1**	15.2	15.9	**0.9**
Taiwan	4.0	—	—	7.9	—	1.3	0.3	(0.1)	0.3	0.4	**14.1**	13.8	7.9	**0.8**
Germany	0.4	—	—	—	0.1	6.6	5.1	(4.3)	6.9	(4.5)	**10.3**	22.6	20.4	**0.6**
Indonesia	2.0	—	—	0.6	—	1.1	1.3	(0.1)	1.1	0.3	**6.3**	5.9	5.2	**0.4**
Malaysia	1.2	—	—	—	0.1	0.7	0.1	—	2.8	—	**4.9**	5.4	4.7	**0.3**
Philippines	0.7	—	—	—	0.1	0.2	2.1	(0.1)	1.8	0.1	**4.9**	5.0	3.0	**0.3**
South Africa	1.5	—	—	—	—	0.3	0.1	(0.2)	2.5	0.4	**4.6**	4.4	3.8	**0.3**
Luxembourg	—	1.0	—	—	—	—	0.3	(0.4)	3.5	—	**4.4**	4.7	4.5	**0.3**
Thailand	1.3	—	—	—	—	0.3	—	—	2.6	0.2	**4.4**	4.2	5.2	**0.3**
Italy	0.3	—	—	—	—	1.7	0.7	(1.7)	—	3.3	**4.3**	2.4	1.5	**0.2**
Chile	1.0	—	—	—	2.5	0.1	0.2	—	—	—	**3.8**	3.4	1.3	**0.2**
Total as a % of Citi's total exposure														**32.0 %**
Total as a % of Citi's non-U.S. total exposure														**93.6 %**

(1) *PBWM* loans reflect funded loans, including those related to the Private bank, net of unearned income. As of March 31, 2023, Private bank loans in the table above totaled $20.1 billion, concentrated in Singapore ($5.3 billion), the U.K. ($4.9 billion) and Hong Kong ($4.8 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 shown 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 shown 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) March 31, 2023, December 31, 2022 and March 31, 2022 include *Legacy Franchises* loans reclassified to HFS as a result of Citi's agreement to sell its consumer banking business in each applicable country. For additional information, see "*Legacy Franchises*" above and Note 2.

Russia

Introduction

In Russia, Citi's remaining operations are conducted through both its *ICG* and *Legacy Franchises* segments.

As part of previously disclosed plans, Citi has ended nearly all of the institutional banking services it offered in Russia as of March 31, 2023, with the remaining services only those necessary to fulfill its remaining legal and regulatory obligations. In addition, Citi continues to wind down its consumer and local commercial banking businesses. 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, see "Citi's Wind-Down of Its Russia Operations" below.

Citi continues to monitor the war in Ukraine, related sanctions and economic conditions and continues to mitigate its Russia exposures and risks as appropriate.

For additional information about Citi's risks related to its Russia exposures, see "Forward-Looking Statements" below and "Risk Factors—Market-Related Risk," "—Operational Risks" and "—Other Risks" in Citi's 2022 Form 10-K.

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:

In billions of U.S. dollars	**March 31, 2023**	December 31, 2022	March 31, 2022	Change 1Q23 vs. 4Q22
Loans	**$ 0.4**	$ 0.6	$ 2.3	$ (0.2)
Investment securities(1)	**1.0**	1.1	0.9	(0.1)
Net MTM on derivatives/repos(2)	**1.0**	1.4	0.4	(0.4)
Total hedges (on loans and CVA)	**(0.1)**	(0.1)	(0.2)	—
Unfunded(3)	**0.1**	0.1	0.5	—
Trading accounts assets	**—**	—	—	—
Country risk exposure	**$ 2.4**	**$ 3.1**	**$ 3.9**	**$ (0.7)**
Cash on deposit and placements(4)	**0.9**	2.4	2.6	(1.5)
National Settlements Depository(5)	**2.7**	1.8	—	0.9
Reverse repurchase agreements(2)	**—**	—	0.6	—
Total third-party exposure(6)	**$ 6.0**	**$ 7.3**	**$ 7.1**	**$ (1.3)**
Additional exposures to Russian counterparties that are not held by the Russian subsidiary	**0.1**	0.2	0.8	(0.1)
Total Russia exposure(7)	**$ 6.1**	**$ 7.5**	**$ 7.9**	**$ (1.4)**

(1) Investment securities include debt securities AFS, recorded at fair market value, primarily local government debt securities.
(2) Net MTM on OTC derivatives and securities lending/borrowing transactions (repos). Effective from 2Q22, reverse repurchase agreements have been shown gross of collateral and reclassified to net MTM on derivatives/repos in the table above, as netting of collateral for Russia-related reverse repurchase agreements was removed. 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. As this exposure was already included in Total third-party exposure, the Total Russia exposure was not impacted by this reclassification.
(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.
(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 Depository. Citi is unable to remit these funds to clients due to restrictions imposed by the Russian government.
(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 first quarter of 2023, Citi continued to reduce its operations in Russia and Russia-related exposures, resulting in a net decrease in total Russia exposure of $1.4 billion, as shown in the table above, as well as a change in the composition of its exposure as mitigation efforts have reduced Citi's third-party credit risk (see discussion below). The sequential decline in exposure was driven by (i) a $0.5 billion decrease due to depreciation of the ruble against the U.S. dollar, (ii) decreases in local currency terms of a $1.3 billion reduction in deposits held within the Central Bank of Russia driven by client deposit withdrawals, (iii) a $0.2 billion decrease due to loan repayments and sales, (iv) a $0.3 billion reduction in reverse repo balances and (v) a $0.1 billion reduction of third-party cross-border exposures. The decline in exposure was partially offset by an increase of $1.0 billion in exposure in local currency terms, driven by $1.3 billion of dividends received by Citi as custodian for investor clients in Russia that Citi was unable to remit due to regulatory restrictions, partially offset by payments to clients and tax authorities. The decline in overall exposure was also driven by a modest reduction in exposures to Russian counterparties not held by AO Citibank.

Citi's continued risk mitigation efforts have included *ICG* borrower paydowns and limiting extensions of new credit. *ICG*'s credit exposure also reflected a shift to a higher proportion of stronger credit names, including a higher proportion of subsidiaries of multinational companies that are headquartered outside of Russia, primarily in the U.S. and Europe.

Citi's net investment in Russia was approximately $1.2 billion as of March 31, 2023 (unchanged from December 31, 2022). 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

Citi's *ICG*, *PBWM* and *Legacy Franchises* segments and *Corporate/Other* 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 March 31, 2023, Citigroup's ACL included a $0.2 billion remaining credit reserve for Citi's direct and indirect Russian counterparties (compared to $0.3 billion at December 31, 2022).

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 expects to incur approximately $210 million in total estimated charges ($60 million in *ICG* and $150 million in *Legacy Franchises*, excluding the impact from any portfolio sales), largely driven by restructuring, vendor termination fees and other related charges. Citi's referral agreement with a Russian bank for a portfolio of ruble-denominated credit card loans, subject to customer consents, can be terminated under certain circumstances and is being reevaluated as Citi reviews other alternatives. As a result, the credit card loans will remain held-for-investment and are not transferred to held-for-sale. For additional information about Citi's continued efforts to reduce its operations and exposure in Russia, see Note 2 and "Risk Factors" and "Managing Global Risk—Other Risks—Country Risk—Russia" in Citi's 2022 Form 10-K.

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 (for additional information, see "Risk Factors—Other Risks" in Citi's 2022 Form 10-K). 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 March 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 Russia, Citi's foreign entity in Russia, Citi would be required to (i) write off the net investment of approximately $1.2 billion (unchanged from December 31, 2022), (ii) recognize a CTA loss of approximately $1.4 billion (compared to $1.3 billion as of December 31, 2022) through earnings and (iii) recognize a loss of $0.4 billion (compared to $0.5 billion as of December 31, 2022) 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 $1.4 billion through earnings and would evaluate its remaining net investment as circumstances evolve.

Citi as Paying Agent for Russian-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 current 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. Citi has considered the potential for reputation risk and taken actions to mitigate such risks. Citi established a Russia Special Review Process with management's Reputation Risk Committee with oversight for significant Russia-related reputation risks and completed a number of reputation risk reviews of matters with a Russian nexus.

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 Risk" in Citi's 2022 Form 10-K.

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. In addition to receiving regular briefings from management, the full Board has routinely been invited to attend portions of the RMC meetings for discussions related to the war in Ukraine, including with respect to Citi's risk exposures and stress testing. The reports to the Board and its Committees from senior management who represent the impacted businesses and the EMEA 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 *ICG* 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. Citi's exposures in Ukraine are not significant enough to be included in the "Top 25 Country Exposures" table above. As of March 31, 2023, Citi had $1.2 billion of direct exposures related to Ukraine, compared to $1.0 billion as of December 31, 2022. The increase in exposures reflected a $0.3 billion increase in deposits, partially offset by a $0.1 billion decrease in loans.

Argentina

Citi operates in Argentina through its *ICG* businesses. As of March 31, 2023, Citi's net investment in its Argentine operations was approximately $1.8 billion. Under U.S. GAAP, Citi uses the U.S. dollar as the functional currency for its operations in countries such as Argentina that are deemed highly inflationary. Citi uses Argentina's official market exchange rate to remeasure its net Argentine peso-denominated assets into the U.S. dollar. As of March 31, 2023, the official Argentine peso exchange rate against the U.S. dollar was 208.995.

As previously disclosed, the Central Bank of Argentina has continued to maintain certain capital and currency controls that generally restrict Citi's ability to access U.S. dollars in Argentina and remit earnings from its Argentine operations. As a result, Citi's net investment in its Argentine operations is likely to continue to increase as Citi generates net income in its Argentine franchise and its earnings cannot be remitted.

Due to the currency controls implemented by the Central Bank of Argentina, certain indirect foreign exchange mechanisms have developed that some Argentine entities may use to obtain U.S. dollars, generally at rates that are significantly higher than Argentina's official exchange rate. Citibank Argentina is precluded from accessing these alternative mechanisms, and these exchange mechanisms cannot be used to remeasure Citi's net monetary assets into the U.S. dollar under U.S. GAAP. However, if Argentina's official exchange rate converges with the approximate rate implied by the indirect foreign exchange mechanisms, Citi could incur a significant loss on its capital in Argentina. Current macroeconomic conditions in the country, along with sustained high inflation and low international reserves held by the Central Bank of Argentina, may result in an accelerated or steep depreciation of the official exchange rate in the near term. Citi cannot predict future fluctuations in Argentina's official market exchange rate or to what extent Citi may be able to access U.S. dollars at the official exchange rate in the future.

Citi may economically hedge the foreign currency risk in its net Argentine peso-denominated assets to the extent possible and prudent using non-deliverable forward (NDF) derivative instruments that are primarily executed outside of Argentina. As of March 31, 2023, the international NDF market had very limited liquidity, resulting in Citi's inability to economically hedge substantially all of its Argentine peso 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 Argentine peso-denominated assets in earnings, without any benefit from a change in the fair value of derivative positions used to economically hedge the exposure.

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 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 March 31, 2023. However, U.S. regulatory agencies may require Citi to record additional reserves in the future, increasing *ICG*'s cost of credit, based on the perceived country or transfer risk associated with its Argentine exposures.

For additional information on Citi's emerging markets risks, including those related to its Argentine exposures, see "Risk Factors—Strategic Risks" in Citi's 2022 Form 10-K.

SIGNIFICANT ACCOUNTING POLICIES AND SIGNIFICANT ESTIMATES

This section contains a summary of Citi's most significant accounting policies. Note 1 to the Consolidated Financial Statements in Citi's 2022 Form 10-K 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" in Citi's 2022 Form 10-K). 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 substantial 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 value 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 6, 21 and 22 in this Form 10-Q and Note 1 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

Citi's Allowance for Credit Losses (ACL)

The table below shows Citi's allowance for credit losses on loans (ACLL) and total ACL as of the first quarter of 2023. For information on the drivers of Citi's ACL build in the first quarter of 2023, see "1Q23 Changes in the ACL" below. 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)*, see Note 1 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

	ACL				
In millions of dollars	Balance Dec. 31, 2022	**1Q23 build (release)**	**1Q23 FX/ Other[(1)(4)]**	**Balance Mar. 31, 2023**	**ACLL/EOP loans Mar. 31, 2023[(2)]**
ICG	$ 2,715	$ (75)	$ 3	$ 2,643	
Legacy Franchises corporate (Mexico SBMM)	140	(10)	7	137	
Total corporate ACLL	**$ 2,855**	**$ (85)**	**$ 10**	**$ 2,780**	**0.98 %**
U.S. Cards[(2)]	$ 11,393	$ 536	$ (173)	$ 11,756	**8.08 %**
Retail banking and Global Wealth	1,330	(29)	(60)	1,241	
Total *PBWM*	$ 12,723	$ 507	$ (233)	$ 12,997	
Legacy Franchises consumer	1,396	13	(17)	1,392	
Total consumer ACLL	**$ 14,119**	**$ 520**	**$ (250)**	**$ 14,389**	**3.96 %**
Total ACLL	**$ 16,974**	**$ 435**	**$ (240)**	**$ 17,169**	**2.65 %**
Allowance for credit losses on unfunded lending commitments (ACLUC)	$ 2,151	$ (194)	$ 2	$ 1,959	
Other[(3)]	243	408	(19)	632	
Total ACL	**$ 19,368**	**$ 649**	**$ (257)**	**$ 19,760**	

(1) Includes reclassifications to *Other assets* related to Citi's agreements to sell certain of its consumer banking businesses. See Notes 2 and 14.
(2) As of March 31, 2023, in U.S. Personal Banking, Branded cards ACLL/EOP loans was 6.6% and Retail services ACLL/EOP loans was 11.1%.
(3) Includes ACL on held-to-maturity securities and *Other assets*.
(4) 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 *PBWM* and *Legacy Franchises* consumer loans as of January 1, 2023. See Notes 1 and 14.

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 (ACLUC)), respectively. In addition, Citi 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. These reserves, together with the ACLL and ACLUC, 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 an 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 current 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 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, among other things, management adjustments to reflect certain portfolio characteristics not fully captured in the quantitative component, such as idiosyncratic events and other factors as required by banking supervisory guidance for the ACL. These may include but are not limited to:

- Emerging macroeconomic risks due to uncertainties, including those related to potential global recession, inflation, interest rates, commodity prices, geopolitical tensions and potential impacts on vulnerable industries and regions
- Normalization of portfolio performance and consumer behavior from record low losses as a result of government stimulus and market liquidity

Citi's qualitative component declined quarter-over-quarter, primarily driven by releases of COVID-19–related uncertainty reserves as the portfolio continues to normalize toward pre-pandemic levels and as these risks are captured in the quantitative component of the ACL.

Macroeconomic Variables
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.

The tables below show 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 1Q22 to 1Q23:

	Quarterly average			
U.S. unemployment	**2Q23**	**4Q23**	**2Q24**	**8-quarter average[1]**
Citi forecast at 1Q22	3.5 %	3.5 %	3.6 %	3.6 %
Citi forecast at 2Q22	3.7	3.9	3.9	3.9
Citi forecast at 3Q22	4.0	4.3	4.0	4.1
Citi forecast at 4Q22	4.2	4.7	4.5	4.5
Citi forecast at 1Q23	3.7	4.3	4.6	4.3

(1) Represents the average unemployment rate for the rolling, forward-looking eight quarters in the forecast horizon.

	Year-over-year growth rate[1]		
	Full year		
U.S. real GDP	**2023**	**2024**	**2025**
Citi forecast at 1Q22	2.4 %	2.1 %	2.1 %
Citi forecast at 2Q22	1.8	2.0	2.1
Citi forecast at 3Q22	0.6	1.9	2.7
Citi forecast at 4Q22	0.3	1.5	2.2
Citi forecast at 1Q23	1.0	1.0	2.0

(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 1Q23, the U.S. real GDP growth declines for the remainder of 2023, and the unemployment rate increases over the forecast horizon.

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 more severe recession, including an elevated average U.S. unemployment rate of 6.8% over the eight-quarter R&S period, with a peak difference between base and downside of 3.0% in the third quarter of 2024. The downside scenario also reflects a year-over-year U.S. real GDP contraction in 2023 of 1.3%, with a peak quarter-over-quarter difference between base and downside of 1.0% in the second quarter of 2023.

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 March 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 $4.5 billion related to lending exposures, except for loans individually evaluated for credit losses.

This analysis does not incorporate any impacts or changes to the qualitative component of the ACL. These factors could decrease 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 March 31, 2023.

1Q23 Changes in the ACL
As further discussed below, Citi's ending ACL balance for the first quarter of 2023 was $19.8 billion, compared to $19.4 billion as of December 31, 2022. The change of $0.4 billion was driven by an ACL build of $0.6 billion, partially offset by the adoption of ASU 2022-02 related to the recognition and measurement of TDRs. The build was primarily driven by deterioration in the macroeconomic outlook (see "Macroeconomic Variables" above) and growth in card revolving balances in *PBWM*, partially offset by reductions in Russia loan exposures (see "Managing Global Risk—Other Risks—Russia" above). Based on its latest macroeconomic forecast, Citi believes its analysis of the ACL reflects the

forward view of the economic environment as of March 31, 2023. See Note 14 for additional information.

Consumer Allowance for Credit Losses on Loans
Citi's consumer ACLL is largely driven by U.S. Cards in U.S. Personal Banking. Citi's total consumer ACLL build was $0.5 billion in the first quarter of 2023, primarily driven by a deterioration in macroeconomic assumptions and growth in U.S. Cards revolving balances. In addition, the ACLL decreased $352 million from the adoption of ASU 2022-02 for the recognition and measurement of TDRs resulting in a March 31, 2023 ACLL balance of $14.4 billion, or 3.96% of total funded consumer loans.

For U.S. Cards, the level of reserves relative to total funded loans increased to 8.08% at March 31, 2023, compared to 7.56% at December 31, 2022. For the remaining consumer exposures, the level of reserves relative to total funded loans was 1.21% at March 31, 2023, compared to 1.26% at December 31, 2022.

Corporate Allowance for Credit Losses on Loans
Citi had a corporate ACLL release of $0.1 billion in the first quarter of 2023. The release was primarily driven by reductions in Russia exposures. The ACLL reserve balance decreased by $0.1 billion to $2.8 billion, or 0.98% of total funded corporate loans.

ACLUC
Citi had an ACLUC release of $0.2 billion in the first quarter of 2023, which reduced the ACLUC reserve balance, included in *Other liabilities*, to $2.0 billion. The release was primarily driven by reductions in Russia exposures.

ACL on Other Financial Assets
Citi had an ACL build on other financial assets carried at amortized cost of $0.4 billion in the first quarter of 2023, which increased the ACL reserve balance included in *Other assets* to $0.6 billion. The build was primarily driven by a reserve build related to an increase in transfer risk associated with exposures outside the U.S. See Note 14 for additional information.

ACLL and Non-accrual Ratios
At March 31, 2023, the ratio of the ACLL to total funded loans was 2.65% (3.96% for consumer loans and 0.98% for corporate loans), compared to 2.60% at December 31, 2022 (3.84% for consumer loans and 1.01% for corporate loans).

Citi's total non-accrual loans were $2.6 billion at March 31, 2023, up $169 million from December 31, 2022. Consumer non-accrual loans of $1.4 billion at March 31, 2023 increased $78 million from December 31, 2022. Corporate non-accrual loans increased $91 million to $1.2 billion at March 31, 2023, compared to $1.1 billion at December 31, 2022. In addition, the ratio of non-accrual loans to total loans was 0.42% and 0.38% for corporate and consumer loans, respectively, at March 31, 2023 (for additional information on non-accrual loans, see "Additional Consumer and Corporate Credit Details—Non-Accrual Loans and Assets and Renegotiated Loans" above).

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 14 for a further description of the ACL and related accounts.

Goodwill
Citi tests goodwill for impairment annually as of October 1 (the annual test) and conducts interim assessments between the annual test 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.

At October 1, 2022, the fair value of two reporting units (Banking and Mexico Consumer/SBMM) ranged from 102% to 106% of their carrying values. The carrying values of the Banking and Mexico Consumer/SBMM reporting units included approximately $1.5 billion and $1 billion of goodwill, respectively. 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 strategic refresh. 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 Note 15 for a further discussion of goodwill.

Litigation Accruals
See the discussion in Note 25 for information regarding Citi's policies on establishing accruals for litigation and regulatory contingencies.

INCOME TAXES

Effective Tax Rate

In millions of dollars, except effective tax rate	Three Months Ended March 31, 2023	2022
Income from continuing operations before income tax expense	**$ 6,183**	$ 5,266
Provision for income taxes	**1,531**	941
Effective tax rate	**25 %**	18 %

Citi's effective tax rate was 25% in the first quarter of 2023, including the impact of divestitures, versus 18% in the first quarter of 2022, which had higher discrete tax benefits reflecting the resolution of certain tax audit items.

Deferred Tax Assets

For additional information on Citi's deferred tax assets (DTAs), see "Capital Resources," "Risk Factors—Strategic Risks," "Significant Accounting Policies and Significant Estimates—Income Taxes" and Notes 1 and 9 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

The table below summarizes Citi's net DTAs balance:

Jurisdiction/Component	**DTAs balance**	
In billions of dollars	**March 31, 2023**	December 31, 2022
Total U.S.	**$ 25.1**	$ 24.8
Total foreign	**2.5**	2.9
Total	**$ 27.6**	$ 27.7

At March 31, 2023, Citigroup had recorded net DTAs of approximately $27.6 billion, a decrease of $0.1 billion from December 31, 2022. The decrease was primarily a result of gains in *Other comprehensive income*. Of Citi's $27.6 billion of net DTAs, $16.4 billion was not deducted in calculating regulatory capital and was appropriately risk weighted under the Basel III rules.

The remaining $11.2 billion (compared to $11.0 billion at December 31, 2022) was deducted in calculating Citi's regulatory capital.

The $11.2 billion of DTA deducted from regulatory capital was composed of $11.8 billion related to tax carry-forwards and $1.1 billion of temporary differences in excess of the 10%/15% regulatory limitations, and was reduced by $1.7 billion of deferred tax liabilities, primarily associated with goodwill and certain other intangible assets that were separately deducted from capital. The largest component of the increase in the DTA deducted from Citi's regulatory capital during the quarter was related to temporary differences in excess of the 10%/15% limitations ($1.1 billion at March 31, 2023 compared to $0.3 billion at December 31, 2022), primarily attributable to higher temporary differences in DTAs subject to the limitation.

DTA Realizability

Citi believes that realization of the net DTAs of $27.6 billion at March 31, 2023 is more-likely-than-not, based on management's expectations of future taxable income generation in the jurisdictions in which the DTAs arise, as well as consideration of available tax planning strategies (as defined in ASC Topic 740, *Income Taxes*).

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 March 31, 2023. Based on that evaluation, the CEO and CFO have concluded that at that date Citigroup's disclosure controls and procedures were effective.

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. Citi did not identify any reportable activities pursuant to Section 219 for the first quarter of 2023.

During the first quarter of 2023, Citigroup identified one transaction pursuant to Section 219 related to the fourth quarter of 2022. On November 4, 2022, Citibank, N.A., Dubai Branch, issued a manager's check to a Specially Designated National, who was designated on November 3, 2022, pursuant to the Global Terrorism Sanctions Regulations. The check was issued less than 24 hours after the U.S. Department of the Treasury's Office of Foreign Assets Control (OFAC)'s designation of the individual, while Citibank's sanctions screening system was in the process of being updated. The total value of the payment was equivalent to USD 350,876.10 and was paid out on November 5, 2022. Citibank, N.A. realized the equivalent of USD 8.50 in fees for the issuance of the check. Once identified, the transaction was disclosed to OFAC.

FORWARD-LOOKING STATEMENTS

Certain statements in this Form 10-Q, 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 may make forward-looking statements in its other documents filed or furnished with 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 above and in Citi's 2022 Form 10-K, as well as the precautionary statements included within Citi's other SEC filings; (ii) the factors listed and described under "Risk Factors" in Citi's 2022 Form 10-K; and (iii) the risks and uncertainties summarized below:

- the potential impact to Citi from continued macroeconomic, geopolitical and other challenges, uncertainties and volatility, including, among others, continued elevated levels of inflation and their impacts; governmental fiscal and monetary actions or expected actions, including further increases in interest rates, reductions in central bank balance sheets, or other changes in interest rate or other monetary policies; the increasing potential of recession in the U.S., Europe and other countries; uncertainty with respect to raising the U.S. federal debt limit and potential resulting market disruptions, as well as the potentially severe economic impacts if the U.S. government ultimately defaults on any debt obligations; economic and geopolitical challenges related to China, including tensions related to Taiwan; impacts related to recent bank failures and related market volatility, including macroeconomic conditions; foreign currency volatility and devaluations; distress and volatility in emerging markets, including sovereign debt pricing; geopolitical tensions and conflicts, including those related to Russia's war in Ukraine; protracted or widespread trade tensions; and election outcomes;
- the potential impact on Citi's ability to return capital to common shareholders consistent with its capital planning efforts and targets, due to, among other things: regulatory capital requirements, including annual recalibration of the Stress Capital Buffer, which is based upon the results of the CCAR process; recalibration of the GSIB surcharge; Citi's results of operations and financial condition; the capital impacts related to Citi's remaining consumer banking divestitures, including any temporary capital impacts from CTA losses (net of hedges) between transaction signings and closings, and achievement of the expected benefits from the divestitures; Citi's effectiveness in planning, managing and calculating its level of risk-weighted assets under both the Advanced Approaches and the Standardized Approach and Supplementary Leverage ratio and GSIB surcharge; Citi's implementation and maintenance of an effective capital planning framework; forecasts of macroeconomic conditions; Citi's DTA utilization; and changes in regulatory capital rules, requirements or interpretations, such as revisions to the U.S. Basel III rules;
- the ongoing regulatory and legislative uncertainties and changes faced by financial institutions, including Citi, in the U.S. and globally, such as potential fiscal, monetary, regulatory, tax, sanctions and other changes, including potential increased regulatory requirements and costs resulting from recent bank failures; potential changes to various aspects of the regulatory capital framework; future legislative and regulatory requirements in the U.S. and globally relating to climate change, including any new disclosure requirements, such as those proposed by the SEC; and the potential impact these uncertainties and changes could have on Citi's businesses, results of operations, financial condition, business planning and compliance risks and costs;
- the potential impact to credit card fee revenues in Branded cards and Retail services in *PBWM* from the Consumer Financial Protection Bureau's proposed significant changes to the maximum amounts on credit card late fees;
- Citi's ability to improve its risk and control environment, modernize its data and technology infrastructure and further enhance safety and soundness, meet regulatory expectations, be sufficiently competitive, serve clients effectively, avoid operational errors and realize productivity improvements, as part of its transformation and other strategic initiatives, including as a result of factors that Citi cannot control, which could make the initiatives more costly and more challenging to implement, and limit their effectiveness;
- Citi's ability to achieve its objectives from its strategic refresh, including, among others, those related to its exits of remaining consumer banking businesses in *Legacy Franchises*, including, among others, the consumer, small business and middle-market operations in Mexico, and Citi's wind-down of its activities in Russia, Korea and China, which involve significant execution complexity, may not be as productive, effective or timely as Citi expects, may impact the local businesses during the exit process, and could result in temporary capital impacts related to CTA or other losses, charges or other negative financial or strategic impacts, which could be material;
- the potential impact to Citi from climate change and the transition to a low-carbon economy, including both physical risks, such as increased frequency and/or severity of adverse weather events as consequences of chronic

climate changes, and transition risks, such as those arising from changes in regulations or market preferences toward a low-carbon economy; as well as higher regulatory, compliance, credit, reputational and other risks and costs and data-related challenges, including as a result of any new disclosure requirements; and an increased focus by banking regulators and others on the issue of climate change at financial institutions directly and with respect to their clients;

- Citi's ability to utilize its DTAs (including the foreign tax credit component of its DTAs) and thus reduce the negative impact of the DTAs on Citi's regulatory capital, including as a result of its ability to generate U.S. taxable income in the relevant tax carry-forward periods;
- the potential impact to Citi if its interpretation or application of the complex income based and non-income based (such as withholding, stamp, service and other non-income taxes) tax laws to which it is subject in the U.S. and in non-U.S. jurisdictions differs from those of the relevant governmental taxing authorities, including as a result of litigation or examinations regarding non-income based tax matters, and the resulting payment of additional taxes, penalties or interest;
- the potential impact from a deterioration in or failure to maintain Citi's co-branding or private label credit card relationships, due to, among other things, the general economic environment; changes in consumer sentiment, spending patterns and credit card usage behaviors; a decline in sales and revenues, partner store closures or other operational difficulties of the retailer or merchant; early termination of a particular relationship; or other factors, including bankruptcies, liquidations, restructurings, consolidations or other similar events, whether due to the impact of a challenging economic environment or otherwise;
- Citi's ability in its resolution plan submissions to address any shortcomings or deficiencies or guidance provided by the Federal Reserve Board or FDIC;
- the potential impact on Citi's performance and the performance of its individual businesses, including its competitive position and ability to effectively manage its businesses, and its ability to effectively execute its transformation and other strategic initiatives, if Citi is unable to attract, retain and motivate highly qualified employees, particularly given the highly competitive environment for talent and other factors, such as higher attrition rates, low unemployment, changes in worker's expectations and regulation of employee compensation in the banking industry;
- Citi's ability to effectively compete in the U.S. and globally with both financial and non-financial services firms, including as a result of certain competitors being subject to less stringent legal and regulatory requirements; the introduction of new or emerging technologies and mobile platforms; growth in digital asset markets; changes in the payments space; reliance on third parties for certain product and service offerings; and the increased operational, compliance and other risks resulting from the need to develop new or change or adapt existing products and services to attract and retain customers or clients or to compete more effectively with competitors;
- the potential impact to Citi from a prior or future failure or disruption of its operational processes or systems, including as a result of, among other things, human error, such as manual transaction processing errors (e.g., erroneous payments to lenders or manual errors by Citi traders that cause system and market disruptions and losses for Citi or its clients), which can be exacerbated by staffing challenges and processing backlogs; fraud or malice on the part of employees or third parties; operational or execution failures or deficiencies by third parties; insufficient (or limited) straight-through processing between legacy systems and any failure to design and effectively operate controls that mitigate operational risks associated with those legacy systems leading to potential risk of errors and operating losses; accidental system or technological failure; electrical or telecommunication outages; failure of or cyber incidents involving computer servers or infrastructure; or other similar losses or damage to Citi's property or assets; failures by third parties; potential disruptions and/or malfunctions within Citi's businesses, as well as the operations of Citi's clients, customers or other third parties; and the increased financial, reputational, legal and compliance risks resulting from any such failure or disruption of operational processes or systems, including legal and regulatory actions or proceedings, fines and other costs;
- the increasing risk to Citi's and third parties' computer systems and networks from continually evolving, sophisticated cybersecurity incidents that could result in, among other things, theft, loss, misuse or disclosure of confidential Citi, client or customer information or assets and a disruption of computer, software or network systems; and the potential impact from such risks, including reputational damage, regulatory penalties, loss of revenues, additional costs (including repair, remediation and other costs), exposure to litigation and other financial losses;
- the potential impact of changes or errors in accounting assumptions, judgments or estimates, or the application of certain accounting principles, related to the preparation of Citi's financial statements, including the estimate of Citi's ACL, which depends on its CECL models and assumptions, forecasted macroeconomic conditions and characteristics of Citi's loan portfolios and other applicable financial assets; reserves related to litigation, regulatory and tax matters exposures; valuation of DTAs; the fair values of certain assets and liabilities; and the assessment of goodwill and other assets for impairment;
- the financial impact from reclassification of any CTA component of *AOCI*, including related hedges and taxes, into Citi's earnings, due to a sale, substantial liquidation or other deconsolidation event of any foreign operations, such as those related to Citi's remaining consumer banking divestitures or other legacy businesses, whether due to Citi's strategic refresh or otherwise;
- the impact of changes to financial accounting and reporting standards or interpretations on how Citi records

and reports its financial condition and results of operations;

- the potential impact to Citi's results of operations and/or regulatory capital and capital ratios if Citi's risk management and mitigation processes, strategies or models, including those related to its comprehensive stress testing initiatives or ability to manage, assess and aggregate data, are deficient or ineffective, or Citi's Basel III regulatory capital models require refinement, modification or enhancement, or any related action is taken by Citi's U.S. banking regulators;
- the potential impact of credit risk and concentrations of risk on Citi's results of operations, whether due to a default of or deterioration involving consumer, corporate or public sector borrowers or other counterparties in the U.S. or in various countries and jurisdictions globally, including from indemnification obligations in connection with various transactions, such as hedging or reinsurance arrangements related to those obligations, or Citi being unable to liquidate or realize the fair value of its collateral, which risks can be heightened for vulnerable industries or sectors impacted by the continued macroeconomic, geopolitical, market and other challenges and uncertainties and volatilities;
- the potential impact on Citi's liquidity and/or costs of funding if it does not effectively manage its liquidity or due to various other factors, including, among others, general disruptions in the financial markets; governmental fiscal and monetary policies; regulatory changes; negative investor perceptions of Citi's creditworthiness; competition for funding, including a decrease in demand for corporate debt, unexpected increases in cash or collateral requirements, and the consequent inability to monetize available liquidity resources; the competitive environment for deposits; changes in Citi's credit spreads; higher interest rates; and changes in currency exchange rates;
- the impact of a credit ratings downgrade of Citi or certain of its subsidiaries or issuing entities on Citi's funding and liquidity as well as on the operations of certain of its businesses;
- the potential impact to Citi of ongoing interpretation and implementation of regulatory and legislative requirements and changes in the U.S. and globally, as well as heightened regulatory scrutiny and expectations for large financial institutions and their employees and agents, with respect to governance, infrastructure, data, climate and risk management practices and controls, customer and client protection, market practices, anti-money laundering and increasingly complex sanctions and disclosure regimes, including the impact on Citi's compliance, regulatory and other risks and costs, such as increased regulatory oversight and restrictions, enforcement proceedings, penalties and fines;
- the potential outcomes of the extensive legal and regulatory proceedings, examinations, investigations, consent orders and related compliance efforts and other inquiries, to which Citi is or may be subject at any given time, such as the previously disclosed October 2020 FRB and OCC consent orders, particularly given the increased focus by regulators on risks and controls, such as enterprise-wide risk management, compliance, data quality management and governance and internal controls, and policies and procedures; Citi's ability to implement targeted actions plans and submit quarterly progress reports detailing the results and status of improvements to comply with the consent orders on a timely and sufficient basis, which will continue to require significant investments to meet regulatory expectations; the heightened scrutiny and expectations generally from regulators, and the severity of the remedies sought by regulators, such as significant monetary penalties, supervisory or enforcement orders, business restrictions, limitations on dividends and changes to directors and/or officers and collateral consequences to Citi arising from such outcomes;
- the various risks faced by Citi as a result of its presence in the emerging markets, including, among others, limitations or unavailability of hedges on foreign investments; foreign currency volatility and devaluations; sustained elevated interest rates; sovereign debt volatility; election outcomes; regulatory changes and political events; foreign exchange controls, including the inability to access indirect foreign exchange mechanisms; macroeconomic and geopolitical challenges and uncertainties and volatility, including with respect to commodity prices as well as repricing of assets and resulting impacts; limitations on foreign investment; sociopolitical instability (including from hyperinflation); fraud; nationalization or loss of licenses; business restrictions; sanctions or asset freezes; potential criminal charges; closure of branches or subsidiaries; confiscation of assets, whether related to geopolitical conflicts or otherwise; U.S. regulators or the ICERC imposing mandatory loan loss or other reserve requirements on Citi; and increased compliance and regulatory risks and costs; and
- the transition away from and discontinuance of LIBOR and any other interest rate benchmark and the adverse consequences it could have for market participants, including Citi.

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 forward-looking statements were made.

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FINANCIAL STATEMENTS AND NOTES TABLE OF CONTENTS

CONSOLIDATED FINANCIAL STATEMENTS

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATED STATEMENT OF INCOME (UNAUDITED)

Citigroup Inc. and Subsidiaries

In millions of dollars, except per share amounts	Three Months Ended March 31, 2023	2022
Revenues		
Interest revenue	**$ 29,395**	$ 13,151
Interest expense	**16,047**	2,280
Net interest income	**$ 13,348**	$ 10,871
Commissions and fees	**$ 2,366**	$ 2,568
Principal transactions	**3,939**	4,590
Administration and other fiduciary fees	**896**	966
Realized gains on sales of investments, net	**72**	80
Impairment losses on investments:		
Impairment losses on investments and other assets	**(86)**	(90)
Provision (releases) for credit losses on AFS debt securities[1]	**(1)**	—
Net impairment losses recognized in earnings	**$ (87)**	$ (90)
Other revenue	**$ 913**	$ 201
Total non-interest revenues	**$ 8,099**	$ 8,315
Total revenues, net of interest expense	**$ 21,447**	$ 19,186
Provisions for credit losses and for benefits and claims		
Provision for credit losses on loans	**$ 1,737**	$ 260
Provision for credit losses on HTM debt securities	**(17)**	(2)
Provision for credit losses on other assets	**425**	(4)
Policyholder benefits and claims	**24**	27
Provision for credit losses on unfunded lending commitments	**(194)**	474
Total provisions for credit losses and for benefits and claims[2]	**$ 1,975**	$ 755
Operating expenses		
Compensation and benefits	**$ 7,538**	$ 6,820
Premises and equipment	**598**	543
Technology/communication	**2,127**	2,016
Advertising and marketing	**331**	311
Other operating	**2,695**	3,475
Total operating expenses	**$ 13,289**	$ 13,165
Income from continuing operations before income taxes	**$ 6,183**	$ 5,266
Provision for income taxes	**1,531**	941
Income from continuing operations	**$ 4,652**	$ 4,325
Discontinued operations		
Income (loss) from discontinued operations	**$ (1)**	$ (2)
Benefit for income taxes	**—**	—
Income (loss) from discontinued operations, net of taxes	**$ (1)**	$ (2)
Net income before attribution to noncontrolling interests	**$ 4,651**	$ 4,323
Noncontrolling interests	**45**	17
Citigroup's net income	**$ 4,606**	$ 4,306
Basic earnings per share[3]		
Income from continuing operations	**$ 2.21**	$ 2.03
Income from discontinued operations, net of taxes	**—**	—
Net income	**$ 2.21**	$ 2.03
Weighted average common shares outstanding *(in millions)*	**1,943.5**	1,971.7
Diluted earnings per share[3]		
Income from continuing operations	**$ 2.19**	$ 2.02
Income (loss) from discontinued operations, net of taxes	**—**	—
Net income	**$ 2.19**	$ 2.02
Adjusted weighted average diluted common shares outstanding *(in millions)*	**1,964.1**	1,988.2

(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 (UNAUDITED)

Citigroup Inc. and Subsidiaries

	Three Months Ended March 31,	
In millions of dollars	**2023**	2022
Citigroup's net income	**$ 4,606**	$ 4,306
Add: Citigroup's other comprehensive income[1]		
Net change in unrealized gains and losses on debt securities, net of taxes[2]	**$ 836**	$ (4,277)
Net change in debt valuation adjustment (DVA), net of taxes[3]	**(325)**	793
Net change in cash flow hedges, net of taxes	**361**	(1,541)
Benefit plans liability adjustment, net of taxes[4]	**(104)**	171
Net change in CTA, net of taxes and hedges	**841**	(14)
Net change in excluded component of fair value hedges, net of taxes	**(20)**	48
Net change in long-duration insurance contracts, net of taxes	**5**	—
Citigroup's total other comprehensive income (loss)	**$ 1,594**	$ (4,820)
Citigroup's total comprehensive income	**$ 6,200**	$ (514)
Add: Other comprehensive income (loss) attributable to noncontrolling interests	**32**	(29)
Add: Net income (loss) attributable to noncontrolling interests	**45**	17
Total comprehensive income	**$ 6,277**	$ (526)

(1) See Note 18.
(2) See Note 12.
(3) See Note 21.
(4) See Note 8.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

In millions of dollars		**March 31, 2023 (Unaudited)**		December 31, 2022
Assets				
Cash and due from banks (including segregated cash and other deposits)	**$**	**26,224**	$	30,577
Deposits with banks, net of allowance		**302,735**		311,448
Securities borrowed and purchased under agreements to resell (including $255,963 and $239,527 as of March 31, 2023 and December 31, 2022, respectively, at fair value), net of allowance		**384,198**		365,401
Brokerage receivables, net of allowance		**55,491**		54,192
Trading account assets (including $173,677 and $133,535 pledged to creditors as of March 31, 2023 and December 31, 2022, respectively)		**383,906**		334,114
Investments:				
Available-for-sale debt securities (including $10,376 and $10,933 pledged to creditors as of March 31, 2023 and December 31, 2022, respectively)		**240,487**		249,679
Held-to-maturity debt securities, net of allowance (fair value of which is $242,851 and $243,648 as of March 31, 2023 and December 31, 2022, respectively) (includes $61 and $— pledged to creditors as of March 31, 2023 and December 31, 2022, respectively)		**264,342**		268,863
Equity securities (including $887 and $895 as of March 31, 2023 and December 31, 2022, respectively, at fair value)		**7,749**		8,040
Total investments	**$**	**512,578**	$	526,582
Loans:				
Consumer (including $238 and $237 as of March 31, 2023 and December 31, 2022, respectively, at fair value)		**363,696**		368,067
Corporate (including $4,896 and $5,123 as of March 31, 2023 and December 31, 2022, respectively, at fair value)		**288,299**		289,154
Loans, net of unearned income	**$**	**651,995**	$	657,221
Allowance for credit losses on loans (ACLL)		**(17,169)**		(16,974)
Total loans, net	**$**	**634,826**	$	640,247
Goodwill		**19,882**		19,691
Intangible assets (including MSRs at fair value of $658 and $665 as of March 31, 2023 and December 31, 2022, respectively)		**4,632**		4,428
Premises and equipment, net of depreciation and amortization		**27,119**		26,253
Other assets (including $11,847 and $10,658 as of March 31, 2023 and December 31, 2022, respectively, at fair value), net of allowance		**103,522**		103,743
Total assets	**$**	**2,455,113**	$	2,416,676

Statement continues on the next page.

In millions of dollars, except shares and per share amounts		**March 31, 2023 (Unaudited)**		December 31, 2022
Liabilities				
Deposits (including $2,943 and $1,875 as of March 31, 2023 and December 31, 2022, respectively, at fair value)	**$**	**1,330,459**	$	1,365,954
Securities loaned and sold under agreements to repurchase (including $66,232 and $70,886 as of March 31, 2023 and December 31, 2022, respectively, at fair value)		**257,681**		202,444
Brokerage payables (including $4,883 and $4,439 as of March 31, 2023 and December 31, 2022, respectively, at fair value)		**76,708**		69,218
Trading account liabilities		**185,010**		170,647
Short-term borrowings (including $6,873 and $6,222 as of March 31, 2023 and December 31, 2022, respectively, at fair value)		**40,187**		47,096
Long-term debt (including $115,168 and $105,995 as of March 31, 2023 and December 31, 2022, respectively, at fair value)		**279,684**		271,606
Other liabilities, plus allowances		**76,365**		87,873
Total liabilities	**$**	**2,246,094**	$	2,214,838
Stockholders' equity				
Preferred stock ($1.00 par value; authorized shares: 30 million), issued shares: **as of March 31, 2023—809,800** and as of December 31, 2022—759,800, at aggregate liquidation value	**$**	**20,245**	$	18,995
Common stock ($0.01 par value; authorized shares: 6 billion), issued shares: **as of March 31, 2023—3,099,691,431** and as of December 31, 2022—3,099,669,424		**31**		31
Additional paid-in capital		**108,369**		108,458
Retained earnings		**198,353**		194,734
Treasury stock, at cost: **March 31, 2023—1,152,939,594 shares** and December 31, 2022—1,162,682,999 shares		**(73,262)**		(73,967)
Accumulated other comprehensive income (loss) (*AOCI*)		**(45,441)**		(47,062)
Total Citigroup stockholders' equity	**$**	**208,295**	$	201,189
Noncontrolling interests		**724**		649
Total equity	**$**	**209,019**	$	201,838
Total liabilities and equity	**$**	**2,455,113**	$	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 (UNAUDITED)

Citigroup Inc. and Subsidiaries

	Three Months Ended March 31,	
In millions of dollars	**2023**	2022
Preferred stock at aggregate liquidation value		
Balance, beginning of period	**$ 18,995**	$ 18,995
Issuance of new preferred stock	**1,250**	—
Balance, end of period	**$ 20,245**	$ 18,995
Common stock and additional paid-in capital (APIC)		
Balance, beginning of period	**$ 108,489**	$ 108,034
Employee benefit plans	**(84)**	46
Other	**(5)**	1
Balance, end of period	**$ 108,400**	$ 108,081
Retained earnings		
Balance, beginning of period	**$ 194,734**	$ 184,948
Adjustment to opening balance, net of taxes(1)		
Financial instruments—TDRs and vintage disclosures	**290**	—
Adjusted balance, beginning of period	**$ 195,024**	$ 184,948
Citigroup's net income	**4,606**	4,306
Common dividends(2)	**(1,000)**	(1,014)
Preferred dividends	**(277)**	(279)
Other (primarily reclassifications from APIC for preferred issuance costs on redemptions)	**—**	1
Balance, end of period	**$ 198,353**	$ 187,962
Treasury stock, at cost		
Balance, beginning of period	**$ (73,967)**	$ (71,240)
Employee benefit plans(3)	**705**	496
Treasury stock acquired(4)	**—**	(3,000)
Balance, end of period	**$ (73,262)**	$ (73,744)
Citigroup's accumulated other comprehensive income (loss)		
Balance, beginning of period	**$ (47,062)**	$ (38,765)
Adjustment to opening balance, net of taxes(1)	**27**	—
Adjusted balance, beginning of period	**$ (47,035)**	$ (38,765)
Citigroup's total other comprehensive income	**1,594**	(4,820)
Balance, end of period	**$ (45,441)**	$ (43,585)
Total Citigroup common stockholders' equity	**$ 188,050**	$ 178,714
Total Citigroup stockholders' equity	**$ 208,295**	$ 197,709
Noncontrolling interests		
Balance, beginning of period	**$ 649**	$ 700
Transactions between Citigroup and the noncontrolling-interest shareholders	**—**	(33)
Net income attributable to noncontrolling-interest shareholders	**45**	17
Distributions paid to noncontrolling-interest shareholders	**(11)**	—
Other comprehensive income (loss) attributable to noncontrolling-interest shareholders	**32**	(29)
Other	**9**	(11)
Net change in noncontrolling interests	**$ 75**	$ (56)
Balance, end of period	**$ 724**	$ 644
Total equity	**$ 209,019**	$ 198,353

(1) See Note 1 for additional details.
(2) Common dividends declared were $0.51 per share for each of the first quarters of 2023 and 2022.
(3) Includes treasury stock related to (i) certain activity on employee stock option program exercises where the employee delivers existing shares to cover the option exercise, or (ii) under Citi's employee restricted or deferred stock programs where shares are withheld to satisfy 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 (UNAUDITED)

In millions of dollars	Three Months Ended March 31, 2023	2022
Cash flows from operating activities of continuing operations		
Net income before attribution of noncontrolling interests	**$ 4,651**	$ 4,323
Net income attributable to noncontrolling interests	**45**	17
Citigroup's net income	**$ 4,606**	$ 4,306
Income (loss) from discontinued operations, net of taxes	**(1)**	(2)
Income from continuing operations—excluding noncontrolling interests	**$ 4,607**	$ 4,308
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]	**(1,059)**	118
Depreciation and amortization	**1,111**	1,015
Deferred income taxes[2]	**(28)**	(189)
Provisions for credit losses and for benefits and claims[2]	**1,975**	755
Realized gains from sales of investments	**(72)**	(80)
Impairment losses on investments and other assets	**86**	90
Goodwill impairment	**—**	535
Change in trading account assets	**(49,831)**	(26,073)
Change in trading account liabilities	**14,363**	26,530
Change in brokerage receivables net of brokerage payables	**6,191**	(4,984)
Change in loans held-for-sale (HFS)	**(1,066)**	3,223
Change in other assets	**(3,608)**	(7,308)
Change in other liabilities	**(6,132)**	310
Other, net[2][3]	**2,978**	(7,497)
Total adjustments	**$ (35,092)**	$ (13,555)
Net cash used in operating activities of continuing operations	**$ (30,485)**	$ (9,247)
Cash flows from investing activities of continuing operations		
Change in securities borrowed and purchased under agreements to resell	**$ (18,797)**	$ (18,122)
Change in loans	**3,010**	(9,643)
Proceeds from sales and securitizations of loans	**895**	676
Net payment due to transfer of net liabilities associated with divestitures[1]	**(29)**	—
Available-for-sale (AFS) debt securities		
Purchases of investments[2][3]	**(52,708)**	(66,156)
Proceeds from sales of investments	**18,619**	57,084
Proceeds from maturities of investments[2][3]	**51,034**	24,210
Held-to-maturity (HTM) debt securities		
Purchases of investments	**(631)**	(28,406)
Proceeds from maturities of investments	**1,977**	2,775
Capital expenditures on premises and equipment and capitalized software	**(1,634)**	(1,229)
Proceeds from sales of premises and equipment, subsidiaries and affiliates and repossessed assets	**6**	15
Other, net[2][3][4]	**(4,815)**	(24)
Net cash used in investing activities of continuing operations	**$ (3,073)**	$ (38,820)
Cash flows from financing activities of continuing operations		
Dividends paid	**$ (1,267)**	$ (1,286)
Issuance of preferred stock	**1,245**	—
Redemption of preferred stock	**—**	—

CONSOLIDATED STATEMENT OF CASH FLOWS
(UNAUDITED) (Continued)

In millions of dollars	Three Months Ended March 31, 2023	2022
Treasury stock acquired	**$ —**	$ (2,833)
Stock tendered for payment of withholding taxes	**(315)**	(330)
Change in securities loaned and sold under agreements to repurchase	**55,237**	13,209
Issuance of long-term debt	**15,741**	29,668
Payments and redemptions of long-term debt	**(12,471)**	(17,061)
Change in deposits	**(35,495)**	34,816
Change in short-term borrowings	**(6,909)**	2,171
Net cash provided by financing activities of continuing operations	**$ 15,766**	$ 58,354
Effect of exchange rate changes on cash and due from banks	**$ (274)**	$ (233)
Change in cash, due from banks and deposits with banks	**(18,066)**	10,054
Cash, due from banks and deposits with banks at beginning of period	**342,025**	262,033
Cash, due from banks and deposits with banks at end of period	**$ 323,959**	$ 272,087
Cash and due from banks (including segregated cash and other deposits)	**$ 26,224**	$ 27,768
Deposits with banks, net of allowance(4)	**297,735**	244,319
Cash, due from banks and deposits with banks at end of period	**$ 323,959**	$ 272,087
Supplemental disclosure of cash flow information for continuing operations		
Cash paid during the period for income taxes	**$ 1,593**	$ 631
Cash paid during the period for interest	**14,358**	2,782
Non-cash investing activities(1)(5)(6)		
Transfer of investment securities from HTM to AFS	**$ 3,324**	$ —
Decrease in net loans associated with divestitures reclassified to HFS	**—**	14,970
Decrease in goodwill associated with divestitures reclassified to HFS	**—**	715
Transfers to loans HFS (*Other assets*) from loans HFI	**2,696**	328
Transfers from loans HFS (*Other assets*) to loans HFI	**322**	—
Non-cash financing activities(1)		
Decrease in deposits associated with divestitures reclassified to HFS	**$ —**	$ 18,334
Decrease in long-term debt associated with divestitures reclassified to HFS	**—**	28

(1) See Note 2 for further information on significant disposals.
(2) 2022 amounts have been revised to conform to the current-period presentation.
(3) Consistent with the revisions disclosed in "Statement of Cash Flows" in Note 1 to the Consolidated Financial Statements in Citi's 2022 Form 10-K, during the three months ended March 31, 2022, $4.1 billion of cash flows related to maturities of short-term negotiable certificates of deposit (NCDs) and $41 million of cash flows related to purchases of short-term NCDs were reclassified from purchases and maturities of AFS securities within investing activities to *Other, net* within operating activities.
(4) *Deposits with banks* as of March 31, 2023 excludes approximately $5 billion of deposits that do not meet the definition of cash equivalents. These deposits are reported within *Other, net* investing activities.
(5) 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.
(6) 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 24 for more information and balances as of March 31, 2023.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

1. BASIS OF PRESENTATION, UPDATED ACCOUNTING POLICIES AND ACCOUNTING CHANGES

Basis of Presentation

The accompanying unaudited Consolidated Financial Statements as of March 31, 2023 and for the three-month periods ended March 31, 2023 and 2022 include the accounts of Citigroup Inc. and its consolidated subsidiaries.

In the opinion of management, all adjustments, consisting of normal recurring adjustments, necessary for a fair presentation have been reflected. The accompanying unaudited Consolidated Financial Statements should be read in conjunction with the Consolidated Financial Statements and related notes included within Citigroup's Annual Report on Form 10-K for the year ended December 31, 2022.

Certain financial information that is normally included in annual financial statements prepared in accordance with U.S. generally accepted accounting principles (GAAP), but is not required for interim reporting purposes, has been condensed or omitted.

Management must make estimates and assumptions that affect the Consolidated Financial Statements and the related footnote disclosures. While management uses its best judgment, actual results could differ from those estimates.

As noted above, the Notes to these Consolidated Financial Statements are unaudited.

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.

Cash equivalents are defined as those amounts included in *Cash and due from banks* and predominately all of *Deposits with banks*. Cash flows from risk management activities are classified in the same category as the related assets and liabilities. Amounts included in *Cash and due from banks* and *Deposits with banks* approximate fair value.

UPDATED SIGNIFICANT ACCOUNTING POLICIES

The accounting policies below have been updated from those disclosed in Citi's 2022 Annual Report on Form 10-K (2022 Form 10-K) as a result of accounting standards adopted during the first quarter of 2023.

See Note 1 to the Consolidated Financial Statements in Citi's 2022 Form 10-K for a summary of all of Citigroup's significant accounting policies.

Allowances for Credit Losses (ACL)

Beginning January 1, 2023, Citi adopted Accounting Standards Update (ASU) No. 2022-02, *Financial Instruments—Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures* under the methodology described below. For information about Citi's accounting for troubled debt restructurings (TDRs) prior to January 1, 2023, see Note 1 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

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 homogenous loans formerly considered TDRs for expected credit losses, whereas previously those loans had been individually evaluated.

ACCOUNTING CHANGES

TDRs and Vintage Disclosures

In March 2022, the 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. Citi adopted the guidance on the recognition and measurement of TDRs under the modified retrospective approach. See the "ACL" section under the "Updated Significant Accounting Policies" heading in this Note above for a description of the ASU's amendments to the TDR recognition and measurement guidance. Adopting those amendments resulted in a decrease to the ACLL of $352 million and an increase in other assets related to held-for-sale businesses of $44 million, with a corresponding increase to retained earnings of $290 million and a decrease in deferred tax assets of $106 million on January 1, 2023. The ACL for corporate loans was unaffected because the measurement approach used for corporate loans is not in the scope of this ASU.

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 13 for these new disclosures for periods beginning on and after January 1, 2023.

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. 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. At the time of transfer, the securities were in an unrealized gain position of $0.1 billion, which was recorded in *AOCI* upon transfer.

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.

The effective date of ASU 2018-12 was deferred for all insurance entities by ASU 2019-09, *Financial Services—Insurance: Effective Date* (issued in October 2019) and by ASU 2020-11, *Financial Services—Insurance: Effective Date and Early Application* (issued in November 2020). 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.

Voluntary Change in Goodwill Impairment Assessment Date

During 2022, the Company voluntarily changed its annual goodwill impairment assessment date from July 1 to October 1. See Notes 1 and 16 to the Consolidated Financial Statements in Citi's 2022 Form 10-K for additional information.

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 Investments in Tax Credit Structures

In March 2023, the FASB issued ASU No. 2023-02, *Investments—Equity Method and Joint Ventures (Topic 3232): 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). Prior to the issuance of this ASU, use of the proportional amortization method was limited to tax equity investments in Low-Income Housing Tax Credit (LIHTC) structures, and all other tax equity investments were typically accounted for using the equity method of accounting, which resulted in investment income, gains and losses, and tax credits being presented gross on the income statement in their respective line items. The ASU will permit the Company to elect to use the proportional amortization method to account for all eligible tax equity investments, regardless of the tax credit program from which the income tax credits are received, if certain conditions are met. For public entities, the ASU is effective for fiscal years beginning after December 15, 2023, although early adoption is permitted in any interim period. However, if an entity adopts the amendments in an interim period, it shall adopt them as of the beginning of the fiscal year that includes that interim period. Adoption of the ASU must be applied on either a retrospective or a modified retrospective basis. Citi plans to adopt the ASU on January 1, 2024 and is currently evaluating the impact of the standard on tax equity investments. Citi does not expect a material impact to its results of operations as a result of adopting the standard.

Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions

In June 2022, the FASB issued ASU No. 2022-3, *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.

The ASU is to be adopted on a prospective basis and will be effective for Citi on January 1, 2024, although early adoption is permitted. Adoption of the accounting standard is not expected to have an impact on Citi's operating results or financial position, as the Company excludes such restrictions when valuing equity securities.

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 *Corporate/Other*.

The following table summarizes financial information for all *Discontinued operations*:

	Three Months Ended March 31,	
In millions of dollars	**2023**	2022
Total revenues, net of interest expense	**$ —**	$ —
Income (loss) from discontinued operations	**$ (1)**	$ (2)
Benefit for income taxes	**—**	—
Income (loss) from discontinued operations, net of taxes	**$ (1)**	$ (2)

Cash flows from *Discontinued operations* were not material for the periods presented.

Significant Disposals

As of March 31, 2023, Citi had entered into sale agreements for nine consumer banking businesses within *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, and India and Vietnam closed in the first quarter of 2023. Entry of sale agreements for the Taiwan and Indonesia consumer banking businesses has resulted in the reclassification to HFS on the Consolidated Balance Sheet of approximately $14 billion in assets within *Other assets*, including approximately $8 billion of loans (net of allowance of $66 million), and approximately $11 billion in liabilities within *Other liabilities*, including approximately $11 billion in deposits. Of the nine sale agreements, the five below were identified as significant disposals as of March 31, 2023. The Taiwan sale has yet to close and is subject to regulatory approvals and other closing conditions.

In millions of dollars			March 31, 2023									
			Assets						Liabilities			
Consumer banking business in	Sale agreement date	Closing date	Cash and deposits with banks	Loans[1]	Goodwill	Other assets, advances to/from subsidiaries	Other assets	Total assets	Deposits	Long-term debt	Other liabilities	Total liabilities
Australia[2]	8/9/2021	6/1/2022	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Philippines[3]	12/23/2021	8/1/2022	—	—	—	—	—	—	—	—	—	—
Thailand[4]	1/14/2022	11/1/2022	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
India[5]	3/30/2022	3/1/2023	—	—	—	—	—	—	—	—	—	—
Taiwan[6]	1/28/2022	second half 2023	$ 102	$ 7,845	$ 196	$ 4,654	$ 198	$12,995	$ 10,046	$ —	$ 238	$ 10,284

	Income (loss) before taxes[7]	
	Three Months Ended March 31,	
In millions of dollars	**2023**	2022
Australia[2]	$ —	$ 164
Philippines[3]	—	40
Thailand[4]	—	(11)
India[5]	**2**	72
Taiwan[6]	**57**	46

(1) Loans, net of allowance as of March 31, 2023 includes $24 million for Taiwan.

(2) On June 1, 2022, Citi completed the sale of its Australia consumer banking business, which was part of *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 $760 million ($640 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) ($470 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 shown in the above table for Australia reflects Citi's ownership through June 1, 2022.

(3) On August 1, 2022, Citi completed the sale of its Philippines consumer banking business, which was part of *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 shown in the above table for the Philippines reflects Citi's ownership through August 1, 2022.

(4) On November 1, 2022, Citi completed the sale of its Thailand consumer banking business, which was part of *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 shown in the above table for Thailand reflects Citi's ownership through November 1, 2022.

(5) On March 1, 2023, Citi completed the sale of its India consumer banking business, which was part of *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), subject to closing adjustments, recorded in *Other revenue*. The income before taxes shown in the above table for India reflects Citi's ownership through March 1, 2023.

(6) This sale is expected to result in an after-tax gain upon closing.

(7) 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 and India, excludes the pretax gain on sale.

Citi did not have any other significant disposals as of March 31, 2023. As of May 5, 2023, Citi had not entered into sale agreements for the remaining *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 *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 *Legacy Franchises* operating segment and *Corporate/Other*:

In millions of dollars		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	$	—
Additional charges (releases)	$	—
Utilization		—
Foreign exchange		—
Balance at September 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 to the Consolidated Financial Statements in Citi's 2022 Form 10-K 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 will be ending nearly all of the institutional banking services it offers in Russia by the end of the first quarter of 2023. Going forward, Citi's only operations in Russia will be those necessary to fulfill its remaining legal and regulatory obligations.

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*.

Citi's referral agreement with a Russian bank for a portfolio of ruble-denominated credit card loans, subject to customer consents, can be terminated under certain circumstances and is being reevaluated as Citi reviews other alternatives. As a result, the credit card loans will remain held-for-investment and are not transferred to held-for-sale.

During the first quarter of 2023, Citi recorded a pretax charge of approximately $7 million and $5 million (approximately $30 million and $10 million program-to-date) as *Compensation and benefits* composed of severance costs, reported in *Legacy Franchises* and *Institutional Clients Group*, respectively. Citi also recorded a pretax charge of approximately $6 million (approximately $13 million program-to-date) as *Other operating expenses* composed of vendor termination and other costs, reported in *Legacy Franchises*.

In connection with this wind-down, Citi expects to incur approximately $210 million in total estimated charges ($60 million in *ICG* and $150 million in *Legacy Franchises*, excluding the impact from any portfolio sales), largely driven by restructuring, vendor termination fees and other related charges.

3. OPERATING SEGMENTS

The operating segments and reporting units reflect how the CEO, who is the chief operating decision maker, manages the Company, including allocating resources and measuring performance.

Citigroup's activities are conducted through three operating segments: *Institutional Clients Group (ICG)*, *Personal Banking and Wealth Management (PBWM)* and *Legacy Franchises*, with *Corporate/Other* including activities not assigned to a specific operating segment, as well as discontinued operations.

ICG consists of Services, Markets and Banking, providing corporate, institutional and public sector clients around the world with a full range of wholesale banking products and services.

PBWM consists of U.S. Personal Banking and Global Wealth Management (Global Wealth), providing traditional banking services and credit cards to retail and small business customers in the U.S., and financial services to clients from affluent to ultra-high-net-worth through banking, lending, mortgages, investment, custody and trust product offerings in 20 countries, including the U.S., Mexico and the four wealth management centers: Singapore, Hong Kong, the UAE and London.

Legacy Franchises consists of Asia Consumer and Mexico Consumer/SBMM businesses that Citi intends to exit, and its remaining Legacy Holdings Assets.

Corporate/Other includes activities not assigned to the operating segments, including certain unallocated costs of global functions, other corporate expenses and corporate treasury results, offsets to certain line-item reclassifications and eliminations, and unallocated taxes, as well as discontinued operations.

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 not directly attributable to a particular business segment or component are generally allocated from *Corporate/Other* based on respective net revenues, non-interest expenses or other relevant measures.

As a result of revenues and expenses from transactions with other operating segments or components being treated as transactions with external parties for purposes of segment disclosures, the Company includes intersegment eliminations within *Corporate/Other* to reconcile the business segment results to Citi's consolidated results.

The accounting policies of these operating segments are the same as those disclosed in Note 1 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

The following table presents certain information regarding the Company's continuing operations by operating segment and *Corporate/Other*:

	Three Months Ended March 31,									
	ICG		PBWM		Legacy Franchises		Corporate/Other		Total Citi	
In millions of dollars, except identifiable assets, average loans and average deposits in billions	**2023**	2022	**2023**	2022	**2023**	2022	**2023**	2022	**2023**	2022
Net interest income	**$ 5,028**	$ 3,784	**$ 5,934**	$ 5,385	**$ 1,290**	$ 1,508	**$ 1,096**	$ 194	**$ 13,348**	$ 10,871
Non-interest revenue	**6,205**	7,376	**514**	520	**1,562**	423	**(182)**	(4)	**8,099**	8,315
Total revenues, net of interest expense	**$ 11,233**	$ 11,160	**$ 6,448**	$ 5,905	**$ 2,852**	$ 1,931	**$ 914**	$ 190	**$ 21,447**	$ 19,186
Operating expense	**6,973**	6,723	**4,254**	3,889	**1,752**	2,293	**310**	260	**13,289**	13,165
Provisions for credit losses	**(72)**	971	**1,591**	(376)	**345**	160	**111**	—	**1,975**	755
Income (loss) from continuing operations before taxes	**$ 4,332**	$ 3,466	**$ 603**	$ 2,392	**$ 755**	$ (522)	**$ 493**	$ (70)	**$ 6,183**	$ 5,266
Provision (benefits) for income taxes	**1,034**	808	**114**	532	**149**	(137)	**234**	(262)	**1,531**	941
Income (loss) from continuing operations	**$ 3,298**	$ 2,658	**$ 489**	$ 1,860	**$ 606**	$ (385)	**$ 259**	$ 192	**$ 4,652**	$ 4,325
Identifiable assets (March 31, 2023 and December 31, 2022)	**$ 1,769**	$ 1,730	**$ 490**	$ 494	**$ 94**	$ 97	**$ 102**	$ 96	**$ 2,455**	$ 2,417
Average loans	**283**	289	**333**	312	**38**	48	**—**	—	**654**	649
Average deposits	**853**	826	**434**	447	**50**	55	**26**	6	**1,363**	1,334

4. INTEREST REVENUE AND EXPENSE

Interest revenue and *Interest expense* consisted of the following:

	Three Months Ended March 31,	
In millions of dollars	**2023**	2022
Interest revenue		
Consumer loans	**$ 8,624**	$ 6,262
Corporate loans	**4,659**	2,454
Loan interest, including fees	**$ 13,283**	$ 8,716
Deposits with banks	**3,031**	296
Securities borrowed and purchased under agreements to resell	**5,174**	394
Investments, including dividends	**4,144**	2,050
Trading account assets[1]	**2,747**	1,146
Other interest-earning assets[2]	**1,016**	549
Total interest revenue	**$ 29,395**	$ 13,151
Interest expense		
Deposits	**$ 7,708**	$ 871
Securities loaned and sold under agreements to repurchase	**3,566**	282
Trading account liabilities[1]	**787**	147
Short-term borrowings and other interest-bearing liabilities[3]	**1,649**	55
Long-term debt	**2,337**	925
Total interest expense	**$ 16,047**	$ 2,280
Net interest income	**$ 13,348**	$ 10,871
Provision for credit losses on loans	**1,737**	260
Net interest income after provision for credit losses on loans	**$ 11,611**	$ 10,611

(1) Interest expense on *Trading account liabilities* of *ICG* 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

For additional information on Citi's commissions and fees, and administration and other fiduciary fees, see Note 5 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

The following tables present *Commissions and fees* revenue:

	Three Months Ended March 31, 2023			
In millions of dollars	**ICG**	**PBWM**	**Legacy Franchises**	**Total**
Investment banking	**$ 726**	**$ —**	**$ —**	**$ 726**
Brokerage commissions	**415**	**178**	**44**	**637**
Credit and bank card income				
Interchange fees	**333**	**2,347**	**169**	**2,849**
Card-related loan fees	**13**	**43**	**62**	**118**
Card rewards and partner payments[1]	**(174)**	**(2,663)**	**(91)**	**(2,928)**
Deposit-related fees[2]	**252**	**39**	**8**	**299**
Transactional service fees	**289**	**4**	**26**	**319**
Corporate finance[3]	**99**	**3**	**—**	**102**
Insurance distribution revenue	**—**	**58**	**34**	**92**
Insurance premiums	**—**	**1**	**21**	**22**
Loan servicing	**9**	**16**	**3**	**28**
Other	**5**	**56**	**41**	**102**
Total commissions and fees[4]	**$ 1,967**	**$ 82**	**$ 317**	**$ 2,366**

	Three Months Ended March 31, 2022			
In millions of dollars	ICG	PBWM	Legacy Franchises	Total
Investment banking	$ 908	$ —	$ —	$ 908
Brokerage commissions	460	240	67	767
Credit and bank card income				
Interchange fees	240	2,099	221	2,560
Card-related loan fees	9	64	81	154
Card rewards and partner payments[1]	(118)	(2,499)	(172)	(2,789)
Deposit-related fees[2]	267	59	18	344
Transactional service fees	254	4	26	284
Corporate finance[3]	116	3	—	119
Insurance distribution revenue	—	52	36	88
Insurance premiums	—	1	25	26
Loan servicing	12	10	4	26
Other	(1)	47	35	81
Total commissions and fees[4]	$ 2,147	$ 80	$ 341	$ 2,568

(1) Citi's consumer credit card programs have certain partner sharing agreements that vary by partner. These 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 and, to the extent that an 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.

(2) 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 (prior to the elimination of overdraft fees in June 2022) of $0 and $32 million for the three months ended March 31, 2023 and 2022, respectively.

(3) Consists primarily of fees earned from structuring and underwriting loan syndications or related financing activity. This activity is accounted for under ASC 310.

(4) *Commissions and fees* include $(2,656) million and $(2,427) million not accounted for under ASC 606, *Revenue from Contracts with Customers*, for the three months ended March 31, 2023 and 2022, 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.

The following tables present *Administration and other fiduciary fees* revenue:

In millions of dollars	Three Months Ended March 31, 2023 ICG	PBWM	Legacy Franchises	Total
Custody fees	**$ 418**	**$ 20**	**$ 6**	**$ 444**
Fiduciary fees	**75**	**153**	**82**	**310**
Guarantee fees	**132**	**8**	**2**	**142**
Total administration and other fiduciary fees[(1)]	**$ 625**	**$ 181**	**$ 90**	**$ 896**

In millions of dollars	Three Months Ended March 31, 2022 ICG	PBWM	Legacy Franchises	Total
Custody fees	$ 447	$ 23	$ 3	$ 473
Fiduciary fees	64	205	80	349
Guarantee fees	132	10	2	144
Total administration and other fiduciary fees[(1)]	$ 643	$ 238	$ 85	$ 966

(1) *Administration and other fiduciary fees* include $142 million and $144 million for the three months ended March 31, 2023 and 2022, 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 *ICG*. These adjustments are discussed further in Note 21.

In certain transactions, Citi incurs fees and presents these fees paid to third parties in operating expenses.

The following table presents *Principal transactions* revenue:

	Three Months Ended March 31,	
In millions of dollars	**2023**	2022
Interest rate risks[1]	**$ 1,380**	$ 1,270
Foreign exchange risks[2]	**1,493**	1,747
Equity risks[3]	**634**	932
Commodity and other risks[4]	**498**	451
Credit products and risks[5]	**(66)**	190
Total	**$ 3,939**	$ 4,590

(1) Includes revenues from government securities and corporate debt, 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 structured credit products.

7. INCENTIVE PLANS

For additional information on Citi's incentive plans, see Note 7 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

8. RETIREMENT BENEFITS

For additional information on Citi's retirement benefits, see Note 8 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

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 plans for Significant Plans and All Other Plans. Benefits earned during the period are reported in *Compensation and benefits expenses* and all other components of the net period benefit cost are reported in *Other operating expenses* in the Consolidated Statement of Income:

	Three Months Ended March 31,							
	Pension plans				Postretirement benefit plans			
	U.S. plans		Non-U.S. plans		U.S. plans		Non-U.S. plans	
In millions of dollars	**2023**	2022	**2023**	2022	**2023**	2022	**2023**	2022
Service cost	**$ —**	$ —	**$ 28**	$ 34	**$ —**	$ —	**$ —**	$ 1
Interest cost on benefit obligation	**127**	86	**98**	73	**5**	3	**25**	23
Expected return on assets	**(161)**	(154)	**(81)**	(66)	**(3)**	(3)	**(19)**	(20)
Amortization of unrecognized:								
Prior service cost (benefit)	**1**	1	**(2)**	(2)	**(2)**	(2)	**(2)**	(3)
Net actuarial loss (gain)	**38**	56	**18**	13	**(3)**	(1)	**(4)**	1
Curtailment (gain)[(1)]	**—**	—	**(8)**	—	**—**	—	**—**	—
Settlement loss[(1)]	**—**	—	**3**	—	**—**	—	**—**	—
Total net (benefit) expense	**$ 5**	$ (11)	**$ 56**	$ 52	**$ (3)**	$ (3)	**$ —**	$ 2

(1) Curtailment and settlement relate to divestiture activities.

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 Significant Plans:

	Three Months Ended March 31, 2023			
	Pension plans		Postretirement benefit plans	
In millions of dollars	U.S. plans	Non-U.S. plans	U.S. plans	Non-U.S. plans
Change in projected benefit obligation				
Projected benefit obligation at beginning of year	$ 9,741	$ 6,375	$ 375	$ 1,013
Plans measured annually	(19)	(1,774)	—	(193)
Projected benefit obligation at beginning of year—Significant Plans	$ 9,722	$ 4,601	$ 375	$ 820
Service cost	—	10	—	—
Interest cost on benefit obligation	127	80	5	22
Actuarial (gain) loss	253	20	9	(8)
Benefits paid, net of participants' contributions	(220)	(68)	(15)	(12)
Foreign exchange impact and other	—	199	—	68
Projected benefit obligation at period end—Significant Plans	$ 9,882	$ 4,842	$ 374	$ 890
Change in plan assets				
Plan assets at fair value at beginning of year	$ 10,145	$ 6,086	$ 253	$ 855
Plans measured annually	—	(1,226)	—	(7)
Plan assets at fair value at beginning of year—Significant Plans	$ 10,145	$ 4,860	$ 253	$ 848
Actual return on plan assets	349	115	7	15
Company contributions, net of reimbursements	14	11	13	—
Benefits paid, net of participants' contributions	(220)	(68)	(15)	(12)
Foreign exchange impact and other	—	167	—	70
Plan assets at fair value at period end—Significant Plans	$ 10,288	$ 5,085	$ 258	$ 921
Qualified plans(1)	$ 938	$ 243	$ (116)	$ 31
Nonqualified plans(2)	(532)	—	—	—
Funded status of the plans at period end—Significant Plans	$ 406	$ 243	$ (116)	$ 31
Net amount recognized at period end				
Benefit asset	$ 938	$ 787	$ —	$ 31
Benefit liability	(532)	(544)	(116)	—
Net amount recognized on the balance sheet—Significant Plans	$ 406	$ 243	$ (116)	$ 31
Amounts recognized in *AOCI* at period end(3)				
Prior service (expense) benefit	$ —	$ (2)	$ 80	$ 36
Net actuarial (loss) gain	(6,467)	(1,363)	112	(274)
Net amount recognized in equity (pretax)—Significant Plans	$ (6,467)	$ (1,365)	$ 192	$ (238)
Accumulated benefit obligation at period end—Significant Plans	$ 9,881	$ 4,688	$ 374	$ 890

(1) The U.S. qualified pension plan is fully funded under specified Employee Retirement Income Security Act of 1974, as amended (ERISA), funding rules as of January 1, 2023 and no minimum required funding is expected for 2023.

(2) The nonqualified plans of the Company are unfunded.

(3) 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.

The following table shows the change in *AOCI* related to the Company's pension, postretirement and post employment plans:

In millions of dollars	Three Months Ended March 31, 2023	Twelve Months Ended December 31, 2022	Three Months Ended March 31, 2022
Beginning of period balance, net of tax[1][2]	**$ (5,755)**	$ (5,852)	$ (5,852)
Actuarial assumptions changes and plan experience	**(269)**	3,923	1,525
Net asset gain (loss) due to difference between actual and expected returns	**183**	(4,225)	(1,462)
Net amortization	**43**	198	64
Curtailment/settlement (gain)[3]	**(5)**	(37)	—
Foreign exchange impact and other	**(108)**	172	50
Change in deferred taxes, net	**52**	66	(6)
Change, net of tax	**$ (104)**	$ 97	$ 171
End of period balance, net of tax[1][2]	**$ (5,859)**	$ (5,755)	$ (5,681)

(1) See Note 18 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 activities.

Plan Assumptions

Certain assumptions used in determining pension and postretirement benefit obligations and net benefit expense for the Significant Plans are as follows:

	Three Months Ended		
During the period	**Mar. 31, 2023**	Dec. 31, 2022	Mar. 31, 2022
Discount rate			
U.S. plans			
Qualified pension	**5.50%**	5.65%	2.80%
Nonqualified pension	**5.55**	5.60	2.80
Postretirement	**5.60**	5.65	2.75
Non-U.S. plans			
Pension	**2.20–10.60**	2.10–11.30	0.25–9.80
Weighted average	**7.55**	7.64	4.56
Postretirement	**10.60**	11.25	10.00
Expected return on assets			
U.S. plans			
Qualified pension	**5.70**	5.00	5.00
Postretirement	**5.70/3.00**	5.00/1.50	5.00/1.50
Non-U.S. plans			
Pension	**4.50–9.90**	2.00–8.00	1.50–8.00
Weighted average	**6.40**	5.48	3.78
Postretirement	**8.70**	8.00	8.00

At period ended	**Mar. 31, 2023**	Dec. 31, 2022	Mar. 31, 2022
Discount rate			
U.S. plans			
Qualified pension	**5.15%**	5.50%	3.80%
Nonqualified pension	**5.20**	5.55	3.85
Postretirement	**5.25**	5.60	3.85
Non-U.S. plans			
Pension	**2.05–10.65**	2.20–10.60	1.10–10.00
Weighted average	**7.64**	7.55	5.55
Postretirement	**10.70**	10.60	10.10
Expected return on assets			
U.S. plans			
Qualified pension	**5.70**	5.70	5.50
Postretirement	**5.70/3.00**	5.70/3.00	5.50/1.50
Non-U.S. plans			
Pension	**4.10–9.90**	4.50–9.90	1.90–8.00
Weighted average	**6.26**	6.40	4.15
Postretirement	**8.70**	8.70	8.00

Sensitivities of Certain Key Assumptions

The following table summarizes the estimated effect on the Company's Significant Plans quarterly expense of a one-percentage-point change in the discount rate:

	Three Months Ended March 31, 2023	
In millions of dollars	**One-percentage-point increase**	**One-percentage-point decrease**
Pension		
U.S. plans	**$ 6**	**$ (7)**
Non-U.S. plans	**(1)**	**3**
Postretirement		
Non-U.S. plans	**(1)**	**1**

Contributions

For the U.S. pension plans, there were no required minimum cash contributions during the first three months of 2023.

The following table summarizes the Company's actual contributions for the three months ended March 31, 2023 and 2022, as well as expected Company contributions for the remainder of 2023 and the actual contributions made in 2022:

	Pension plans				Postretirement plans			
	U.S. plans(1)		Non-U.S. plans		U.S. plans		Non-U.S. plans	
In millions of dollars	**2023**	2022	**2023**	2022	**2023**	2022	**2023**	2022
Company contributions (reimbursements)(2)(3) for the three months ended March 31	**$ 14**	$ 14	**$ 34**	$ 136	**$ 13**	$ 5	**$ 2**	$ 3
Company contributions made during the remainder of the year(3)	**—**	41	**—**	358	**—**	9	**—**	6
Company contributions expected to be made during the remainder of the year	**43**		**88**		**4**		**7**	

(1) The U.S. plans include benefits paid directly by the Company for the nonqualified pension plans.

(2) Company contributions are composed of cash contributions made to the plans and benefits paid directly by the Company.

(3) 2022 benefit payments have increased due to the wind-down of Citi's consumer banking business in Korea, as it is expected that employees who elected the VERP will be withdrawing their pension plan assets.

Defined Contribution Plans

The following table summarizes the Company's contributions for the defined contribution plans:

	Three Months Ended March 31,	
In millions of dollars	**2023**	2022
U.S. plans	**$ 138**	$ 119
Non-U.S. plans	**114**	106

Post Employment Plans

The following table summarizes the net expense recognized in the Consolidated Statement of Income for the Company's U.S. post employment plans:

	Three Months Ended March 31,	
In millions of dollars	**2023**	2022
Non-service-related expense	**$ 5**	$ 5
Total net expense	**$ 5**	$ 5

9. EARNINGS PER SHARE

The following table reconciles the income and share data used in the basic and diluted earnings per share (EPS) computations:

In millions of dollars, except per share amounts	Three Months Ended March 31, 2023	2022
Earnings per common share		
Income from continuing operations before attribution of noncontrolling interests	**$ 4,652**	$ 4,325
Less: Noncontrolling interests from continuing operations	**45**	17
Net income from continuing operations (for EPS purposes)	**$ 4,607**	$ 4,308
Income (loss) from discontinued operations, net of taxes	**(1)**	(2)
Citigroup's net income	**$ 4,606**	$ 4,306
Less: Preferred dividends	**277**	279
Net income available to common shareholders	**$ 4,329**	$ 4,027
Less: Dividends and undistributed earnings allocated to employee restricted and deferred shares with rights to dividends, applicable to basic EPS	**34**	25
Net income allocated to common shareholders for basic EPS	**$ 4,295**	$ 4,002
Weighted-average common shares outstanding applicable to basic EPS *(in millions)*	**1,943.5**	1,971.7
Basic earnings per share[1]		
Income from continuing operations	**$ 2.21**	$ 2.03
Discontinued operations	**—**	—
Net income per share—basic	**$ 2.21**	$ 2.03
Diluted earnings per share		
Net income allocated to common shareholders for basic EPS	**$ 4,295**	$ 4,002
Add back: Dividends allocated to employee restricted and deferred shares with rights to dividends that are forfeitable	**11**	8
Net income allocated to common shareholders for diluted EPS	**$ 4,306**	$ 4,010
Weighted-average common shares outstanding applicable to basic EPS *(in millions)*	**1,943.5**	1,971.7
Effect of dilutive securities		
Options[2]	**—**	—
Other employee plans	**20.6**	16.5
Adjusted weighted-average common shares outstanding applicable to diluted EPS *(in millions)*[3]	**1,964.1**	1,988.2
Diluted earnings per share[1]		
Income from continuing operations	**$ 2.19**	$ 2.02
Discontinued operations	**—**	—
Net income per share—diluted	**$ 2.19**	$ 2.02

(1) Due to rounding, earnings per share on continuing operations and discontinued operations may not sum to earnings per share on net income.
(2) During the first quarters of 2023 and 2022, no significant options to purchase shares of common stock were outstanding.
(3) Due to rounding, weighted-average common shares outstanding applicable to basic EPS and the effect of dilutive securities may not sum to weighted-average common shares outstanding applicable to diluted EPS.

10. SECURITIES BORROWED, LOANED AND SUBJECT TO REPURCHASE AGREEMENTS

For additional information on the Company's resale and repurchase agreements and securities borrowing and lending agreements, see Note 11 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

Securities borrowed and purchased under agreements to resell, at their respective carrying values, consisted of the following:

In millions of dollars		**March 31, 2023**		December 31, 2022
Securities purchased under agreements to resell	**$**	**305,429**	$	291,272
Deposits paid for securities borrowed		**78,799**		74,165
Total, net[1]	**$**	**384,228**	$	365,437
Allowance for credit losses on securities purchased and borrowed[2]		**(30)**		(36)
Total, net of allowance	**$**	**384,198**	$	365,401

Securities loaned and sold under agreements to repurchase, at their respective carrying values, consisted of the following:

In millions of dollars		**March 31, 2023**		December 31, 2022
Securities sold under agreements to repurchase	**$**	**242,345**	$	183,827
Deposits received for securities loaned		**15,336**		18,617
Total, net[1]	**$**	**257,681**	$	202,444

(1) The above tables do not include securities-for-securities lending transactions of $4.8 billion and $4.4 billion at March 31, 2023 and December 31, 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 14 for further information.

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.

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 21 and 22. The remaining portion is carried at the amount of cash initially advanced or received, plus accrued interest, as specified in the respective agreements.

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 22. 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 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 March 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	**$**	**441,610**	**$**	**136,181**	**$**	**305,429**	**$**	**228,356**	**$**	**77,073**
Deposits paid for securities borrowed		**95,070**		**16,271**		**78,799**		**15,857**		**62,942**
Total	**$**	**536,680**	**$**	**152,452**	**$**	**384,228**	**$**	**244,213**	**$**	**140,015**

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	**$ 378,526**	**$ 136,181**	**$ 242,345**	**$ 114,250**	**$ 128,095**
Deposits received for securities loaned	**31,607**	**16,271**	**15,336**	**3,209**	**12,127**
Total	**$ 410,133**	**$ 152,452**	**$ 257,681**	**$ 117,459**	**$ 140,222**

	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:

	As of March 31, 2023				
In millions of dollars	**Open and overnight**	**Up to 30 days**	**31–90 days**	**Greater than 90 days**	**Total**
Securities sold under agreements to repurchase	**$ 199,698**	**$ 99,981**	**$ 32,302**	**$ 46,545**	**$ 378,526**
Deposits received for securities loaned	**22,487**	**150**	**657**	**8,313**	**31,607**
Total	**$ 222,185**	**$ 100,131**	**$ 32,959**	**$ 54,858**	**$ 410,133**

	As of December 31, 2022				
In millions of dollars	Open and overnight	Up to 30 days	31–90 days	Greater than 90 days	Total
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:

	As of March 31, 2023		
In millions of dollars	**Repurchase agreements**	**Securities lending agreements**	**Total**
U.S. Treasury and federal agency securities	**$ 163,199**	**$ —**	**$ 163,199**
State and municipal securities	**1,499**	**—**	**1,499**
Foreign government securities	**136,943**	**2**	**136,945**
Corporate bonds	**17,549**	**27**	**17,576**
Equity securities	**9,437**	**31,577**	**41,014**
Mortgage-backed securities	**39,080**	**—**	**39,080**
Asset-backed securities	**2,878**	**—**	**2,878**
Other	**7,941**	**1**	**7,942**
Total	**$ 378,526**	**$ 31,607**	**$ 410,133**

	As of December 31, 2022		
In millions of dollars	Repurchase agreements	Securities lending agreements	Total
U.S. Treasury and federal agency securities	$ 99,979	$ 106	$ 100,085
State and municipal securities	1,911	—	1,911
Foreign government securities	123,826	13	123,839
Corporate bonds	14,308	45	14,353
Equity securities	9,749	33,096	42,845
Mortgage-backed securities	36,225	—	36,225
Asset-backed securities	1,755	—	1,755
Other	8,465	9	8,474
Total	$ 296,218	$ 33,269	$ 329,487

11. 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.

For additional information on these receivables and payables, see Note 12 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

Brokerage receivables and *Brokerage payables* consisted of the following:

In millions of dollars	**March 31, 2023**	December 31, 2022
Receivables from customers	**$ 13,694**	$ 15,462
Receivables from brokers, dealers and clearing organizations	**41,797**	38,730
Total brokerage receivables[(1)]	**$ 55,491**	$ 54,192
Payables to customers	**$ 54,626**	$ 55,747
Payables to brokers, dealers and clearing organizations	**22,082**	13,471
Total brokerage payables[(1)]	**$ 76,708**	$ 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.

12. INVESTMENTS

For additional information regarding Citi's investment portfolios, including evaluating investments for impairment, see Note 13 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

The following table presents Citi's investments by category:

In millions of dollars		**March 31, 2023**		December 31, 2022
Debt securities available-for-sale (AFS)	**$**	**240,487**	$	249,679
Debt securities held-to-maturity (HTM)(1)		**264,342**		268,863
Marketable equity securities carried at fair value(2)		**443**		429
Non-marketable equity securities carried at fair value(2)(5)		**444**		466
Non-marketable equity securities measured using the measurement alternative(3)		**1,619**		1,676
Non-marketable equity securities carried at cost(4)		**5,243**		5,469
Total investments(6)	**$**	**512,578**	$	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 $29 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 March 31, 2023 and December 31, 2022, respectively.
(6) Not included in the balances above is approximately $2 billion of accrued interest receivable at March 31, 2023 and December 31, 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 quarters ended March 31, 2023 and 2022.

The following table presents interest and dividend income on investments:

	Three Months Ended March 31,			
In millions of dollars		**2023**		2022
Taxable interest	**$**	**4,000**	$	2,013
Interest exempt from U.S. federal income tax		**85**		5
Dividend income		**59**		32
Total interest and dividend income on investments	**$**	**4,144**	$	2,050

The following table presents realized gains and losses on the sales of investments, which exclude impairment losses:

	Three Months Ended March 31,			
In millions of dollars		**2023**		2022
Gross realized investment gains	**$**	**88**	$	153
Gross realized investment losses		**(16)**		(73)
Net realized gains (losses) on sales of investments	**$**	**72**	$	80

Debt Securities Available-for-Sale

The amortized cost and fair value of AFS debt securities were as follows:

In millions of dollars	March 31, 2023 Amortized cost	Gross unrealized gains	Gross unrealized losses	Allowance for credit losses	Fair value	December 31, 2022 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]	**$ 15,193**	**$ 98**	**$ 675**	**$ —**	**$ 14,616**	$ 12,009	$ 8	$ 755	$ —	$ 11,262
Residential	**343**	**—**	**3**	**—**	**340**	488	—	3	—	485
Commercial	**2**	**—**	**—**	**—**	**2**	2	—	—	—	2
Total mortgage-backed securities	**$ 15,538**	**$ 98**	**$ 678**	**$ —**	**$ 14,958**	$ 12,499	$ 8	$ 758	$ —	$ 11,749
U.S. Treasury and federal agency securities										
U.S. Treasury	**$ 88,721**	**$ 39**	**$ 2,083**	**$ —**	**$ 86,677**	$ 94,732	$ 50	$ 2,492	$ —	$ 92,290
Agency obligations	**—**	**—**	**—**	**—**	**—**	—	—	—	—	—
Total U.S. Treasury and federal agency securities	**$ 88,721**	**$ 39**	**$ 2,083**	**$ —**	**$ 86,677**	$ 94,732	$ 50	$ 2,492	$ —	$ 92,290
State and municipal	**$ 2,394**	**$ 24**	**$ 125**	**$ —**	**$ 2,293**	$ 2,363	$ 19	$ 159	$ —	$ 2,223
Foreign government	**126,996**	**617**	**2,529**	**—**	**125,084**	135,648	569	2,940	—	133,277
Corporate	**5,470**	**15**	**230**	**4**	**5,251**	5,146	19	246	3	4,916
Asset-backed securities[1]	**1,059**	**8**	**2**	**—**	**1,065**	1,022	12	4	—	1,030
Other debt securities	**5,162**	**1**	**4**	**—**	**5,159**	4,198	1	5	—	4,194
Total debt securities AFS	**$ 245,340**	**$ 802**	**$ 5,651**	**$ 4**	**$ 240,487**	$ 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 19 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.

The following table shows 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**
March 31, 2023						
Debt securities AFS						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	**$ 2,315**	**$ 74**	**$ 8,799**	**$ 601**	**$ 11,114**	**$ 675**
Residential	**325**	**3**	**—**	**—**	**325**	**3**
Commercial	**—**	**—**	**2**	**—**	**2**	**—**
Total mortgage-backed securities	**$ 2,640**	**$ 77**	**$ 8,801**	**$ 601**	**$ 11,441**	**$ 678**
U.S. Treasury and federal agency securities						
U.S. Treasury	**$ 24,255**	**$ 657**	**$ 47,036**	**$ 1,426**	**$ 71,291**	**$ 2,083**
Agency obligations	**—**	**—**	**—**	**—**	**—**	**—**
Total U.S. Treasury and federal agency securities	**$ 24,255**	**$ 657**	**$ 47,036**	**$ 1,426**	**$ 71,291**	**$ 2,083**
State and municipal	**$ 266**	**$ 8**	**$ 1,064**	**$ 117**	**$ 1,330**	**$ 125**
Foreign government	**63,717**	**1,778**	**19,972**	**751**	**83,689**	**2,529**
Corporate	**3,205**	**187**	**1,202**	**43**	**4,407**	**230**
Asset-backed securities	**695**	**2**	**3**	**—**	**698**	**2**
Other debt securities	**1,861**	**4**	**—**	**—**	**1,861**	**4**
Total debt securities AFS	**$ 96,639**	**$ 2,713**	**$ 78,078**	**$ 2,938**	**$ 174,717**	**$ 5,651**
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
Agency obligations	—	—	—	—	—	—
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:

	March 31, 2023		December 31, 2022	
In millions of dollars	**Amortized cost**	**Fair value**	Amortized cost	Fair value
Mortgage-backed securities[1]				
Due within 1 year	**$ 6**	**$ 6**	$ 42	$ 44
After 1 but within 5 years	**406**	**396**	523	513
After 5 but within 10 years	**478**	**456**	468	440
After 10 years	**14,648**	**14,100**	11,466	10,752
Total	**$ 15,538**	**$ 14,958**	$ 12,499	$ 11,749
U.S. Treasury and federal agency securities				
Due within 1 year	**$ 23,045**	**$ 22,947**	$ 25,935	$ 25,829
After 1 but within 5 years	**65,283**	**63,378**	68,455	66,166
After 5 but within 10 years	**393**	**352**	342	295
After 10 years	**—**	**—**	—	—
Total	**$ 88,721**	**$ 86,677**	$ 94,732	$ 92,290
State and municipal				
Due within 1 year	**$ 17**	**$ 18**	$ 19	$ 18
After 1 but within 5 years	**96**	**94**	94	92
After 5 but within 10 years	**316**	**313**	305	302
After 10 years	**1,965**	**1,868**	1,945	1,811
Total	**$ 2,394**	**$ 2,293**	$ 2,363	$ 2,223
Foreign government				
Due within 1 year	**$ 58,340**	**$ 58,073**	$ 64,795	$ 64,479
After 1 but within 5 years	**65,203**	**63,774**	67,935	66,150
After 5 but within 10 years	**2,990**	**2,804**	2,491	2,250
After 10 years	**463**	**433**	427	398
Total	**$ 126,996**	**$ 125,084**	$ 135,648	$ 133,277
All other[2]				
Due within 1 year	**$ 5,192**	**$ 5,178**	$ 4,452	$ 4,441
After 1 but within 5 years	**5,713**	**5,545**	5,162	4,988
After 5 but within 10 years	**719**	**717**	695	693
After 10 years	**67**	**35**	57	18
Total	**$ 11,691**	**$ 11,475**	$ 10,366	$ 10,140
Total debt securities AFS	**$ 245,340**	**$ 240,487**	$ 255,608	$ 249,679

(1) 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 19 for more information about mortgage- and asset-backed securitizations in which the Company has other involvement.

(2) 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:

In millions of dollars	Amortized cost, net[1]	Gross unrealized gains	Gross unrealized losses	Fair value
March 31, 2023				
Debt securities HTM				
Mortgage-backed securities[2]				
U.S. government-sponsored agency guaranteed[3]	**$ 85,580**	**$ 13**	**$ 8,611**	**$ 76,982**
Non-U.S. residential	**409**	**—**	**—**	**409**
Commercial	**1,119**	**—**	**158**	**961**
Total mortgage-backed securities	**$ 87,108**	**$ 13**	**$ 8,769**	**$ 78,352**
U.S. Treasury securities	**$ 134,952**	**$ —**	**$ 11,505**	**$ 123,447**
State and municipal	**9,212**	**63**	**556**	**8,719**
Foreign government	**2,244**	**—**	**103**	**2,141**
Asset-backed securities[2]	**30,826**	**—**	**634**	**30,192**
Total debt securities HTM, net	**$ 264,342**	**$ 76**	**$ 21,567**	**$ 242,851**
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 $104 million and $120 million at March 31, 2023 and December 31, 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 19 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 following table presents the carrying value and fair value of HTM debt securities by contractual maturity dates:

	March 31, 2023		December 31, 2022	
In millions of dollars	**Amortized cost[(1)]**	**Fair value**	Amortized cost[(1)]	Fair value
Mortgage-backed securities				
Due within 1 year	**$ 27**	**$ 27**	$ 27	$ 27
After 1 but within 5 years	**634**	**611**	520	505
After 5 but within 10 years	**1,347**	**1,246**	1,496	1,374
After 10 years	**85,100**	**76,468**	89,579	79,745
Total	**$ 87,108**	**$ 78,352**	$ 91,622	$ 81,651
U.S. Treasury securities				
Due within 1 year	**$ 3,149**	**$ 3,051**	$ 3,148	$ 3,017
After 1 but within 5 years	**111,568**	**102,525**	86,617	79,104
After 5 but within 10 years	**20,235**	**17,871**	45,196	39,118
After 10 years	**—**	**—**	—	—
Total	**$ 134,952**	**$ 123,447**	$ 134,961	$ 121,239
State and municipal				
Due within 1 year	**$ 27**	**$ 27**	$ 22	$ 21
After 1 but within 5 years	**112**	**111**	102	100
After 5 but within 10 years	**1,085**	**1,063**	1,002	967
After 10 years	**7,988**	**7,518**	8,111	7,419
Total	**$ 9,212**	**$ 8,719**	$ 9,237	$ 8,507
Foreign government				
Due within 1 year	**$ 155**	**$ 151**	$ 143	$ 139
After 1 but within 5 years	**2,089**	**1,990**	1,932	1,843
After 5 but within 10 years	**—**	**—**	—	—
After 10 years	**—**	**—**	—	—
Total	**$ 2,244**	**$ 2,141**	$ 2,075	$ 1,982
All other[(2)]				
Due within 1 year	**$ —**	**$ —**	$ —	$ —
After 1 but within 5 years	**—**	**—**	—	—
After 5 but within 10 years	**11,919**	**11,783**	11,751	11,583
After 10 years	**18,907**	**18,409**	19,217	18,686
Total	**$ 30,826**	**$ 30,192**	$ 30,968	$ 30,269
Total debt securities HTM	**$ 264,342**	**$ 242,851**	$ 268,863	$ 243,648

(1) Amortized cost is reported net of ACL of $104 million and $120 million at March 31, 2023 and December 31, 2022, respectively.
(2) 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 March 31, 2023 or December 31, 2022.

There were no purchased credit-deteriorated HTM debt securities held by the Company as of March 31, 2023 or December 31, 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.

For more information on evaluating investments for impairment, see Note 13 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

Recognition and Measurement of Impairment

The following table presents total impairment on AFS investments recognized in earnings:

	Three Months Ended March 31,	
In millions of dollars	**2023**	2022
Impairment losses related to debt securities that the Company does not intend to sell nor will likely be required to sell:		
Total impairment losses recognized during the period	**$ —**	$ —
Less: portion of impairment loss recognized in *AOCI* (before taxes)	**—**	—
Net impairment losses recognized in earnings for debt securities that the Company does not intend to sell nor will likely be required to sell	**$ —**	$ —
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	**51**	90
Total impairment losses recognized in earnings	**$ 51**	$ 90

The following presents the credit-related impairments recognized in earnings for AFS securities held that the Company does not intend to sell nor will likely be required to sell at March 31, 2023 and 2022:

Allowance for Credit Losses on AFS Debt Securities

	Three Months Ended March 31, 2023	
In millions of dollars	**Corporate**	**Total AFS**
Allowance for credit losses at beginning of period	**$ 3**	**$ 3**
Gross write-offs	—	—
Gross recoveries	—	—
Net credit losses (NCLs)	**$ —**	**$ —**
NCLs	**$ —**	**$ —**
Credit losses on securities without previous credit losses	**1**	**1**
Net reserve builds (releases) on securities with previous credit losses	—	—
Total provision for credit losses	**$ 1**	**$ 1**
Initial allowance on newly purchased credit-deteriorated securities during the period	—	—
Allowance for credit losses at end of period	**$ 4**	**$ 4**

	Three Months Ended March 31, 2022	
In millions of dollars	Corporate	Total AFS
Allowance for credit losses at beginning of period	$ 8	$ 8
Gross write-offs	—	—
Gross recoveries	—	—
Net credit losses (NCLs)	$ —	$ —
NCLs	$ —	$ —
Credit losses on securities without previous credit losses	—	—
Net reserve builds (releases) on securities with previous credit losses	—	—
Total provision for credit losses	$ —	$ —
Initial allowance on newly purchased credit-deteriorated securities during the period	—	—
Allowance for credit losses at end of period	$ 8	$ 8

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. For details on impairment indicators that are considered, see Note 13 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

When the qualitative assessment indicates that impairment exists, the investment is written down to fair value, with the full difference between the fair value of the investment and its carrying amount recognized in earnings.

Below is the carrying value of non-marketable equity securities measured using the measurement alternative at March 31, 2023 and December 31, 2022:

In millions of dollars	**March 31, 2023**	December 31, 2022
Measurement alternative:		
Carrying value	**$ 1,619**	$ 1,676

Below are amounts recognized in earnings and life-to-date amounts for non-marketable equity securities measured using the measurement alternative:

	Three Months Ended March 31,	
In millions of dollars	**2023**	2022
Measurement alternative(1):		
Impairment losses	**$ 35**	$ —
Downward changes for observable prices	**20**	—
Upward changes for observable prices	**30**	85

(1) See Note 21 for additional information on these nonrecurring fair value measurements.

	Life-to-date amounts on securities still held
In millions of dollars	**March 31, 2023**
Measurement alternative:	
Impairment losses	**$ 254**
Downward changes for observable prices	**26**
Upward changes for observable prices	**897**

A similar impairment analysis is performed for non-marketable equity securities carried at cost. For the three months ended March 31, 2023 and 2022, there was no impairment loss recognized in earnings for non-marketable equity securities carried at cost.

13. LOANS

Citigroup loans are reported in two categories: corporate and consumer. These categories are classified primarily according to the operating segment 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. For additional information regarding Citi's corporate and consumer loans, including related accounting policies, see Note 1 and Notes 1 and 14 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

Corporate Loans

Corporate loans represent loans and leases managed by *ICG* and the Mexico SBMM component of *Legacy Franchises.* The following table presents information by corporate loan type:

In millions of dollars	**March 31, 2023**	December 31, 2022
In North America offices[1]		
Commercial and industrial	**$ 59,790**	$ 56,176
Financial institutions	**38,524**	43,399
Mortgage and real estate[2]	**18,562**	17,829
Installment and other	**23,578**	23,767
Lease financing	**299**	308
Total	**$ 140,753**	$ 141,479
In offices outside North America[1]		
Commercial and industrial	**$ 92,803**	$ 93,967
Financial institutions	**22,272**	21,931
Mortgage and real estate[2]	**4,975**	4,179
Installment and other	**24,800**	23,347
Lease financing	**49**	46
Governments and official institutions	**2,647**	4,205
Total	**$ 147,546**	$ 147,675
Corporate loans, net of unearned income[3][4][5]	**$ 288,299**	$ 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 ($801) million and ($797) million at March 31, 2023 and December 31, 2022, respectively. Unearned income on corporate loans primarily represents interest received in advance, but not yet earned, on loans originated on a discounted basis.
(4) Not included in the balances above is approximately $2 billion of accrued interest receivable at March 31, 2023 and December 31, 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 three months ended March 31, 2023 and 2022.

The Company sold and/or reclassified to held-for-sale $0.9 billion and $0.3 billion of corporate loans during the three months ended March 31, 2023 and 2022, respectively. The Company did not have significant purchases of corporate loans classified as held-for-investment for the three months ended March 31, 2023 or 2022.

Corporate Loan Delinquencies and Non-Accrual Details at March 31, 2023

In millions of dollars	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	**$ 564**	**$ 436**	**$ 1,000**	**$ 909**	**$ 148,421**	**$ 150,330**
Financial institutions	**37**	**89**	**126**	**158**	**60,150**	**60,434**
Mortgage and real estate	**188**	**67**	**255**	**89**	**23,134**	**23,478**
Lease financing	**—**	**—**	**—**	**—**	**348**	**348**
Other	**69**	**47**	**116**	**57**	**48,640**	**48,813**
Loans at fair value						**4,896**
Total	**$ 858**	**$ 639**	**$ 1,497**	**$ 1,213**	**$ 280,693**	**$ 288,299**

Corporate Loan Delinquencies and Non-Accrual Details at December 31, 2022

In millions of dollars	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 collectability 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.

Corporate Loans Credit Quality Indicators

	Recorded investment in loans[1]							
	Term loans by year of origination							
In millions of dollars	2023	2022	2021	2020	2019	Prior	Revolving line of credit arrangements[2]	March 31, 2023
Investment grade[3]								
Commercial and industrial[4]	$ 30,374	$ 12,281	$ 5,870	$ 2,895	$ 3,241	$ 8,888	$ 39,492	$ 103,041
Financial institutions[4]	5,658	6,899	3,872	602	717	1,766	32,909	52,423
Mortgage and real estate	906	5,081	3,347	3,669	2,112	2,835	120	18,070
Other[5]	1,742	6,445	1,918	1,223	868	4,824	27,485	44,505
Total investment grade	$ 38,680	$ 30,706	$ 15,007	$ 8,389	$ 6,938	$ 18,313	$ 100,006	$ 218,039
Non-investment grade[3]								
Accrual								
Commercial and industrial[4]	$ 10,901	$ 8,199	$ 2,848	$ 1,868	$ 1,111	$ 4,190	$ 17,017	$ 46,134
Financial institutions[4]	2,347	2,396	717	178	362	233	1,870	8,103
Mortgage and real estate	597	551	860	592	722	1,577	418	5,317
Other[5]	505	1,049	502	509	435	222	1,375	4,597
Non-accrual								
Commercial and industrial[4]	—	7	32	46	111	164	549	909
Financial institutions	—	41	35	—	—	—	82	158
Mortgage and real estate	—	—	28	—	—	40	21	89
Other[5]	6	10	—	7	—	3	31	57
Total non-investment grade	$ 14,356	$ 12,253	$ 5,022	$ 3,200	$ 2,741	$ 6,429	$ 21,363	$ 65,364
Loans at fair value[6]								$ 4,896
Corporate loans, net of unearned income	$ 53,036	$ 42,959	$ 20,029	$ 11,589	$ 9,679	$ 24,742	$ 121,369	$ 288,299

In millions of dollars	Recorded investment in loans[1]							
	Term loans by year of origination[7]							
	2022	2021	2020	2019	2018	Prior	Revolving line of credit arrangements[2]	December 31, 2022
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]								
Accrual								
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
Non-accrual								
Commercial and industrial[4]	1	12	99	115	49	105	479	860
Financial institutions	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]								$ 5,123
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 quarter.
(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) In the first quarter of 2023, Citi identified that at December 31, 2022 certain loans originated prior to 2022 were disclosed as originating in 2022. The table above has been revised to reflect the correct origination year. Citi evaluated the effect of the revision, both qualitatively and quantitatively, and concluded that the impact of the revision was not material. The impact of the revision increased (decreased) the year of origination amounts as follows: $(24.9) billion, $2.0 billion, $3.2 billion, $4.6 billion, $4.1 billion and $11.0 billion for 2022, 2021, 2020, 2019, 2018 and prior, respectively.

Gross Credit Losses

The table below details gross credit losses recognized in the three months ended March 31, 2023, by year of loan origination:

In millions of dollars	For the period ended March 31, 2023							
	2023	**2022**	**2021**	**2020**	**2019**	**Prior**	**Revolving line of credit arrangement**	**Total**
Commercial and industrial	**$ 1**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**	**$ 35**	**$ 36**
Financial institutions	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Mortgage and real estate	**—**	**—**	**—**	**—**	**—**	**—**	**—**	**—**
Other[1]	**—**	**—**	**—**	**—**	**—**	**—**	**3**	**3**
Total	**$ 1**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**	**$ 38**	**$ 39**

(1) Other includes installment and other, lease financing and loans to government and official institutions.

Non-Accrual Corporate Loans

In millions of dollars	**March 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	**$ 592**	**$ 253**	$ 583	$ 268
Financial institutions	**154**	**70**	149	51
Mortgage and real estate	**46**	**5**	33	4
Other	**4**	**1**	—	—
Total non-accrual corporate loans with specific allowances	**$ 796**	**$ 329**	$ 765	$ 323
Non-accrual corporate loans without specific allowances				
Commercial and industrial	**$ 317**	**N/A**	$ 277	N/A
Financial institutions	**4**	**N/A**	3	N/A
Mortgage and real estate	**43**	**N/A**	—	N/A
Lease financing	**—**	**N/A**	10	N/A
Other	**53**	**N/A**	67	N/A
Total non-accrual corporate loans without specific allowances	**$ 417**	**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 three months ended March 31, 2023, December 31, 2022 and March 31, 2022 was $11 million, $15 million and $11 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 three months ended March 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.

	For the Three Months Ended March 31, 2023			
In millions of dollars, except for weighted average term extension	**Total modifications balance at March 31, 2023(1)(2)(3)**	**Term extension**	**Combination: Term extension and payment delay(5)**	**Weighted average term extension (months)**
Commercial and industrial	**$ 70**	**$ 40**	**$ 30**	**15**
Financial institutions	**—**	**—**	**—**	**—**
Mortgage and real estate	**6**	**6**	**—**	**4**
Other(4)	**—**	**—**	**—**	**—**
Total	**$ 76**	**$ 46**	**$ 30**	

(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 March 31, 2023.
(2) Commitments to lend to borrowers experiencing financial difficulty that were granted modifications totaled $368 million as of March 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) Other includes installment and other, lease financing and loans to government and official institutions.
(5) Payment delays either for principal or interest payments were immaterial.

	For the Three Months Ended March 31, 2022			
In millions of dollars	Carrying value of TDRs modified during the period	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	$ 12	$ —	$ —	$ 12
Mortgage and real estate	—	—	—	—
Other(3)	—	—	—	—
Total	$ 12	$ —	$ —	$ 12

(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, including loans that were modified during the three months ended March 31, 2023:

In millions of dollars	As of March 31, 2023[1] Total	Current	30–89 days past due	90+ days past due
Commercial and industrial	$ 70	$ 70	$ —	$ —
Financial institutions	—	—	—	—
Mortgage and real estate	6	6	—	—
Other[2]	—	—	—	—
Total	**$ 76**	**$ 76**	**$ —**	**$ —**

(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 three months ended March 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.

In millions of dollars	TDR balances at March 31, 2022	TDR loans that re-defaulted in 2022 within one year of modification
Commercial and industrial	$ 205	$ —
Mortgage and real estate	20	—
Other[1]	23	—
Total[2]	$ 248	$ —

(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 *PBWM* and *Legacy Franchises* (except Mexico SBMM). The tables below present details about these loans, including the following loan categories:

- Residential first mortgages and Home equity loans in North America offices primarily represent secured mortgage lending to customers of Retail banking and Global Wealth (primarily Private bank and Citigold).
- Credit cards in North America offices primarily represent unsecured credit card lending to customers of Branded cards and Retail services.
- Personal, small business and other loans in North America are primarily composed of classifiably managed loans to customers of Global Wealth (mostly 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.
- Residential mortgage loans in offices outside North America primarily represent secured mortgage lending to customers of Global Wealth (primarily Private bank and Citigold) as well as customers of *Legacy Franchises*.
- Credit cards in offices outside North America primarily represent unsecured credit card lending to customers of *Legacy Franchises*, primarily in Asia and Mexico.
- Personal, small business and other loans in offices outside North America are primarily composed of secured and unsecured loans to customers of *PBWM* and *Legacy Franchises*. A significant portion of *PBWM* loans is classifiably managed and represents loans to high credit quality Private bank customers who 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 March 31, 2023

In millions of dollars	Total current[1][2]	30–89 days past due[3][4]	≥ 90 days past due[3][4]	Past due government guaranteed[5]	Total loans	Non-accrual loans for which there is no ACLL	Non-accrual loans for which there is an ACLL	Total non-accrual	90 days past due and accruing
In North America offices[6]									
Residential first mortgages[7]	**$ 97,881**	**$ 336**	**$ 332**	**$ 241**	**$ 98,790**	**$ 83**	**$ 448**	**$ 531**	**$ 147**
Home equity loans[8][9]	**4,089**	**34**	**121**	**—**	**4,244**	**46**	**152**	**198**	**—**
Credit cards	**142,390**	**1,545**	**1,608**	**—**	**145,543**	**—**	**—**	**—**	**1,608**
Personal, small business and other[10]	**37,681**	**95**	**29**	**7**	**37,812**	**3**	**22**	**25**	**25**
Total	**$ 282,041**	**$ 2,010**	**$ 2,090**	**$ 248**	**$ 286,389**	**$ 132**	**$ 622**	**$ 754**	**$ 1,780**
In offices outside North America[6]									
Residential mortgages[7][9]	**$ 26,740**	**$ 62**	**$ 111**	**$ —**	**$ 26,913**	**$ —**	**$ 359**	**$ 359**	**$ 14**
Credit cards	**12,704**	**163**	**166**	**—**	**13,033**	**—**	**136**	**136**	**63**
Personal, small business and other[10]	**37,263**	**90**	**8**	**—**	**37,361**	**—**	**146**	**146**	**—**
Total	**$ 76,707**	**$ 315**	**$ 285**	**$ —**	**$ 77,307**	**$ —**	**$ 641**	**$ 641**	**$ 77**
Total Citigroup[11][12]	**$ 358,748**	**$ 2,325**	**$ 2,375**	**$ 248**	**$ 363,696**	**$ 132**	**$ 1,263**	**$ 1,395**	**$ 1,857**

(1) Loans less than 30 days past due are presented as current.
(2) Includes $238 million of residential first mortgages recorded at fair value.
(3) Excludes loans guaranteed by U.S. government-sponsored agencies. Excludes delinquencies on $31.5 billion and $17.8 billion of classifiably managed Private bank loans in North America and outside North America, respectively.
(4) 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. Most modified loans in North America would not be reported as 30–89 or 90+ days past due for the duration of the programs (which have various durations, and certain of which may be renewed).
(5) Consists of loans that are guaranteed by U.S. government-sponsored agencies that are 30–89 days past due of $0.1 billion and 90 days or more past due of $0.1 billion.
(6) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.
(7) 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 $20.3 billion of residential mortgages outside North America related to the Global Wealth business.
(8) Includes approximately $0.1 billion of home equity loans in process of foreclosure.
(9) Fixed-rate home equity loans and loans extended under home equity lines of credit, which are typically in junior lien positions.
(10) Includes loans related to the Global Wealth business: $33.9 billion in North America, approximately $31.5 billion of which are classifiably managed, and as of March 31, 2023 approximately 95% were rated investment grade; and $26.3 billion outside North America, approximately $17.8 billion of which are classifiably managed, and as of March 31, 2023 approximately 89% were rated investment grade. The classifiably managed portion of these loans is shown as "current" because the delinquency status is not applicable, since these loans are primarily evaluated for credit risk based on their internal risk classification.
(11) Consumer loans are net of unearned income of $748 million. Unearned income on consumer loans primarily represents unamortized origination fees and costs, premiums and discounts.
(12) Not included in the balances above is approximately $1 billion of accrued interest receivable at March 31, 2023, which is included in *Other assets* on the Consolidated Balance Sheet, except for credit card loans (which include accrued interest and fees). When a loan becomes non-accrual or, if not subject to a non-accrual policy, is charged off per the Company's charge-off policy, any accrued interest receivable is also reversed against the interest income. During the three months ended March 31, 2023, the Company reversed accrued interest of approximately $0.2 billion, primarily related to credit card loans.

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][4]	≥ 90 days past due[3][4]	Past due government guaranteed[5]	Total loans	Non-accrual loans for which there is no ACLL	Non-accrual loans for which there is an ACLL	Total non-accrual	90 days past due and accruing
In North America offices[6]									
Residential first mortgages[7]	$ 95,023	$ 421	$ 316	$ 279	$ 96,039	$ 86	$ 434	$ 520	$ 163
Home equity loans[8][9]	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[10]	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[6]									
Residential mortgages[7]	$ 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[10]	37,869	105	10	—	37,984	—	137	137	—
Total	$ 78,474	$ 314	$ 265	$ —	$ 79,053	$ —	$ 569	$ 569	$ 69
Total Citigroup[11][12]	$ 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 $237 million of residential first mortgages recorded at fair value.
(3) Excludes loans guaranteed by U.S. government-sponsored agencies. Excludes $31.5 billion and $17.8 billion of classifiably managed Private bank loans in North America and outside North America, respectively.
(4) 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. Most modified loans in North America would not be reported as 30–89 or 90+ days past due for the duration of the programs (which have various durations, and certain of which may be renewed).
(5) Consists of loans that are guaranteed by U.S. government-sponsored agencies that are 30–89 days past due of $0.1 billion and 90 days or more past due of $0.2 billion.
(6) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.
(7) Includes approximately $0.1 billion of residential first mortgage loans in process of foreclosure, and $19.8 billion of residential mortgages outside North America related to the Global Wealth business at December 31, 2022.
(8) Includes approximately $0.1 billion of home equity loans in process of foreclosure.
(9) Fixed-rate home equity loans and loans extended under home equity lines of credit, which are typically in junior lien positions.
(10) Includes loans related to the Global Wealth business: $34.0 billion in North America, approximately $31.5 billion of which are classifiably managed, and as of December 31, 2022 approximately 98% were rated investment grade; and $26.6 billion outside North America, approximately $17.8 billion of which are classifiably managed, and as of December 31, 2022 approximately 94% were rated investment grade. The classifiably managed portion of these loans is shown as "current" because the delinquency status is not applicable, since these loans are primarily evaluated for credit risk based on their internal risk classification.
(11) Consumer loans are net of unearned income of $712 million. Unearned income on consumer loans primarily represents unamortized origination fees and costs, premiums and discounts.
(12) Not included in the balances above is approximately $1 billion of accrued interest receivable at December 31, 2022, which is included in *Other assets* on the Consolidated Balance Sheet, except for credit card loans (which include accrued interest and fees). When a loan becomes non-accrual or, if not subject to a non-accrual policy, is charged off per the Company's charge-off policy, any accrued interest receivable is also reversed against the interest income. During the year ended December 31, 2022, the Company reversed accrued interest of approximately $0.6 billion, primarily related to credit card loans.

Interest Income Recognized for Non-Accrual Consumer Loans

In millions of dollars		Three Months Ended March 31, 2023		Three Months Ended March 31, 2022
In North America offices(1)				
Residential first mortgages	$	3	$	3
Home equity loans		2		1
Credit cards		—		—
Personal, small business and other		—		—
Total	$	5	$	4
In offices outside North America(1)				
Residential mortgages	$	1	$	—
Credit cards		—		—
Personal, small business and other		—		—
Total	$	1	$	—
Total Citigroup	$	6	$	4

(1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.

The Company sold and/or reclassified to held-for-sale $1.8 billion and $7 million of consumer loans during the three months ended March 31, 2023 and 2022, respectively. The increase was due to the reclassification of a portfolio to HFS in the first quarter of 2023. Loans held by a business for sale are not included in the above. The Company did not have significant purchases of consumer loans classified as held-for-investment for the three months ended March 31, 2023 or 2022. See Note 2 for additional information regarding Citigroup's businesses held-for-sale.

Consumer Credit Scores (FICO)

The following tables provide details on the Fair Isaac Corporation (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. For Citi's $78.8 billion and $80.5 billion in the consumer loan portfolio outside of the U.S. as of March 31, 2023 and December 31, 2022, 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 (for additional information on loans outside of the U.S., 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.

FICO score distribution—U.S. portfolio[1][2]	**March 31, 2023**					
In millions of dollars	**Less than 680**	**680 to 760**	**Greater than 760**	**Classifiably managed**[3]	**FICO not available**[4]	**Total loans**
Residential first mortgages						
2023	$ 56	$ 1,112	$ 2,258			
2022	823	6,981	13,463			
2021	669	5,690	12,698			
2020	400	4,410	10,981			
2019	353	2,382	5,388			
Prior	2,341	7,061	14,100			
Total residential first mortgages	$ 4,642	$ 27,636	$ 58,888	$ —	$ 7,624	$ 98,790
Home equity loans (pre-reset)	$ 529	$ 1,407	$ 1,739			
Home equity loans (post-reset)	63	70	41			
Home equity term loans	103	141	111			
2023	—	—	—			
2022	—	—	—			
2021	—	1	1			
2020	—	2	2			
2019	1	1	1			
Prior	102	137	107			
Total home equity loans	$ 695	$ 1,618	$ 1,891	$ —	$ 40	$ 4,244
Credit cards	$ 29,044	$ 57,031	$ 55,624			
Revolving loans converted to term loans[5]	856	346	51			
Total credit cards[6]	$ 29,900	$ 57,377	$ 55,675	$ —	$ 2,071	$ 145,023
Personal, small business and other						
2023	$ 11	$ 51	$ 120			
2022	307	576	812			
2021	94	147	174			
2020	13	16	24			
2019	17	18	21			
Prior	135	187	131			
Total personal, small business and other[7][8]	$ 577	$ 995	$ 1,282	$ 31,452	$ 2,571	$ 36,877
Total	$ 35,814	$ 87,626	$ 117,736	$ 31,452	$ 12,306	$ 284,934

FICO score distribution—U.S. portfolio[1][2]	December 31, 2022					
In millions of dollars	Less than 680	680 to 760	Greater than 760	Classifiably managed[3]	FICO not available[4]	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[5]	766	354	54			
Total credit cards[6]	$ 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[7][8]	$ 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) FICO scores are updated on either a monthly or quarterly basis. For updates that are made only quarterly, certain current-period loans by year of origination are greater than those disclosed in the prior periods. Loans that did not have FICO scores as of the prior period have been updated with FICO scores as they become available.
(3) These personal, small business and other loans without a FICO score available include $31.5 billion and $31.5 billion of Private bank loans as of March 31, 2023 and December 31, 2022, respectively, which are classifiably managed within Global Wealth and are primarily evaluated for credit risk based on their internal risk ratings. As of March 31, 2023 and December 31, 2022, approximately 95% and 98% of these loans, respectively, were rated investment grade.
(4) FICO scores not available related to loans guaranteed by government-sponsored enterprises for which FICO scores are generally not utilized.
(5) Not included in the tables above are $48 million and $75 million of revolving credit card loans outside of the U.S. that were converted to term loans as of March 31, 2023 and December 31, 2022, respectively.
(6) Excludes $520 million and $545 million of balances related to Canada for March 31, 2023 and December 31, 2022, respectively.
(7) Excludes $935 million and $940 million of balances related to Canada for March 31, 2023 and December 31, 2022, respectively.
(8) Includes approximately $56 million and $67 million of personal revolving loans that were converted to term loans for March 31, 2023 and December 31, 2022, respectively.

Consumer Gross Credit Losses

The following table provides details on gross credit losses recognized during the three months ended March 31, 2023, by year of loan origination:

In millions of dollars		Three Months Ended March 31, 2023
Residential first mortgages		
2023	$	—
2022		—
2021		—
2020		**1**
2019		**1**
Prior		**12**
Total residential first mortgages	$	**14**
Home equity line of credit (pre-reset)	$	—
Home equity line of credit (post-reset)		—
Home equity term loans		**1**
Total home equity loans	$	**1**
Credit cards	$	**1,366**
Revolving loans converted to term loans		**42**
Total credit cards	$	**1,408**
Personal, small business and other		
2023	$	**38**
2022		**37**
2021		**29**
2020		**13**
2019		**13**
Prior		**42**
Total personal, small business and other	$	**172**
Total Citigroup	$	**1,595**

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	**March 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(1)**	**Total**
Residential first mortgages					
2023	**$ 2,464**	**$ 985**	**$ —**		
2022	**14,533**	**7,710**	**148**		
2021	**18,590**	**1,556**	**33**		
2020	**16,678**	**336**	**1**		
2019	**8,532**	**220**	**26**		
Prior	**25,655**	**261**	**24**		
Total residential first mortgages	**$ 86,452**	**$ 11,068**	**$ 232**	**$ 1,038**	**$ 98,790**
Home equity loans (pre-reset)	**$ 3,559**	**$ 41**	**$ 61**		
Home equity loans (post-reset)	**488**	**9**	**14**		
Total home equity loans	**$ 4,047**	**$ 50**	**$ 75**	**$ 72**	**$ 4,244**
Total	**$ 90,499**	**$ 11,118**	**$ 307**	**$ 1,110**	**$ 103,034**

LTV distribution—U.S. portfolio	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(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 includes 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)	**March 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	**$ 966**	**$ 399**	**$ —**		
2022	**3,165**	**1,018**	**190**		
2021	**3,816**	**966**	**197**		
2020	**2,927**	**475**	**—**		
2019	**2,841**	**78**	**1**		
Prior	**9,668**	**68**	**8**		
Total	**$ 23,383**	**$ 3,004**	**$ 396**	**$ 130**	**$ 26,913**

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 Global Wealth. As of March 31, 2023 and December 31, 2022, mortgage portfolios outside of the U.S. had an average LTV of approximately 52% and 51%, respectively.

Consumer Loans and Ratios Outside of North America

In millions of dollars at March 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	1Q23 NCL ratio	1Q22 NCL ratio
Residential mortgages(3)	**$ 26,913**	**$ —**	**$ 26,913**	**0.23 %**	**0.41 %**	**0.11 %**	0.09 %
Credit cards	**13,033**	**—**	**13,033**	**1.25**	**1.27**	**3.80**	3.23
Personal, small business and other(4)	**37,361**	**17,808**	**19,553**	**0.46**	**0.04**	**0.87**	0.63
Total	**$ 77,307**	**$ 17,808**	**$ 59,499**	**0.53 %**	**0.48 %**	**1.09 %**	0.81 %

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
Residential mortgages(3)	$ 28,114	$ —	$ 28,114	0.22 %	0.38 %
Credit cards	12,955	—	12,955	1.13	1.15
Personal, small business and other(4)	37,984	17,762	20,222	0.52	0.05
Total	$ 79,053	$ 17,762	$ 61,291	0.51 %	0.43 %

(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 March 31, 2023 and December 31, 2022, approximately 89% and 94% of these loans, respectively, were rated investment grade.
(3) Includes $20.3 billion and $19.8 billion as of March 31, 2023 and December 31, 2022, respectively, of residential mortgages related to the Global Wealth business.
(4) Includes $26.3 billion and $26.6 billion as of March 31, 2023 and December 31, 2022, respectively, of loans related to the Global Wealth business.

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.

Residential Mortgages

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. In the U.S., before permanently modifying 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. Upon successful completion of the trial period, Citi and the borrower enter into a permanent modification. Citi expects most loans entering trial modifications to ultimately be granted permanent modifications. At March 31, 2023, $25 million of mortgage loans were enrolled in trial programs. At March 31, 2023, mortgage loans of $1 million had gone through Chapter 7 bankruptcy during the three months ended March 31, 2023.

Types of Consumer Loan Modifications and Their Financial Effect

The following table provides details on permanent consumer loan modifications granted during the three months ended March 31, 2023 to borrowers experiencing financial difficulty by type of modification granted and the financial effect of those modifications:

	For the Three Months Ended March 31, 2023										
In millions of dollars, except weighted averages	**Modifications as % of loans**	**Total modifications balance at March 31, 2023[1][2][3]**	**Interest rate reduction**	**Term extension**	**Payment delay**	**Combination: interest rate reduction and term extension**	**Combination: term extension and payment delay[4]**	**Combination: interest rate reduction, 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[5]											
Residential first mortgages[6]	**0.05 %**	**$ 52**	**$ —**	**$ 15**	**$ 34**	**$ 3**	**$ —**	**$ —**	**2 %**	**183**	**6**
Home equity loans	**0.19**	**8**	**—**	**—**	**3**	**5**	**—**	**—**	**3**	**120**	**5**
Credit cards	**0.19**	**276**	**276**	**—**	**—**	**—**	**—**	**—**	**22**	**—**	**—**
Personal, small business and other	**0.01**	**2**	**—**	**—**	**—**	**2**	**—**	**—**	**7**	**16**	**—**
Total	**0.12 %**	**$ 338**	**$ 276**	**$ 15**	**$ 37**	**$ 10**	**$ —**	**$ —**			
In offices outside North America[5]											
Residential mortgages	**0.97 %**	**$ 260**	**$ —**	**$ —**	**$ 17**	**$ —**	**$ 242**	**$ 1**	**— %**	**1**	**1**
Credit cards	**0.09**	**12**	**12**	**—**	**—**	**—**	**—**	**—**	**18**	**—**	**—**
Personal, small business and other	**0.02**	**7**	**1**	**2**	**—**	**4**	**—**	**—**	**6**	**20**	**6**
Total	**0.36 %**	**$ 279**	**$ 13**	**$ 2**	**$ 17**	**$ 4**	**$ 242**	**$ 1**			

(1) The above table reflects activity for loans outstanding as of the end of the reporting period. During the three months ended March 31, 2023, Citi granted forgiveness of $9 million in credit card loans and $1 million in personal, small business and other loans that had no outstanding balance at March 31, 2023.
(2) Commitments to lend to borrowers experiencing financial difficulty that were granted modifications included in the table above were immaterial at March 31, 2023.
(3) For major consumer portfolios, the ACLL 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) Residential mortgages in offices outside North America were granted four months of payment deferrals during the six months ended December 31, 2022.
(5) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.
(6) Excludes residential first mortgages discharged in Chapter 7 bankruptcy in the three months ended March 31, 2023.

Consumer Troubled Debt Restructurings

	For the Three Months Ended March 31, 2022					
In millions of dollars, except number of loans modified	Number of loans modified	Post-modification recorded investment[1][2]	Deferred principal[3]	Contingent principal forgiveness[4]	Principal forgiveness[5]	Average interest rate reduction
In North America offices[6]						
Residential first mortgages	346	$ 81	$ —	$ —	$ —	— %
Home equity loans	104	9	—	—	—	—
Credit cards	40,740	173	—	—	—	17
Personal, small business and other	146	1	—	—	—	5
Total[7]	41,336	$ 264	$ —	$ —	$ —	
In offices outside North America[6]						
Residential mortgages	183	$ 6	$ —	$ —	$ —	— %
Credit cards	5,000	22	—	—	1	19
Personal, small business and other	672	9	—	—	—	8
Total[7]	5,855	$ 37	$ —	$ —	$ 1	

(1) Post-modification balances include past due amounts that are capitalized at the modification date.
(2) Post-modification balances in North America include $1 million of residential first mortgages to borrowers who have gone through Chapter 7 bankruptcy in the three months ended March 31, 2022. These amounts include $1 million of residential first mortgages that were newly classified as TDRs in the three months ended March 31, 2022, based on previously received OCC guidance.

(3) 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.
(4) Represents the portion of contractual loan principal that is non-interest bearing and, depending on borrower performance, eligible for forgiveness.
(5) Represents the portion of contractual loan principal that was forgiven at the time of permanent modification.
(6) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.
(7) The above tables reflect activity for restructured loans that were considered TDRs during the reporting period.

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, including loans that were modified during the three months ended March 31, 2023:

	As of March 31, 2023				For the Three Months Ended
In millions of dollars	Total	Current	30-89 days past due	90+ days past due	Gross credit losses
In North America offices[1]					
Residential first mortgages	$ 52	$ 18	$ 18	$ 16	$ —
Home equity loans	9	6	1	2	—
Credit cards	276	129	81	66	13
Personal, small business and other	2	2	—	—	—
Total[2][3]	$ 339	$ 155	$ 100	$ 84	$ 13
In offices outside North America[1]					
Residential mortgages	$ 260	$ 259	$ 1	$ —	$ 1
Credit cards	12	12	—	—	—
Personal, small business and other	6	6	—	—	—
Total[2][3]	$ 278	$ 277	$ 1	$ —	$ 1

(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 three months ended March 31, 2023. Default is defined as 60 days past due:

	For the Three Months Ended March 31, 2023						
In millions of dollars	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	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Home equity loans	—	—	—	—	—	—	—
Credit cards[4]	12	12	—	—	—	—	—
Personal, small business and other	—	—	—	—	—	—	—
Total	$ 12	$ 12	$ —	$ —	$ —	$ —	$ —
In offices outside North America[3]							
Residential mortgages	$ 2	$ —	$ —	$ 1	$ —	$ —	$ 1
Credit cards[4]	—	—	—	—	—	—	—
Personal, small business and other	—	—	—	—	—	—	—
Total	$ 2	$ —	$ —	$ 1	$ —	$ —	$ 1

(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 consumer TDRs that defaulted for which the payment default occurred within one year of a permanent modification. Default is defined as 60 days past due:

In millions of dollars	Three Months Ended March 31, 2022
In North America offices[1]	
Residential first mortgages	$ 4
Home equity loans	—
Credit cards	57
Personal, small business and other	—
Total	$ 61
In offices outside North America[1]	
Residential mortgages	$ 4
Credit cards	4
Personal, small business and other	1
Total	$ 9

(1) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.

Purchased Credit-Deteriorated Assets

	Three Months Ended March 31, 2023			Three Months Ended December 31, 2022			Three Months Ended March 31, 2022		
In millions of dollars	**Credit cards**	**Mortgages**[1]	**Installment and other**	Credit cards	Mortgages[1]	Installment and other	Credit cards	Mortgages[1]	Installment and other
Purchase price	**$ —**	**$ 6**	**$ —**	$ —	$ 9	$ —	$ —	$ 4	$ —
Allowance for credit losses at acquisition date	**—**	**—**	**—**	—	—	—	—	—	—
Discount or premium attributable to non-credit factors	**—**	**—**	**—**	—	—	—	—	—	—
Par value (amortized cost basis)	**$ —**	**$ 6**	**$ —**	$ —	$ 9	$ —	$ —	$ 4	$ —

(1) Includes loans sold to agencies that were bought back at par due to repurchase agreements.

14. ALLOWANCE FOR CREDIT LOSSES

In millions of dollars	Three Months Ended March 31, 2023	2022
Allowance for credit losses on loans (ACLL) at beginning of period	**$ 16,974**	$ 16,455
Adjustments to opening balance[(1)]		
Financial instruments—TDRs and vintage disclosures[(1)]	**$ (352)**	$ —
Adjusted ACLL at beginning of period	**16,622**	16,455
Gross credit losses on loans	**$ (1,634)**	$ (1,240)
Gross recoveries on loans	**332**	368
Net credit losses on loans (NCLs)	**$ (1,302)**	$ (872)
Replenishment of NCLs	**$ 1,302**	$ 872
Net reserve builds (releases) for loans	**397**	(781)
Net specific reserve builds (releases) for loans	**38**	169
Total provision for credit losses on loans (PCLL)	**$ 1,737**	$ 260
Other, net (see table below)	**112**	(450)
ACLL at end of period	**$ 17,169**	$ 15,393
Allowance for credit losses on unfunded lending commitments (ACLUC) at beginning of period[(2)]	**$ 2,151**	$ 1,871
Provision (release) for credit losses on unfunded lending commitments	**(194)**	474
Other, net	**2**	(2)
ACLUC at end of period[(2)]	**$ 1,959**	$ 2,343
Total allowance for credit losses on loans, leases and unfunded lending commitments[(3)]	**$ 19,128**	$ 17,736

Other, net details *In millions of dollars*	Three Months Ended March 31, 2023	2022
Reclasses of consumer ACLL to HFS[(4)]	**$ —**	$ (350)
FX translation and other	**112**	(100)
Other, net	**$ 112**	$ (450)

(1) See Note 1 for a description of the impact of adopting ASU 2022-02 on the ACL.
(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 below for ACL on *HTM debt securities* and *Other assets*.
(4) See Note 2.

Allowance for Credit Losses on Loans and End-of-Period Loans

	Three Months Ended					
	March 31, 2023			March 31, 2022		
In millions of dollars	**Corporate**	**Consumer**	**Total**	Corporate	Consumer	Total
ACLL at beginning of period	**$ 2,855**	**$ 14,119**	**$ 16,974**	$ 2,415	$ 14,040	$ 16,455
Adjustment to opening balance(1)						
Financial instruments—TDRs and vintage disclosures(1)	**—**	**(352)**	**(352)**	—	—	—
Adjusted ACLL at beginning of period	**$ 2,855**	**$ 13,767**	**$ 16,622**	$ 2,415	$ 14,040	$ 16,455
Charge-offs	**$ (39)**	**$ (1,595)**	**$ (1,634)**	$ (48)	$ (1,192)	$ (1,240)
Recoveries	**17**	**315**	**332**	17	351	368
Replenishment of NCLs	**22**	**1,280**	**1,302**	31	841	872
Net reserve builds (releases)	**(90)**	**487**	**397**	376	(1,157)	(781)
Net specific reserve builds (releases)	**5**	**33**	**38**	225	(56)	169
Other	**10**	**102**	**112**	9	(459)	(450)
Ending balance	**$ 2,780**	**$ 14,389**	**$ 17,169**	$ 3,025	$ 12,368	$ 15,393

	March 31, 2023			December 31, 2022		
In millions of dollars	**Corporate**	**Consumer**	**Total**	Corporate	Consumer	Total
ACLL						
Collectively evaluated(1)	**$ 2,451**	**$ 14,351**	**$ 16,802**	$ 2,532	$ 13,521	$ 16,053
Individually evaluated	**329**	**39**	**368**	323	596	919
Purchased credit deteriorated	**—**	**(1)**	**(1)**	—	2	2
Total ACLL	**$ 2,780**	**$ 14,389**	**$ 17,169**	$ 2,855	$ 14,119	$ 16,974
Loans, net of unearned income						
Collectively evaluated(1)	**$ 282,190**	**$ 363,306**	**$ 645,496**	$ 282,909	$ 364,795	$ 647,704
Individually evaluated	**1,213**	**39**	**1,252**	1,122	2,921	4,043
Purchased credit deteriorated	**—**	**113**	**113**	—	114	114
Held at fair value	**4,896**	**238**	**5,134**	5,123	237	5,360
Total loans, net of unearned income	**$ 288,299**	**$ 363,696**	**$ 651,995**	$ 289,154	$ 368,067	$ 657,221

(1) See Note 1 for a description of the effect of adopting ASU 2022-02 on the ACL and for Citi's updated accounting policy for collectively evaluating the ACL for consumer loans formerly considered TDRs.

1Q23 Changes in the ACL

The total allowance for credit losses on loans, leases and unfunded lending commitments as of March 31, 2023 was $19,128 million, a slight increase from $19,125 million at December 31, 2022. The increase in the ACLL was primarily driven by macroeconomic deterioration and growth in card revolving balances, 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 a decrease in the ACLUC primarily driven by reductions in Russia exposures.

Consumer ACLL

Citi's total consumer allowance for credit losses on loans (ACLL) as of March 31, 2023 was $14,389 million, an increase from $14,119 million at December 31, 2022. The increase was primarily driven by a deterioration in macroeconomic assumptions and growth in U.S. Cards revolving 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 March 31, 2023 was $2,780 million, a decrease from $2,855 million at December 31, 2022. The decrease was primarily driven by reductions in Russia exposures.

ACLUC

As of March 31, 2023, Citi's total ACLUC, included in *Other liabilities*, was $1,959 million, a decrease from $2,151 million at December 31, 2022. The decrease was primarily driven by reductions in Russia exposures.

Allowance for Credit Losses on HTM Debt Securities

In millions of dollars	Three Months Ended March 31, 2023 Mortgage-backed	State and municipal	Foreign government	Asset-backed	Total HTM
Allowance for credit losses on HTM debt securities at beginning of quarter	**$ 1**	**$ 113**	**$ 3**	**$ 3**	**$ 120**
Gross credit losses	—	—	—	—	—
Gross recoveries	—	—	—	—	—
Net credit losses (NCLs)	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**
Replenishment of NCLs	$ —	$ —	$ —	$ —	$ —
Net reserve builds (releases)	**2**	**(15)**	—	**(4)**	**(17)**
Net specific reserve builds (releases)	—	—	—	—	—
Total provision for credit losses on HTM debt securities	**$ 2**	**$ (15)**	**$ —**	**$ (4)**	**$ (17)**
Other, net	**$ (1)**	**$ —**	**$ —**	**$ 2**	**$ 1**
Allowance for credit losses on HTM debt securities at end of quarter	**$ 2**	**$ 98**	**$ 3**	**$ 1**	**$ 104**

In millions of dollars	Three Months Ended March 31, 2022 Mortgage-backed	State and municipal	Foreign government	Asset-backed	Total HTM
Allowance for credit losses on HTM debt securities at beginning of quarter	$ 6	$ 75	$ 4	$ 2	$ 87
Gross credit losses	—	—	—	—	—
Gross recoveries	—	—	—	—	—
Net credit losses (NCLs)	$ —	$ —	$ —	$ —	$ —
Replenishment of NCLs	$ —	$ —	$ —	$ —	$ —
Net reserve builds (releases)	(2)	4	(2)	(2)	(2)
Net specific reserve builds (releases)		—	—	—	
Total provision for credit losses on HTM debt securities	$ (2)	$ 4	$ (2)	$ (2)	$ (2)
Other, net	$ —	$ —	$ —	$ —	$ —
Allowance for credit losses on HTM debt securities at end of quarter	$ 4	$ 79	$ 2	$ —	$ 85

Allowance for Credit Losses on Other Assets

In millions of dollars	Three Months Ended March 31, 2023 Deposits with banks	Securities borrowed and purchased under agreements to resell	Brokerage receivables	All other assets[(1)]	Total
Allowance for credit losses on other assets at beginning of quarter	**$ 51**	**$ 36**	**$ —**	**$ 36**	**$ 123**
Gross credit losses	**—**	**—**	**—**	**(11)**	**(11)**
Gross recoveries	**—**	**—**	**—**	**—**	**—**
Net credit losses (NCLs)	**$ —**	**$ —**	**$ —**	**$ (11)**	**$ (11)**
Replenishment of NCLs	**$ —**	**$ —**	**$ —**	**$ 11**	**$ 11**
Net reserve builds (releases)	**85**	**(3)**	**—**	**332**	**414**
Total provision for credit losses	**$ 85**	**$ (3)**	**$ —**	**$ 343**	**$ 425**
Other, net	**$ (1)**	**$ (3)**	**$ —**	**$ (5)**	**$ (9)**
Allowance for credit losses on other assets at end of quarter	**$ 135**	**$ 30**	**$ —**	**$ 363**	**$ 528**

(1) Primarily an increase related to transfer risk associated with exposures outside of the U.S.

In millions of dollars	Three Months Ended March 31, 2022 Deposits with banks	Securities borrowed and purchased under agreements to resell	Brokerage receivables	All other assets[(1)]	Total
Allowance for credit losses on other assets at beginning of quarter	$ 21	$ 6	$ —	$ 26	$ 53
Gross credit losses	—	—	—	(7)	(7)
Gross recoveries	—	—	—	—	—
Net credit losses (NCLs)	$ —	$ —	$ —	$ (7)	$ (7)
Replenishment of NCLs	$ —	$ —	$ —	$ 7	$ 7
Net reserve builds (releases)	(6)	(2)	—	(3)	(11)
Total provision for credit losses	$ (6)	$ (2)	$ —	$ 4	$ (4)
Other, net	$ —	$ —	$ —	$ 1	$ 1
Allowance for credit losses on other assets at end of quarter	$ 15	$ 4	$ —	$ 24	$ 43

(1) Primarily accounts receivable.

For ACL on AFS debt securities, see Note 12.

15. GOODWILL AND INTANGIBLE ASSETS

Goodwill

The changes in *Goodwill* were as follows:

In millions of dollars	Institutional Clients Group	Personal Banking and Wealth Management	Legacy Franchises	Total
Balance at December 31, 2022	$ 8,986	$ 9,741	$ 964	$ 19,691
Foreign currency translation	42	69	80	191
Balance at March 31, 2023	**$ 9,028**	**$ 9,810**	**$ 1,044**	**$ 19,882**

Citi tests goodwill impairment annually as of October 1 (the annual test) and conducts interim assessments between the annual test 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. No such events or circumstances were identified as part of the qualitative assessment performed as of March 31, 2023. For additional information regarding Citi's goodwill impairment testing process, see Notes 1 and 16 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

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 strategic refresh. 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.

Intangible Assets

The components of intangible assets were as follows:

	March 31, 2023			December 31, 2022		
In millions of dollars	**Gross carrying amount**	**Accumulated amortization**	**Net carrying amount**	Gross carrying amount	Accumulated amortization	Net carrying amount
Purchased credit card relationships[1]	**$ 5,302**	**$ 4,253**	**$ 1,049**	$ 5,513	$ 4,426	$ 1,087
Credit card contract-related intangibles[2]	**4,193**	**1,565**	**2,628**	3,903	1,518	2,385
Other customer relationships	**376**	**287**	**89**	373	283	90
Present value of future profits	**35**	**34**	**1**	32	31	1
Indefinite-lived intangible assets	**207**	—	**207**	192	—	192
Other	—	—	—	28	20	8
Intangible assets (excluding MSRs)	**$ 10,113**	**$ 6,139**	**$ 3,974**	$ 10,041	$ 6,278	$ 3,763
Mortgage servicing rights (MSRs)[3]	**658**	—	**658**	665	—	665
Total intangible assets	**$ 10,771**	**$ 6,139**	**$ 4,632**	$ 10,706	$ 6,278	$ 4,428

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 March 31, 2023**
Purchased credit card relationships[1]	$ 1,087	**$ —**	**$ (38)**	**$ —**	**$ —**	**$ 1,049**
Credit card contract-related intangibles[2]	2,385	**290**	**(47)**	—	—	**2,628**
Other customer relationships	90	**5**	**(6)**	—	—	**89**
Present value of future profits	1	—	—	—	—	**1**
Indefinite-lived intangible assets	192	—	—	—	**15**	**207**
Other	8	—	**(8)**	—	—	—
Intangible assets (excluding MSRs)	$ 3,763	**$ 295**	**$ (99)**	**$ —**	**$ 15**	**$ 3,974**
Mortgage servicing rights (MSRs)[3]	665					**658**
Total intangible assets	$ 4,428					**$ 4,632**

(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 the period, the remaining term is over 10 years.
(3) See Note 19 for additional information on Citi's MSRs, including the rollforward for the three months ended March 31, 2023.

16. DEPOSITS

Deposits consisted of the following:

In millions of dollars		**March 31, 2023[(1)]**		December 31, 2022
Non-interest-bearing deposits in U.S. offices	**$**	**123,969**	$	122,655
Interest-bearing deposits in U.S. offices (including $972 and $903 as of March 31, 2023 and December 31, 2022, respectively, at fair value)		**587,477**		607,470
Non-interest-bearing deposits in offices outside the U.S.		**90,404**		95,182
Interest-bearing deposits in offices outside the U.S. (including $1,971 and $972 as of March 31, 2023 and December 31, 2022, respectively, at fair value)		**528,609**		540,647
Total deposits	**$**	**1,330,459**	$	1,365,954

(1) Changes in time deposits that met or exceeded the insured limit were insignificant during the three months ended March 31, 2023. For information on time deposits that met or exceeded the insured limit at December 31, 2022, see Note 17 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

For additional information on Citi's deposits, see Citi's 2022 Form 10-K.

17. DEBT

For additional information regarding Citi's short-term borrowings and long-term debt, see Note 18 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

Short-Term Borrowings

In millions of dollars		**March 31, 2023**		December 31, 2022
Commercial paper				
Bank[1]	**$**	**11,036**	$	11,185
Broker-dealer and other[2]		**10,591**		14,345
Total commercial paper	**$**	**21,627**	$	25,530
Other borrowings[3]		**18,560**		21,566
Total	**$**	**40,187**	$	47,096

(1) Represents Citibank entities as well as other bank entities.
(2) Represents broker-dealer and other non-bank subsidiaries that are consolidated into Citigroup Inc., the parent holding company.
(3) Includes borrowings from Federal Home Loan Banks and other market participants. At March 31, 2023 and December 31, 2022, collateralized short-term advances from Federal Home Loan Banks were $6.8 billion and $12.0 billion, respectively.

Long-Term Debt

In millions of dollars		**March 31, 2023**		December 31, 2022
Citigroup Inc.[1]	**$**	**166,826**	$	166,257
Bank[2]		**19,930**		21,113
Broker-dealer and other[3]		**92,928**		84,236
Total	**$**	**279,684**	$	271,606

(1) Represents the parent holding company.
(2) Represents Citibank entities as well as other bank entities. At March 31, 2023 and December 31, 2022, collateralized long-term advances from the Federal Home Loan Banks were $7.3 billion and $7.3 billion, respectively.
(3) 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.

Long-term debt outstanding includes trust preferred securities with a balance sheet carrying value of $1.6 billion at March 31, 2023 and December 31, 2022.

The following table summarizes Citi's outstanding trust preferred securities at March 31, 2023:

							Junior subordinated debentures owned by trust			
Trust	**Issuance date**	**Securities issued**		**Liquidation value[1]**	**Coupon rate[2]**	**Common shares issued to parent**		**Notional amount**	**Maturity**	**Redeemable by issuer beginning**
In millions of dollars, except securities and share amounts										
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. LIBOR + 637 bps	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.

18. CHANGES IN ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS) (AOCI)

Changes in each component of Citigroup's *Accumulated other comprehensive income (loss)* were as follows:

Three Months Ended March 31, 2023

In millions of dollars	Net unrealized gains (losses) on debt securities	Debt valuation adjustment (DVA)[1]	Cash flow hedges[2]	Benefit plans[3]	CTA, net of hedges[4]	Excluded component of fair value hedges	Long-duration insurance contracts[5]	Accumulated other comprehensive income (loss)
Balance, December 31, 2022	$ (5,998)	$ 842	$ (2,522)	$ (5,755)	$ (33,637)	$ 8	$ —	$ (47,062)
Adjustment to opening balance, net of taxes[6]	—	—	—	—	—	—	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	**855**	**(327)**	**6**	**(132)**	**841**	**(16)**	**5**	**1,232**
Increase (decrease) due to amounts reclassified from *AOCI*	**(19)**	**2**	**355**	**28**	**—**	**(4)**	**—**	**362**
Change, net of taxes	**$ 836**	**$ (325)**	**$ 361**	**$ (104)**	**$ 841**	**$ (20)**	**$ 5**	**$ 1,594**
Balance at March 31, 2023	**$ (5,162)**	**$ 517**	**$ (2,161)**	**$ (5,859)**	**$ (32,796)**	**$ (12)**	**$ 32**	**$ (45,441)**

Three Months Ended March 31, 2022

In millions of dollars	Net unrealized gains (losses) on debt securities	Debt valuation adjustment (DVA)[1]	Cash flow hedges[2]	Benefit plans[3]	CTA, net of hedges[4]	Excluded component of fair value hedges	Long-duration insurance contracts	Accumulated other comprehensive income (loss)
Balance, December 31, 2021	$ (614)	$ (1,187)	$ 101	$ (5,852)	$ (31,166)	$ (47)	$ —	$ (38,765)
Other comprehensive income before reclassifications	(4,283)	793	(1,324)	292	(14)	46	—	(4,490)
Increase (decrease) due to amounts reclassified from *AOCI*	6	—	(217)	(121)	—	2	—	(330)
Change, net of taxes	$ (4,277)	$ 793	$ (1,541)	$ 171	$ (14)	$ 48	$ —	$ (4,820)
Balance at March 31, 2022	$ (4,891)	$ (394)	$ (1,440)	$ (5,681)	$ (31,180)	$ 1	$ —	$ (43,585)

(1) Reflects the after-tax valuation of Citi's fair value option liabilities. See "Market Valuation Adjustments" in Note 21.
(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, Chilean peso, Euro, South Korean won and Russian ruble against the U.S. dollar and changes in related tax effects and hedges for the three months ended March 31, 2023. Primarily reflects the movements in (by order of impact) the Brazilian real, Japanese yen, Mexican peso, South Korean won, Euro, Chilean peso and Indian rupee against the U.S. dollar and changes in related tax effects and hedges for the three months ended March 31, 2022. 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) 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 March 31, 2023, the balance of the liability for future policyholder benefits, which is recorded within *Other Liabilities*, for this insurance subsidiary was approximately $525 million.
(6) See Note 1.

The pretax and after-tax changes in each component of *Accumulated other comprehensive income (loss)* were as follows:

Three Months Ended March 31, 2023

In millions of dollars	**Pretax**	**Tax effect[1]**	**After-tax**
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	**1,113**	**(277)**	**836**
Debt valuation adjustment (DVA)	**(433)**	**108**	**(325)**
Cash flow hedges	**479**	**(118)**	**361**
Benefit plans	**(156)**	**52**	**(104)**
Foreign currency translation adjustment (CTA)	**788**	**53**	**841**
Excluded component of fair value hedges	**(26)**	**6**	**(20)**
Long-duration insurance contracts	**6**	**(1)**	**5**
Change	**$ 1,771**	**$ (177)**	**$ 1,594**
Balance at March 31, 2023	**$ (53,443)**	**$ 8,002**	**$ (45,441)**

Three Months Ended March 31, 2022

In millions of dollars	Pretax	Tax effect[1]	After-tax
Balance, December 31, 2021	$ (45,383)	$ 6,618	$ (38,765)
Change in net unrealized gains (losses) on debt securities	$ (5,624)	$ 1,347	$ (4,277)
DVA	1,050	(257)	793
Cash flow hedges	(2,022)	481	(1,541)
Benefit plans	177	(6)	171
CTA	(69)	55	(14)
Excluded component of fair value hedges	64	(16)	48
Long-duration insurance contracts	—	—	—
Change	$ (6,424)	$ 1,604	$ (4,820)
Balance, March 31, 2022	$ (51,807)	$ 8,222	$ (43,585)

(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	
	Three Months Ended March 31,	
In millions of dollars	**2023**	2022
Realized (gains) losses on sales of investments	**$ (72)**	$ (80)
Gross impairment losses	**51**	90
Subtotal, pretax	**$ (21)**	$ 10
Tax effect	**2**	(4)
Net realized (gains) losses on investments after-tax(1)	**$ (19)**	$ 6
Realized DVA (gains) losses on fair value option liabilities, pretax	**$ 3**	$ —
Tax effect	**(1)**	—
Net realized DVA, after-tax	**$ 2**	$ —
Interest rate contracts	**$ 469**	$ (286)
Foreign exchange contracts	**1**	1
Subtotal, pretax	**$ 470**	$ (285)
Tax effect	**(115)**	68
Amortization of cash flow hedges, after-tax(2)	**$ 355**	$ (217)
Amortization of unrecognized:		
Prior service cost (benefit)	**$ (6)**	$ (6)
Net actuarial loss	**49**	70
Curtailment/settlement impact(3)	**(5)**	(216)
Subtotal, pretax	**$ 38**	$ (152)
Tax effect	**(10)**	31
Amortization of benefit plans, after-tax(3)	**$ 28**	$ (121)
Excluded component of fair value hedges, pretax	**$ (6)**	$ 3
Tax effect	**2**	(1)
Excluded component of fair value hedges, after-tax	**$ (4)**	$ 2
Long-duration insurance contracts, pretax	**$ —**	$ —
Tax effect	**—**	—
Long-duration insurance contracts, after-tax	**$ —**	$ —
CTA, pretax	**$ —**	$ —
Tax effect	**—**	—
CTA, after-tax	**$ —**	$ —
Total amounts reclassified out of *AOCI*, pretax	**$ 484**	$ (424)
Total tax effect	**(122)**	94
Total amounts reclassified out of *AOCI*, after-tax	**$ 362**	$ (330)

(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 12 for additional details.
(2) See Note 20 for additional details.
(3) See Note 8 for additional details.

19. SECURITIZATIONS AND VARIABLE INTEREST ENTITIES

For additional information regarding Citi's use of special purpose entities (SPEs) and variable interest entities (VIEs), see Note 22 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

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:

	As of March 31, 2023							
				Maximum exposure to loss in significant unconsolidated VIEs(1)				
				Funded exposures(2)		Unfunded exposures		
In millions of dollars	Total involvement with SPE assets	Consolidated VIE/SPE assets	Significant unconsolidated VIE assets(3)	Debt investments	Equity investments	Funding commitments	Guarantees and derivatives	Total
Credit card securitizations	$ 30,241	$ 30,241	$ —	$ —	$ —	$ —	$ —	$ —
Mortgage securitizations(4)								
U.S. agency-sponsored	124,641	—	124,641	2,059	—	—	107	2,166
Non-agency-sponsored	63,156	—	63,156	3,264	—	7	—	3,271
Citi-administered asset-backed commercial paper conduits	19,419	19,419	—	—	—	—	—	—
Collateralized loan obligations (CLOs)	7,134	—	7,134	2,599	—	—	—	2,599
Asset-based financing(5)	178,461	10,336	168,125	40,737	990	10,261	—	51,988
Municipal securities tender option bond trusts (TOBs)	1,885	673	1,212	35	—	867	—	902
Municipal investments	22,107	3	22,104	2,641	3,025	3,196	—	8,862
Client intermediation	490	129	361	58	—	—	13	71
Investment funds	492	96	396	3	6	66	—	75
Other	—	—	—	—	—	—	—	—
Total	$ 448,026	$ 60,897	$ 387,129	$ 51,396	$ 4,021	$ 14,397	$ 120	$ 69,934

	As of December 31, 2022							
				Maximum exposure to loss in significant unconsolidated VIEs(1)				
				Funded exposures(2)		Unfunded exposures		
In millions of dollars	Total involvement with SPE assets	Consolidated VIE/SPE assets	Significant unconsolidated VIE assets(3)	Debt investments	Equity investments	Funding commitments	Guarantees and derivatives	Total
Credit card securitizations	$ 32,021	$ 32,021	$ —	$ —	$ —	$ —	$ —	$ —
Mortgage securitizations(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 March 31, 2023 and December 31, 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 securitizations also include agency and non-agency (private label) re-securitization activities. These SPEs are not consolidated.
(5) Included within this line are loans to third-party-sponsored private equity funds, which represent $10 billion and $69 billion in unconsolidated VIE assets and $252 million and $498 million in maximum exposure to loss as of March 31, 2023 and December 31, 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 March 31, 2023 and December 31, 2022, the Company's maximum exposure to loss related to these transactions was $25.2 billion and $33.6 billion, respectively (for more information on these positions, see Note 13 and Note 27 to the Consolidated Financial Statements in Citi's 2022 Form 10-K);
- 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 12 and 21 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 in the table below 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 in the table below include third-party assets of consolidated VIEs only and exclude intercompany balances that eliminate in consolidation. The liabilities in the table below 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.

In millions of dollars	**March 31, 2023 (Unaudited)**	December 31, 2022
Assets of consolidated VIEs to be used to settle obligations of consolidated VIEs		
Cash and due from banks	**$ 58**	$ 61
Trading account assets	**9,921**	9,153
Investments	**614**	594
Loans, net of unearned income		
Consumer	**33,188**	35,026
Corporate	**19,575**	19,782
Loans, net of unearned income	**$ 52,763**	$ 54,808
Allowance for credit losses on loans (ACLL)	**(2,572)**	(2,520)
Total loans, net	**$ 50,191**	$ 52,288
Other assets	**113**	105
Total assets of consolidated VIEs to be used to settle obligations of consolidated VIEs	**$ 60,897**	$ 62,201

In millions of dollars	**March 31, 2023 (Unaudited)**	December 31, 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	**$ 9,673**	$ 9,807
Long-term debt	**9,572**	10,324
Other liabilities	**854**	622
Total liabilities of consolidated VIEs for which creditors or beneficial interest holders do not have recourse to the general credit of Citigroup	**$ 20,099**	$ 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:

	March 31, 2023		December 31, 2022	
In millions of dollars	**Liquidity facilities**	**Loan/equity commitments**	Liquidity facilities	Loan/equity commitments
Non-agency-sponsored mortgage securitizations	$ —	$ 7	$ —	$ —
Asset-based financing	—	10,261	—	10,726
Municipal securities tender option bond trusts (TOBs)	867	—	1,108	—
Municipal investments	—	3,196	—	3,420
Investment funds	—	66	—	68
Other	—	—	—	—
Total funding commitments	**$ 867**	**$ 13,530**	$ 1,108	$ 14,214

Significant Interests in Unconsolidated VIEs—Balance Sheet Classification
The following table presents the carrying amounts and classification of significant variable interests in unconsolidated VIEs:

In billions of dollars	**March 31, 2023**	December 31, 2022
Cash	$ —	$ —
Trading account assets	1.6	1.6
Investments	8.8	8.6
Total loans, net of allowance	44.4	44.2
Other	0.6	0.6
Total assets	**$ 55.4**	$ 55.0

Credit Card Securitizations
Substantially all of the Company's 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. The following table reflects amounts related to the Company's securitized credit card receivables:

In billions of dollars	**March 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	6.4	6.4
Retained by Citigroup via non-certificated interests	18.8	19.5
Total	**$ 32.1**	$ 33.8

The following table summarizes selected cash flow information related to Citigroup's credit card securitizations:

	Three Months Ended March 31,	
In billions of dollars	**2023**	2022
Proceeds from new securitizations	$ —	$ —
Pay down of maturing notes	(1.0)	—

Master Trust Liabilities (at Par Value)
The weighted average maturity of the third-party term notes issued by the Master Trust was 3.9 years as of March 31, 2023 and 3.5 years as of December 31, 2022.

In billions of dollars	**Mar. 31, 2023**	Dec. 31, 2022
Term notes issued to third parties	$ 5.3	$ 6.3
Term notes retained by Citigroup affiliates	1.6	1.6
Total Master Trust liabilities	**$ 6.9**	$ 7.9

Omni Trust Liabilities (at Par Value)
The weighted average maturity of the third-party term notes issued by the Omni Trust was 2.0 years as of March 31, 2023 and 2.2 years as of December 31, 2022.

In billions of dollars	**Mar. 31, 2023**	Dec. 31, 2022
Term notes issued to third parties	$ 1.6	$ 1.6
Term notes retained by Citigroup affiliates	4.8	4.8
Total Omni Trust liabilities	**$ 6.4**	$ 6.4

Mortgage Securitizations

The following tables summarize selected cash flow information and retained interests related to Citigroup mortgage securitizations:

	Three Months Ended March 31,			
	2023		2022	
In billions of dollars	**U.S. agency-sponsored mortgages**	**Non-agency-sponsored mortgages**	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages
Principal securitized	**$ 0.8**	**$ 1.3**	$ 2.1	$ 1.6
Proceeds from new securitizations	**0.8**	**1.1**	2.0	1.6
Contractual servicing fees received	**—**	**—**	—	—
Cash flows received on retained interests and other net cash flows	**—**	**—**	—	—
Purchases of previously transferred financial assets	**—**	**—**	—	—

Note: Excludes broker-dealer re-securitization transactions.

Gains recognized on the securitization of U.S. agency-sponsored mortgages were $0.1 million for the three months ended March 31, 2023. Gains recognized on the securitization of non-agency-sponsored mortgages were $2.4 million for the three months ended March 31, 2023.

Gains recognized on the securitization of U.S. agency-sponsored mortgages were $0.3 million for the three months ended March 31, 2022. Gains recognized on the securitization of non-agency-sponsored mortgages were $39 million for the three months ended March 31, 2022.

	March 31, 2023			December 31, 2022		
		Non-agency-sponsored mortgages(1)			Non-agency-sponsored mortgages(1)	
In millions of dollars	**U.S. agency-sponsored mortgages**	**Senior interests(2)**	**Subordinated interests**	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Carrying value of retained interests(3)	**$ 656**	**$ 1,143**	**$ 937**	$ 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 $18 million related to personal loan securitizations at March 31, 2023.

(3) Retained interests consist of Level 2 and Level 3 assets depending on the observability of significant inputs. See Note 21 for more information about fair value measurements.

The following table includes information about loan delinquencies and liquidation losses for assets held in non-consolidated, non-agency-sponsored securitization entities:

					Liquidation losses	
	Securitized assets		**90 days past due**		**Three Months Ended March 31,**	
In billions of dollars, except liquidation losses in millions	**Mar. 31, 2023**	Dec. 31, 2022	**Mar. 31, 2023**	Dec. 31, 2022	**2023**	2022
Securitized assets						
Residential mortgages(1)	**$ 31.5**	$ 30.8	**$ 0.5**	$ 0.5	**$ 2.3**	$ 1.5
Commercial and other	**28.8**	28.8	**—**	—	**—**	—
Total	**$ 60.3**	$ 59.6	**$ 0.5**	$ 0.5	**$ 2.3**	$ 1.5

(1) Securitized assets include $0.1 billion of personal loan securitizations as of March 31, 2023.

Mortgage Servicing Rights (MSRs)

The fair value of Citi's capitalized MSRs was $658 million and $519 million at March 31, 2023 and 2022, respectively. The MSRs correspond to principal loan balances of $50 billion and $47 billion as of March 31, 2023 and 2022, respectively. The following table summarizes the changes in capitalized MSRs:

	Three Months Ended March 31,	
In millions of dollars	**2023**	2022
Balance, beginning of period	**$ 665**	$ 404
Originations	**12**	34
Changes in fair value of MSRs due to changes in inputs and assumptions	**(3)**	98
Other changes[1]	**(16)**	(17)
Sales of MSRs	**—**	—
Balance, as of March 31	**$ 658**	$ 519

(1) Represents changes due to customer payments and passage of time.

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:

	Three Months Ended March 31,	
In millions of dollars	**2023**	2022
Servicing fees	**$ 33**	$ 29
Late fees	**1**	1
Total MSR fees	**$ 34**	$ 30

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 three months ended March 31, 2023 and 2022. These securities are backed by either residential or commercial mortgages and are often structured on behalf of clients.

As of March 31, 2023 and December 31, 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 three months ended March 31, 2023, Citi transferred agency securities with a fair value of approximately $5.3 billion to re-securitization entities, compared to approximately $9.3 billion for the three months ended March 31, 2022.

As of March 31, 2023, the fair value of Citi-retained interests in agency re-securitization transactions structured by Citi totaled approximately $1.4 billion (including $268 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 March 31, 2023 and December 31, 2022 were approximately $86.6 billion and $79.4 billion, respectively.

As of March 31, 2023 and December 31, 2022, the Company did not consolidate any private label or agency re-securitization entities.

Citi-Administered Asset-Backed Commercial Paper Conduits

At March 31, 2023 and December 31, 2022, the commercial paper conduits administered by Citi had approximately $19.4 billion and $19.6 billion of purchased assets outstanding, respectively, and had incremental funding commitments with clients of approximately $14.2 billion and $13.9 billion, respectively.

Substantially all of the funding of the conduits is in the form of short-term commercial paper. At March 31, 2023 and December 31, 2022, the weighted average remaining lives of the commercial paper issued by the conduits were approximately 63 and 64 days, respectively.

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. In addition to the transaction-specific credit enhancements, the conduits, other than the government-guaranteed loan conduit, have obtained letters of credit from the Company, which equal at least 8% to 10% of the conduit's assets with a minimum of $350 million. The letters of credit provided by the Company to the conduits total approximately $1.9 billion and $1.9 billion as of March 31, 2023 and December 31, 2022, respectively. The net result across multiseller conduits administered by the Company is that, in the event that defaulted assets exceed the transaction-specific credit enhancements described above, any losses in each conduit are allocated first to the Company and then to the commercial paper investors.

At March 31, 2023 and December 31, 2022, the Company owned $8.5 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.

Municipal Securities Tender Option Bond (TOB) Trusts
At March 31, 2023 and December 31, 2022, none of the municipal bonds owned by non-customer TOB trusts were subject to a credit guarantee provided by the Company.

At March 31, 2023 and December 31, 2022, liquidity agreements provided with respect to customer TOB trusts totaled $0.9 billion and $1.1 billion, respectively, of which $0.6 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.

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 $1.4 billion and $1.4 billion as of March 31, 2023 and December 31, 2022, respectively. These liquidity agreements and letters of credit are offset by reimbursement agreements with various term-out provisions.

Asset-Based Financing
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 shown 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.

	March 31, 2023		December 31, 2022	
In millions of dollars	**Total unconsolidated VIE assets**	**Maximum exposure to unconsolidated VIEs**	Total unconsolidated VIE assets	Maximum exposure to unconsolidated VIEs
Type				
Commercial and other real estate	**$ 44,631**	**$ 9,175**	$ 43,236	$ 8,806
Corporate loans	**24,257**	**15,332**	23,120	15,077
Other (including investment funds, airlines and shipping)	**99,237**	**27,481**	166,320	27,986
Total	**$ 168,125**	**$ 51,988**	$ 232,676	$ 51,869

20. DERIVATIVES

In the ordinary course of business, Citigroup enters into various types of derivative transactions. All derivatives are recorded in *Trading account assets/Trading account liabilities* on the Consolidated Balance Sheet. For additional information regarding Citi's use of and accounting for derivatives, see Note 23 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

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 notionals 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.

Derivative Notionals

	Hedging instruments under ASC 815		Trading derivative instruments	
In millions of dollars	**March 31, 2023**	December 31, 2022	**March 31, 2023**	December 31, 2022
Interest rate contracts				
Swaps	**$ 264,079**	$ 255,280	**$ 26,305,698**	$ 23,780,711
Futures and forwards	**—**	—	**4,093,147**	2,966,025
Written options	**—**	—	**2,422,224**	1,937,025
Purchased options	**—**	—	**2,279,877**	1,881,291
Total interest rate contracts	**$ 264,079**	$ 255,280	**$ 35,100,946**	$ 30,565,052
Foreign exchange contracts				
Swaps	**$ 43,953**	$ 48,678	**$ 7,524,629**	$ 6,746,070
Futures, forwards and spot	**47,295**	43,666	**3,940,884**	3,350,341
Written options	**—**	—	**831,553**	789,077
Purchased options	**—**	—	**821,267**	783,591
Total foreign exchange contracts	**$ 91,248**	$ 92,344	**$ 13,118,333**	$ 11,669,079
Equity contracts				
Swaps	**$ —**	$ —	**$ 268,081**	$ 266,115
Futures and forwards			**95,533**	76,935
Written options	**—**	—	**503,029**	482,266
Purchased options	**—**	—	**397,384**	387,766
Total equity contracts	**$ —**	$ —	**$ 1,264,027**	$ 1,213,082
Commodity and other contracts				
Swaps	**$ —**	$ —	**$ 89,225**	$ 90,884
Futures and forwards	**1,054**	1,571	**176,672**	165,314
Written options	**—**	—	**51,463**	45,862
Purchased options	**—**	—	**53,145**	48,197
Total commodity and other contracts	**$ 1,054**	$ 1,571	**$ 370,505**	$ 350,257
Credit derivatives(1)				
Protection sold	**$ —**	$ —	**$ 731,188**	$ 593,136
Protection purchased	**—**	—	**781,832**	641,639
Total credit derivatives	**$ —**	$ —	**$ 1,513,020**	$ 1,234,775
Total derivative notionals	**$ 356,381**	$ 349,195	**$ 51,366,831**	$ 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 March 31, 2023 and December 31, 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

In millions of dollars at March 31, 2023	Derivatives classified in Trading account assets/liabilities[1][2] Assets	Liabilities
Derivatives instruments designated as ASC 815 hedges		
Over-the-counter	$ 496	$ —
Cleared	104	35
Interest rate contracts	$ 600	$ 35
Over-the-counter	$ 1,491	$ 1,028
Cleared	2	18
Foreign exchange contracts	$ 1,493	$ 1,046
Total derivatives instruments designated as ASC 815 hedges	$ 2,093	$ 1,081
Derivatives instruments not designated as ASC 815 hedges		
Over-the-counter	$ 122,577	$ 114,593
Cleared	44,236	48,255
Exchange traded	218	160
Interest rate contracts	$ 167,031	$ 163,008
Over-the-counter	$ 129,761	$ 127,318
Cleared	359	364
Exchange traded	1	4
Foreign exchange contracts	$ 130,121	$ 127,686
Over-the-counter	$ 16,295	$ 21,467
Cleared	—	6
Exchange traded	24,210	23,126
Equity contracts	$ 40,505	$ 44,599
Over-the-counter	$ 23,115	$ 22,329
Exchange traded	1,067	1,246
Commodity and other contracts	$ 24,182	$ 23,575
Over-the-counter	$ 6,977	$ 6,868
Cleared	3,065	3,147
Credit derivatives	$ 10,042	$ 10,015
Total derivatives instruments not designated as ASC 815 hedges	$ 371,881	$ 368,883
Total derivatives	$ 373,974	$ 369,964
Less: Netting agreements[3]	$ (292,519)	$ (292,519)
Less: Netting cash collateral received/paid[4]	(15,376)	(23,990)
Net receivables/payables included on the Consolidated Balance Sheet[5]	$ 66,079	$ 53,455
Additional amounts subject to an enforceable master netting agreement, but not offset on the Consolidated Balance Sheet		
Less: Cash collateral received/paid	$ (1,094)	$ (781)
Less: Non-cash collateral received/paid	(4,657)	(12,984)
Total net receivables/payables[5]	$ 60,328	$ 39,690

(1) The derivative fair values are also presented in Note 21.
(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 $224 billion, $46 billion and $23 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. Substantially all netting of cash collateral received and paid is against OTC derivative assets and liabilities, respectively.
(5) The net receivables/payables include approximately $13 billion of derivative asset and $11 billion of derivative liability fair values not subject to enforceable master netting agreements, respectively.

In millions of dollars at December 31, 2022	Derivatives classified in Trading account assets/liabilities[1][2] Assets	Liabilities
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 21.

(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 $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. 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 three months ended March 31, 2023 and 2022, 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 shown below. The table below does not include any offsetting gains (losses) on the economically hedged items to the extent that such amounts are also recorded in *Other revenue*.

	Gains (losses) included in Other revenue	
	Three Months Ended March 31,	
In millions of dollars	**2023**	2022
Interest rate contracts	**$ (96)**	$ 72
Foreign exchange	**26**	(77)
Total	**$ (70)**	$ (5)

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 revenue* 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:

	Gains (losses) on fair value hedges[1]			
	Three Months Ended March 31,			
	2023		2022	
In millions of dollars	**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	**$ —**	**$ (1)**	$ —	$ (4,666)
Foreign exchange hedges	**548**	**—**	(425)	—
Commodity hedges[4]	**(508)**	**—**	872	—
Total gain (loss) on the hedging derivatives included in assessment of the effectiveness of fair value hedges	**$ 40**	**$ (1)**	$ 447	$ (4,666)
Gain (loss) on the hedged item in designated and qualifying fair value hedges				
Interest rate hedges	**$ —**	**$ (7)**	$ —	$ 4,597
Foreign exchange hedges	**(548)**	**—**	424	—
Commodity hedges[4]	**508**	**—**	(872)	—
Total gain (loss) on the hedged item in designated and qualifying fair value hedges	**$ (40)**	**$ (7)**	$ (448)	$ 4,597
Net gain (loss) on the hedging derivatives excluded from assessment of the effectiveness of fair value hedges				
Interest rate hedges	**$ —**	**$ —**	$ —	$ (6)
Foreign exchange hedges[2]	**22**	**—**	31	—
Commodity hedges[3][4]	**49**	**—**	49	—
Total net gain (loss) on the hedging derivatives excluded from assessment of the effectiveness of fair value hedges	**$ 71**	**$ —**	$ 80	$ (6)

(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) 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 $(26) million and $64 million for the three months ended March 31, 2023 and 2022, respectively.

(3) 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 quarter ended March 31, 2023 includes gain (loss) of approximately $45 million and $4 million under the mark-to-market approach and amortization approach, respectively. The quarter ended March 31, 2022 includes gain (loss) of approximately $50 million and $(1) million under the mark-to-market approach and amortization approach, respectively.

(4) The gain (loss) amounts for commodity hedges are included in *Principal transactions* for periods beginning 2023.

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 March 31, 2023 and December 31, 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	Cumulative basis adjustment increasing (decreasing) the carrying amount	
		Active	De-designated
As of March 31, 2023			
Debt securities AFS[1][3]	**$ 90,947**	**$ (2,079)**	**$ (320)**
Long-term debt	**135,571**	**(2,928)**	**(4,493)**
As of December 31, 2022			
Debt securities AFS[2][3]	$ 98,837	$ (2,976)	$ (333)
Long-term debt	144,549	(5,040)	(3,399)

(1) These amounts include a cumulative basis adjustment of less than $(1) million for active hedges and $(295) million for de-designated hedges as of March 31, 2023, related to certain financial assets previously designated as the hedged item in a fair value hedge using the portfolio layer approach. The Company designated approximately $7 billion as the hedged amount (from a closed portfolio of financial assets with a carrying value of $14 billion as of March 31, 2023) in a portfolio layer-hedging relationship.

(2) 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.

(3) 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. 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 net gain (loss) associated with cash flow hedges expected to be reclassified from *AOCI* within 12 months of March 31, 2023 is approximately $(1.4) billion. The maximum length of time over which forecasted cash flows are hedged is 13 years.

The pretax change in *AOCI* from cash flow hedges is presented below. The after-tax impact of cash flow hedges on *AOCI* is shown in Note 18.

	Three Months Ended March 31,			
In millions of dollars	**2023**		2022	
Amount of gain (loss) recognized in *AOCI* on derivatives				
Interest rate contracts		**$ 21**		$ (1,760)
Foreign exchange contracts		**(12)**		23
Total gain (loss) recognized in *AOCI*		**$ 9**		$ (1,737)
	Other revenue	**Net interest income**	Other revenue	Net interest income
Amount of gain (loss) reclassified from *AOCI* to earnings[1]				
Interest rate contracts	**$ —**	**$ (469)**	$ —	$ 286
Foreign exchange contracts	**(1)**	**—**	(1)	—
Total gain (loss) reclassified from *AOCI* into earnings	**$ (1)**	**$ (469)**	$ (1)	$ 286
Net pretax change in cash flow hedges included within *AOCI*		**$ 479**		$ (2,022)

(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.

Net Investment Hedges
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*.

The pretax gain (loss) recorded in CTA within *AOCI*, related to net investment hedges, was $(676) million and $(195) million for the three months ended March 31, 2023 and 2022, respectively.

Credit Derivatives
The following tables summarize the key characteristics of Citi's credit derivatives portfolio by counterparty and derivative form:

	Fair values		**Notionals**	
In millions of dollars at March 31, 2023	**Receivable[(1)]**	**Payable[(2)]**	**Protection purchased**	**Protection sold**
By instrument				
Credit default swaps and options	**$ 9,258**	**$ 9,596**	**$ 761,898**	**$ 725,565**
Total return swaps and other	**784**	**419**	**19,934**	**5,623**
Total by instrument	**$ 10,042**	**$ 10,015**	**$ 781,832**	**$ 731,188**
By rating of reference entity				
Investment grade	**$ 4,892**	**$ 4,406**	**$ 621,216**	**$ 582,066**
Non-investment grade	**5,150**	**5,609**	**160,616**	**149,122**
Total by rating of reference entity	**$ 10,042**	**$ 10,015**	**$ 781,832**	**$ 731,188**
By maturity				
Within 1 year	**$ 1,007**	**$ 1,650**	**$ 167,412**	**$ 167,358**
From 1 to 5 years	**6,146**	**5,885**	**509,256**	**476,327**
After 5 years	**2,889**	**2,480**	**105,164**	**87,503**
Total by maturity	**$ 10,042**	**$ 10,015**	**$ 781,832**	**$ 731,188**

(1) The fair value amount receivable is composed of $4,849 million under protection purchased and $5,193 million under protection sold.
(2) The fair value amount payable is composed of $5,680 million under protection purchased and $4,335 million under protection sold.

	Fair values		Notionals	
In millions of dollars at December 31, 2022	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.

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 March 31, 2023 and December 31, 2022 was $14 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 March 31, 2023 and December 31, 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 March 31, 2023, the Company could be required to post an additional $0.6 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 $22 million upon the single notch downgrade, resulting in aggregate cash obligations and collateral requirements of approximately $0.6 billion.

Derivatives Accompanied by Financial Asset Transfers

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 $0.6 billion and $1.4 billion as of March 31, 2023 and December 31, 2022, respectively.

At March 31, 2023, the fair value of these previously derecognized assets was $0.6 billion. The fair value of the total return swaps as of March 31, 2023 was $14 million recorded as gross derivative assets and $2 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.

21. FAIR VALUE MEASUREMENT

For additional information regarding fair value measurement at Citi, see Note 25 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

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 significant 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 selection 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.

Market Valuation Adjustments

The table below summarizes the credit valuation adjustments (CVA) and funding valuation adjustments (FVA) applied to the fair value of derivative instruments at March 31, 2023 and December 31, 2022:

	Credit and funding valuation adjustments contra-liability (contra-asset)	
In millions of dollars	**March 31, 2023**	December 31, 2022
Counterparty CVA	**$ (771)**	$ (816)
Asset FVA	**(593)**	(622)
Citigroup (own credit) CVA	**564**	607
Liability FVA	**235**	263
Total CVA and FVA—derivative instruments	**$ (565)**	$ (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 periods indicated:

	Credit/funding/debt valuation adjustments gain (loss)	
	Three Months Ended March 31,	
In millions of dollars	**2023**	2022
Counterparty CVA	**$ (34)**	$ (107)
Asset FVA	**(6)**	(105)
Own credit CVA	**(35)**	116
Liability FVA	**(28)**	22
Total CVA and FVA—derivative instruments	**$ (103)**	$ (74)
DVA related to own FVO liabilities(1)	**$ (433)**	$ 1,050
Total CVA, DVA and FVA	**$ (536)**	$ 976

(1) See Note 20 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

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 March 31, 2023 and December 31, 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

In millions of dollars at March 31, 2023	Level 1	Level 2	Level 3	Gross inventory	Netting[1]	Net balance
Assets						
Securities borrowed and purchased under agreements to resell	$ —	$ 391,214	$ 153	$ 391,367	$ (135,404)	$ 255,963
Trading non-derivative assets						
Trading mortgage-backed securities						
U.S. government-sponsored agency guaranteed	—	45,404	658	46,062	—	46,062
Residential	1	2,442	162	2,605	—	2,605
Commercial	—	727	163	890	—	890
Total trading mortgage-backed securities	$ 1	$ 48,573	$ 983	$ 49,557	$ —	$ 49,557
U.S. Treasury and federal agency securities	$ 96,133	$ 3,667	$ 1	$ 99,801	$ —	$ 99,801
State and municipal	—	1,851	23	1,874	—	1,874
Foreign government	51,826	30,459	53	82,338	—	82,338
Corporate	1,262	14,551	296	16,109	—	16,109
Equity securities	39,629	10,733	225	50,587	—	50,587
Asset-backed securities	—	1,865	567	2,432	—	2,432
Other trading assets[2]	55	13,980	1,094	15,129	—	15,129
Total trading non-derivative assets	$ 188,906	$ 125,679	$ 3,242	$ 317,827	$ —	$ 317,827
Trading derivatives						
Interest rate contracts	$ 225	$ 164,020	$ 3,386	$ 167,631		
Foreign exchange contracts	—	130,754	860	131,614		
Equity contracts	21	39,069	1,415	40,505		
Commodity contracts	36	22,848	1,298	24,182		
Credit derivatives	—	9,193	849	10,042		
Total trading derivatives—before netting and collateral	$ 282	$ 365,884	$ 7,808	$ 373,974		
Netting agreements					$ (292,519)	
Netting of cash collateral received					(15,376)	
Total trading derivatives—after netting and collateral	$ 282	$ 365,884	$ 7,808	$ 373,974	$ (307,895)	$ 66,079
Investments						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	$ —	$ 14,588	$ 28	$ 14,616	$ —	$ 14,616
Residential	—	315	25	340	—	340
Commercial	—	2	—	2	—	2
Total investment mortgage-backed securities	$ —	$ 14,905	$ 53	$ 14,958	$ —	$ 14,958
U.S. Treasury and federal agency securities	$ 86,525	$ 101	$ 51	$ 86,677	$ —	$ 86,677
State and municipal	—	1,772	521	2,293	—	2,293
Foreign government	50,102	74,431	551	125,084	—	125,084
Corporate	2,431	2,529	291	5,251	—	5,251
Marketable equity securities	258	173	12	443	—	443
Asset-backed securities	—	1,064	1	1,065	—	1,065
Other debt securities	—	5,155	4	5,159	—	5,159
Non-marketable equity securities[3]	—	6	409	415	—	415
Total investments	$ 139,316	$ 100,136	$ 1,893	$ 241,345	$ —	$ 241,345

Table continues on the next page.

In millions of dollars at March 31, 2023	Level 1	Level 2	Level 3	Gross inventory	Netting[(1)]	Net balance
Loans	$ —	$ 4,494	$ 640	$ 5,134	$ —	$ 5,134
Mortgage servicing rights	—	—	658	658	—	658
Non-trading derivatives and other financial assets measured on a recurring basis	$ 4,638	$ 7,157	$ 52	$ 11,847	$ —	$ 11,847
Total assets	$ 333,142	$ 994,564	$ 14,446	$ 1,342,152	$ (443,299)	$ 898,853
Total as a percentage of gross assets[(4)]	24.8%	74.1%	1.1%			
Liabilities						
Interest-bearing deposits	$ —	$ 2,927	$ 16	$ 2,943	$ —	$ 2,943
Securities loaned and sold under agreements to repurchase	—	174,947	809	175,756	(109,524)	66,232
Trading account liabilities						
Securities sold, not yet purchased	116,243	15,222	72	131,537	—	131,537
Other trading liabilities	—	17	1	18	—	18
Total trading account liabilities	$ 116,243	$ 15,239	$ 73	$ 131,555	$ —	$ 131,555
Trading derivatives						
Interest rate contracts	$ 185	$ 159,732	$ 3,126	$ 163,043		
Foreign exchange contracts	—	127,948	784	128,732		
Equity contracts	34	41,568	2,997	44,599		
Commodity contracts	36	22,471	1,068	23,575		
Credit derivatives	—	9,145	870	10,015		
Total trading derivatives—before netting and collateral	$ 255	$ 360,864	$ 8,845	$ 369,964		
Netting agreements					$ (292,519)	
Netting of cash collateral paid					(23,990)	
Total trading derivatives—after netting and collateral	$ 255	$ 360,864	$ 8,845	$ 369,964	$ (316,509)	$ 53,455
Short-term borrowings	$ —	$ 6,592	$ 281	$ 6,873	$ —	$ 6,873
Long-term debt	—	78,587	36,581	115,168	—	115,168
Total non-trading derivatives and other financial liabilities measured on a recurring basis	$ 4,739	$ 124	$ 20	$ 4,883	$ —	$ 4,883
Total liabilities	$ 121,237	$ 639,280	$ 46,625	$ 807,142	$ (426,033)	$ 381,109
Total as a percentage of gross liabilities[(4)]	15.0 %	79.2 %	5.8 %			

(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) Includes positions related to investments in unallocated precious metals, as discussed in Note 22. Also includes physical commodities accounted for at the lower of cost or fair value and unfunded credit products.

(3) Amounts exclude $29 million of investments measured at net asset value (NAV) in accordance with ASU 2015-07, *Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent).*

(4) 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

In millions of dollars at December 31, 2022	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[3]					(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[4]	—	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[5]	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[3]					(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
Total 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[5]	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) Includes positions related to investments in unallocated precious metals, as discussed in Note 22. Also includes physical commodities accounted for at the lower of cost or fair value and unfunded credit products.
(3) Represents the netting of cash collateral paid and received by counterparties under enforceable credit support agreements. Substantially all netting of cash collateral received and paid is against OTC derivative assets and liabilities, respectively.
(4) Amounts exclude $27 million of investments measured at NAV in accordance with ASU 2015-07, *Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent).*
(5) 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 three months ended March 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 or 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

		Net realized/unrealized gains (losses) incl. in[1]		Transfers							
In millions of dollars	Dec. 31, 2022	**Principal transactions**	**Other[1][2]**	**into Level 3**	**out of Level 3**	**Purchases**	**Issuances**	**Sales**	**Settlements**	**Mar. 31, 2023**	**Unrealized gains (losses) still held[3]**
Assets											
Securities borrowed and purchased under agreements to resell	$ 149	**$ 13**	**$ —**	**$ —**	**$ —**	**$ 137**	**$ —**	**$ —**	**$ (146)**	**$ 153**	**$ 14**
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	600	**22**	**—**	**92**	**(142)**	**223**	**—**	**(137)**	**—**	**658**	**19**
Residential	166	**1**	**—**	**26**	**(19)**	**61**	**—**	**(73)**	**—**	**162**	**(4)**
Commercial	145	**(5)**	**—**	**56**	**(13)**	**19**	**—**	**(39)**	**—**	**163**	**(4)**
Total trading mortgage-backed securities	$ 911	**$ 18**	**$ —**	**$ 174**	**$ (174)**	**$ 303**	**$ —**	**$ (249)**	**$ —**	**$ 983**	**$ 11**
U.S. Treasury and federal agency securities	$ 1	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**	**$ 1**	**$ —**
State and municipal	7	**(2)**	**—**	**19**	**—**	**—**	**—**	**(1)**	**—**	**23**	**—**
Foreign government	119	**7**	**—**	**—**	**(25)**	**12**	**—**	**(60)**	**—**	**53**	**6**
Corporate	394	**30**	**—**	**14**	**(127)**	**96**	**—**	**(111)**	**—**	**296**	**90**
Marketable equity securities	192	**3**	**—**	**12**	**(6)**	**31**	**—**	**(7)**	**—**	**225**	**4**
Asset-backed securities	668	**15**	**—**	**5**	**(63)**	**121**	**—**	**(179)**	**—**	**567**	**5**
Other trading assets	648	**28**	**—**	**245**	**(2)**	**290**	**—**	**(115)**	**—**	**1,094**	**36**
Total trading non-derivative assets	$ 2,940	**$ 99**	**$ —**	**$ 469**	**$ (397)**	**$ 853**	**$ —**	**$ (722)**	**$ —**	**$ 3,242**	**$ 152**
Trading derivatives, net[4]											
Interest rate contracts	$ 355	**$ (139)**	**$ —**	**$ (35)**	**$ 10**	**$ 4**	**$ —**	**$ —**	**$ 65**	**$ 260**	**$ (72)**
Foreign exchange contracts	50	**43**	**—**	**(17)**	**(2)**	**75**	**—**	**(39)**	**(34)**	**76**	**50**
Equity contracts	(1,104)	**(392)**	**—**	**(51)**	**234**	**(246)**	**—**	**(23)**	**—**	**(1,582)**	**(1,271)**
Commodity contracts	278	**(325)**	**—**	**100**	**323**	**(67)**	**—**	**(3)**	**(76)**	**230**	**(145)**
Credit derivatives	(157)	**8**	**—**	**17**	**100**	**2**	**—**	**—**	**9**	**(21)**	**(151)**
Total trading derivatives, net[4]	$ (578)	**$ (805)**	**$ —**	**$ 14**	**$ 665**	**$ (232)**	**$ —**	**$ (65)**	**$ (36)**	**$ (1,037)**	**$ (1,589)**

Table continues on the next page.

In millions of dollars	Dec. 31, 2022	Net realized/unrealized gains (losses) incl. in[(1)] Principal transactions	Other[(1)(2)]	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Mar. 31, 2023	Unrealized gains (losses) still held[(3)]
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	$ 30	$ —	$ (2)	$ —	$ —	$ —	$ —	$ —	$ —	$ 28	$ (1)
Residential	41	—	—	—	—	—	—	(16)	—	25	—
Commercial	—	—	—	—	—	—	—	—	—	—	—
Total investment mortgage-backed securities	$ 71	$ —	$ (2)	$ —	$ —	$ —	$ —	$ (16)	$ —	$ 53	$ (1)
U.S. Treasury and federal agency securities	$ —	$ —	$ —	$ —	$ —	$ 51	$ —	$ —	$ —	$ 51	$ —
State and municipal	586	—	17	1	(75)	1	—	(9)	—	521	12
Foreign government	608	—	(2)	10	(1)	160	—	(224)	—	551	2
Corporate	343	—	3	—	(61)	58	—	(52)	—	291	—
Marketable equity securities	10	—	2	—	—	—	—	—	—	12	—
Asset-backed securities	1	—	—	—	—	—	—	—	—	1	—
Other debt securities	—	—	(1)	—	—	5	—	—	—	4	—
Non-marketable equity securities	430	—	(4)	2	—	6	—	(25)	—	409	(6)
Total investments	$ 2,049	$ —	$ 13	$ 13	$ (137)	$ 281	$ —	$ (326)	$ —	$ 1,893	$ 7
Loans	$ 1,361	$ —	$ 17	$ —	$ (190)	$ —	$ 106	$ —	$ (654)	$ 640	$ (14)
Mortgage servicing rights	665	—	(3)	—	—	—	12	—	(16)	658	(3)
Other financial assets measured on a recurring basis	57	—	(3)	—	(1)	1	—	(2)	—	52	4
Liabilities											
Interest-bearing deposits	$ 15	$ —	$ (2)	$ —	$ (1)	$ —	$ —	$ —	$ —	$ 16	$ —
Securities loaned and sold under agreements to repurchase	1,031	(7)	—	—	—	824	—	—	(1,053)	809	—
Trading account liabilities											
Securities sold, not yet purchased	50	(15)	—	6	(16)	31	—	—	(14)	72	(1)
Other trading liabilities	3	2	—	—	—	—	—	—	—	1	—
Short-term borrowings	38	27	—	—	(5)	—	276	—	(1)	281	—
Long-term debt	36,117	(1,120)	—	1,098	(4,843)	—	3,536	—	(447)	36,581	(1,061)
Other financial liabilities measured on a recurring basis	2	—	2	—	—	—	20	—	—	20	—

(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 March 31, 2023.

(4) Total Level 3 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) incl. in[1] Principal transactions	Other[1][2]	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Mar. 31, 2022	Unrealized gains (losses) still held[3]
Assets											
Securities borrowed and purchased under agreements to resell	$ 231	$ 11	$ —	$ —	$ —	$ 88	$ —	$ —	$ (128)	$ 202	$ 4
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	496	2	—	47	(69)	166	—	(144)	—	498	1
Residential	104	—	—	33	(21)	38	—	(36)	—	118	(2)
Commercial	81	(2)	—	1	(26)	5	—	(7)	—	52	(3)
Total trading mortgage-backed securities	$ 681	$ —	$ —	$ 81	$ (116)	$ 209	$ —	$ (187)	$ —	$ 668	$ (4)
U.S. Treasury and federal agency securities	$ 4	$ (4)	$ —	$ 2	$ —	$ —	$ —	$ —	$ —	$ 2	$ —
State and municipal	37	1	—	—	(20)	1	—	(13)	—	6	—
Foreign government	23	1	—	50	—	30	—	(10)	—	94	(12)
Corporate	412	9	—	142	(34)	647	—	(163)	—	1,013	(46)
Marketable equity securities	174	(5)	—	49	(26)	50	—	(43)	—	199	9
Asset-backed securities	613	5	—	58	(67)	131	—	(274)	—	466	(20)
Other trading assets	576	47	—	28	(62)	249	10	(352)	(4)	492	(97)
Total trading non-derivative assets	$ 2,520	$ 54	$ —	$ 410	$ (325)	$ 1,317	$ 10	$ (1,042)	$ (4)	$ 2,940	$ (170)
Trading derivatives, net[4]											
Interest rate contracts	$ 1,726	$ 166	$ —	$ (68)	$ (531)	$ 2	$ —	$ —	$ (516)	$ 779	$ 366
Foreign exchange contracts	(89)	395	—	(509)	44	102	—	(64)	(10)	(131)	87
Equity contracts	(2,140)	808	—	(13)	(25)	185	—	(225)	(154)	(1,564)	983
Commodity contracts	422	414	—	29	(493)	53	—	(44)	(164)	217	542
Credit derivatives	(31)	(63)	—	32	13	—	—	(1)	46	(4)	(67)
Total trading derivatives, net[4]	$ (112)	$ 1,720	$ —	$ (529)	$ (992)	$ 342	$ —	$ (334)	$ (798)	$ (703)	$ 1,911
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	$ 51	$ —	$ (7)	$ 1	$ —	$ 4	$ —	$ (3)	$ —	$ 46	$ (10)
Residential	94	—	(2)	—	(39)	—	—	(9)	—	44	(2)
Total investment mortgage-backed securities	$ 145	$ —	$ (9)	$ 1	$ (39)	$ 4	$ —	$ (12)	$ —	$ 90	$ (12)
U.S. Treasury and federal agency securities	$ 1	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ 1	$ —
State and municipal	772	—	(44)	—	(11)	—	—	(12)	—	705	(43)
Foreign government	786	—	(24)	250	(59)	183	—	(107)	—	1,029	(25)
Corporate	188	—	(4)	53	—	—	—	—	—	237	—
Marketable equity securities	16	—	—	—	—	—	—	—	—	16	—
Asset-backed securities	3	—	12	—	—	—	—	(13)	—	2	(2)
Other debt securities	—	—	—	—	—	—	—	—	—	—	—
Non-marketable equity securities	316	—	(14)	11	—	—	—	(15)	—	298	(14)
Total investments	$ 2,227	$ —	$ (83)	$ 315	$ (109)	$ 187	$ —	$ (159)	$ —	$ 2,378	$ (96)

Table continues on the next page.

In millions of dollars	Dec. 31, 2021	Net realized/unrealized gains (losses) incl. in[1] Principal transactions	Other[1][2]	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Mar. 31, 2022	Unrealized gains (losses) still held[3]
Loans	$ 711	$ —	$ (85)	$ —	$ (2)	$ —	$ —	$ —	$ (2)	$ 622	$ 7
Mortgage servicing rights	404	—	99	—	—	—	34	—	(17)	520	98
Other financial assets measured on a recurring basis	73	—	2	—	(4)	1	25	(1)	(28)	68	10
Liabilities											
Interest-bearing deposits	$ 183	$ —	$ (4)	$ 7	$ —	$ —	$ 1	$ —	$ (4)	$ 191	$ 11
Securities loaned and sold under agreements to repurchase	643	26	—	—	—	—	—	—	(5)	612	23
Trading account liabilities											
Securities sold, not yet purchased	65	29	—	25	(15)	53	—	—	(61)	38	(26)
Other trading liabilities	—	—	—	—	—	—	—	—	—	—	—
Short-term borrowings	105	88	—	28	(9)	—	7	—	(7)	36	9
Long-term debt	25,509	3,526	—	3,408	(873)	—	3,172	—	(258)	27,432	3,436
Other financial liabilities measured on a recurring basis	1	—	1	—	—	—	—	—	—	—	—

(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 March 31, 2022.
(4) Total Level 3 trading 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 March 31, 2023:

- During the three months ended March 31, 2023, transfers of *Long-term debt* were $1.1 billion from Level 2 to Level 3. Of the $1.1 billion transfer, approximately $1.0 billion related to interest rate option volatility inputs becoming unobservable and/or significant relative to their overall valuation, and $0.1 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 $4.8 billion of certain structured long-term debt products being transferred from Level 3 to Level 2 during the three months ended March 31, 2023.

The following were the significant Level 3 transfers for the period December 31, 2021 to March 31, 2022:

- During the three months ended March 31, 2022, transfers of *Long-term debt* were $3.4 billion from Level 2 to Level 3. Of the $3.4 billion transfer, approximately $2.9 billion related to interest option volatility inputs becoming unobservable and/or significant relative to their overall valuation, and $0.5 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 $0.9 billion of certain structured long-term debt products being transferred from Level 3 to Level 2 during the three months ended March 31, 2022.

Valuation Techniques and Inputs for Level 3 Fair Value Measurements

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. 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.

As of March 31, 2023	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	$ 152	Model-based	Interest rate	1.68 %	4.90 %	1.75 %
			Credit spread	15 bps	15 bps	15 bps
Mortgage-backed securities	$ 674	Yield analysis	Yield	4.73 %	21.61 %	9.44 %
	342	Price-based	Price	$ 0.50	$ 129.67	$ 52.80
State and municipal, foreign government, corporate and other debt securities	$ 2,832	Price-based	Price	$ 0.01	$ 921.88	$ 202.70
Marketable equity securities[5]	$ 183	Price-based	Price	$ —	$ 10,165.30	$ 87.64
	33	Model-based	WAL	2 years	2 years	2 years
			Recovery *(in millions)*	$ 7,148	$ 7,148	$ 7,148
Asset-backed securities	$ 282	Price-based	Price	$ —	$ 100.00	$ 64.79
	268	Yield analysis	Yield	6.00 %	23.00 %	10.00 %
Non-marketable equities	$ 273	Comparables analysis	Illiquidity discount	8.00 %	11.00 %	8.79 %
	87	Cash flow	PE ratio	14.00x	16.40x	14.90x
			Discount to price	8.50 %	33.00 %	15.00 %
			Revenue multiple	3.50x	16.60x	14.79x
Derivatives—gross[6]						
Interest rate contracts (gross)	$ 6,123	Model-based	IR normal volatility	0.30 %	20.00 %	1.18 %
Foreign exchange contracts (gross)	$ 1,544	Model-based	IR basis	0.31 %	2.07 %	0.60 %
			Equity volatility	30.33 %	34.99 %	31.69 %
			FX volatility	1.10 %	44.50 %	11.63 %
Equity contracts (gross)[7]	$ 4,291	Model-based	Equity volatility	— %	302.07 %	33.15 %
			Equity forward	72.09 %	254.63 %	102.73 %
			Equity-FX correlation	(95.00)%	70.00 %	(14.89)%
			WAL	2 years	2 years	2 years
			Recovery *(in millions)*	$ 7,148	$ 7,148	$ 7,148
			Equity-IR correlation	(20.00)%	60.00 %	29.34 %
Commodity and other contracts (gross)	$ 2,366	Model-based	Commodity correlation	(30.00)%	93.73 %	45.39 %
			Commodity volatility	13.29 %	107.92 %	31.69 %
			Forward price	19.79 %	683.12 %	145.42 %
Credit derivatives (gross)	$ 1,175	Model-based	Credit spread	7 bps	972 bps	131 bps
	538	Price-based	Recovery rate	15.00 %	75.00 %	39.77 %
			Credit correlation	25.00 %	70.00 %	47.00 %
			Price	$ 1.58	$ 99.26	$ 35.96
			Upfront points	(0.27)%	99.00 %	44.71 %
Nontrading derivatives and other financial assets and liabilities measured on a recurring basis (gross)	$ 72	Price-based	Price	$ 0.01	$ 106.00	$ 90.75
Loans and leases	$ 397	Model-based	Price	$ 71.00	$ 100.00	$ 83.60

As of March 31, 2023	**Fair value[1]** *(in millions)*	**Methodology**	**Input**	**Low[2][3]**	**High[2][3]**	**Weighted average[4]**
	$ 243	Price-based	Equity volatility	**— %**	**302.07 %**	**30.90 %**
			Equity forward	**72.09 %**	**254.63 %**	**102.76 %**
			Forward price	**19.79 %**	**683.12 %**	**129.62 %**
			Commodity volatility	**13.29 %**	**107.92 %**	**31.69 %**
			Commodity correlation	**(30.00)%**	**93.73 %**	**45.39 %**
Mortgage servicing rights	**$ 575**	Cash flow	Yield	**(0.40)%**	**12.00 %**	**4.60 %**
	82	Model-based	WAL	**3.83 years**	**9.11 years**	**7.59 years**
Liabilities						
Interest-bearing deposits	**$ 16**	Forward price	Equity forward	**100.00 %**	**100.00 %**	**100.00 %**
Securities loaned and sold under agreements to repurchase	**$ 804**	Model-based	Interest rate	**2.36 %**	**4.90 %**	**3.72 %**
Trading account liabilities						
Securities sold, not yet purchased and other trading liabilities	**$ 63**	Price-based	Price	**$ —**	**$ 2,720**	**$ 42**
Short-term borrowings and long-term debt	**$ 35,492**	Model-based	IR normal volatility	**0.30 %**	**2.07 %**	**0.82 %**

As of December 31, 2022	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	$ 228	Price-based	Price	$ 1.04	$ 99.71	$ 51.51
	732	Yield analysis	Yield	4.41 %	20.30 %	9.74 %
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	Illiquidity discount	8.60 %	17.00 %	10.16 %
	101	Price-based	PE ratio	14.00x	15.70x	15.16x
			Cost of capital	8.10 %	17.50 %	10.44 %
			Revenue multiple	3.60x	13.90x	12.40x
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 %
			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	$ 7,148	$ 7,148
			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
	439	Price-based	Recovery rate	25.00 %	75.00 %	42.27 %
			Credit correlation	25.00 %	80.00 %	42.38 %
			Price	$ 31.71	$ 99.00	$ 78.75
			Credit spread volatility	35.58 %	64.79 %	40.47 %
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 %
	304	Price-based	Forward price	14.27 %	324.85 %	105.07 %
			Price	$ 0.01	$ 100.53	$ 84.77
			Equity forward	68.34 %	271.61 %	103.49 %
Mortgage servicing rights	$ 580	Cash flow	Yield	(0.40)%	13.20 %	5.36 %
	84	Model-based	WAL	3.92 years	9.33 years	7.71 years
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.

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:

In millions of dollars	**Fair value**	**Level 2**	**Level 3**
March 31, 2023			
Loans HFS(1)	**$ 3,926**	**$ 2,544**	**$ 1,382**
Other real estate owned	**5**	**—**	**5**
Loans(2)	**56**	**—**	**56**
Non-marketable equity securities measured using the measurement alternative	**158**	**—**	**158**
Total assets at fair value on a nonrecurring basis	**$ 4,145**	**$ 2,544**	**$ 1,601**

In millions of dollars	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.

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:

As of March 31, 2023	**Fair value[1]** *(in millions)*	**Methodology**	**Input**	**Low[2]**	**High**	**Weighted average[3]**
Loans HFS	**$ 1,382**	Price-based	Price	**$ 75.00**	**$ 104.48**	**$ 91.79**
Other real estate owned	**$ 4**	Price-based	Appraised value[4]	**$ 18,899**	**$ 729,000**	**$ 367,017**
			Price	**$ 100**	**$ 100**	**$ 100**
Loans[5]	**$ 32**	Recovery analysis	Appraised value[4]	**$ 12,000**	**$ 24,592,081**	**$ 10,920,430**
	25	Price-based				
Non-marketable equity securities measured using the measurement alternative	**$ 122**	Price-based	Price	**$ 4.02**	**$ 1,912.00**	**$ 1,183.00**
	35	Comparable analysis	Revenue multiple	**5.20x**	**21.90x**	**13.00x**

As of December 31, 2022	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	$ 234	Comparable analysis	Revenue multiple	4.95x	73.10x	19.68x
	363	Price-based	Price	$ 0.46	$ 2,416.43	$ 557.86

(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:

	Three Months Ended March 31,	
In millions of dollars	**2023**	2022
Loans HFS	**$ (56)**	$ (152)
Other real estate owned	**—**	—
Loans[1]	**(2)**	4
Non-marketable equity securities measured using the measurement alternative	**(25)**	85
Total nonrecurring fair value gains (losses)	**$ (83)**	$ (63)

(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.

	March 31, 2023		**Estimated fair value**		
In billions of dollars	**Carrying value**	**Estimated fair value**	**Level 1**	**Level 2**	**Level 3**
Assets					
Investments, net of allowance	**$ 269.6**	**$ 248.2**	**$ 125.6**	**$ 120.2**	**$ 2.4**
Securities borrowed and purchased under agreements to resell	**128.2**	**128.3**	**—**	**128.3**	**—**
Loans(1)(2)	**629.3**	**635.9**	**—**	**—**	**635.9**
Other financial assets(2)(3)	**415.5**	**415.5**	**310.7**	**18.2**	**86.6**
Liabilities					
Deposits	**$ 1,327.5**	**$ 1,327.6**	**$ —**	**$ 1,139.4**	**$ 188.2**
Securities loaned and sold under agreements to repurchase	**191.4**	**191.4**	**—**	**191.4**	**—**
Long-term debt(4)	**164.5**	**161.7**	**—**	**146.6**	**15.1**
Other financial liabilities(5)	**141.7**	**141.7**	**—**	**22.6**	**119.1**

	December 31, 2022		Estimated fair value		
In billions of dollars	Carrying value	Estimated fair value	Level 1	Level 2	Level 3
Assets					
Investments, net of allowance	$ 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(1)(2)	634.5	634.9	—	—	634.9
Other financial assets(2)(3)	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(4)	165.6	160.5	—	151.1	9.4
Other financial liabilities(5)	142.4	142.4	—	26.5	115.9

(1) The carrying value of loans is net of the allowance for credit losses on loans of $17.2 billion for March 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 March 31, 2023 and December 31, 2022, respectively.
(2) Includes items measured at fair value on a nonrecurring basis.
(3) 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.
(4) The carrying value includes long-term debt balances under qualifying fair value hedges.
(5) 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 March 31, 2023 and December 31, 2022 were off-balance sheet liabilities of $7.3 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.

22. 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 19 for additional details on Citi's MSRs. Additional discussion regarding other applicable areas in which fair value elections were made is presented in Note 21.

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)	
	Three Months Ended March 31,	
In millions of dollars	**2023**	2022
Assets		
Securities borrowed and purchased under agreements to resell	**$ 85**	$ (62)
Trading account assets	**61**	(61)
Loans		
Certain corporate loans	**(309)**	(332)
Certain consumer loans	**5**	(1)
Total loans	**$ (304)**	$ (333)
Other assets		
MSRs	**$ (3)**	$ 98
Certain mortgage loans HFS[1]	**8**	(186)
Total other assets	**$ 5**	$ (88)
Total assets	**$ (153)**	$ (544)
Liabilities		
Interest-bearing deposits	**$ (134)**	$ 45
Securities loaned and sold under agreements to repurchase	**(68)**	77
Trading account liabilities	**75**	(640)
Short-term borrowings[2]	**(142)**	132
Long-term debt[2]	**(4,349)**	6,071
Total liabilities	**$ (4,618)**	$ 5,685

(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 18 and 21.

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 18 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 $(433) million and gain of $1,050 million for the three months ended March 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 revenue and interest expense are measured based on the contractual rates specified in the transactions and are reported as *Interest revenue* 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:

	March 31, 2023		December 31, 2022	
In millions of dollars	**Trading assets**	**Loans**	Trading assets	Loans
Carrying amount reported on the Consolidated Balance Sheet	**$ 5,364**	**$ 5,134**	$ 6,011	$ 5,360
Aggregate unpaid principal balance in excess of (less than) fair value	**260**	**125**	167	51
Balance of non-accrual loans or loans more than 90 days past due	**—**	**2**	—	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**	—	—

In addition to the amounts reported above, $641 million and $729 million of unfunded commitments related to certain credit products selected for fair value accounting were outstanding as of March 31, 2023 and December 31, 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 revenue is measured based on the contractual interest rates and reported as *Interest revenue* on *Trading account assets* or loan interest depending on the balance sheet classifications of the credit products. The changes in fair value for the three months ended March 31, 2023 and 2022 due to instrument-specific credit risk totaled to a gain of $9 million and a loss of $(59) 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 and foreign currency trading activities or to economically hedge certain exposures from issuing structured liabilities. Under ASC 815, the investment is bifurcated into a debt host contract and a commodity forward derivative instrument. Citigroup elects the fair value option for the debt host contract, and reports the debt host 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 $0.3 billion and $0.3 billion at March 31, 2023 and December 31, 2022, respectively. The amounts are expected to fluctuate based on trading activity in future periods.

As part of its commodity and foreign currency 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. As of March 31, 2023, there were approximately $25.1 billion and $17.2 billion of notional amounts of such forward purchase and forward sale derivative contracts outstanding, respectively. Changes in the fair values of these investments are recorded in *Principal transactions* in the Company's Consolidated Statement of Income.

Certain Investments in Private Equity and Real Estate Ventures

Citigroup invests in private equity and real estate ventures for the purpose of earning investment returns and for capital appreciation. The Company has elected the fair value option for certain of these ventures, because such investments are considered similar to many private equity or hedge fund activities in Citi's investment companies, which are reported at fair value. The fair value option brings consistency in the accounting and evaluation of these investments. All investments (debt and equity) in such private equity and real estate entities are accounted for at fair value. These investments are classified as *Investments* on Citigroup's Consolidated Balance Sheet.

Changes in the fair values of these investments are classified in *Other revenue* in the Company's Consolidated Statement of Income.

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 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.

The following table provides information about certain mortgage loans HFS carried at fair value:

In millions of dollars	**March 31, 2023**	December 31, 2022
Carrying amount reported on the Consolidated Balance Sheet	**$ 901**	$ 793
Aggregate fair value in excess of (less than) unpaid principal balance	**6**	(10)
Balance of non-accrual loans or loans more than 90 days past due	**1**	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 three months ended March 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.

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* 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	**March 31, 2023**	December 31, 2022
Interest rate linked	**$ 57.3**	$ 53.4
Foreign exchange linked	**0.1**	0.1
Equity linked	**47.7**	42.5
Commodity linked	**5.0**	5.0
Credit linked	**5.1**	5.0
Total	**$ 115.2**	$ 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*.

The following table provides information about long-term debt carried at fair value:

In millions of dollars	**March 31, 2023**	December 31, 2022
Carrying amount reported on the Consolidated Balance Sheet	**$ 115,168**	$ 105,995
Aggregate unpaid principal balance in excess of (less than) fair value	**(3,146)**	(2,944)

The following table provides information about short-term borrowings carried at fair value:

In millions of dollars	**March 31, 2023**	December 31, 2022
Carrying amount reported on the Consolidated Balance Sheet	**$ 6,873**	$ 6,222
Aggregate unpaid principal balance in excess of (less than) fair value	**(10)**	(9)

23. GUARANTEES AND COMMITMENTS

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.

For additional information regarding Citi's guarantees and indemnifications included in the tables below, as well as its other guarantees and indemnifications excluded from these tables, see Note 27 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

The following tables present information about Citi's guarantees at March 31, 2023 and December 31, 2022:

	Maximum potential amount of future payments			
In billions of dollars at March 31, 2023	**Expire within 1 year**	**Expire after 1 year**	**Total amount outstanding**	**Carrying value** *(in millions of dollars)*
Financial standby letters of credit	**$ 23.3**	**$ 67.2**	**$ 90.5**	**$ 805**
Performance guarantees	**4.8**	**5.7**	**10.5**	**52**
Derivative instruments considered to be guarantees	**22.9**	**29.3**	**52.2**	**372**
Loans sold with recourse	**—**	**1.7**	**1.7**	**13**
Securities lending indemnifications(1)	**108.7**	**—**	**108.7**	**—**
Credit card merchant processing(2)	**121.7**	**—**	**121.7**	**1**
Credit card arrangements with partners	**0.1**	**0.4**	**0.5**	**7**
Other	**0.2**	**8.4**	**8.6**	**41**
Total	**$ 281.7**	**$ 112.7**	**$ 394.4**	**$ 1,291**

	Maximum potential amount of future payments			
In billions of dollars at December 31, 2022	Expire within 1 year	Expire after 1 year	Total amount outstanding	Carrying value *(in millions of dollars)*
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 March 31, 2023 and December 31, 2022, this maximum potential exposure was estimated to be approximately $122 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.

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 shown 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 $10 million and $10 million at March 31, 2023 and December 31, 2022, respectively, and these amounts are included in *Other liabilities* on the Consolidated Balance Sheet.

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 insurance coverage for rental cars, coverage for certain losses associated with purchased products, price protection for certain purchases and protection for lost luggage. 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 March 31, 2023 and December 31, 2022, the actual and estimated losses incurred and the carrying value of Citi's obligations related to these programs were immaterial.

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 March 31, 2023 or December 31, 2022 for potential obligations that could arise from Citi's involvement with VTN associations.

Long-Term Care (LTC) Insurance Indemnification
Citi has an indemnification contingency to Brighthouse Financial in connection with Citi's sale of an insurance subsidiary. A liability under this indemnification agreement is currently remote because Brighthouse Financial would become responsible for LTC policyholder claims only when both the reinsurance provided by other parties ceases and trust assets set aside to meet these claims are not adequate. However, should events occur causing both the reinsurance protection and trust collateral to become insufficient to cover Brighthouse Financial's LTC policyholder claims, Citi will be required to either estimate and disclose a reasonably possible loss or range of loss to the extent that such an estimate can be made, or to accrue for such liability if the event becomes probable and estimable. Citi continues to closely monitor its potential exposure under this indemnification obligation. For additional information, see Note 27 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

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 20 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 $19.2 billion and $18.0 billion as of March 31, 2023 and December 31, 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 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.

Carrying Value—Guarantees and Indemnifications

At March 31, 2023 and December 31, 2022, the total carrying amounts of the liabilities related to the guarantees and indemnifications included in the tables above amounted to approximately $1.3 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 $52.6 billion and $51.8 billion at March 31, 2023 and December 31, 2022, respectively. Securities and other marketable assets held as collateral amounted to $71.9 billion and $63.7 billion at March 31, 2023 and December 31, 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 $3.2 billion and $3.7 billion at March 31, 2023 and December 31, 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

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.

	Maximum potential amount of future payments			
In billions of dollars at March 31, 2023	**Investment grade**	**Non-investment grade**	**Not rated**	**Total**
Financial standby letters of credit	**$ 78.0**	**$ 10.2**	**$ 2.3**	**$ 90.5**
Loans sold with recourse	**—**	**—**	**1.7**	**1.7**
Credit card arrangements with partners	**—**	**—**	**0.5**	**0.5**
Other	**—**	**8.6**	**—**	**8.6**
Total	**$ 78.0**	**$ 18.8**	**$ 4.5**	**$ 101.3**

	Maximum potential amount of future payments			
In billions of dollars at December 31, 2022	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
Credit card arrangements with partners	—	—	0.6	0.6
Other	—	8.5	—	8.5
Total	$ 77.9	$ 18.9	$ 3.6	$ 100.4

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]	March 31, 2023	December 31, 2022
Commercial and similar letters of credit	$ 663	$ 5,333	$ 5,996	$ 5,316
One- to four-family residential mortgages	1,200	1,179	2,379	2,394
Revolving open-end loans secured by one- to four-family residential properties	5,772	686	6,458	6,380
Commercial real estate, construction and land development	12,552	1,602	14,154	15,170
Credit card lines	612,236	76,103	688,339	683,232
Commercial and other consumer loan commitments	187,295	106,002	293,297	297,399
Other commitments and contingencies	5,312	178	5,490	5,673
Total	$ 825,030	$ 191,083	$ 1,016,113	$ 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.

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.

Other Commitments and Contingencies

Other commitments and contingencies include all other transactions related to commitments and contingencies not reported on the lines above.

Unsettled Reverse Repurchase and Securities Borrowing Agreements and Unsettled Repurchase and Securities Lending Agreements

In addition, 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 March 31, 2023 and December 31, 2022, Citigroup had approximately $138.0 billion and $111.6 billion of unsettled reverse repurchase and securities borrowing agreements, and approximately $75.5 billion and $37.3 billion of unsettled repurchase and securities lending agreements, respectively. See Note 10 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.

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:

In millions of dollars	March 31, 2023	December 31, 2022
Cash and due from banks	$ 4,211	$ 4,820
Deposits with banks, net of allowance	12,394	12,156
Total	$ 16,605	$ 16,976

In addition to the restricted cash amounts shown above, at March 31, 2023 and December 31, 2022, respectively, approximately $2.7 billion and $1.8 billion were held at the Russia National Settlements Depository and subject to restrictions imposed by the Russian government. This restricted amount is reported within *Other assets* on the Consolidated Balance Sheet.

24. 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 March 31, 2023.

For additional information regarding Citi's leases, see Notes 1 and 28 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

The following table presents information on the right-of-use (ROU) asset and lease liabilities included in *Premises and equipment* and *Other liabilities*, respectively:

In millions of dollars	**March 31, 2023**	December 31, 2022
ROU asset	**$ 2,855**	$ 2,892
Lease liability	**3,029**	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.

25. CONTINGENCIES

The following information supplements and amends, as applicable, the disclosure in Note 29 to the Consolidated Financial Statements in Citi's 2022 Form 10-K. For purposes of this Note, Citigroup, its affiliates and subsidiaries and current and former officers, directors, and employees, are sometimes collectively referred to as Citigroup and Related Parties.

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. 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. With respect to previously incurred loss contingencies for which recovery is expected, Citi applies loss recovery accounting when disputes and uncertainties affecting recognition are resolved.

If Citigroup has not accrued for a matter because the matter does not meet the criteria for accrual (as set forth above), or Citigroup believes an exposure to loss exists in excess of the amount accrued for a particular matter, in each case assuming a material loss is reasonably possible but not probable, Citigroup discloses the matter. In addition, for such matters, Citigroup discloses an estimate of the aggregate reasonably possible loss or range of loss in excess of the amounts accrued for those matters for which an estimate can be made. At March 31, 2023, Citigroup estimates that the reasonably possible unaccrued loss for these matters ranges up to approximately $1.2 billion in the aggregate.

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, tax, or other matters are subject to particular uncertainties. For example, at the time of making an estimate, Citigroup may only have preliminary or incomplete information about the facts underlying the claim; its assumptions about the future rulings of the court or other tribunal on significant issues, or the behavior and incentives of adverse parties, regulators, or tax authorities may prove to be wrong; and 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 estimates because it had deemed such an outcome to be remote. For all 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.

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 be likely to 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.

For further information on ASC 450 and Citigroup's accounting and disclosure framework for contingencies, including for any litigation, regulatory, and tax matters disclosed herein, see Note 29 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

FDIC Special Assessment

On April 18, 2023, the FDIC announced that in May 2023, it will propose a special assessment to recover the uninsured deposit losses from the failures of Silicon Valley Bank and Signature Bank. On May 1, 2023, the FDIC announced that its Deposit Insurance Fund will incur additional costs related to the resolution of First Republic Bank. Citibank, N.A. could incur an increase in its non-interest expense from the imposition of additional assessments by the FDIC. However, neither the amount nor the timing of any additional costs can be reasonably estimated.

Foreign Exchange Matters

Antitrust and Other Litigation: On March 29, 2023, in ALLIANZ GLOBAL INVESTORS, ET AL. v. BANK OF AMERICA CORP., ET AL., the parties executed an agreement to resolve all of plaintiffs' claims. Additional information concerning this action is publicly available in court filings under the docket number 18-CV-10364 (S.D.N.Y.) (Schofield, J.).

On March 29, 2023, in ALLIANZ GLOBAL INVESTORS GMBH AND OTHERS v. BARCLAYS BANK PLC AND OTHERS, the parties executed an agreement to resolve all of plaintiffs' claims. Additional information concerning this action is publicly available in court filings under the case number CL-2018-000840 in the High Court and under the case number 1430/5/7/22 (T) in the Competition Appeal Tribunal.

On March 30, 2023, in NYPL v. JPMORGAN CHASE & CO., ET AL., the United States District Court for the Southern District of New York granted defendants' motion for summary judgment and dismissed all remaining claims. 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.) and 22-698 (2d Cir.).

Interchange Fee Litigation

On March 15, 2023, the United States Court of Appeals for the Second Circuit affirmed the district court's ruling that the parties' damages class settlement is fair and reasonable. Additional information concerning this matter is publicly available in court filings under the docket numbers MDL 05-1720 (E.D.N.Y.) (Brodie, J.) and 20-339(L) (2d Cir.).

Shareholder Derivative and Securities Litigation
On March 24, 2023, in IN RE CITIGROUP SECURITIES LITIGATION, the United States District Court for the Southern District of New York granted defendants' motion to dismiss without prejudice. Additional information concerning this action is publicly available in court filings under the docket number 1:20-CV-9132 (S.D.N.Y.) (Preska, J.).

Settlement Payments
Payments required in any settlement agreements described above have been made or are covered by existing litigation or other accruals.

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26. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS

Citigroup's Registration Statement on Form S-3 on file with the SEC includes its wholly owned subsidiary, Citigroup Global Markets Holdings Inc. (CGMHI), as a co-registrant. Any securities issued by CGMHI under the Form S-3 will be fully and unconditionally guaranteed by Citigroup.

The following are the Condensed Consolidating Statements of Income and Comprehensive Income for the three months ended March 31, 2023 and 2022, Condensed Consolidating Balance Sheet as of March 31, 2023 and December 31, 2022 and Condensed Consolidating Statement of Cash Flows for the three months ended March 31, 2023 and 2022 for Citigroup Inc., the parent holding company (Citigroup parent company), CGMHI, other Citigroup subsidiaries and eliminations, and total consolidating adjustments. "Other Citigroup subsidiaries and eliminations" includes all other subsidiaries of Citigroup, intercompany eliminations and income (loss) from discontinued operations. "Consolidating adjustments" includes Citigroup parent company elimination of distributed and undistributed income of subsidiaries and investment in subsidiaries.

These Condensed Consolidating Financial Statements have been prepared and presented in accordance with SEC Regulation S-X Rule 3-10, "Financial Statements of Guarantors and Issuers of Guaranteed Securities Registered or Being Registered."

These Condensed Consolidating Financial Statements are presented for purposes of additional analysis, but should be considered in relation to the Consolidated Financial Statements of Citigroup taken as a whole.

Condensed Consolidating Statements of Income and Comprehensive Income

	Three Months Ended March 31, 2023				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$ 3,291	$ —	$ —	$ (3,291)	$ —
Interest revenue	—	6,269	23,126	—	29,395
Interest revenue—intercompany	1,653	1,587	(3,240)	—	—
Interest expense	1,503	4,777	9,767	—	16,047
Interest expense—intercompany	326	2,282	(2,608)	—	—
Net interest income	$ (176)	$ 797	$ 12,727	$ —	$ 13,348
Commissions and fees	$ —	$ 1,133	$ 1,233	$ —	$ 2,366
Commissions and fees—intercompany	(14)	47	(33)	—	—
Principal transactions	(631)	674	3,896	—	3,939
Principal transactions—intercompany	327	562	(889)	—	—
Other revenue	(59)	31	1,822	—	1,794
Other revenue—intercompany	16	(10)	(6)	—	—
Total non-interest revenues	$ (361)	$ 2,437	$ 6,023	$ —	$ 8,099
Total revenues, net of interest expense	$ 2,754	$ 3,234	$ 18,750	$ (3,291)	$ 21,447
Provisions for credit losses and for benefits and claims	$ —	$ 19	$ 1,956	$ —	$ 1,975
Operating expenses					
Compensation and benefits	$ 5	$ 1,490	$ 6,043	$ —	$ 7,538
Compensation and benefits—intercompany	17	—	(17)	—	—
Other operating	33	539	5,179	—	5,751
Other operating—intercompany	4	888	(892)	—	—
Total operating expenses	$ 59	$ 2,917	$ 10,313	$ —	$ 13,289
Equity in undistributed income of subsidiaries	$ 1,543	$ —	$ —	$ (1,543)	$ —
Income (loss) from continuing operations before income taxes	$ 4,238	$ 298	$ 6,481	$ (4,834)	$ 6,183
Provision (benefit) for income taxes	(368)	115	1,784	—	1,531
Income (loss) from continuing operations	$ 4,606	$ 183	$ 4,697	$ (4,834)	$ 4,652
Income (loss) from discontinued operations, net of taxes	—	—	(1)	—	(1)
Net income before attribution of noncontrolling interests	$ 4,606	$ 183	$ 4,696	$ (4,834)	$ 4,651
Noncontrolling interests	—	—	45	—	45
Net income (loss)	$ 4,606	$ 183	$ 4,651	$ (4,834)	$ 4,606
Comprehensive income					
Add: Other comprehensive income (loss)	$ 1,594	$ (28)	$ (1,047)	$ 1,075	$ 1,594
Total Citigroup comprehensive income (loss)	$ 6,200	$ 155	$ 3,604	$ (3,759)	$ 6,200
Add: Other comprehensive income attributable to noncontrolling interests	$ —	$ —	$ 32	$ —	$ 32
Add: Net income attributable to noncontrolling interests	—	—	45	—	45
Total comprehensive income (loss)	$ 6,200	$ 155	$ 3,681	$ (3,759)	$ 6,277

Condensed Consolidating Statements of Income and Comprehensive Income

	Three Months Ended March 31, 2022				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$ 250	$ —	$ —	$ (250)	$ —
Interest revenue	—	762	12,389	—	13,151
Interest revenue—intercompany	902	139	(1,041)	—	—
Interest expense	1,179	194	907	—	2,280
Interest expense—intercompany	90	354	(444)	—	—
Net interest income	$ (367)	$ 353	$ 10,885	$ —	$ 10,871
Commissions and fees	$ —	$ 1,361	$ 1,207	$ —	$ 2,568
Commissions and fees—intercompany	—	84	(84)	—	—
Principal transactions	1,862	1,597	1,131	—	4,590
Principal transactions—intercompany	(1,849)	(88)	1,937	—	—
Other revenue	69	158	930	—	1,157
Other revenue—intercompany	(57)	(18)	75	—	—
Total non-interest revenues	$ 25	$ 3,094	$ 5,196	$ —	$ 8,315
Total revenues, net of interest expense	$ (92)	$ 3,447	$ 16,081	$ (250)	$ 19,186
Provisions for credit losses and for benefits and claims	$ —	$ (1)	$ 756	$ —	$ 755
Operating expenses					
Compensation and benefits	$ —	$ 1,512	$ 5,308	$ —	$ 6,820
Compensation and benefits—intercompany	11	—	(11)	—	—
Other operating	24	656	5,665	—	6,345
Other operating—intercompany	3	754	(757)	—	—
Total operating expenses	$ 38	$ 2,922	$ 10,205	$ —	$ 13,165
Equity in undistributed income of subsidiaries	$ 4,134	$ —	$ —	$ (4,134)	$ —
Income (loss) from continuing operations before income taxes	$ 4,004	$ 526	$ 5,120	$ (4,384)	$ 5,266
Provision (benefit) for income taxes	(302)	(216)	1,459	—	941
Income (loss) from continuing operations	$ 4,306	$ 742	$ 3,661	$ (4,384)	$ 4,325
Income (loss) from discontinued operations, net of taxes	—	—	(2)	—	(2)
Net income (loss) before attribution of noncontrolling interests	$ 4,306	$ 742	$ 3,659	$ (4,384)	$ 4,323
Noncontrolling interests	—	—	17	—	17
Net income (loss)	$ 4,306	$ 742	$ 3,642	$ (4,384)	$ 4,306
Comprehensive income					
Add: Other comprehensive income (loss)	$ (4,820)	$ 449	$ (2,070)	$ 1,621	$ (4,820)
Total Citigroup comprehensive income (loss)	$ (514)	$ 1,191	$ 1,572	$ (2,763)	$ (514)
Add: Other comprehensive income attributable to noncontrolling interests	$ —	$ —	$ (29)	$ —	$ (29)
Add: Net income attributable to noncontrolling interests	—	—	17	—	17
Total comprehensive income (loss)	$ (514)	$ 1,191	$ 1,560	$ (2,763)	$ (526)

Condensed Consolidating Balance Sheet

In millions of dollars	March 31, 2023 Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Assets					
Cash and due from banks	$ —	$ 739	$ 25,485	$ —	$ 26,224
Cash and due from banks—intercompany	33	5,846	(5,879)	—	—
Deposits with banks, net of allowance	—	7,107	295,628	—	302,735
Deposits with banks—intercompany	4,000	9,514	(13,514)	—	—
Securities borrowed and purchased under resale agreements	—	307,774	76,424	—	384,198
Securities borrowed and purchased under resale agreements—intercompany	—	20,355	(20,355)	—	—
Trading account assets	148	248,341	135,417	—	383,906
Trading account assets—intercompany	247	4,889	(5,136)	—	—
Investments, net of allowance	1	250	512,327	—	512,578
Loans, net of unearned income	—	1,884	650,111	—	651,995
Loans, net of unearned income—intercompany	—	111	(111)	—	—
Allowance for credit losses on loans (ACLL)	—	(14)	(17,155)	—	(17,169)
Total loans, net	$ —	$ 1,981	$ 632,845	$ —	$ 634,826
Advances to subsidiaries	$ 146,754	$ —	$ (146,754)	$ —	$ —
Investments in subsidiary bank holding company	176,035	—	—	(176,035)	—
Investments in non-bank subsidiaries	48,381	—	—	(48,381)	—
Other assets, net of allowance[1]	11,493	67,102	132,051	—	210,646
Other assets—intercompany	4,577	97,995	(102,572)	—	—
Total assets	$ 391,669	$ 771,893	$ 1,515,967	$ (224,416)	$ 2,455,113
Liabilities and equity					
Deposits	$ —	$ —	$ 1,330,459	$ —	$ 1,330,459
Deposits—intercompany	—	—	—	—	—
Securities loaned and sold under repurchase agreements	—	236,426	21,255	—	257,681
Securities loaned and sold under repurchase agreements—intercompany	—	62,675	(62,675)	—	—
Trading account liabilities	32	123,141	61,837	—	185,010
Trading account liabilities—intercompany	722	3,787	(4,509)	—	—
Short-term borrowings	—	17,079	23,108	—	40,187
Short-term borrowings—intercompany	—	15,390	(15,390)	—	—
Long-term debt	166,826	96,700	16,158	—	279,684
Long-term debt—intercompany	—	90,431	(90,431)	—	—
Advances from subsidiary bank holding company	5,028	—	(5,028)	—	—
Advances from non-bank subsidiaries	8,035	—	(8,035)	—	—
Other liabilities	2,627	75,199	75,247	—	153,073
Other liabilities—intercompany	104	12,090	(12,194)	—	—
Stockholders' equity	208,295	38,975	186,165	(224,416)	209,019
Total liabilities and equity	$ 391,669	$ 771,893	$ 1,515,967	$ (224,416)	$ 2,455,113

(1) Citigroup parent company and Other Citigroup subsidiaries at March 31, 2023 included $46.8 billion of placements to Citibank and its branches, of which $35.2 billion had a remaining term of less than 30 days.

Condensed Consolidating Balance Sheet

In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
	December 31, 2022				
Assets					
Cash and due from banks	$ —	$ 955	$ 29,622	$ —	$ 30,577
Cash and due from banks—intercompany	15	7,448	(7,463)	—	—
Deposits with banks, net of allowance	—	7,902	303,546	—	311,448
Deposits with banks—intercompany	3,000	10,816	(13,816)	—	—
Securities borrowed and purchased under resale agreements	—	286,724	78,677	—	365,401
Securities borrowed and purchased under resale agreements—intercompany	—	19,549	(19,549)	—	—
Trading account assets	130	202,678	131,306	—	334,114
Trading account assets—intercompany	176	7,279	(7,455)	—	—
Investments, net of allowance	1	265	526,316	—	526,582
Loans, net of unearned income	—	1,749	655,472	—	657,221
Loans, net of unearned income—intercompany	—	337	(337)	—	—
Allowance for credit losses on loans (ACLL)	—	—	(16,974)	—	(16,974)
Total loans, net	$ —	$ 2,086	$ 638,161	$ —	$ 640,247
Advances to subsidiaries	$ 146,843	$ —	$ (146,843)	$ —	$ —
Investments in subsidiary bank holding company	172,721	—	—	(172,721)	—
Investments in non-bank subsidiaries	48,295	—	—	(48,295)	—
Other assets, net of allowance[1]	10,441	66,753	131,113	—	208,307
Other assets—intercompany	3,346	94,716	(98,062)	—	—
Total assets	$ 384,968	$ 707,171	$ 1,545,553	$ (221,016)	$ 2,416,676
Liabilities and equity					
Deposits	$ —	$ —	$ 1,365,954	$ —	$ 1,365,954
Deposits—intercompany	—	—	—	—	—
Securities loaned and sold under repurchase agreements	—	181,765	20,679	—	202,444
Securities loaned and sold under repurchase agreements—intercompany	—	64,151	(64,151)	—	—
Trading account liabilities	23	108,940	61,684	—	170,647
Trading account liabilities—intercompany	581	6,989	(7,570)	—	—
Short-term borrowings	—	20,382	26,714	—	47,096
Short-term borrowings—intercompany	—	23,468	(23,468)	—	—
Long-term debt	166,257	88,844	16,505	—	271,606
Long-term debt—intercompany	—	83,224	(83,224)	—	—
Advances from subsidiary bank holding company	6,629	—	(6,629)	—	—
Advances from non-bank subsidiaries	7,933	—	(7,933)	—	—
Other liabilities	2,321	75,040	79,730	—	157,091
Other liabilities—intercompany	35	15,530	(15,565)	—	—
Stockholders' equity	201,189	38,838	182,827	(221,016)	201,838
Total liabilities and equity	$ 384,968	$ 707,171	$ 1,545,553	$ (221,016)	$ 2,416,676

(1) *Other assets* for Citigroup parent company at December 31, 2022 included $40.2 billion of placements to Citibank and its branches, of which $29.2 billion had a remaining term of less than 30 days.

Condensed Consolidating Statement of Cash Flows

In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
	Three Months Ended March 31, 2023				
Net cash provided by (used in) operating activities of continuing operations	**$ 3,337**	**$ (31,964)**	**$ (1,858)**	**$ —**	**$ (30,485)**
Cash flows from investing activities of continuing operations					
Change in securities borrowed and purchased under agreements to resell	**$ —**	**$ (21,856)**	**$ 3,059**	**$ —**	**$ (18,797)**
Change in loans	**—**	**—**	**3,010**	**—**	**3,010**
Proceeds from sales and securitizations of loans	**—**	**—**	**895**	**—**	**895**
Net payment due to transfer of net liabilities associated with divestitures	**—**	**—**	**(29)**	**—**	**(29)**
Available-for-sale (AFS) debt securities:					
Purchases of investments	**—**	**—**	**(52,708)**	**—**	**(52,708)**
Proceeds from sales of investments	**—**	**—**	**18,619**	**—**	**18,619**
Proceeds from maturities of investments	**—**	**—**	**51,034**	**—**	**51,034**
Held-to-maturity (HTM) debt securities:					
Purchases of investments	**—**	**—**	**(631)**	**—**	**(631)**
Proceeds from maturities of investments	**—**	**—**	**1,977**	**—**	**1,977**
Changes in investments and advances—intercompany	**456**	**(3,662)**	**3,206**	**—**	**—**
Other investing activities	**—**	**(32)**	**(6,411)**	**—**	**(6,443)**
Net cash provided by (used in) investing activities of continuing operations	**$ 456**	**$ (25,550)**	**$ 22,021**	**$ —**	**$ (3,073)**
Cash flows from financing activities of continuing operations					
Dividends paid	**$ (1,267)**	**$ (14)**	**$ 14**	**$ —**	**$ (1,267)**
Issuance of preferred stock	**1,245**	**—**	**—**	**—**	**1,245**
Proceeds (repayments) from issuance of long-term debt, net	**(940)**	**4,598**	**(388)**	**—**	**3,270**
Proceeds (repayments) from issuance of long-term debt—intercompany, net	**—**	**2,111**	**(2,111)**	**—**	**—**
Change in deposits	**—**	**—**	**(35,495)**	**—**	**(35,495)**
Change in securities loaned and sold under agreements to repurchase	**—**	**53,185**	**2,052**	**—**	**55,237**
Change in short-term borrowings	**—**	**(3,303)**	**(3,606)**	**—**	**(6,909)**
Net change in short-term borrowings and other advances—intercompany	**(1,498)**	**(2,978)**	**4,476**	**—**	**—**
Other financing activities	**(315)**	**—**	**—**	**—**	**(315)**
Net cash provided by (used in) financing activities of continuing operations	**$ (2,775)**	**$ 53,599**	**$ (35,058)**	**$ —**	**$ 15,766**
Effect of exchange rate changes on cash and due from banks	**$ —**	**$ —**	**$ (274)**	**$ —**	**$ (274)**
Change in cash and due from banks and deposits with banks	**$ 1,018**	**$ (3,915)**	**$ (15,169)**	**$ —**	**$ (18,066)**
Cash and due from banks and deposits with banks at beginning of period	**3,015**	**27,121**	**311,889**	**—**	**342,025**
Cash and due from banks and deposits with banks at end of period	**$ 4,033**	**$ 23,206**	**$ 296,720**	**$ —**	**$ 323,959**
Cash and due from banks (including segregated cash and other deposits)	**$ 33**	**$ 6,585**	**$ 19,606**	**$ —**	**$ 26,224**
Deposits with banks, net of allowance	**4,000**	**16,621**	**277,114**	**—**	**297,735**
Cash and due from banks and deposits with banks at end of period	**$ 4,033**	**$ 23,206**	**$ 296,720**	**$ —**	**$ 323,959**
Supplemental disclosure of cash flow information for continuing operations					
Cash paid (received) during the period for income taxes	**$ 59**	**$ 43**	**$ 1,491**	**$ —**	**$ 1,593**
Cash paid during the period for interest	**1,462**	**6,252**	**6,644**	**—**	**14,358**
Non-cash investing activities					
Transfer of investment securities from HTM to AFS	**$ —**	**$ —**	**$ 3,324**	**$ —**	**$ 3,324**
Transfers to loans HFS (*Other assets*) from loans	**—**	**—**	**2,696**	**—**	**2,696**
Transfers from loans HFS (*Other assets*) to loans HFI	**—**	**—**	**322**	**—**	**322**

Condensed Consolidating Statement of Cash Flows

In millions of dollars	Three Months Ended March 31, 2022 Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Net cash provided by (used in) operating activities of continuing operations	$ (4,607)	$ (3,757)	$ (883)	$ —	$ (9,247)
Cash flows from investing activities of continuing operations					
Change in securities borrowed and purchased under agreements to resell	$ —	$ (15,750)	$ (2,372)	$ —	$ (18,122)
Change in loans	—	—	(9,643)	—	(9,643)
Proceeds from sales and securitizations of loans	—	—	676	—	676
AFS debt securities:					
Purchases of investments	—	—	(66,156)	—	(66,156)
Proceeds from sales of investments	—	—	57,084	—	57,084
Proceeds from maturities of investments	—	—	24,210	—	24,210
HTM debt securities:					
Purchases of investments	—	—	(28,406)	—	(28,406)
Proceeds from maturities of investments	—	—	2,775	—	2,775
Changes in investments and advances—intercompany	(9,916)	(2,369)	12,285	—	—
Other investing activities	—	—	(1,238)	—	(1,238)
Net cash provided by (used in) investing activities of continuing operations	$ (9,916)	$ (18,119)	$ (10,785)	$ —	$ (38,820)
Cash flows from financing activities of continuing operations					
Dividends paid	$ (1,286)	$ (259)	$ 259	$ —	$ (1,286)
Treasury stock acquired	(2,833)	—	—	—	(2,833)
Proceeds (repayments) from issuance of long-term debt, net	10,447	5,645	(3,485)	—	12,607
Proceeds (repayments) from issuance of long-term debt—intercompany, net	—	1,763	(1,763)	—	—
Change in deposits	—	—	34,816	—	34,816
Change in securities loaned and sold under agreements to repurchase	—	5,220	7,989	—	13,209
Change in short-term borrowings	—	3,158	(987)	—	2,171
Net change in short-term borrowings and other advances—intercompany	8,530	6,621	(15,151)	—	—
Capital contributions from (to) parent	—	250	(250)	—	—
Other financing activities	(330)	—	—	—	(330)
Net cash provided by (used in) financing activities of continuing operations	$ 14,528	$ 22,398	$ 21,428	$ —	$ 58,354
Effect of exchange rate changes on cash and due from banks	$ —	$ —	$ (233)	$ —	$ (233)
Change in cash and due from banks and deposits with banks	$ 5	$ 522	$ 9,527	$ —	$ 10,054
Cash and due from banks and deposits with banks at beginning of period	3,517	26,665	231,851	—	262,033
Cash and due from banks and deposits with banks at end of period	$ 3,522	$ 27,187	$ 241,378	$ —	$ 272,087
Cash and due from banks (including segregated cash and other deposits)	$ 22	$ 8,484	$ 19,262	$ —	$ 27,768
Deposits with banks, net of allowance	3,500	18,703	222,116	—	244,319
Cash and due from banks and deposits with banks at end of period	$ 3,522	$ 27,187	$ 241,378	$ —	$ 272,087
Supplemental disclosure of cash flow information for continuing operations					
Cash paid (received) during the period for income taxes	$ (13)	$ (10)	$ 654	$ —	$ 631
Cash paid during the period for interest	1,305	522	955	—	2,782
Non-cash investing activities					
Decrease in net loans associated with divestitures reclassified to HFS	$ —	$ —	$ 14,970	$ —	$ 14,970
Decrease in goodwill associated with divestitures reclassified to HFS	—	—	715	—	715
Transfers to loans HFS (*Other assets*) from loans	—	—	328	—	328
Non-cash financing activities					
Decrease in deposits associated with divestitures reclassified to HFS	$ —	$ —	$ 18,334	$ —	$ 18,334
Decrease in long-term debt associated with divestitures reclassified to HFS	—	—	28	—	28

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" in Citi's 2022 Form 10-K.

Citi did not have any share repurchases in the first quarter of 2023, other than repurchases relating to issuances of common stock related to employee stock ownership plans. For information on Citi's pause of common share repurchases, see "Executive Summary" above.

During the first quarter of 2023, 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.

Dividends
Citi paid common dividends of $0.51 per share for the first quarter of 2023, and on April 3, 2023, declared common dividends of $0.51 per share for the second quarter of 2023. As previously announced, Citi intends to maintain its planned capital actions, which include a quarterly common dividend of at least $0.51 per share, subject to financial and macroeconomic conditions as well as 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" in Citi's 2022 Form 10-K.

Any dividend on Citi's outstanding common stock would also need to be in compliance with Citi's obligations on its outstanding preferred stock.

On April 3, 2023, Citi declared preferred dividends of approximately $288 million for the second quarter of 2023.

For information on the ability of Citigroup's subsidiary depository institutions to pay dividends, see Note 19 to the Consolidated Financial Statements in Citi's 2022 Form 10-K.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 5th day of May, 2023.

CITIGROUP INC.
(Registrant)

By /s/ Mark A. L. Mason
Mark A. L. Mason
Chief Financial Officer
(Principal Financial Officer)

By /s/ Johnbull E. Okpara
Johnbull E. Okpara
Controller and Chief Accounting Officer
(Principal Accounting Officer)

GLOSSARY OF TERMS AND ACRONYMS

The following is a list of terms and acronyms that are used in this Quarterly Report on Form 10-Q and other Citigroup SEC filings and presentations.

* Denotes a Citi metric

2022 Form 10-K: Annual Report on Form 10-K for year ended December 31, 2022, 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.

AUC: Assets under custody

AUM: Assets under management. Represent assets managed on behalf of Citi's clients.

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 (Double Cash, Custom Cash, ThankYou and Value cards) and co-branded cards (including, among others, American Airlines and Costco).

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.

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 assets: Represent assets under management as well as custody, brokerage, administration and deposit accounts.

CLO: Collateralized loan obligations

Coincident NCL coverage ratio: A credit metric, representing the ACLL 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' purchases, net of returns. 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" in Citi's annual reports on Form 10-K.

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

Delinquency managed: Loans primarily evaluated for credit risk based on delinquencies, FICO scores and the value of underlying collateral.

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

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.

EMEA: Europe, Middle East and Africa

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 Issac 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

Global Wealth: Global Wealth Management

GSIB: Global systemically important banks

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

ICG: Institutional Clients Group

ICRM: Independent Compliance Risk Management

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.

LATAM: Latin America, which for Citi, includes Mexico.

LCR: Liquidity coverage ratio. Represents HQLA divided by net outflows in the period.

LDA: Loss Distribution Approach

LF: Legacy Franchises

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 appraised value of the collateral (i.e., residential real estate) securing the loan.

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.

Net interchange income: Includes the following components:

- Interchange revenue: Fees earned from merchants based on Citi's credit and debit card customers' sales transactions.
- Reward costs: The cost to Citi for points earned by cardholders enrolled in credit card rewards programs generally tied to sales transactions.
- Partner payments: Payments to co-brand credit card partners based on the cost of loyalty program rewards earned by cardholders on credit card transactions.

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.

PBWM: Personal Banking and Wealth Management

PCD: 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.

PCI: Purchased credit-impaired loans represented certain loans that were acquired and deemed to be credit impaired on the acquisition date. The now superseded FASB guidance that allowed purchasers to aggregate credit-impaired loans acquired in the same fiscal quarter into one or more pools, provided that the loans had common risk characteristics (e.g., product type, LTV ratios).

PD: Probability of default

Principal transactions revenue: Primarily trading-related revenues predominantly generated by the *ICG* 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

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.

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 period's 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, Sears, Best Buy and Macy's).

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 for more information.

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.

EXHIBIT INDEX

Exhibit Number		Description of Exhibit
3.01+		Restated Certificate of Incorporation of Citigroup, as amended, as in effect on the date hereof.
31.01+		Certification of principal executive officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.02+		Certification of principal financial officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.01+		Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
99.01+		List of Securities Registered Pursuant to Section 12(b) of the Securities Exchange Act of 1934, formatted in Inline XBRL.
101.01+		Financial statements from the Quarterly Report on Form 10-Q of Citigroup for the quarterly period ended March 31, 2023, filed on May 5, 2023, formatted in Inline XBRL: (i) the Consolidated Statement of Income, (ii) the Consolidated Balance Sheet, (iii) the Consolidated Statement of Changes in Stockholders' Equity, (iv) the Consolidated Statement of Cash Flows and (v) the Notes to the Consolidated Financial Statements.
104		See the cover page of this Quarterly Report on Form 10-Q, formatted in Inline XBRL.

The total amount of securities authorized pursuant to any instrument defining rights of holders of long-term debt of the Company does not exceed 10% of the total assets of the Company and its consolidated subsidiaries. The Company will furnish copies of any such instrument to the SEC upon request.

* Denotes a management contract or compensatory plan or arrangement.
+ Filed herewith.