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 September 30, 2022

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, smaller reporting, 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 September 30, 2022: 1,936,852,864

Available on the web at www.citigroup.com

CITIGROUP'S THIRD QUARTER 2022—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, 2021 and Citigroup's Current Report on Form 8-K dated May 10, 2022 (as amended by a Current Report on Form 8-K/A dated May 10, 2022), with Historical Consolidated Financial Statements and Notes, and Management's Discussion and Analysis of Financial Condition and Results of Operations and other Form 10-K sections (such Current Report on Form 8-K together with Citigroup's 2021 Annual Report on Form 10-K, collectively referred to as the 2021 Form 10-K). Such Current Report on Form 8-K was conformed to reflect changes in Citigroup's operating segments and reporting units from those contained in Citi's 2021 Annual Report on Form 10-K, included as an exhibit thereto. This Quarterly Report on Form 10-Q should also be read in conjunction with Citigroup's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022 (First Quarter of 2022 Form 10-Q), and Citigroup's Quarterly Report on Form 10-Q for the quarter ended June 30, 2022 (Second Quarter of 2022 Form 10-Q).

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

Certain reclassifications and updates have been made to the prior periods' financial statements and disclosures to conform to the current period's presentation. For additional information, see footnote 1 to "Summary of Selected Financial Data" and "Operating Segment and Reporting Unit—Income (Loss) and Revenues" below and Notes 1 and 3.

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 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.

Please see "Risk Factors" in Citi's 2021 Form 10-K for a discussion of material risks and uncertainties that could impact Citigroup's businesses, results of operations and financial condition.

As of the first quarter of 2022, Citigroup implemented changes in its operating segments and reporting units to reflect its recent strategic refresh (for additional information, see "Strategic Refresh—Market Exit and Planned Revision to Reporting Structure" in Citi's 2021 Form 10-K). As a result, Citigroup is managed pursuant to three operating segments: *Institutional Clients Group*, *Personal Banking and Wealth Management* and *Legacy Franchises*, with the remaining operations 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 11 exit markets (Bahrain, China, India, Indonesia, Korea, Malaysia[1], Poland, Russia, Taiwan, Thailand[1] and Vietnam)
- **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 portfolios**
- **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 three operating segments and *Corporate/Other* above.

Citigroup Regions[2]

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

(1) Citi completed the sales of its Thailand and Malaysia consumer businesses on November 1, 2022. See "Executive Summary" below.
(2) 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

Third Quarter of 2022—Results Demonstrated Continued Progress Toward Achieving Priorities

As described further throughout this Executive Summary, during the third quarter of 2022:

- Citi's revenues increased 6% versus the prior-year period, primarily driven by a gain on sale of Citi's Philippines consumer business versus a loss on sale of Citi's Australia consumer business in the prior-year period. Excluding Asia Consumer divestiture-related impacts in both the current and prior-year periods (see "Third Quarter of 2022 Results Summary" below), revenues decreased 1%, as higher net interest income was more than offset by lower non-interest revenues.
- Citi's expenses increased 8% versus the prior-year period, driven by continued investments in Citi's transformation, including risk, controls, data and finance programs (with approximately 25% of these investments related to technology); business-led investments and volume-related expenses; other risk and control investments; and inflation, partially offset by productivity savings and the impact of foreign exchange translation.
- Citi's cost of credit was $1.4 billion, reflecting a net build in the allowance for credit losses (ACL) for loans and unfunded commitments of $0.4 billion, primarily due to consumer loan growth and a deterioration in macroeconomic forecasts primarily impacting the corporate portfolio, compared to a net ACL release of $1.2 billion in the prior-year period.
- Citi returned $1.0 billion to common shareholders in the form of dividends.
- Citi's Common Equity Tier 1 (CET1) Capital ratio increased to 12.3% as of September 30, 2022, compared to 11.7% as of September 30, 2021 (for additional information, see "Capital Resources" below). Citi's required regulatory CET1 Capital ratio is 11.5% as of October 1, 2022 and will be 12% as of January 1, 2023, both under the Standardized Approach. Due to the increases in regulatory capital requirements, as well as macroeconomic uncertainty, Citi has continued to pause common share repurchases as it continues to build capital.
- Citi continued to make progress on its consumer banking business divestitures in the current quarter, including completing the sale of its Philippines consumer business, which resulted in a regulatory capital benefit of approximately $0.7 billion, and working toward closing the other five previously signed sale transactions and the wind-downs of Korea and Russia (for information on Citi's wind-down in Russia, see "Update Regarding Citi's Operations in Russia" below). As previously announced, Citi completed the sales of its Thailand and Malaysia consumer businesses on November 1, 2022, which together are expected to result in a regulatory capital benefit of approximately $1 billion.

Third Quarter of 2022 Results Summary

Citigroup

Citigroup reported net income of $3.5 billion, or $1.63 per share, compared to net income of $4.6 billion, or $2.15 per share in the prior-year period. The decrease in net income was primarily driven by higher cost of credit resulting from loan growth in *Personal Banking and Wealth Management (PBWM)* and higher operating expenses, partially offset by the higher revenues. Citigroup's effective tax rate was 20.0% in the current quarter versus 20.4% in the prior-year period (for additional information, see "Income Taxes" below). Earnings per share (EPS) decreased 24%, reflecting the decrease in net income, partially offset by a 4% decline in average diluted shares outstanding.

Results for the current quarter included *Legacy Franchises* Asia Consumer divestiture-related impacts of approximately $520 million in earnings before taxes (approximately $256 million after-tax), primarily driven by the Philippines and other Asia consumer exits, which primarily consisted of (i) an approximate $616 million Philippines gain on sale recorded in *Other revenue* and (ii) an approximate $107 million of aggregate divestiture-related costs, which, collectively, had a $0.13 positive impact on EPS. Excluding these divestiture-related impacts, EPS was $1.50 in the current quarter. Third quarter of 2021 results included Asia Consumer divestiture-related impacts of $(680) million (approximately $(580) million after-tax) within *Legacy Franchises*, primarily driven by a loss on sale of the Australia consumer business. (As used throughout this Form 10-Q, Citi's results of operations and financial condition excluding the impact of the Philippines gain on sale and other Asia Consumer divestiture-related impacts are non-GAAP financial measures.)

Citigroup revenues of $18.5 billion increased 6% versus the prior-year period. Excluding the gain on sale of the Philippines consumer business in the quarter of approximately $0.6 billion and the loss on sale of the Australia consumer business in the prior-year period of approximately $0.7 billion, revenues were down 1%, as the impact of higher interest rates across businesses and strong loan growth in *PBWM* were more than offset by declines in Investment banking and Markets in *Institutional Clients Group (ICG)* and Asia investment product revenues in Global Wealth Management (Global Wealth).

Citigroup's end-of-period loans were $646 billion, down 3% versus the prior-year period, largely driven by the impact of foreign exchange translation and lower balances in *Legacy Franchises*. The decline in *Legacy Franchises* primarily reflected the reclassification of loans to *Other assets* to reflect held-for-sale (HFS) accounting, as a result of the signing of sale agreements for consumer franchises in Asia and EMEA, as well as the impact of the Korea wind-down.

Citigroup's end-of-period deposits were $1.3 trillion, down 3% versus the prior-year period, largely driven by declines in *Legacy Franchises* and the impact of foreign exchange translation, partially offset by the issuance of institutional certificates of deposit, reflected in *Corporate/Other*, as Citigroup continued to diversify its funding profile.

Expenses

Citigroup's operating expenses of $12.7 billion increased 8% versus the prior-year period, largely driven by continued investments in Citi's transformation, business-led investments and volume-related expenses, other risk and control investments and inflation, partially offset by productivity savings and the benefit of foreign exchange translation. As discussed above, reported expenses included approximately $107 million of divestiture-related costs. Excluding these divestiture-related costs, expenses increased 7% versus the prior-year period, largely driven by the following:

- Approximately 2% was driven by transformation investments, with about two-thirds related to the risk, controls, data and finance programs (approximately 25% of the program investments were related to technology).
- Approximately 1% was driven by business-led investments as Citi continues to hire commercial and investment bankers as well as client advisers in wealth, and continues to invest in the client experience as well as front-office platforms and onboarding.
- Approximately 1% was driven by higher volume-related expenses across both *PBWM* and *ICG*.
- Approximately 3% was driven by other risk and control investments and inflation, partially offset by productivity savings and the impact of foreign exchange translation.

As previously disclosed, Citi expects to continue to incur higher expenses during the remainder of 2022, compared to the prior-year period, reflecting ongoing transformation-related, business-led and other risk and control investments and inflation.

Cost of Credit

Citi's total provisions for credit losses and for benefits and claims was a cost of $1.4 billion, compared to a benefit of $0.2 billion in the prior-year period. The higher cost of credit was driven by the net build in the allowance for credit losses (ACL) for loans and unfunded commitments of $0.4 billion, compared to a net ACL release of $1.2 billion in the prior-year period, partially offset by lower net credit losses. The net ACL build was primarily due to cards loan growth in *PBWM* and a deterioration in macroeconomic forecasts primarily impacting the corporate portfolio. 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 $0.9 billion decreased 8% versus the prior-year period. Consumer net credit losses decreased 4% to $881 million, primarily driven by *Legacy Franchises* (down 44% to $158 million), partially offset by an increase in *PBWM*. The lower net credit losses in *Legacy Franchises* primarily reflected improved delinquencies and the reclassification of loans to reflect HFS accounting as a result of the signing of sale agreements for consumer franchises in Asia and EMEA. The increase in net credit losses in *PBWM* was driven by Retail services (up 32% to $315 million), reflecting ongoing normalization from historically low levels, partially offset by lower net credit losses in Branded cards (down 3% to $348 million). Corporate net credit losses decreased to $6 million from $39 million in the prior-year period.

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 12.3% as of September 30, 2022, compared to 11.7% as of September 30, 2021, based on the Basel III Standardized Approach for determining risk-weighted assets (RWA). The increase was primarily driven by net income, the impacts related to the closing of the Australia and Philippines consumer business sales, and business actions, including a reduction in RWA, partially offset by interest rate impacts on Citigroup's investment portfolio and the return of capital to common shareholders. The increase in Citi's CET1 Capital ratio was also partially offset by the impact of adopting the Standardized Approach for Counterparty Credit Risk (SA-CCR) on January 1, 2022.

Citigroup's Supplementary Leverage ratio as of September 30, 2022 was 5.7%, compared to 5.8% as of September 30, 2021. The decrease was driven by lower Tier 1 Capital, partially offset by a decrease in Total Leverage Exposure. For additional information on Citi's capital ratios and related components, see "Capital Resources" below.

Institutional Clients Group

ICG net income of $2.2 billion decreased 30% versus the prior-year period, largely driven by lower revenues, higher expenses and modestly higher cost of credit. *ICG* operating expenses of $6.5 billion increased 10%, driven by continued investments in Citi's transformation, business-led investments and volume-related expenses, partially offset by productivity savings and foreign exchange translation.

ICG revenues of $9.5 billion decreased 5% (including losses on loan hedges) versus the prior-year period, as strong revenue growth in Services was more than offset by lower revenues across Markets and Banking. Results included losses on loan hedges of $56 million, compared to $46 million in the prior-year period.

Services revenues of $4.2 billion increased 33% versus the prior-year period. Treasury and trade solutions (TTS) revenues of $3.2 billion increased 40%, driven by 61% growth in net interest income and 8% growth in non-interest revenue. The strong performance in TTS was driven by business actions, including balance sheet optimization, deepening of relationships with existing clients and an increase in new clients across segments, as well as the benefit of higher interest rates. Securities services revenues of $968 million increased 15%, as net interest income increased 73%, driven by higher interest rates across currencies, partially offset by a 6% decrease in non-interest revenue due to the impact of lower market valuations.

Markets revenues of $4.1 billion were down 7% versus the prior-year period, largely driven by lower client activity levels in Equity markets and spread products and business actions, including a reduction in RWA. Fixed income markets revenues of $3.1 billion increased 1%, as strength in rates and currencies was largely offset by continued headwinds in spread products. Equity markets revenues of $1.0 billion were down 25%, largely reflecting reduced client activity in equity derivatives relative to an unusually strong quarter in the prior-year period.

Banking revenues of $1.2 billion decreased 50% versus the prior-year period, including the losses on loan hedges in the current quarter and the prior-year period. Excluding the losses on loan hedges, Banking revenues of $1.3 billion decreased 49%, driven by lower revenues in both Investment banking and Corporate lending. Investment banking revenues of $631 million decreased 64%, as heightened macroeconomic uncertainty and market volatility continued to impact client activity. Excluding losses on loan hedges, Corporate lending revenues decreased 11%, driven by lower volumes and higher hedging costs. For additional information on the results of operations of *ICG* for the third quarter of 2022, see "*Institutional Clients Group*" below.

Personal Banking and Wealth Management

PBWM net income of $792 million decreased 58% versus the prior-year period, largely driven by a net ACL release in the prior-year period, versus a net ACL build in the current quarter. *PBWM* operating expenses of $4.1 billion increased 13%, primarily driven by continued investments in Citi's transformation, other risk and control initiatives, business-led investments and volume-related expenses, partially offset by productivity savings.

PBWM revenues of $6.2 billion increased 6% versus the prior-year period, as net interest income growth, driven by strong loan growth across Branded cards and Retail services and higher interest rates, was partially offset by a decline in non-interest revenue, driven by lower investment fee revenues in Global Wealth and higher partner payments in Retail services.

U.S. Personal Banking revenues of $4.3 billion increased 10% versus the prior-year period. Branded cards revenues of $2.3 billion increased 10%, driven by the higher net interest income. In Branded cards, new account acquisitions increased 10%, card spend volumes increased 14% and average loans increased 12%. Retail services revenues of $1.4 billion increased 12%, driven by the higher net interest income, partially offset by the higher partner payments. Retail banking revenues of $642 million increased 2%, primarily driven by the higher interest rates and modest deposit growth.

Global Wealth revenues of $1.9 billion decreased 2% versus the prior-year period, as investment fee headwinds, particularly in Asia, more than offset net interest income growth from higher interest rates. For additional information on the results of operations of *PBWM* for the third quarter of 2022, see "*Personal Banking and Wealth Management*" below.

Legacy Franchises

Legacy Franchises net income was $316 million, compared to a net loss of $200 million in the prior-year period, primarily reflecting the Philippines gain on sale in the quarter and the Australia loss on sale in the prior-year period. *Legacy Franchises* expenses of $1.8 billion increased 6%, driven by divestiture-related costs.

Legacy Franchises revenues of $2.6 billion increased 66% versus the prior-year period, primarily driven by the Philippines gain on sale versus the Australia loss on sale in the prior-year period, as well as the impacts of the Korea wind-down and the loss of revenues from the exits of the Australia and Philippines consumer businesses. For additional information on the results of operations of *Legacy Franchises* for the third quarter of 2022, see "*Legacy Franchises*" below.

Corporate/Other

Corporate/Other net income was $209 million, compared to a net loss of $143 million in the prior-year period, largely reflecting higher revenues and lower expenses. *Corporate/Other* operating expenses of $286 million decreased 35%.

Corporate/Other revenues of $299 million increased from $68 million in the prior-year period, largely driven by higher net revenue from the investment portfolio due to higher interest rates, partially offset by mark-to-market losses, primarily related to retained interchange litigation risk associated with shares of Visa B common stock that Citi previously sold. For additional information on the results of operations of *Corporate/Other* for the third quarter of 2022, see "*Corporate/Other*" below.

Update Regarding Citi's Operations in Russia

As part of Citi's previously announced intent to reduce its operations in and exposure to Russia, Citi disclosed its decision to wind down its Russia consumer and local commercial banking businesses, including the pursuit of portfolio sales. On October 28, 2022, Citi entered into an agreement to sell a consumer loan portfolio, including a referral agreement to transfer a portfolio of credit card loans. Additionally, 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. For additional information about Citi's operations and exposure in Russia, see "*Institutional Clients Group*," "*Legacy Franchises*" and "Managing Global Risk—Other Risks—Country Risk—Russia" 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. The U.S. and other countries have continued to experience significantly elevated levels of inflation, resulting in central banks implementing a series of interest rate increases, with additional increases expected in the near term. In addition to the humanitarian crisis, the war in Ukraine has caused supply shocks in energy and food markets. Disruptions in global supply chains have continued and the COVID-19 pandemic continues to evolve.

An economic rebound in China faces constraints given the potential for future pandemic-related lockdowns, the amount of leverage in its economy and stress in the property sector. All of these factors have caused declines in financial markets, negatively impacted global economic growth rates, contributed to sharply lower consumer confidence and further increased the risk of recession in Europe, the U.S. and other countries. These and other factors could adversely affect Citi's customers, clients, businesses, funding costs and results during the remainder of 2022.

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 2022, see each respective business's results of operations, "Managing Global Risk—Other Risks—Country Risk—Russia" and "Forward-Looking Statements" below and "Risk Factors" and "Managing Global Risk" in Citi's 2021 Form 10-K.

CITI'S CONSENT ORDER COMPLIANCE

As previously disclosed, in 2021, Citi submitted its plans to address the consent orders to both the Federal Reserve Board and Office of the Comptroller of the Currency (OCC). Citi continues to work constructively with the regulators, and will continue to reflect their feedback by submitting updates to its project plans and on execution progress for the consent orders. For additional information about the consent orders, see "Citi's Consent Order Compliance" and "Risk Factors—Compliance Risks" in Citi's 2021 Form 10-K.

This page intentionally left blank.

RESULTS OF OPERATIONS

SUMMARY OF SELECTED FINANCIAL DATA

Citigroup Inc. and Consolidated Subsidiaries

In millions of dollars, except per share amounts	Third Quarter 2022	Third Quarter 2021[1]	% Change	Nine Months 2022	Nine Months 2021[1]	% Change
Net interest income	**$ 12,563**	$ 10,691	**18 %**	**$ 35,398**	$ 31,675	**12 %**
Non-interest revenue	**5,945**	6,756	**(12)**	**21,934**	23,192	**(5)**
Revenues, net of interest expense	**$ 18,508**	$ 17,447	**6 %**	**$ 57,332**	$ 54,867	**4 %**
Operating expenses	**12,749**	11,777	**8**	**38,307**	34,661	**11**
Provisions for credit losses and for benefits and claims	**1,365**	(192)	**NM**	**3,394**	(3,313)	**NM**
Income from continuing operations before income taxes	**$ 4,394**	$ 5,862	**(25)%**	**$ 15,631**	$ 23,519	**(34)%**
Income taxes	**879**	1,193	**(26)**	**3,002**	4,680	**(36)**
Income from continuing operations	**$ 3,515**	$ 4,669	**(25)%**	**$ 12,629**	$ 18,839	**(33)%**
Income (loss) from discontinued operations, net of taxes	**(6)**	(1)	**NM**	**(229)**	7	**NM**
Net income before attribution to noncontrolling interests	**$ 3,509**	$ 4,668	**(25)%**	**$ 12,400**	$ 18,846	**(34)%**
Net income attributable to noncontrolling interests	**30**	24	**25**	**68**	67	**1**
Citigroup's net income	**$ 3,479**	$ 4,644	**(25)%**	**$ 12,332**	$ 18,779	**(34)%**
Earnings per share						
Basic						
Income from continuing operations	**$ 1.64**	$ 2.17	**(24)%**	**$ 5.99**	$ 8.70	**(31)%**
Net income	**1.64**	2.17	**(24)**	**5.87**	8.70	**(33)**
Diluted						
Income from continuing operations	**$ 1.63**	$ 2.15	**(24)%**	**$ 5.95**	$ 8.64	**(31)%**
Net income	**1.63**	2.15	**(24)**	**5.84**	8.65	**(32)**
Dividends declared per common share	**0.51**	0.51	**—**	**1.53**	1.53	**—**
Common dividends	**$ 1,001**	$ 1,040	**(4)%**	**$ 3,025**	$ 3,176	**(5)%**
Preferred dividends[2]	**277**	266	**4**	**794**	811	**(2)**
Common share repurchases	**—**	3,000	**NM**	**3,250**	7,600	**(57)**

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	Third Quarter 2022	Third Quarter 2021[1]	% Change	Nine Months 2022	Nine Months 2021[1]	% Change
At September 30:						
Total assets	**$2,381,064**	$2,361,876	**1 %**			
Total deposits	**1,306,486**	1,347,528	**(3)**			
Long-term debt	**253,068**	258,274	**(2)**			
Citigroup common stockholders' equity	**179,565**	182,880	**(2)**			
Total Citigroup stockholders' equity	**198,560**	200,875	**(1)**			
Average assets	**2,399,446**	2,346,025	**2**	**$2,384,513**	$2,334,876	**2 %**
Direct staff *(in thousands)*	**238**	220	**8 %**			
Performance metrics						
Return on average assets	**0.58 %**	0.79 %		**0.69 %**	1.08 %	
Return on average common stockholders' equity[3]	**7.1**	9.5		**8.6**	13.2	
Return on average total stockholders' equity[3]	**6.9**	9.1		**8.3**	12.5	
Return on tangible common equity (RoTCE)[4]	**8.2**	11.0		**9.9**	15.4	
Efficiency ratio (total operating expenses/total revenues, net)	**68.9**	67.5		**66.8**	63.2	
Basel III ratios						
Common Equity Tier 1 Capital[5]	**12.29 %**	11.65 %				
Tier 1 Capital[5]	**14.01**	13.15				
Total Capital[5]	**15.09**	15.37				
Supplementary Leverage ratio[5]	**5.71**	5.80				
Citigroup common stockholders' equity to assets	**7.54 %**	7.74 %				
Total Citigroup stockholders' equity to assets	**8.34**	8.50				
Dividend payout ratio[6]	**31**	24		**26 %**	18 %	
Total payout ratio[7]	**31**	92		**54**	60	
Book value per common share	**$ 92.71**	$ 92.16	**1 %**			
Tangible book value (TBV) per share[4]	**80.34**	79.07	**2**			

(1) During the fourth quarter of 2021, Citi reclassified deposit insurance expenses from *Interest expense* to *Other operating expenses* for all periods presented. The amounts reclassified for the third quarter and nine months of 2021 were $293 million and $912 million, respectively.
(2) Certain series of preferred stock have semiannual payment dates. See Note 20 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.
(3) 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.
(4) 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.
(5) Citi's binding Common Equity Tier 1 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. As of September 30, 2022, the Supplementary Leverage ratio and the Total Capital ratio under the Basel III Advanced Approaches framework became more binding than the Common Equity Tier 1 Capital ratio under the Basel III Standardized Approach. Each of Citi's Basel III risk-based capital and leverage ratios exceeded the respective regulatory capital requirement by at least $19 billion as of September 30, 2022. Citi expects the Basel III Standardized Approach capital ratios to be more binding in future quarters due to the increased Stress Capital Buffer in the fourth quarter of 2022 and the additional GSIB surcharge in the first quarter of 2023.
(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 "Unregistered Sales of Equity Securities, Repurchases of Equity Securities and Dividends" below for the component details.

NM Not meaningful

SEGMENT REVENUES AND INCOME (LOSS)

REVENUES

In millions of dollars	Third Quarter 2022	Third Quarter 2021	% Change	Nine Months 2022	Nine Months 2021	% Change
Institutional Clients Group	**$ 9,468**	$ 9,991	**(5)%**	**$ 32,047**	$ 30,928	**4 %**
Personal Banking and Wealth Management	**6,187**	5,852	**6**	**18,121**	17,542	**3**
Legacy Franchises	**2,554**	1,536	**66**	**6,420**	6,058	**6**
Corporate/Other	**299**	68	**NM**	**744**	339	**NM**
Total Citigroup net revenues	**$ 18,508**	$ 17,447	**6 %**	**$ 57,332**	$ 54,867	**4 %**

NM Not meaningful

INCOME

In millions of dollars	Third Quarter 2022	Third Quarter 2021	% Change	Nine Months 2022	Nine Months 2021	% Change
Income (loss) from continuing operations						
Institutional Clients Group	**$ 2,186**	$ 3,115	**(30)%**	**$ 8,822**	$ 11,978	**(26)%**
Personal Banking and Wealth Management	**792**	1,896	**(58)**	**3,205**	6,121	**(48)**
Legacy Franchises	**316**	(201)	**NM**	**(84)**	611	**NM**
Corporate/Other	**221**	(141)	**NM**	**686**	129	**NM**
Income from continuing operations	**$ 3,515**	$ 4,669	**(25)%**	**$ 12,629**	$ 18,839	**(33)%**
Discontinued operations	**$ (6)**	$ (1)	**NM**	**$ (229)**	$ 7	**NM**
Less: Net income attributable to noncontrolling interests	**30**	24	**25 %**	**68**	67	**1 %**
Citigroup's net income	**$ 3,479**	$ 4,644	**(25)%**	**$ 12,332**	$ 18,779	**(34)%**

NM Not meaningful

SEGMENT BALANCE SHEET[1]—SEPTEMBER 30, 2022

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	$ 104,690	$ 5,495	$ 3,525	$ 185,897	$ —	$ 299,607
Securities borrowed and purchased under agreements to resell, net of allowance	348,267	530	417	—	—	349,214
Trading account assets	342,289	4,212	676	11,083	—	358,260
Investments, net of allowance	125,479	73	1,483	380,981	—	508,016
Loans, net of unearned income and allowance for credit losses on loans	278,595	315,352	35,704	—	—	629,651
Other assets, net of allowance	134,590	26,751	33,159	41,816	—	236,316
Net inter-segment liquid assets[4]	372,431	126,539	25,306	(524,276)	—	—
Total assets	$ 1,706,341	$ 478,952	$ 100,270	$ 95,501	$ —	$ 2,381,064
Liabilities and equity						
Total deposits	$ 796,871	$ 427,336	$ 50,400	$ 31,879	$ —	$ 1,306,486
Securities loaned and sold under agreements to repurchase	201,793	41	1,595	—	—	203,429
Trading account liabilities	192,755	3,259	305	160	—	196,479
Short-term borrowings	35,104	—	—	12,264	—	47,368
Long-term debt[3]	80,716	229	424	12,448	159,251	253,068
Other liabilities	118,050	12,287	30,592	14,188	—	175,117
Net inter-segment funding (lending)[3]	281,052	35,800	16,954	24,005	(357,811)	—
Total liabilities	$ 1,706,341	$ 478,952	$ 100,270	$ 94,944	$ (198,560)	$ 2,181,947
Total stockholders' equity[5]	—	—	—	557	198,560	199,117
Total liabilities and equity	$ 1,706,341	$ 478,952	$ 100,270	$ 95,501	$ —	$ 2,381,064

(1) The supplemental information presented in the table above reflects Citigroup's consolidated GAAP balance sheet by reportable segment. 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 stockholders' equity and the majority of long-term debt of Citigroup are reflected on the Citigroup parent company balance sheet. Citigroup allocates stockholders' equity and long-term debt to its businesses through inter-segment allocations as shown above.
(4) Represents the attribution of Citigroup's liquid assets (primarily consisting of cash, marketable equity securities and available-for-sale 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 2021 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 previously disclosed, Citi intends to end 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. At this time, Citi does not expect the costs incurred in relation to this action to be material. 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 September 30, 2022, *ICG* had $1.7 trillion in assets and $797 billion in deposits. Securities services managed $20.7 trillion in assets under custody and administration at September 30, 2022, of which Citi provided both custody and administrative services to certain clients related to $1.8 trillion of such assets. Managed assets under trust were $3.9 trillion at September 30, 2022. For additional information on these operations, see "Administration and Other Fiduciary Fees" in Note 5.

	Third Quarter			Nine Months		
In millions of dollars, except as otherwise noted	**2022**	2021	**% Change**	**2022**	2021	**% Change**
Commissions and fees	**$ 1,082**	$ 1,055	**3 %**	**$ 3,337**	$ 3,236	**3 %**
Administration and other fiduciary fees	**651**	676	**(4)**	**2,055**	2,031	**1**
Investment banking fees[1]	**816**	1,685	**(52)**	**2,845**	5,040	**(44)**
Principal transactions	**2,776**	2,229	**25**	**11,576**	8,109	**43**
Other	**(427)**	608	**NM**	**(640)**	1,281	**NM**
Total non-interest revenue	**$ 4,898**	$ 6,253	**(22)%**	**$ 19,173**	$ 19,697	**(3)%**
Net interest income (including dividends)	**4,570**	3,738	**22**	**12,874**	11,231	**15**
Total revenues, net of interest expense	**$ 9,468**	$ 9,991	**(5)%**	**$ 32,047**	$ 30,928	**4 %**
Total operating expenses	**$ 6,541**	$ 5,963	**10 %**	**$ 19,698**	$ 17,724	**11 %**
Net credit losses on loans	**$ —**	$ 31	**(100)%**	**$ 48**	$ 274	**(82)%**
Credit reserve build (release) for loans	**75**	14	**NM**	**595**	(1,901)	**NM**
Provision (release) for credit losses on unfunded lending commitments	**(59)**	(13)	**NM**	**124**	(572)	**NM**
Provisions (releases) for credit losses on HTM debt securities and other assets	**70**	(8)	**NM**	**88**	(10)	**NM**
Provisions (releases) for credit losses	**$ 86**	$ 24	**NM**	**$ 855**	$ (2,209)	**NM**
Income from continuing operations before taxes	**$ 2,841**	$ 4,004	**(29)%**	**$ 11,494**	$ 15,413	**(25)%**
Income taxes	**655**	889	**(26)**	**2,672**	3,435	**(22)**
Income from continuing operations	**$ 2,186**	$ 3,115	**(30)%**	**$ 8,822**	$ 11,978	**(26)%**
Noncontrolling interests	**24**	24	**—**	**59**	73	**(19)**
Net income	**$ 2,162**	$ 3,091	**(30)%**	**$ 8,763**	$ 11,905	**(26)%**
Balance Sheet data *(in billions of dollars)*						
EOP assets	**$ 1,706**	$ 1,670	**2 %**			
Average assets	**1,729**	1,660	**4**	**$ 1,704**	$ 1,659	**3 %**
Efficiency ratio	**69 %**	60 %		**61 %**	57 %	
Average loans by reporting unit *(in billions of dollars)*						
Services	**$ 82**	$ 76	**8 %**	**$ 82**	$ 73	**12 %**
Banking	**197**	196	**1**	**197**	197	**—**
Markets	**12**	17	**(29)**	**13**	16	**(19)**
Total	**$ 291**	$ 289	**1 %**	**$ 292**	$ 286	**2 %**
Average deposits by reporting unit and component *(in billions of dollars)*						

TTS	$	**664**	$	668	**(1)%**	$	**664**	$	658	**1 %**
Securities services		**131**		135	**(3)**		**134**		133	**1**
Services	$	**795**	$	803	**(1)%**	$	**798**	$	791	**1 %**
Markets		**22**		28	**(21)**		**26**		28	**(7)**
Total	$	**817**	$	831	**(2)%**	$	**824**	$	819	**1 %**

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

ICG Revenue Details

In millions of dollars		Third Quarter 2022		Third Quarter 2021	% Change		Nine Months 2022		Nine Months 2021	% Change
Services										
Net interest income	$	**2,619**	$	1,613	**62 %**	$	**6,853**	$	4,870	**41 %**
Non-interest revenue		**1,558**		1,528	**2**		**4,795**		4,411	**9**
Total Services revenues	$	**4,177**	$	3,141	**33 %**	$	**11,648**	$	9,281	**26 %**
Net interest income	$	**2,232**	$	1,389	**61 %**	$	**5,917**	$	4,221	**40 %**
Non-interest revenue		**977**		908	**8**		**2,911**		2,549	**14**
TTS revenues	$	**3,209**	$	2,297	**40 %**	$	**8,828**	$	6,770	**30 %**
Net interest income	$	**387**	$	224	**73 %**	$	**936**	$	649	**44 %**
Non-interest revenue		**581**		620	**(6)**		**1,884**		1,862	**1**
Securities services revenues	$	**968**	$	844	**15 %**	$	**2,820**	$	2,511	**12 %**
Markets										
Net interest income	$	**1,228**	$	1,265	**(3)%**	$	**3,720**	$	3,953	**(6)%**
Non-interest revenue		**2,840**		3,122	**(9)**		**11,494**		10,622	**8**
Total Markets revenues(1)	$	**4,068**	$	4,387	**(7)%**	$	**15,214**	$	14,575	**4 %**
Fixed income markets	$	**3,062**	$	3,040	**1 %**	$	**11,445**	$	10,497	**9 %**
Equity markets		**1,006**		1,347	**(25)**		**3,769**		4,078	**(8)**
Total Markets revenues	$	**4,068**	$	4,387	**(7)%**	$	**15,214**	$	14,575	**4 %**
Rates and currencies	$	**2,492**	$	2,112	**18 %**	$	**9,000**	$	7,114	**27 %**
Spread products / other fixed income		**570**		928	**(39)**		**2,445**		3,383	**(28)**
Total Fixed income markets revenues	$	**3,062**	$	3,040	**1 %**	$	**11,445**	$	10,497	**9 %**
Banking										
Net interest income	$	**723**	$	860	**(16)%**	$	**2,301**	$	2,408	**(4)%**
Non-interest revenue		**500**		1,603	**(69)**		**2,884**		4,664	**(38)**
Total Banking revenues	$	**1,223**	$	2,463	**(50)%**	$	**5,185**	$	7,072	**(27)%**
Investment banking										
Advisory	$	**392**	$	539	**(27)%**	$	**1,096**	$	1,225	**(11)%**
Equity underwriting		**100**		468	**(79)**		**462**		1,787	**(74)**
Debt underwriting		**139**		770	**(82)**		**906**		2,066	**(56)**
Total Investment banking revenues	$	**631**	$	1,777	**(64)%**	$	**2,464**	$	5,078	**(51)%**
Corporate lending (excluding gains (losses) on loan hedges)(2)	$	**648**	$	732	**(11)%**	$	**2,114**	$	2,155	**(2)%**
Total Banking revenues (excluding gains (losses) on loan hedges)(2)	$	**1,279**	$	2,509	**(49)%**	$	**4,578**	$	7,233	**(37)%**
Gains (losses) on loan hedges(2)		**(56)**		(46)	**(22)**		**607**		(161)	**NM**
Total Banking revenues (including gains (losses) on loan hedges)(2)	$	**1,223**	$	2,463	**(50)%**	$	**5,185**	$	7,072	**(27)%**
Total *ICG* revenues, net of interest expense	$	**9,468**	$	9,991	**(5)%**	$	**32,047**	$	30,928	**4 %**

(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. Gains (losses) 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 gains (losses) 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 gains (losses) on hedges of accrual loans and loans at fair value, which are non-GAAP financial measures. For a reconciliation of these metrics to the reported results, see the table above.

3Q22 vs. 3Q21

Net income of $2.2 billion decreased 30%, primarily driven by lower revenues, higher expenses and modestly higher cost of credit.

Revenues decreased 5% (including losses on loan hedges), primarily reflecting lower Banking and Markets revenues, partially offset by higher Services revenues. Banking revenues were down 50% (including the impact of losses on loan hedges), largely reflecting lower revenues in both Investment banking and Corporate lending. Markets revenues were down 7%, primarily driven by Equity markets, partially offset by higher Fixed income markets revenues. Markets revenues were also impacted by business actions, including a reduction in RWA. Services revenues were up 33%, driven by higher revenues in both TTS and Securities services.

Citi expects that revenues in its Investment banking businesses will continue to reflect the overall market environment, including reduced levels of capital markets and M&A activity, during the remainder of 2022.

Within Services:

- TTS revenues increased 40%, driven by 61% growth in net interest income and 8% growth in non-interest revenue, reflecting strong growth across all client segments. The increase in net interest income was driven by both the cash and trade businesses, reflecting benefits from higher interest rates, balance sheet optimization and higher average loans (9% increase). The increase in average loans was driven by the trade business, reflecting strength in trade flows, primarily in Asia and Latin America, partially offset by asset sales in North America. Average deposits decreased 1%, largely driven by foreign exchange translation. 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 healthy growth of underlying drivers, with U.S. dollar clearing volumes up 2%, cross-border flows up 10% and commercial card spend up 49%.
- Securities services revenues increased 15%, as net interest income grew 73%, driven by higher interest rates across currencies. Non-interest revenues decreased 6%, driven by lower fees in the custody business due to lower assets under custody (decline of 5%), driven by declines in global financial markets. The decline in non-interest revenues was partially offset by continued elevated levels of corporate activity in Issuer services.

Within Markets:

- Fixed income markets revenues increased 1%, driven by growth in rates and currencies in EMEA and Asia, due to strong corporate client engagement, largely offset by a continued decline in spread products, driven by North America.

  Rates and currencies increased 18%, reflecting increased market volatility, driven by rising interest rates and quantitative tightening, as central banks respond to elevated levels of inflation. Spread products and other fixed income revenues decreased 39%, due to continued lower client activity across spread products and a challenging credit market due to widening spreads.
- Equity markets revenues decreased 25%, driven by equity derivatives, primarily reflecting lower activity by both corporate and institutional clients due to a strong prior-year comparison, as well as a decline in equity cash, driven by lower volumes.

Within Banking:

- Investment banking revenues declined 64%, reflecting a decline in the overall market wallet, as heightened macroeconomic uncertainty and volatility continued to impact client activity. Advisory revenues decreased 27%, reflecting a decline in North America and EMEA, driven by the decline in the market wallet. Equity and debt underwriting revenues decreased 79% and 82%, respectively, reflecting a decline in North America, EMEA and Asia, also driven by the decline in the market wallet as well as a decline in wallet share. The decline in debt underwriting revenues also reflected markdowns on loan commitments and losses on loan sales.
- Corporate lending revenues were $592 million versus $686 million in the prior-year period, a decrease of 14% including the impact of losses on loan hedges. Excluding the impact of losses on loan hedges, revenues decreased 11%, primarily driven by lower volumes and higher hedging costs.

Expenses were up 10%, primarily driven by continued investment in Citi's transformation, business-led investments and volume-related expenses, partially offset by productivity savings and foreign exchange translation.

Provisions were $86 million, compared to $24 million in the prior-year period. Net credit losses were zero compared to $31 million in the prior-year period.

The ACL build was $86 million, compared to a release of $7 million in the prior-year period. The ACL build was largely driven by a deterioration in macroeconomic forecasts, largely offset by a release of a COVID-19–related uncertainty reserve and a release related to collections on Russia non-accrual loans. 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 2021 Form 10-K.

2022 YTD vs. 2021 YTD

Net income of $8.8 billion decreased 26% versus the prior-year period, primarily driven by ACL releases in the prior-year period and higher expenses, partially offset by higher revenues.

Revenues increased 4% (including gains (losses) on loan hedges), primarily reflecting higher revenues in Services and Markets, partially offset by lower Banking revenues. Services revenues were up 26%, driven by higher revenues in both TTS and Securities services. Markets revenues were up 4%, primarily driven by higher revenues in Fixed income markets, partially offset by lower revenues in Equity markets. Banking revenues declined 27% (including the impact of gains (losses) on loan hedges). Excluding the impact of gains (losses) on loan hedges, Banking revenues declined 37%, largely driven by lower revenues in Investment banking.

Within Services:

- TTS revenues increased 30%, reflecting higher net interest income of 40% and non-interest revenue of 14%, driven by the same factors described above.
- Securities services revenues increased 12%, reflecting higher net interest income, driven by the same factors described above. Non-interest revenue was largely unchanged, as the decrease in revenues in the custody business was offset by an increase in Issuer services.

Within Markets:

- Fixed income markets revenues increased 9%, driven by growth in rates and currencies across EMEA, Latin America and Asia, partially offset by a decline in spread products, driven by the same factors described above.
- Equity markets revenues decreased 8%, reflecting declines in equity cash and equity derivatives, driven by the same factors described above.

Within Banking:

- Investment banking revenues decreased 51%. Advisory revenues decreased 11%, primarily driven by a decline in the market wallet as well as a decline in wallet share. Equity underwriting revenues decreased 74%, and debt underwriting revenues decreased 56%, driven by the same factors described above.
- Corporate lending revenues increased 36%, including the impact of gains (losses) on loan hedges. Excluding the impact of gains (losses) on loan hedges, revenues decreased 2%, driven by the same factors described above, partially offset by the impacts of foreign currency translation.

Expenses increased 11%, driven by the same factors described above.

Provisions were $855 million, compared to a net benefit of $2.2 billion in the prior-year period, driven by an ACL build, partially offset by lower net credit losses. Net credit losses declined to $48 million from $274 million in the prior-year period, largely driven by improvements in portfolio credit quality. The ACL build was $807 million, compared to a release of $2.5 billion in the prior-year period. The ACL build was primarily driven by increased macroeconomic uncertainty as well as a build primarily related to Citi's exposures in Russia and the broader impact of the war in Ukraine on the macroeconomic environment in the first quarter of 2022, partially offset by the release of a COVID-19–related uncertainty reserve and subsequent reductions in Russia-related exposures.

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 Retail banking, which provides traditional banking services to retail and small business customers. U.S. Personal Banking's cards portfolio includes its proprietary portfolios (Cash, Rewards and Value portfolios) and co-branded cards (including, among others, American Airlines and Costco) within Branded cards, as well as its co-brand and private label relationships (including, among others, The Home Depot, Best Buy, Sears and Macy's) within Retail services. Global Wealth includes Private bank, Wealth at Work and Citigold and provides financial services to the entire continuum of wealth 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 September 30, 2022, U.S. Personal Banking had 653 retail bank branches concentrated in the six key metropolitan areas of New York, Chicago, Miami, Washington, D.C., Los Angeles and San Francisco. Also, as of September 30, 2022, U.S. Personal Banking had $140 billion in outstanding credit card balances, $36 billion in retail banking loans and $115 billion in deposits.

At September 30, 2022, Global Wealth had $82 billion in mortgage loans, $65 billion in personal and small business loans, $4 billion in outstanding credit card balances and $312 billion in deposits.

	Third Quarter			Nine Months		
In millions of dollars, except as otherwise noted	**2022**	2021	**% Change**	**2022**	2021	**% Change**
Net interest income	**$ 5,836**	$ 5,174	**13 %**	**$ 16,790**	$ 15,324	**10 %**
Non-interest revenue	**351**	678	**(48)**	**1,331**	2,218	**(40)**
Total revenues, net of interest expense	**$ 6,187**	$ 5,852	**6 %**	**$ 18,121**	$ 17,542	**3 %**
Total operating expenses	**$ 4,077**	$ 3,624	**13 %**	**$ 11,951**	$ 10,593	**13 %**
Net credit losses on loans	**$ 723**	$ 641	**13 %**	**$ 2,113**	$ 2,493	**(15)%**
Credit reserve build (release) for loans	**360**	(836)	**NM**	**(64)**	(3,418)	**98**
Provision (release) for credit losses on unfunded lending commitments	**19**	(7)	**NM**	**30**	(13)	**NM**
Provisions for benefits and claims (PBC), and other assets	**7**	1	**NM**	**9**	10	**(10)**
Provisions (releases) for credit losses and PBC	**$ 1,109**	$ (201)	**NM**	**$ 2,088**	$ (928)	**NM**
Income (loss) from continuing operations before taxes	**$ 1,001**	$ 2,429	**(59)%**	**$ 4,082**	$ 7,877	**(48)%**
Income taxes (benefits)	**209**	533	**(61)**	**877**	1,756	**(50)**
Income (loss) from continuing operations	**$ 792**	$ 1,896	**(58)%**	**$ 3,205**	$ 6,121	**(48)%**
Noncontrolling interests	**—**	—	**—**	**—**	—	**—**
Net income (loss)	**$ 792**	$ 1,896	**(58)%**	**$ 3,205**	$ 6,121	**(48)%**
Balance Sheet data *(in billions of dollars)*						
EOP assets	**$ 479**	$ 477	**— %**			
Average assets	**473**	474	**—**	**$ 474**	$ 463	**2 %**
Average loans	**325**	309	**5**	**318**	305	**4**
Average deposits	**428**	424	**1**	**437**	410	**7**
Efficiency ratio	**66 %**	62 %		**66 %**	60 %	
Net credit losses as a percentage of average loans	**0.88**	0.82		**0.89**	1.09	
Revenue by reporting unit and component						
Branded cards	**$ 2,258**	$ 2,045	**10 %**	**$ 6,516**	$ 6,117	**7 %**
Retail services	**1,431**	1,277	**12**	**4,030**	3,792	**6**
Retail banking	**642**	629	**2**	**1,893**	1,882	**1**
U.S. Personal Banking	**$ 4,331**	$ 3,951	**10 %**	**$ 12,439**	$ 11,791	**5 %**
Private bank	**$ 649**	$ 722	**(10)%**	**$ 2,173**	$ 2,255	**(4)%**
Wealth at Work	**182**	172	**6**	**535**	514	**4**
Citigold	**1,025**	1,007	**2**	**2,974**	2,982	**—**
Global Wealth	**$ 1,856**	$ 1,901	**(2)%**	**$ 5,682**	$ 5,751	**(1)%**
Total	**$ 6,187**	$ 5,852	**6 %**	**$ 18,121**	$ 17,542	**3 %**

NM Not meaningful

3Q22 vs. 3Q21

Net income was $792 million, compared to $1.9 billion in the prior-year period, largely driven by higher cost of credit and higher expenses, partially offset by higher revenues.

Revenues increased 6%, primarily due to higher net interest income, driven by strong loan growth in Branded cards and Retail services and higher interest rates. The increase was partially offset by lower non-interest revenue, reflecting lower investment fee revenue in Global Wealth and higher partner payments in Retail services.

U.S. Personal Banking revenues increased 10%, reflecting higher revenues in Cards and Retail banking.

Cards revenues increased 11%. Branded cards revenues increased 10%, primarily driven by higher net interest income on higher loan balances. Branded cards new account acquisitions increased 10% and card spend volumes increased 14%. Average loans increased 12%, reflecting the higher card spend volumes.

Retail services revenues increased 12%, primarily driven by higher net interest income on higher loan balances and lower payment rates, partially offset by the higher partner payments, reflecting higher income sharing as a result of higher revenues (for additional information on partner payments, see Note 5). Retail services card spend volumes increased 8% and average loans increased 9%, reflecting the higher card spend volumes.

Retail banking revenues increased 2%, largely driven by the higher interest rates and modest deposit growth. Average deposits increased 1%.

Global Wealth revenues decreased 2%, reflecting investment fee headwinds, particularly in Asia, driven by overall market volatility, partially offset by net interest income growth, driven by higher interest rates. Average deposits increased 1% and average loans were unchanged. Client assets decreased 10%, primarily driven by declines in equity market valuations. Global Wealth continued to add client advisors, which increased 5%. Private bank revenues decreased 10%, Wealth at Work revenues increased 6% and Citigold revenues increased 2%.

Expenses increased 13%, primarily driven by continued investments in Citi's transformation, other risk and control initiatives, business-led investments and volume-driven expenses, partially offset by productivity savings.

Provisions were $1.1 billion, compared to a benefit of $201 million in the prior-year period, largely driven by a net ACL build and higher net credit losses. Net credit losses increased 13%, reflecting ongoing normalization from historically low levels, particularly in Retail services (net credit losses up 32% to $315 million).

The net ACL build was $379 million, compared to a net release of $843 million in the prior-year period, primarily driven by U.S. Cards loan growth, partially offset by a release of a COVID-19–related uncertainty reserve. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information on U.S. Personal Banking's Retail banking, Branded cards and Retail services 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 2021 Form 10-K.

2022 YTD vs. 2021 YTD

Year-to-date, *PBWM* experienced similar trends to those described above. Net income was $3.2 billion, compared to $6.1 billion in the prior-year period, largely driven by higher cost of credit and higher expenses, partially offset by higher revenues.

Revenues increased 3%, largely due to higher revenues in U.S. Personal Banking. U.S. Personal Banking revenues increased 5%, reflecting higher revenues in Cards, largely driven by the same factors described above. Global Wealth revenues decreased 1%, driven by the same factors described above.

Expenses increased 13%, driven by the same factors described above.

Provisions were $2.1 billion, compared to a benefit of $928 million in the prior-year period, driven by a lower net ACL release, partially offset by lower net credit losses. Net credit losses decreased 15%, driven by strong credit performance across portfolios in the first half of 2022, partially offset by the higher net credit losses in the third quarter of 2022.

The net ACL release was $34 million, compared to a release of $3.4 billion in the prior-year period. The net ACL release primarily reflected improvement in portfolio credit quality and the continued improvement in the macroeconomic outlook in the first quarter of 2022, partially offset by net ACL builds in the second and third quarters of 2022 due to increased macroeconomic uncertainty and U.S. Cards loan growth.

LEGACY FRANCHISES

As of September 30, 2022, *Legacy Franchises* included (i) Asia Consumer Banking (Asia Consumer), representing the consumer banking operations of the remaining 11 Asia and EMEA exit countries (and Australia and the Philippines, until their sale closings on June 1, 2022 and August 1, 2022, respectively; the Thailand and Malaysia sales both closed on November 1, 2022, but business activity was included in the results for all historical periods in 2021 and 2022); (ii) Mexico Consumer Banking (Mexico Consumer) and Mexico Small Business and Middle-Market Banking (Mexico SBMM), collectively Mexico Consumer/SBMM, which Citi also plans to exit; and (iii) Legacy Holdings Assets (certain North America consumer mortgage loans and other legacy assets). See Note 2 for additional information on the Philippines sale and other sales and exits.

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 provides traditional middle-market banking products and services to commercial customers through Citibanamex.

In August 2022, Citi disclosed its decision to wind down its consumer banking and local commercial banking operations in Russia, including its continued active pursuit of sales of certain Russian consumer banking portfolios. In connection with the wind-down plan, Citi expects to incur approximately $170 million in costs (excluding the impact from any portfolio sales), primarily over the next 18 months, largely driven by restructuring, vendor termination fees and other related charges. On October 28, 2022, Citi entered into an agreement to sell a portfolio of ruble-denominated personal installment loans, totaling approximately $345 million in outstanding loan balances as of the third quarter of 2022, to Uralsib, a Russian commercial bank. In connection with the portfolio sale, Citi also entered into a referral agreement to transfer to Uralsib a portfolio of ruble-denominated credit card loans, subject to customer consents. The outstanding card loans balance was approximately $320 million as of the third quarter of 2022. For additional information about Citi's continued efforts to reduce its operations and exposure in Russia, see "Executive Summary" above and "Managing Global Risk—Other Risks—Country Risk—Russia" below. In addition, Citi has entered into agreements to sell its consumer banking businesses in Bahrain, India, Indonesia, Taiwan and Vietnam.

At September 30, 2022, on a combined basis, *Legacy Franchises* had 1,457 retail branches, $22 billion in retail banking loans and $50 billion in deposits. In addition, the businesses had $8 billion in outstanding card loan balances, and Mexico SBMM had $7 billion in outstanding corporate loan balances. These amounts exclude approximately $17 billion of loans ($12 billion of retail banking loans and $5 billion of credit card loan balances) and $20 billion of deposits, all of which were reclassified to *Other assets* and *Other liabilities* held-for-sale (HFS) as a result of Citi's agreements to sell its consumer banking businesses in the above-listed countries. See Note 2 for additional information.

	Third Quarter			Nine Months		
In millions of dollars, except as otherwise noted	**2022**	2021	**% Change**	**2022**	2021	**% Change**
Net interest income	**$ 1,385**	$ 1,532	**(10)%**	**$ 4,367**	$ 4,716	**(7)%**
Non-interest revenue	**1,169**	4	**NM**	**2,053**	1,342	**53**
Total revenues, net of interest expense	**$ 2,554**	$ 1,536	**66 %**	**$ 6,420**	$ 6,058	**6 %**
Total operating expenses	**$ 1,845**	$ 1,748	**6 %**	**$ 5,952**	$ 5,288	**13 %**
Net credit losses on loans	**$ 164**	$ 289	**(43)%**	**$ 448**	$ 1,262	**(65)%**
Credit reserve build (release) for loans	**6**	(327)	**NM**	**(168)**	(1,503)	**89**
Provision (release) for credit losses on unfunded lending commitments	**(31)**	7	**NM**	**90**	(10)	**NM**
Provisions for benefits and claims (PBC), HTM debt securities and other assets	**28**	17	**65**	**78**	77	**1**
Provisions (releases) for credit losses and PBC	**$ 167**	$ (14)	**NM**	**$ 448**	$ (174)	**NM**
Income (loss) from continuing operations before taxes	**$ 542**	$ (198)	**NM**	**$ 20**	$ 944	**(98)%**
Income taxes (benefits)	**226**	3	**NM**	**104**	333	**(69)**
Income (loss) from continuing operations	**$ 316**	$ (201)	**NM**	**$ (84)**	$ 611	**NM**
Noncontrolling interests	**—**	(1)	**100 %**	**—**	(6)	**100 %**
Net income (loss)	**$ 316**	$ (200)	**NM**	**$ (84)**	$ 617	**NM**
Balance Sheet data *(in billions of dollars)*						
EOP assets	**$ 100**	$ 124	**(19)%**			
Average assets	**103**	126	**(18)**	**$ 114**	$ 128	**(11)%**
EOP loans	**37**	67	**(45)**			
EOP deposits	**50**	78	**(35)**			
Efficiency ratio	**72 %**	114 %		**93 %**	87 %	
Revenue by reporting unit and component						
Asia Consumer	**$ 1,372**	$ 330	**NM**	**$ 3,039**	$ 2,457	**24 %**

Mexico Consumer/SBMM	**1,173**	1,162	**1 %**	**3,496**	3,483	**—**
Legacy Holdings Assets	**9**	44	**(80)**	**(115)**	118	**NM**
Total	**$ 2,554**	$ 1,536	**66 %**	**$ 6,420**	$ 6,058	**6 %**

NM Not meaningful

3Q22 vs. 3Q21

Net income was $316 million, compared to a net loss of $200 million in the prior-year period, primarily driven by higher revenues, partially offset by higher expenses and higher cost of credit.

Results for the third quarter of 2022 included Asia Consumer divestiture-related impacts of approximately $520 million (approximately $256 million after-tax), primarily driven by the gain on sale of the Philippines consumer business and other Asia consumer exits, which primarily consisted of (i) an approximate $616 million Philippines gain on sale recorded in revenues and (ii) an approximate $107 million of aggregate divestiture-related costs. Third quarter of 2021 results included Asia divestiture-related impacts of $(680) million (approximately $(580) million after-tax), primarily driven by a loss on sale of the Australia consumer business.

Revenues increased 66%, primarily due to the gain on sale of the Philippines consumer business versus the loss on sale of the Australia consumer business in the prior-year period.

Asia Consumer revenues of $1.4 billion increased from $330 million in the prior-year period, primarily driven by the Philippines gain on sale versus the Australia loss on sale in the prior-year period, as well as the impacts of the Korea wind-down and the loss of revenues from the exits of the Australia and Philippines consumer businesses.

Mexico Consumer/SBMM revenues increased 1%, as cards revenues increased 10% and SBMM revenues increased 15%, primarily due to higher interest rates and higher lending volumes. The increase in revenues was partially offset by a 4% decrease in retail banking revenues, primarily driven by lower fiduciary fees reflecting declines in equity market valuations.

Legacy Holdings Assets revenues decreased $35 million from the prior-year period, largely driven by the continued wind-down of legacy assets.

Expenses increased 6%, driven by higher divestiture-related expenses in Asia Consumer and Mexico Consumer/SBMM.

Provisions were $167 million, compared to a benefit of $14 million in the prior-year period, driven by a lower net ACL release, partially offset by lower net credit losses. Net credit losses decreased 43%, primarily reflecting improved delinquencies in both Asia Consumer and Mexico Consumer and the reclassification of loans and net credit losses to reflect HFS accounting as a result of the signing of sale agreements for consumer banking businesses in Asia and EMEA.

The net ACL release was $25 million, compared to a net release of $320 million in the prior-year period. For additional information on Citi's ACL, see "Significant Accounting Policies and Significant Estimates" below.

For additional information about trends, uncertainties and risks related to *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 2021 Form 10-K.

2022 YTD vs. 2021 YTD

Net loss was $84 million, compared to net income of $617 million in the prior-year period, primarily driven by higher expenses and higher cost of credit, partially offset by higher revenues.

Results for year-to-date 2022 included Asia Consumer divestiture-related impacts of approximately $(110) million (approximately $(297) million after-tax), which primarily consisted of (i) the approximate $616 million Philippines gain on sale in the third quarter of 2022; (ii) an approximate $(88) million incremental Australia consumer banking loss on sale recorded in revenues for year-to-date 2022; (iii) an approximate $107 million of aggregate Asia Consumer divestiture-related costs in the third quarter of 2022; and (iv) an approximate $535 million goodwill write-down recorded in expenses in the first quarter of 2022. Results for year-to-date 2021 included divestiture-related impacts of $(680) million (approximately $(580) million after-tax), primarily driven by a loss on sale of the Australia consumer business.

Revenues increased 6%, reflecting the Philippines gain on sale versus the Australia loss on sale, as well as the impacts of the Korea wind-down and the loss of revenues from the exits of the Australia and Philippines consumer businesses.

Asia Consumer revenues increased 24%, driven by the same factors described above. Mexico Consumer/SBMM revenues were largely unchanged. Legacy Holdings Assets revenues of $(115) million decreased from $118 million in the prior-year period, largely driven by a second quarter of 2022 release of a CTA loss (net of hedges) recorded in *AOCI* related to the substantial liquidation of a legacy U.K. consumer operation (for additional information, see "*Corporate/Other*" below and Note 2), as well as the continued wind-down of legacy assets.

Expenses increased 13%, primarily driven by divestiture-related expenses in the current period, including the goodwill impairment in the first quarter of 2022, as well as impairment of long-lived assets related to the Russia consumer banking business in the second quarter of 2022, partially offset by lower expenses related to the Asia Consumer exit markets.

Provisions were $448 million, compared to a benefit of $174 million in the prior-year period, driven by a lower net ACL release, partially offset by lower net credit losses. The net ACL release was $78 million, compared to a release of $1.5 billion in the prior-year period.

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 September 30, 2022, *Corporate/Other* had $96 billion in assets, primarily related to the investment securities.

	Third Quarter			Nine Months		
In millions of dollars	**2022**	2021	**% Change**	**2022**	2021	**% Change**
Net interest income	**$ 772**	$ 247	**NM**	**$ 1,367**	$ 404	**NM**
Non-interest revenue	**(473)**	(179)	**NM**	**(623)**	(65)	**NM**
Total revenues, net of interest expense	**$ 299**	$ 68	**NM**	**$ 744**	$ 339	**NM**
Total operating expenses	**$ 286**	$ 442	**(35)%**	**$ 706**	$ 1,056	**(33)%**
Provisions (releases) for HTM debt securities and other assets	**$ 3**	$ (1)	**NM**	**$ 3**	$ (2)	**NM**
Income (loss) from continuing operations before taxes	**$ 10**	$ (373)	**NM**	**$ 35**	$ (715)	**NM**
Income taxes (benefits)	**(211)**	(232)	**9 %**	**(651)**	(844)	**23 %**
Income (loss) from continuing operations	**$ 221**	$ (141)	**NM**	**$ 686**	$ 129	**NM**
Income (loss) from discontinued operations, net of taxes	**(6)**	(1)	**NM**	**(229)**	7	**NM**
Net income (loss) before attribution to noncontrolling interests	**$ 215**	$ (142)	**NM**	**$ 457**	$ 136	**NM**
Noncontrolling interests	**6**	1	**NM**	**9**	—	**— %**
Net income (loss)	**$ 209**	$ (143)	**NM**	**$ 448**	$ 136	**NM**

NM Not meaningful

3Q22 vs. 3Q21

Net income was $209 million, compared to a *net loss* of $143 million in the prior-year period. The increase in net income was primarily driven by higher revenues and lower expenses as well as the impact of certain income tax benefit items related to non-U.S. operations in the current quarter.

Revenues increased $231 million, primarily driven by higher net revenue from the investment portfolio, due to higher interest rates, partially offset by mark-to-market losses, primarily related to retained interchange litigation risk associated with shares of Visa B common stock that Citi previously sold.

Expenses decreased 35%, primarily driven by lower consulting expenses.

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 2021 Form 10-K.

2022 YTD vs. 2021 YTD

Year-to-date, *Corporate/Other* experienced similar trends to those described above. *Net income* was $448 million, compared to net income of $136 million in the prior-year period, driven by the same factors described above, partially offset by the second quarter of 2022 release of a CTA loss (net of hedges) from *AOCI*, recorded in discontinued operations, related to the substantial liquidation of a U.K. consumer legacy operation (for additional information, see "*Legacy Franchises*" above and Note 2).

Revenues increased $405 million, driven by the same factors described above.

Expenses decreased 33%, driven by the same factors described above as well as certain settlements in the current period.

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 2021 Form 10-K.

During the third quarter of 2022, 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 12.3% as of September 30, 2022, compared to 11.9% as of June 30, 2022 and 12.2% as of December 31, 2021, relative to a required regulatory CET1 Capital ratio of 10.5% as of such dates under the Standardized Approach.

Citi's CET1 Capital ratio under the Basel III Advanced Approaches was 11.8% as of September 30, 2022, compared to 11.7% as of June 30, 2022 and 12.3% as of December 31, 2021, relative to a required regulatory CET1 Capital ratio of 10.0% as of such dates under the Advanced Approaches framework.

Citi's CET1 Capital ratio increased under both the Standardized Approach and Advanced Approaches from June 30, 2022, driven primarily by net income, a decrease in risk-weighted assets and the impact related to the closing of the Philippines consumer banking sale, partially offset by the return of capital to common shareholders through dividends and interest rate impacts on Citigroup's investment portfolio.

Citi's CET1 Capital ratio increased under the Standardized Approach from year-end 2021 due to year-to-date net income of \$12.3 billion, the impacts related to the closing of the Australia and Philippines consumer banking sales, and business actions, including a reduction in risk-weighted assets, partially offset by interest rate impacts on Citigroup's investment portfolio and the return of capital to common shareholders. The increase in Citi's CET1 Capital ratio was also partially offset by the impact of the adoption of the Standardized Approach for Counterparty Credit Risk (SA-CCR) on January 1, 2022.

Citi's CET1 Capital ratio decreased under the Advanced Approaches from year-end 2021, due to the interest rate impacts on Citigroup's investment portfolio, the return of capital to common shareholders and the impact of the adoption of the SA-CCR, partially offset by year-to-date net income of \$12.3 billion and the impact related to the closing of the Australia and Philippines consumer banking sales.

For additional information on SA-CCR, see "Capital Resources" in Citi's First Quarter of 2022 Form 10-Q.

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.

Accordingly, as of October 1, 2022, Citi is required to maintain an 11.5% required regulatory CET1 Capital ratio under the Standardized Approach, incorporating this SCB and its current GSIB surcharge of 3.0%. Citi's required regulatory CET1 Capital ratio under the Advanced Approaches (using the fixed 2.5% Capital Conservation Buffer) remains unchanged at 10.0%. The SCB applies to Citigroup only; the regulatory capital framework applicable to Citibank, including the Capital Conservation Buffer, is unaffected by Citigroup's SCB.

In addition, as previously disclosed, commencing January 1, 2023, Citi's GSIB surcharge will increase from 3.0% to 3.5%, which will be applicable to both the Standardized and the Advanced Approaches, resulting in a required regulatory CET1 Capital ratio of 12.0% under the Standardized Approach and 10.5% under the Advanced Approaches, both as of such date.

For additional information regarding regulatory capital buffers, including the SCB and GSIB surcharge, see "Capital Resources—Regulatory Capital Buffers" in Citi's 2021 Form 10-K. For additional information regarding CCAR and DFAST, see "Capital Resources—Stress Testing Component of Capital Planning" in Citi's 2021 Form 10-K.

Citigroup's Capital Resources

The following table presents Citi's required risk-based capital ratios as of September 30, 2022, June 30, 2022 and December 31, 2021:

	Advanced Approaches			Standardized Approach		
	September 30, 2022	June 30, 2022	December 31, 2021	**September 30, 2022**	June 30, 2022	December 31, 2021
Common Equity Tier 1 Capital ratio(1)	**10.0 %**	10.0 %	10.0 %	**10.5 %**	10.5 %	10.5 %
Tier 1 Capital ratio(1)	**11.5**	11.5	11.5	**12.0**	12.0	12.0
Total Capital ratio(1)	**13.5**	13.5	13.5	**14.0**	14.0	14.0

(1) Citi's required risk-based capital ratios included the 3.0% Stress Capital Buffer (SCB) and 3.0% GSIB surcharge under the Standardized Approach, and the 2.5% Capital Conservation Buffer and 3.0% GSIB surcharge under the Advanced Approaches (all of which must be composed of Common Equity Tier 1 Capital). These requirements were applicable through September 30, 2022. See "Stress Capital Buffer" above for more information.

The following tables present Citi's capital components and ratios:

	Advanced Approaches			Standardized Approach		
In millions of dollars, except ratios	**September 30, 2022**	June 30, 2022	December 31, 2021	**September 30, 2022**	June 30, 2022	December 31, 2021
Common Equity Tier 1 Capital(1)	**$ 144,567**	$ 144,893	$ 149,305	**$ 144,567**	$ 144,893	$ 149,305
Tier 1 Capital	**164,830**	165,159	169,568	**164,830**	165,159	169,568
Total Capital (Tier 1 Capital + Tier 2 Capital)(1)	**185,046**	187,350	194,006	**193,871**	196,408	203,838
Total Risk-Weighted Assets	**1,226,578**	1,235,956	1,209,374	**1,176,749**	1,217,459	1,219,175
Credit Risk(1)	**$ 849,769**	$ 861,298	$ 840,483	**$ 1,096,384**	$ 1,135,558	$ 1,135,906
Market Risk	**78,748**	79,912	78,634	**80,365**	81,901	83,269
Operational Risk	**298,061**	294,746	290,257	**—**	—	—
Common Equity Tier 1 Capital ratio(2)	**11.79 %**	11.72 %	12.35 %	**12.29 %**	11.90 %	12.25 %
Tier 1 Capital ratio(2)	**13.44**	13.36	14.02	**14.01**	13.57	13.91
Total Capital ratio(2)	**15.09**	15.16	16.04	**16.48**	16.13	16.72

In millions of dollars, except ratios	**Required Capital Ratios**	**September 30, 2022**	June 30, 2022	December 31, 2021
Quarterly Adjusted Average Total Assets(1)(3)		**$ 2,364,564**	$ 2,344,675	$ 2,351,434
Total Leverage Exposure(1)(4)		**2,888,535**	2,935,289	2,957,764
Tier 1 Leverage ratio(2)	**4.0 %**	**6.97 %**	7.04 %	7.21 %
Supplementary Leverage ratio(2)	**5.0**	**5.71**	5.63	5.73

(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 2021 Form 10-K.
(2) Citi's binding Common Equity Tier 1 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. As of September 30, 2022, the Supplementary Leverage ratio and the Total Capital ratio under the Basel III Advanced Approaches framework became more binding than the Common Equity Tier 1 Capital ratio under the Basel III Standardized Approach. Each of Citi's Basel III risk-based capital and leverage ratios exceeded the respective regulatory capital requirement by at least $19 billion as of September 30, 2022. Citi expects the Basel III Standardized Approach capital ratios to be more binding in future quarters due to the increased Stress Capital Buffer in the fourth quarter of 2022 and the additional GSIB surcharge in the first quarter of 2023.
(3) Tier 1 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 September 30, 2022 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 September 30, 2022.

Components of Citigroup Capital

In millions of dollars		September 30, 2022		December 31, 2021
Common Equity Tier 1 Capital				
Citigroup common stockholders' equity[1]	**$**	**179,696**	$	183,108
Add: Qualifying noncontrolling interests		**113**		143
Regulatory capital adjustments and deductions:				
Add: CECL transition provision[2]		**2,271**		3,028
Less: Accumulated net unrealized gains (losses) on cash flow hedges, net of tax		**(2,869)**		101
Less: Cumulative unrealized net gain (loss) related to changes in fair value of financial liabilities attributable to own creditworthiness, net of tax		**3,211**		(896)
Less: Intangible assets:				
Goodwill, net of related DTLs[3]		**18,796**		20,619
Identifiable intangible assets other than MSRs, net of related DTLs		**3,492**		3,800
Less: Defined benefit pension plan net assets; other		**1,932**		2,080
Less: DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards[4]		**11,690**		11,270
Less: Excess over 10%/15% limitations for other DTAs, certain common stock investments, and MSRs[4][5]		**1,261**		—
Total Common Equity Tier 1 Capital (Standardized Approach and Advanced Approaches)	**$**	**144,567**	$	149,305
Additional Tier 1 Capital				
Qualifying noncumulative perpetual preferred stock[1]	**$**	**18,864**	$	18,864
Qualifying trust preferred securities[6]		**1,404**		1,399
Qualifying noncontrolling interests		**27**		34
Regulatory capital deductions:				
Less: Other		**32**		34
Total Additional Tier 1 Capital (Standardized Approach and Advanced Approaches)	**$**	**20,263**	$	20,263
Total Tier 1 Capital (Common Equity Tier 1 Capital + Additional Tier 1 Capital) (Standardized Approach and Advanced Approaches)	**$**	**164,830**	$	169,568
Tier 2 Capital				
Qualifying subordinated debt	**$**	**15,679**	$	20,064
Qualifying trust preferred securities[7]		**—**		248
Qualifying noncontrolling interests		**33**		42
Eligible allowance for credit losses[2][8]		**13,752**		14,209
Regulatory capital deduction:				
Less: Other		**423**		293
Total Tier 2 Capital (Standardized Approach)	**$**	**29,041**	$	34,270
Total Capital (Tier 1 Capital + Tier 2 Capital) (Standardized Approach)	**$**	**193,871**	$	203,838
Adjustment for excess of eligible credit reserves over expected credit losses[2][8]	**$**	**(8,825)**	$	(9,832)
Total Tier 2 Capital (Advanced Approaches)	**$**	**20,216**	$	24,438
Total Capital (Tier 1 Capital + Tier 2 Capital) (Advanced Approaches)	**$**	**185,046**	$	194,006

(1) Issuance costs of $131 million related to outstanding noncumulative perpetual preferred stock at September 30, 2022 and December 31, 2021 were excluded from common stockholders' equity and were 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 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 2021 Form 10-K.

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

Footnotes continue on the following page.

(4) Of Citi's $27.1 billion of net DTAs at September 30, 2022, $11.7 billion of net DTAs arising from net operating loss, foreign tax credit and general business credit tax carry-forwards, as well as $1.3 billion of DTAs arising from temporary differences that exceeded 10%/15% limitations, were excluded from Citi's Common Equity Tier 1 Capital as of September 30, 2022. DTAs arising from net operating loss, foreign tax credit and general business credit tax carry-forwards are required to be entirely deducted from Common Equity Tier 1 Capital under the U.S. Basel III rules. DTAs arising from temporary differences are required to be deducted from capital only if these DTAs exceed 10%/15% limitations under the U.S. Basel III rules.

(5) Assets subject to 10%/15% limitations include MSRs, DTAs arising from temporary differences and significant common stock investments in unconsolidated financial institutions. At September 30, 2022, this deduction related only to DTAs arising from temporary differences that exceeded the 10% limitation. At December 31, 2021, none of these assets were in excess of the 10%/15% limitations.

(6) Represents Citigroup Capital XIII trust preferred securities, which are permanently grandfathered as Tier 1 Capital under the U.S. Basel III rules.

(7) Represents the amount of non-grandfathered trust preferred securities that were previously eligible for inclusion in Tier 2 Capital under the U.S. Basel III rules. Commencing January 1, 2022, non-grandfathered trust preferred securities have been fully phased out of Tier 2 Capital.

(8) 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 $4.4 billion at September 30, 2022 and December 31, 2021, respectively.

Citigroup Capital Rollforward

In millions of dollars	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2022
Common Equity Tier 1 Capital, beginning of period	**$ 144,893**	**$ 149,305**
Net income	**3,479**	**12,332**
Common and preferred dividends declared	**(1,278)**	**(3,819)**
Net change in treasury stock	**11**	**(2,737)**
Net increase in common stock and additional paid-in capital	**137**	**344**
Net change in foreign currency translation adjustment net of hedges, net of tax	**(2,399)**	**(4,043)**
Net change in unrealized gains (losses) on debt securities AFS, net of tax	**(580)**	**(6,358)**
Net decrease in defined benefit plans liability adjustment, net of tax	**37**	**119**
Net change in adjustment related to change in fair value of financial liabilities attributable to own creditworthiness, net of tax	**(194)**	**(475)**
Net decrease in excluded component of fair value hedges	**30**	**87**
Net decrease in goodwill, net of related DTLs	**708**	**1,823**
Net decrease in identifiable intangible assets other than MSRs, net of related DTLs	**107**	**308**
Net decrease in defined benefit pension plan net assets	**50**	**68**
Net increase in DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards	**(11)**	**(420)**
Net increase in excess over 10%/15% limitations for other DTAs, certain common stock investments and MSRs	**(463)**	**(1,261)**
Net change in CECL transition provision	**—**	**(757)**
Other	**40**	**51**
Net decrease in Common Equity Tier 1 Capital	**$ (326)**	**$ (4,738)**
Common Equity Tier 1 Capital, end of period (Standardized Approach and Advanced Approaches)	**$ 144,567**	**$ 144,567**
Additional Tier 1 Capital, beginning of period	**$ 20,266**	**$ 20,263**
Net increase in qualifying trust preferred securities	**1**	**5**
Other	**(4)**	**(5)**
Net change in Additional Tier 1 Capital	**$ (3)**	**$ —**
Tier 1 Capital, end of period (Standardized Approach and Advanced Approaches)	**$ 164,830**	**$ 164,830**
Tier 2 Capital, beginning of period (Standardized Approach)	**$ 31,249**	**$ 34,270**
Net decrease in qualifying subordinated debt	**(1,659)**	**(4,385)**
Net decrease in eligible allowance for credit losses	**(474)**	**(457)**
Other	**(75)**	**(387)**
Net decrease in Tier 2 Capital (Standardized Approach)	**$ (2,208)**	**$ (5,229)**
Tier 2 Capital, end of period (Standardized Approach)	**$ 29,041**	**$ 29,041**
Total Capital, end of period (Standardized Approach)	**$ 193,871**	**$ 193,871**
Tier 2 Capital, beginning of period (Advanced Approaches)	**$ 22,191**	**$ 24,438**
Net decrease in qualifying subordinated debt	**(1,659)**	**(4,385)**
Net change in excess of eligible credit reserves over expected credit losses	**(241)**	**550**
Other	**(75)**	**(387)**
Net decrease in Tier 2 Capital (Advanced Approaches)	**$ (1,975)**	**$ (4,222)**
Tier 2 Capital, end of period (Advanced Approaches)	**$ 20,216**	**$ 20,216**
Total Capital, end of period (Advanced Approaches)	**$ 185,046**	**$ 185,046**

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

In millions of dollars	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2022
Total Risk-Weighted Assets, beginning of period	**$ 1,217,459**	**$ 1,219,175**
Changes in Credit Risk-Weighted Assets		
General credit risk exposures[1]	**(18,472)**	**(21,818)**
Repo-style transactions[2]	**(3,162)**	**(15,077)**
Securitization exposures[3]	**2,794**	**1,958**
Equity exposures[4]	**(1,402)**	**(3,298)**
Over-the-counter (OTC) derivatives[5]	**(4,477)**	**22,701**
Other exposures[6]	**(6,702)**	**(8,807)**
Off-balance sheet exposures[7]	**(7,753)**	**(15,181)**
Net decrease in Credit Risk-Weighted Assets	**$ (39,174)**	**$ (39,522)**
Changes in Market Risk-Weighted Assets		
Risk levels	**$ (3,129)**	**$ (6,988)**
Model and methodology updates	**1,593**	**4,084**
Net decrease in Market Risk-Weighted Assets	**$ (1,536)**	**$ (2,904)**
Total Risk-Weighted Assets, end of period	**$ 1,176,749**	**$ 1,176,749**

(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 and nine months ended September 30, 2022 primarily due to a decrease in wholesale loans.

(2) Repo-style transactions include repurchase and reverse repurchase transactions, as well as securities borrowing and securities lending transactions. Repo-style transactions decreased during the three months ended September 30, 2022 primarily due to a decrease in margin loans, as well as reduced exposure in securities lending. Repo-style transactions decreased during the nine months ended September 30, 2022 primarily due to reduced exposure in repurchase agreements and securities lending, as well as a decrease in margin loans.

(3) Securitization exposures increased during the three months ended September 30, 2022 primarily due to new issuances.

(4) Equity exposures decreased during the nine months ended September 30, 2022 primarily due to decreases in market share prices of various investments.

(5) OTC derivatives decreased during the three months ended September 30, 2022 primarily due to decreases in commodities and rates. OTC derivatives increased during the nine months ended September 30, 2022 primarily due to the adoption of SA-CCR, partially offset by decreases in commodities, rates, FX and equities. For additional information on SA-CCR, see “Capital Resources” in Citi’s First Quarter of 2022 Form 10-Q.

(6) Other exposures include cleared transactions, unsettled transactions and other assets. Other exposures decreased during the three and nine months ended September 30, 2022 primarily due to a decrease in cleared derivatives.

(7) Off-balance sheet exposures decreased during the three and nine months ended September 30, 2022 primarily due to a decrease in loan commitments.

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

In millions of dollars	Three Months Ended September 30, 2022	Nine Months Ended September 30, 2022
Total Risk-Weighted Assets, beginning of period	**$ 1,235,956**	**$ 1,209,374**
Changes in Credit Risk-Weighted Assets		
Retail exposures(1)	**3,832**	**8,023**
Wholesale exposures(2)	**(13,067)**	**(16,937)**
Repo-style transactions(3)	**(1,411)**	**(11,084)**
Securitization exposures	**1,665**	**2,141**
Equity exposures	**(1,324)**	**(2,847)**
Over-the-counter (OTC) derivatives(4)	**(743)**	**9,262**
Derivatives CVA(5)	**5,493**	**21,734**
Other exposures(6)	**(5,010)**	**(301)**
Supervisory 6% multiplier	**(964)**	**(705)**
Net change in Credit Risk-Weighted Assets	**$ (11,529)**	**$ 9,286**
Changes in Market Risk-Weighted Assets		
Risk levels	**$ (2,757)**	**$ (3,969)**
Model and methodology updates	**1,593**	**4,083**
Net change in Market Risk-Weighted Assets	**$ (1,164)**	**$ 114**
Net increase in Operational Risk-Weighted Assets(7)	**$ 3,315**	**$ 7,804**
Total Risk-Weighted Assets, end of period	**$ 1,226,578**	**$ 1,226,578**

(1) Retail exposures increased during the three months ended September 30, 2022 primarily due to an increase in consumer loans. Retail exposures increased during the nine months ended September 30, 2022 primarily due to increases in consumer loans and model recalibrations.
(2) Wholesale exposures decreased during the three and nine months ended September 30, 2022 primarily due to decreases in wholesale loans and available-for-sale securities.
(3) Repo-style transactions include repurchase and reverse repurchase transactions as well as securities borrowing and securities lending transactions. Repo-style transactions decreased during the nine months ended September 30, 2022 primarily due to reduced exposure in repurchase agreements and securities lending, as well as a decrease in margin loans.
(4) OTC derivatives increased during the nine months ended September 30, 2022 primarily due to the adoption of SA-CCR. For additional information on SA-CCR, see "Capital Resources" in Citi's First Quarter of 2022 Form 10-Q.
(5) Derivatives CVA increased during the three months ended September 30, 2022 primarily due to an increase in equities. Derivatives CVA increased during the nine months ended September 30, 2022 primarily due to the adoption of SA-CCR. For additional information on SA-CCR, see "Capital Resources" in Citi's First Quarter of 2022 Form 10-Q.
(6) Other exposures include cleared transactions, unsettled transactions, assets other than those reportable in specific exposure categories and non-material portfolios. Other exposures decreased during the three months ended September 30, 2022 primarily due to a decrease in accounts receivable.
(7) Operational risk-weighted assets increased during the three and nine months ended September 30, 2022 primarily due to new model severity update.

Supplementary Leverage Ratio

The following table presents Citi's Supplementary Leverage ratio and related components:

In millions of dollars, except ratios	**September 30, 2022**	June 30, 2022	December 31, 2021
Tier 1 Capital	**$ 164,830**	$ 165,159	$ 169,568
Total Leverage Exposure			
On-balance sheet assets(1)(2)	**$ 2,401,767**	$ 2,382,324	$ 2,389,237
Certain off-balance sheet exposures:(3)			
Potential future exposure on derivative contracts	**153,842**	178,183	222,241
Effective notional of sold credit derivatives, net(4)	**32,768**	33,187	23,788
Counterparty credit risk for repo-style transactions(5)	**16,997**	20,022	25,775
Other off-balance sheet exposures	**320,364**	359,222	334,526
Total of certain off-balance sheet exposures	**$ 523,971**	$ 590,614	$ 606,330
Less: Tier 1 Capital deductions	**37,203**	37,649	37,803
Total Leverage Exposure	**$ 2,888,535**	$ 2,935,289	$ 2,957,764
Supplementary Leverage ratio	**5.71 %**	5.63 %	5.73 %

(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 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 2021 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 5.7% at September 30, 2022 and December 31, 2021, compared to 5.6% at June 30, 2022. The increase from the second quarter of 2022 was primarily driven by net income and a decrease in Total Leverage Exposure, partially offset by a reduction in Tier 1 Capital resulting from interest rate impacts on Citigroup's investment portfolio and the return of capital to common shareholders through dividends.

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:

In millions of dollars, except ratios	Required Capital Ratios(1)	Advanced Approaches September 30, 2022	Advanced Approaches June 30, 2022	Advanced Approaches December 31, 2021	Standardized Approach September 30, 2022	Standardized Approach June 30, 2022	Standardized Approach December 31, 2021
Common Equity Tier 1 Capital(2)		**$ 147,938**	$ 148,742	$ 148,548	**$ 147,938**	$ 148,742	$ 148,548
Tier 1 Capital		**150,062**	150,870	150,679	**150,062**	150,870	150,679
Total Capital (Tier 1 Capital + Tier 2 Capital)(2)(3)		**165,171**	166,094	166,921	**172,916**	174,213	175,427
Total Risk-Weighted Assets		**1,046,884**	1,057,336	1,017,774	**1,024,923**	1,068,525	1,066,015
Credit Risk(2)		**$ 762,660**	$ 780,785	$ 737,802	**$ 983,949**	$1,023,309	$ 1,016,293
Market Risk		**40,676**	44,755	48,089	**40,974**	45,216	49,722
Operational Risk		**243,548**	231,796	231,883	**—**	—	—
Common Equity Tier 1 Capital ratio(4)(5)	**7.0 %**	**14.13 %**	14.07 %	14.60 %	**14.43 %**	13.92 %	13.93 %
Tier 1 Capital ratio(4)(5)	**8.5**	**14.33**	14.27	14.80	**14.64**	14.12	14.13
Total Capital ratio(4)(5)	**10.5**	**15.78**	15.71	16.40	**16.87**	16.30	16.46

In millions of dollars, except ratios	Required Capital Ratios	September 30, 2022	June 30, 2022	December 31, 2021
Quarterly Adjusted Average Total Assets(2)(6)		**$ 1,694,381**	$1,680,846	$ 1,716,596
Total Leverage Exposure(2)(7)		**2,147,923**	2,178,239	2,236,839
Tier 1 Leverage ratio(5)	**5.0 %**	**8.86 %**	8.98 %	8.78 %
Supplementary Leverage ratio(5)	**6.0**	**6.99**	6.93	6.74

(1) Citibank's required risk-based capital ratios are inclusive of the 2.5% Capital Conservation Buffer (all of which must be composed of Common Equity Tier 1 Capital).

(2) Citibank'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 2021 Form 10-K.

(3) Under the Advanced Approaches framework, 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, which differs from the Standardized Approach in which the ACL is eligible for inclusion in Tier 2 Capital up to 1.25% of credit risk-weighted assets, with any excess ACL being deducted in arriving at credit risk-weighted assets.

(4) Citibank's binding Common Equity Tier 1 Capital and Tier 1 Capital ratios were derived under the Basel III Advanced Approaches framework as of September 30, 2022, and under the Basel III Standardized Approach as of June 30, 2022 and December 31, 2021, whereas Citibank's binding Total Capital ratio was derived under the Basel III Advanced Approaches framework for all periods presented.

(5) Citibank must maintain required Common Equity Tier 1 Capital, Tier 1 Capital, Total Capital and Tier 1 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) Tier 1 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 September 30, 2022 were in excess of the regulatory capital requirements under the U.S. Basel III rules. In addition, Citibank was "well capitalized" as of September 30, 2022.

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 Common Equity Tier 1 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 September 30, 2022. 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	**0.8**	**1.0**	**0.8**	**1.2**	**0.8**	**1.4**
Citibank						
Advanced Approaches	**1.0**	**1.4**	**1.0**	**1.4**	**1.0**	**1.5**
Standardized Approach	**1.0**	**1.4**	**1.0**	**1.4**	**1.0**	**1.6**

	Tier 1 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 September 30, 2022, 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 $10 billion, which exceeded the minimum requirement by $6 billion.

Moreover, Citigroup Global Markets Limited, a broker-dealer registered with the United Kingdom's Prudential Regulation Authority (PRA) that is also an indirect wholly owned subsidiary of Citigroup, had total regulatory capital of $27 billion at September 30, 2022, 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 September 30, 2022.

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.

	September 30, 2022	
In billions of dollars, except ratios	**External TLAC**	**LTD**
Total eligible amount	**$ 327**	**$ 158**
% of Advanced Approaches risk-weighted assets	**26.7 %**	**12.8 %**
Regulatory requirement[1][2]	**22.5**	**9.0**
Surplus amount	**$ 51**	**$ 47**
% of Total Leverage Exposure	**11.3 %**	**5.5 %**
Regulatory requirement	**9.5**	**4.5**
Surplus amount	**$ 53**	**$ 28**

(1) External TLAC includes Method 1 GSIB surcharge of 2.0%.
(2) LTD includes Method 2 GSIB surcharge of 3.0%.

As of September 30, 2022, Citi exceeded each of the TLAC and LTD regulatory requirements, resulting in a $28 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)" and "Risk Factors—Compliance Risks" in Citi's 2021 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 September 30, 2022:

	Citigroup				Citibank		
	Required Capital Ratios, Advanced Approaches	Required Capital Ratios, Standardized Approach	Advanced Approaches	Standardized Approach	Required Capital Ratios[2]	Advanced Approaches	Standardized Approach
Common Equity Tier 1 Capital ratio	**10.0 %**	**10.5 %**	**11.56 %**	**12.05 %**	**7.0 %**	**13.94 %**	**14.24 %**
Tier 1 Capital ratio	**11.5**	**12.0**	**13.21**	**13.78**	**8.5**	**14.14**	**14.44**
Total Capital ratio	**13.5**	**14.0**	**14.88**	**16.25**	**10.5**	**15.59**	**16.68**

	Required Capital Ratios	Citigroup	Required Capital Ratios	Citibank
Tier 1 Leverage ratio	**4.0 %**	**6.84 %**	**5.0 %**	**8.74 %**
Supplementary Leverage ratio	**5.0**	**5.60**	**6.0**	**6.89**

(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	**September 30, 2022**	December 31, 2021
Total Citigroup stockholders' equity	**$ 198,560**	$ 201,972
Less: Preferred stock	**18,995**	18,995
Common stockholders' equity	**$ 179,565**	$ 182,977
Less:		
Goodwill	**19,326**	21,299
Identifiable intangible assets (other than MSRs)	**3,838**	4,091
Goodwill and identifiable intangible assets (other than MSRs) related to assets held-for-sale (HFS)	**794**	510
Tangible common equity (TCE)	**$ 155,607**	$ 157,077
Common shares outstanding (CSO)	**1,936.9**	1,984.4
Book value per share (common stockholders' equity/CSO)	**$ 92.71**	$ 92.21
Tangible book value per share (TCE/CSO)	**80.34**	79.16

	Three Months Ended September 30,		**Nine Months Ended September 30,**	
In millions of dollars	**2022**	2021	**2022**	2021
Net income available to common shareholders	**$ 3,202**	$ 4,378	**$ 11,538**	$ 17,968
Average common stockholders' equity	**179,699**	183,613	**179,950**	182,422
Average TCE	**155,511**	157,371	**155,391**	156,047
Return on average common stockholders' equity	**7.1 %**	9.5 %	**8.6 %**	13.2 %
RoTCE	**8.2**	11.0	**9.9**	15.4

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, strategy, value proposition, key guiding principles and risk appetite. For more information on managing global risk at Citi, see "Managing Global Risk" in Citi's 2021 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 2021 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:

	September 30, 2022				June 30, 2022				December 31, 2021			
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)	**$ 143**	**$ 114**	**$ 27**	**$ 284**	$ 158	$ 117	$ 21	$ 296	$ 145	$ 119	$ 20	$ 284
Unfunded lending commitments (off-balance sheet)(2)	**133**	**248**	**10**	**391**	141	264	9	414	147	269	13	429
Total exposure	**$ 276**	**$ 362**	**$ 37**	**$ 675**	$ 299	$ 381	$ 30	$ 710	$ 292	$ 388	$ 33	$ 713

(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:

	September 30, 2022	June 30, 2022	December 31, 2021
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 are derived by leveraging validated statistical models, scorecard models and external agency ratings (under defined circumstances), 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		
	September 30, 2022	June 30, 2022	December 31, 2021
AAA/AA/A	**50 %**	50 %	48 %
BBB	**33**	33	34
BB/B	**15**	15	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.

Citigroup believes the corporate credit portfolio to be appropriately rated and classified as of September 30, 2022. Citigroup 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, downgrades may result in the purchase of additional credit derivatives or other risk 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		
	September 30, 2022	June 30, 2022	December 31, 2021
Transportation and industrials	**20 %**	20 %	20 %
Technology, media and telecom	**12**	12	12
Consumer retail	**11**	11	11
Real estate	**10**	10	10
Power, chemicals, metals and mining	**9**	9	9
Banks and finance companies	**9**	9	8
Energy and commodities	**7**	7	7
Asset managers and funds	**7**	7	8
Health	**5**	5	5
Insurance	**4**	4	4
Public sector	**3**	3	3
Financial markets infrastructure	**2**	2	2
Securities firms	**—**	—	—
Other industries	**1**	1	1
Total	**100 %**	100 %	100 %

The following table details Citi's corporate credit portfolio by industry as of September 30, 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	**$ 135,469**	**$ 52,978**	**$ 82,491**	**$ 105,517**	**$ 20,566**	**$ 8,871**	**$ 515**	**$ 330**	**$ (37)**	**$ (8,136)**
Autos[(4)]	46,238	19,221	27,017	38,257	6,452	1,390	139	43	1	(2,884)
Transportation	24,417	11,163	13,254	18,094	2,771	3,371	181	84	(41)	(1,255)
Industrials	64,814	22,594	42,220	49,166	11,343	4,110	195	203	3	(3,997)
Technology, media and telecom	**80,793**	**30,164**	**50,629**	**64,911**	**12,015**	**3,550**	**317**	**209**	**8**	**(5,970)**
Consumer retail	**75,757**	**32,305**	**43,452**	**58,550**	**13,718**	**3,098**	**391**	**241**	**16**	**(4,884)**
Real estate	**67,330**	**45,582**	**21,748**	**58,399**	**5,683**	**3,246**	**2**	**134**	**1**	**(625)**
Power, chemicals, metals and mining	**60,285**	**18,611**	**41,674**	**48,794**	**9,997**	**1,294**	**200**	**150**	**15**	**(4,718)**
Power	23,024	4,703	18,321	19,712	2,863	394	55	52	—	(2,173)
Chemicals	23,614	8,033	15,581	19,453	3,552	496	113	59	15	(1,933)
Metals and mining	13,647	5,875	7,772	9,629	3,582	404	32	39	—	(612)
Banks and finance companies	**60,503**	**38,537**	**21,966**	**51,712**	**6,043**	**2,581**	**167**	**108**	**30**	**(845)**
Energy and commodities[(5)]	**47,467**	**14,628**	**32,839**	**39,050**	**6,700**	**1,561**	**156**	**284**	**11**	**(3,502)**
Asset managers and funds	**44,814**	**20,988**	**23,826**	**42,592**	**2,155**	**67**	**—**	**156**	**—**	**(866)**
Health	**32,546**	**8,865**	**23,681**	**27,691**	**3,894**	**862**	**99**	**103**	**1**	**(2,629)**
Insurance	**27,797**	**3,350**	**24,447**	**26,918**	**879**	**—**	**—**	**3**	**—**	**(2,699)**
Public sector	**23,425**	**12,982**	**10,443**	**19,758**	**1,827**	**1,683**	**157**	**22**	**3**	**(1,370)**
Financial markets infrastructure	**8,936**	**57**	**8,879**	**8,865**	**71**	**—**	**—**	**—**	**—**	**(20)**
Securities firms	**1,590**	**797**	**793**	**756**	**657**	**175**	**2**	**8**	**—**	**(3)**
Other industries	**8,193**	**4,464**	**3,729**	**5,566**	**2,314**	**281**	**32**	**37**	**12**	**(247)**
Total	**$ 674,905**	**$ 284,308**	**$ 390,597**	**$ 559,079**	**$ 86,519**	**$ 27,269**	**$ 2,038**	**$ 1,785**	**$ 60**	**$ (36,514)**

(1) Excludes $0.4 billion and $0.1 billion of funded and unfunded exposure at September 30, 2022, respectively, primarily related to the delinquency-managed loans and unearned income. Funded balance also excludes loans carried at fair value of $3.6 billion at September 30, 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 $36.5 billion of purchased credit protection, $33.2 billion represents the total notional amount of purchased credit derivatives on individual reference entities. The remaining $3.3 billion represents the first loss tranche of portfolios of purchased credit derivatives with a total notional of $28.4 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 ($7.6 billion in funded, with 100% rated investment grade) as of September 30, 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 September 30, 2022, Citi's total exposure to these energy-related entities was approximately $5.1 billion, of which approximately $2.5 billion consisted of direct outstanding funded loans.

The following table details Citi's corporate credit portfolio by industry as of December 31, 2021:

					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	$ 143,445	$ 51,502	$ 91,943	$ 110,047	$ 19,051	$ 13,196	$ 1,151	$ 384	$ 127	$ (8,791)
Autos[4]	48,210	18,662	29,548	39,824	5,365	2,906	115	49	2	(3,228)
Transportation	26,897	12,085	14,812	19,233	2,344	4,447	873	105	104	(1,334)
Industrials	68,338	20,755	47,583	50,990	11,342	5,843	163	230	21	(4,229)
Technology, media and telecom	84,333	28,542	55,791	64,676	15,873	3,587	197	156	11	(6,875)
Consumer retail	78,994	32,894	46,100	60,686	13,590	4,311	407	224	100	(5,115)
Real estate	69,808	46,220	23,588	58,089	6,761	4,923	35	116	50	(798)
Power, chemicals, metals and mining	65,641	20,224	45,417	53,575	10,708	1,241	117	292	22	(5,808)
Power	26,199	5,610	20,589	22,860	2,832	420	87	100	17	(3,032)
Chemicals	25,550	8,525	17,025	20,788	4,224	528	10	88	6	(2,141)
Metals and mining	13,892	6,089	7,803	9,927	3,652	293	20	104	(1)	(635)
Banks and finance companies	58,252	36,804	21,448	49,465	4,892	3,890	5	150	(5)	(680)
Energy and commodities[5]	48,973	13,485	35,488	38,972	7,517	2,220	264	224	78	(3,679)
Asset managers and funds	55,517	26,879	28,638	54,119	1,019	377	2	211	—	(869)
Health	33,393	8,826	24,567	27,600	4,702	942	149	95	—	(2,465)
Insurance	28,495	3,162	25,333	27,447	987	61	—	2	1	(2,711)
Public sector	23,842	12,464	11,378	21,035	1,527	1,275	5	37	(3)	(1,282)
Financial markets infrastructure	14,341	109	14,232	14,323	18	—	—	—	—	(22)
Securities firms	1,472	613	859	605	816	51	—	4	—	(5)
Other industries	6,591	2,803	3,788	4,151	1,890	489	61	—	5	(169)
Total	$ 713,097	$ 284,527	$ 428,570	$ 584,790	$ 89,351	$ 36,563	$ 2,393	$ 1,895	$ 386	$ (39,269)

(1) Excludes $0.6 billion and $0.1 billion of funded and unfunded exposure at December 31, 2021, respectively, primarily related to the delinquency-managed loans and unearned income. Funded balance also excludes loans carried at fair value of $6.1 billion at December 31, 2021.

(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 $39.3 billion of purchased credit protection, $36.0 billion represents the total notional amount of purchased credit derivatives on individual reference entities. The remaining $3.3 billion represents the first loss tranche of portfolios of purchased credit derivatives with a total notional of $28.4 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 $17.9 billion ($6.5 billion in funded, with more than 99% rated investment grade) as of December 31, 2021.

(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, 2021, Citi's total exposure to these energy-related entities was approximately $5.1 billion, of which approximately $2.6 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 September 30, 2022, June 30, 2022 and December 31, 2021, *ICG* had economic hedges on the corporate credit portfolio of $36.5 billion, $36.8 billion and $39.3 billion, respectively. Citigroup'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

	September 30, 2022	June 30, 2022	December 31, 2021
AAA/AA/A	**38 %**	37 %	35 %
BBB	**45**	44	49
BB/B	**13**	14	13
CCC or below	**4**	5	3
Total	**100 %**	100 %	100 %

CONSUMER CREDIT

Consumer Credit Portfolio

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

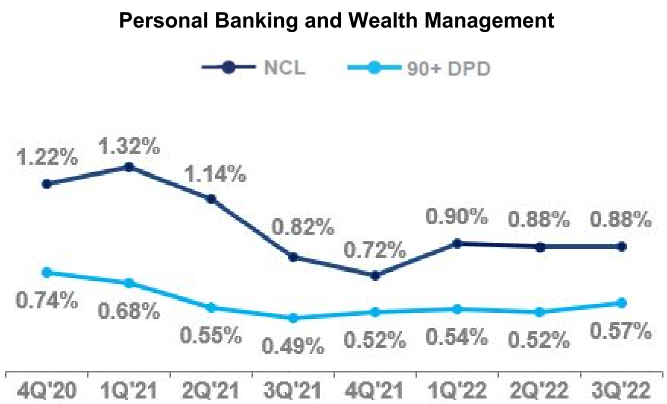
In billions of dollars		3Q21(2)		4Q21(2)		1Q22(2)		2Q22(2)		**3Q22(2)**
Personal Banking and Wealth Management										
U.S. Personal Banking										
Cards										
Branded cards	$	82.8	$	87.9	$	85.9	$	91.6	**$**	**93.7**
Retail services		42.7		46.0		44.1		45.8		**46.7**
Retail banking										
Mortgages(5)		30.5		30.2		30.5		32.3		**32.3**
Personal, small business and other		2.9		2.8		2.8		3.1		**3.5**
Global Wealth(3)(4)										
Cards		3.7		4.0		3.8		4.0		**4.0**
Mortgages(5)		73.9		74.6		75.4		77.8		**82.0**
Personal, small business and other(6)		72.7		72.7		71.0		67.0		**65.1**
Total	**$**	**309.2**	**$**	**318.2**	**$**	**313.5**	**$**	**321.6**	**$**	**327.3**
Legacy Franchises										
Asia Consumer(7)	$	42.9	$	41.1	$	19.5	$	17.3	**$**	**13.4**
Mexico Consumer (excludes Mexico SBMM)		13.0		13.3		13.6		13.5		**13.7**
Legacy Holdings Assets(8)		4.2		3.9		3.7		3.2		**3.2**
Total	**$**	**60.1**	**$**	**58.3**	**$**	**36.8**	**$**	**34.0**	**$**	**30.3**
Total consumer loans	**$**	**369.3**	**$**	**376.5**	**$**	**350.3**	**$**	**355.6**	**$**	**357.6**

(1) End-of-period loans include interest and fees on credit cards.
(2) *Legacy Franchises*—3Q22 Asia Consumer loan balances exclude approximately $17 billion of loans ($12 billion of retail banking loans and $5 billion of credit card loan balances) reclassified to held-for-sale (HFS) (*Other assets* on the Consolidated Balance Sheet) as a result of Citi's signed agreements to sell its consumer banking businesses in seven countries (see *Legacy Franchises* above and Note 2 for additional information). Indonesia, Malaysia, Thailand, Vietnam, Taiwan, India and Bahrain consumer banking businesses were reclassified to HFS starting 1Q22. In addition, the Australia consumer banking business was reclassified to HFS from 3Q21 until the closing of its sale on June 1, 2022; and the Philippines consumer banking business was reclassified to HFS from 4Q21 until the closing of its sale on August 1, 2022. Accordingly, loans from these sold businesses are excluded from the Asia Consumer loan balances as of the end of such periods.
(3) Consists of $99.3 billion, $94.6 billion, $94.1 billion, $92.7 billion and $92.0 billion of loans in North America as of September 30, 2022, June 30, 2022, March 31, 2022, December 31, 2021 and September 30, 2021, respectively. For additional information on the credit quality of the Global Wealth portfolio, see Note 13.
(4) Consists of $51.8 billion, $54.2 billion, $56.1 billion, $58.6 billion and $58.3 billion of loans outside North America as of September 30, 2022, June 30, 2022, March 31, 2022, December 31, 2021 and September 30, 2021, 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 September 30, 2022, includes approximately $53 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 95% 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)

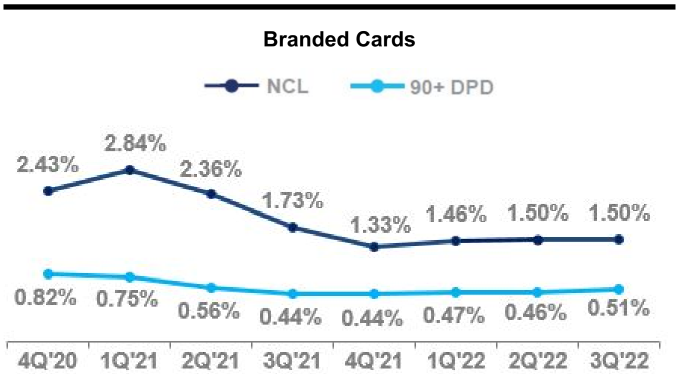


As indicated above, *PBWM* consists of U.S. Personal Banking and Global Wealth Management (Global Wealth). U.S. Personal Banking provides cards products through Branded cards and Retail services, and mortgages and home equity, small business and personal consumer loans through Citi's Retail banking network.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

As of September 30, 2022, approximately 40% 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 represent approximately 90% of total *PBWM* losses.

As shown in the chart above, the third quarter of 2022 net credit loss rate in *PBWM* was unchanged quarter-over-quarter and increased year-over-year, driven by an 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 an 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 third quarter of 2022 net credit loss rate in Branded cards was unchanged quarter-over-quarter and decreased year-over-year, primarily reflecting the continued impact of high payment rates, driven by lasting effects of government stimulus, unemployment benefits and consumer relief programs.

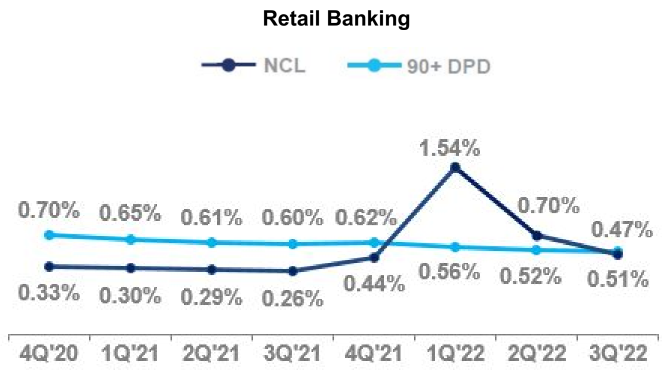
The 90+ days past due delinquency rate increased quarter-over-quarter and year-over year, driven by a modest increase in net flow rates, primarily reflecting the ongoing normalization.

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 third quarter of 2022 net credit loss rate in Retail services increased quarter-over-quarter and year-over-year, driven by an increase in net flow rates, primarily reflecting the ongoing normalization from historically low levels.

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

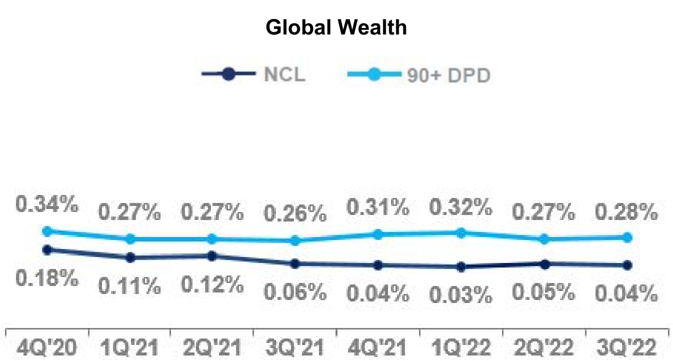
For additional information on cost of credit, delinquency and other information for Citi's cards portfolios, see each respective business's results of operations above and Note 13.



U.S. Personal Banking's Retail banking portfolio consists primarily of consumer mortgages and other 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 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 third quarter of 2022 decreased quarter-over-quarter, due to industry-wide episodic overdraft losses in the first half of the year, but increased year-over-year, primarily driven by the lingering impact of the episodic losses.

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.



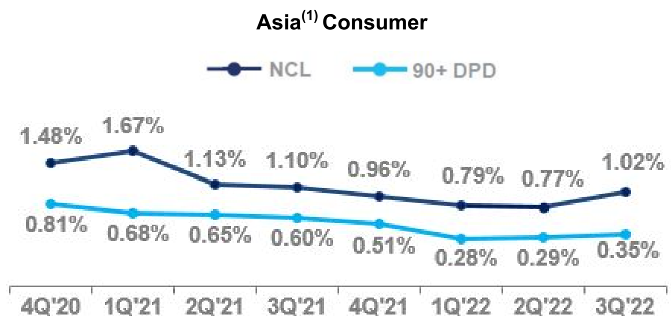
As discussed above, the Global Wealth credit portfolio primarily consists of consumer mortgages, cards and other lending products extended to customer segments that range from the affluent to ultra-high-net-worth through the Private bank, Citigold and Wealth at Work. These customer segments represent a target market that is characterized by historically low default rates and delinquencies.

As of September 30, 2022, approximately $53 billion, or 35%, 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 95% 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 and 90+ days past due delinquency rate for the third quarter of 2022 were broadly stable quarter-over-quarter and year-over-year, reflecting 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.



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

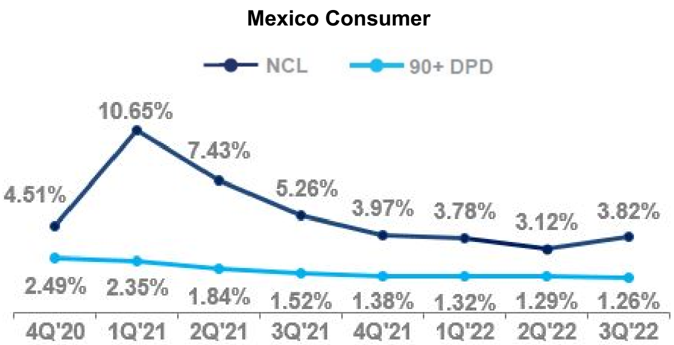
As of September 30, 2022, Asia Consumer operated in the remaining 11 countries in Asia and EMEA (Australia and the Philippines were included until sold on June 1, 2022 and August 1, 2022, respectively) and provides credit cards, consumer mortgages and small business and personal loans.

As shown in the chart above, the net credit loss rate in Asia Consumer for the third quarter of 2022 increased quarter-over-quarter, primarily driven by lower average loans in Korea (decline of $2.6 billion) due to the continued wind-down of the business. The net credit loss rate decreased year-over-year, primarily driven by the impact of the charge-off of peak delinquent loans in early 2021, which resulted in lower delinquencies, leading to lower net credit losses in the current quarter. The year-over-year decrease was also driven by the reclassification of loans to held-for-sale during the third quarter of 2021 or thereafter (including approximately $12 billion of retail banking loans and $5 billion of credit card loan balances for the third quarter of 2022), as a result of Citi's signing of sale agreements for the Philippines, Bahrain, India, Indonesia, Malaysia, Taiwan, Thailand and Vietnam consumer banking businesses.

The 90+ days past due delinquency rate increased quarter-over-quarter, primarily driven by lower end-of-period loans in Korea (decline of $3.3 billion) due to the continued wind-down of the business, and decreased year-over-year, mainly driven by the impact of the Asia held-for-sale reclassification and the charge-off of peak delinquencies.

The performance of Asia Consumer's portfolios continues to reflect the strong credit profiles in the region's target customer segments. Regulatory changes in many markets in

Asia over the past few years have also resulted in improved credit quality.



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 third quarter of 2022 net credit loss rate in Mexico Consumer increased quarter-over-quarter, largely driven by higher episodic mortgage recoveries in the second quarter of 2022, and decreased year-over-year, primarily driven by the impact of the charge-off of peak delinquencies in early 2021, which resulted in lower delinquencies, leading to lower net credit losses in the current quarter.

The 90+ days past due delinquency rate decreased quarter-over-quarter and year-over-year, primarily driven by the impact of the charge-off of peak delinquencies and higher payment rates.

For additional information on cost of credit, loan delinquency and other information for Citi's consumer loan portfolios, see *PBWM* and *Legacy Franchises* 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)	September 30, 2022	June 30, 2022	September 30, 2021
> 760	**48 %**	49 %	48 %
680–760	**38**	38	39
< 680	**14**	13	13
Total	**100 %**	100 %	100 %

Retail Services

FICO distribution(1)	September 30, 2022	June 30, 2022	September 30, 2021
> 760	**27 %**	28 %	27 %
680–760	**43**	43	45
< 680	**30**	29	28
Total	**100 %**	100 %	100 %

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

The FICO distribution of both cards portfolios remained largely unchanged from the prior quarter and the prior year. 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, as well as lower credit utilization primarily by customers with lower FICO scores. See Note 13 for additional information on FICO scores.

Additional Consumer Credit Details

Consumer Loan Delinquencies Amounts and Ratios

	EOP loans[1]	90+ days past due[2]			30–89 days past due[2]		
In millions of dollars, except EOP loan amounts in billions	**September 30, 2022**	**September 30, 2022**	June 30, 2022	September 30, 2021	**September 30, 2022**	June 30, 2022	September 30, 2021
Personal Banking and Wealth Management[3][4][5]							
Total	**$ 327.3**	**$ 1,557**	$1,383	$ 1,205	**$ 1,778**	$ 1,435	$ 1,355
Ratio		**0.57 %**	0.52 %	0.49 %	**0.65 %**	0.54 %	0.55 %
U.S. Personal Banking							
Total	**$ 176.2**	**$ 1,286**	$1,128	$ 974	**$ 1,474**	$ 1,201	$ 1,063
Ratio		**0.73 %**	0.66 %	0.62 %	**0.84 %**	0.70 %	0.68 %
Cards[4]							
Total	**140.4**	**1,105**	949	783	**1,269**	1,009	846
Ratio		**0.79 %**	0.69 %	0.62 %	**0.90 %**	0.73 %	0.67 %
Branded cards	**93.7**	**474**	420	362	**554**	428	375
Ratio		**0.51 %**	0.46 %	0.44 %	**0.59 %**	0.47 %	0.45 %
Retail services	**46.7**	**631**	529	421	**715**	581	471
Ratio		**1.35 %**	1.16 %	0.99 %	**1.53 %**	1.27 %	1.10 %
Retail banking[3]	**35.8**	**181**	179	191	**205**	192	217
Ratio		**0.51 %**	0.52 %	0.60 %	**0.58 %**	0.55 %	0.68 %
Global Wealth delinquency-managed loans[5]	**$ 97.8**	**$ 271**	$ 255	$ 231	**$ 304**	$ 234	$ 292
Ratio		**0.28 %**	0.27 %	0.26 %	**0.31 %**	0.25 %	0.32 %
Global Wealth classifiably managed loans[6]	**$ 53.3**	**N/A**	N/A	N/A	**N/A**	N/A	N/A
Legacy Franchises							
Total	**$ 30.3**	**$ 375**	$ 393	$ 677	**$ 299**	$ 293	$ 633
Ratio		**1.25 %**	1.16 %	1.13 %	**1.00 %**	0.87 %	1.06 %
Asia Consumer[7][8]	**13.4**	**47**	51	257	**63**	70	344
Ratio		**0.35 %**	0.29 %	0.60 %	**0.47 %**	0.40 %	0.80 %
Mexico Consumer	**13.7**	**173**	174	198	**169**	159	190
Ratio		**1.26 %**	1.29 %	1.52 %	**1.23 %**	1.18 %	1.46 %
Legacy Holdings Assets (consumer)[9]	**3.2**	**155**	168	222	**67**	64	99
Ratio		**5.34 %**	5.60 %	5.84 %	**2.31 %**	2.13 %	2.61 %
Total Citigroup consumer	**$ 357.6**	**$ 1,932**	$1,776	$ 1,882	**$ 2,077**	$ 1,728	$ 1,988
Ratio		**0.64 %**	0.59 %	0.61 %	**0.68 %**	0.58 %	0.65 %

(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 $96 million ($0.6 billion), $119 million ($0.7 billion) and $146 million ($1.5 billion) at September 30, 2022, June 30, 2022 and September 30, 2021, respectively. The amounts excluded for loans 30–89 days past due (the 30–89 days past due EOP loans have the same adjustments as the 90+ days past due EOP loans) were $67 million, $72 million and $78 million at September 30, 2022, June 30, 2022 and September 30, 2021, respectively. The EOP loans in the table include the guaranteed loans.
(4) The 90+ days past due balances for Branded cards and Retail services are generally still accruing interest. Citi's policy is generally to accrue interest on credit card loans until 180 days past due, unless a 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 September 30, 2022, June 30, 2022 and September 30, 2021, 95%, 94% and 93% 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 recently 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: Australia (3Q21, and closed on June 1, 2022), the Philippines (4Q21, and closed on August 1, 2022) and Bahrain, India, Indonesia, Malaysia, Taiwan, Thailand and Vietnam (1Q22). 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 $95 million ($0.3 billion), $84 million ($0.2 billion) and $138 million ($0.4 billion) at September 30, 2022, June 30, 2022 and September 30, 2021, respectively. The amounts excluded for loans 30–89 days past due (the 30–89 days past due EOP loans have the same adjustments as the 90+ days past due EOP loans) were $31 million, $27 million and $42 million at September 30, 2022, June 30, 2022 and September 30, 2021, 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	**3Q22**	**3Q22**	2Q22	3Q21
Personal Banking and Wealth Management[2]				
Total	**$ 324.6**	**$ 723**	$ 699	$ 641
Ratio		**0.88 %**	0.88 %	0.82 %
U.S. Personal Banking				
Total	**$ 174.0**	**$ 706**	$ 679	$ 617
Ratio		**1.61 %**	1.63 %	1.55 %
Cards				
Total	**137.9**	**663**	619	595
Ratio		**1.91 %**	1.87 %	1.90 %
Branded cards	**91.8**	**348**	329	357
Ratio		**1.50 %**	1.50 %	1.73 %
Retail services	**46.1**	**315**	290	238
Ratio		**2.71 %**	2.60 %	2.23 %
Retail banking	**36.1**	**43**	60	22
Ratio		**0.47 %**	0.70 %	0.26 %
Global Wealth	**$ 150.6**	**$ 17**	$ 20	$ 24
Ratio		**0.04 %**	0.05 %	0.06 %
Legacy Franchises				
Total	**$ 31.8**	**$ 158**	$ 128	$ 281
Ratio		**1.97 %**	1.45 %	1.73 %
Asia Consumer[3][4]	**15.2**	**39**	35	129
Ratio		**1.02 %**	0.77 %	1.10 %
Mexico Consumer	**13.5**	**130**	105	175
Ratio		**3.82 %**	3.12 %	5.26 %
Legacy Holdings Assets (consumer)	**3.1**	**(11)**	(12)	(23)
Ratio		**(1.41)%**	(1.34)%	(1.94)%
Total Citigroup	**$ 356.4**	**$ 881**	$ 827	$ 922
Ratio		**0.98 %**	0.94 %	0.98 %

(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, Poland and Bahrain) for all periods presented.
(4) Citi recently 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 $34 million, $50 million and $5 million in related net credit losses (NCLs) were recorded as a reduction in revenue (*Other revenue*) in 3Q22, 2Q22 and 3Q21, respectively. Accordingly, these NCLs are not included in this table. The reclassifications commenced as follows: Australia (3Q21, and closed on June 1, 2022), the Philippines (4Q21, and closed on August 1, 2022) and Bahrain, India, Indonesia, Malaysia, Taiwan, Thailand and Vietnam (1Q22). See Note 2 for additional information.

ADDITIONAL CONSUMER AND CORPORATE CREDIT DETAILS

Loans Outstanding

In millions of dollars	**3rd Qtr. 2022**	2nd Qtr. 2022	1st Qtr. 2022	4th Qtr. 2021	3rd Qtr. 2021
Consumer loans					
In North America offices[1]					
Residential first mortgages[2]	**$ 93,381**	$ 88,662	$ 84,569	$ 83,361	$ 83,593
Home equity loans[2]	**4,794**	5,074	5,328	5,745	6,194
Credit cards	**140,404**	137,412	129,989	133,868	125,526
Personal, small business and other	**40,110**	39,436	41,297	40,713	39,909
Total	**$ 278,689**	$ 270,584	$ 261,183	$ 263,687	$ 255,222
In offices outside North America[1]					
Residential mortgages[2]	**$ 27,281**	$ 28,129	$ 29,017	$ 37,889	$ 46,920
Credit cards	**11,764**	11,858	11,546	17,808	17,763
Personal, small business and other	**39,849**	45,034	48,582	57,150	49,387
Total	**$ 78,894**	$ 85,021	$ 89,145	$ 112,847	$ 114,070
Consumer loans, net of unearned income[3]	**$ 357,583**	$ 355,605	$ 350,328	$ 376,534	$ 369,292
Corporate loans					
In North America offices[1]					
Commercial and industrial	**$ 52,990**	$ 55,823	$ 54,063	$ 48,364	$ 52,988
Financial institutions	**43,667**	46,088	47,930	49,804	44,172
Mortgage and real estate[2]	**17,762**	17,359	17,536	15,965	16,422
Installment and other	**21,222**	20,466	18,812	20,143	16,944
Lease financing	**383**	379	379	415	425
Total	**$ 136,024**	$ 140,115	$ 138,720	$ 134,691	$ 130,951
In offices outside North America[1]					
Commercial and industrial	**$ 100,570**	$ 108,274	$ 112,732	$ 102,735	$ 105,124
Financial institutions	**23,604**	24,654	27,657	22,158	25,013
Mortgage and real estate[2]	**4,005**	4,455	4,705	4,374	4,749
Installment and other	**19,653**	19,862	21,275	22,812	25,277
Lease financing	**48**	53	47	40	47
Governments and official institutions	**4,473**	4,315	4,205	4,423	4,311
Total	**$ 152,353**	$ 161,613	$ 170,621	$ 156,542	$ 164,521
Corporate loans, net of unearned income[4]	**$ 288,377**	$ 301,728	$ 309,341	$ 291,233	$ 295,472
Total loans—net of unearned income	**$ 645,960**	$ 657,333	$ 659,669	$ 667,767	$ 664,764
Allowance for credit losses on loans (ACLL)	**(16,309)**	(15,952)	(15,393)	(16,455)	(17,715)
Total loans—net of unearned income and ACLL	**$ 629,651**	$ 641,381	$ 644,276	$ 651,312	$ 647,049
ACLL as a percentage of total loans—net of unearned income[5]	**2.54 %**	2.44 %	2.35 %	2.49 %	2.69 %
ACLL for consumer loan losses as a percentage of total consumer loans—net of unearned income[5]	**3.74 %**	3.65 %	3.53 %	3.73 %	4.09 %
ACLL for corporate loan losses as a percentage of total corporate loans—net of unearned income[5]	**1.04 %**	1.00 %	1.00 %	0.85 %	0.91 %

(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 $671 million, $631 million, $591 million, $629 million and $616 million at September 30, 2022, June 30, 2022, March 31, 2022, December 31, 2021 and September 30, 2021, 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 $(750) million, $(759) million, $(766) million, $(770) million and $(798) million at September 30, 2022, June 30, 2022, March 31, 2022, December 31, 2021 and September 30, 2021, 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	3rd Qtr. 2022	2nd Qtr. 2022	1st Qtr. 2022	4th Qtr. 2021	3rd Qtr. 2021
Allowance for credit losses on loans (ACLL) at beginning of period	**$ 15,952**	$ 15,393	$ 16,455	$ 17,715	$ 19,238
Provision for credit losses on loans (PCLL)					
Consumer	**$ 1,281**	$ 1,440	$ (372)	$ (202)	$ (180)
Corporate	**47**	(56)	632	(108)	(8)
Total	**$ 1,328**	$ 1,384	$ 260	$ (310)	$ (188)
Gross credit losses on loans					
Consumer					
In U.S. offices	**$ 946**	$ 934	$ 947	$ 802	$ 893
In offices outside the U.S.	**248**	221	245	360	449
Corporate					
In U.S. offices	**8**	21	29	27	17
In offices outside the U.S.	**35**	36	19	90	30
Total	**$ 1,237**	$ 1,212	$ 1,240	$ 1,279	$ 1,389
Gross recoveries on loans					
Consumer					
In U.S. offices	**$ 252**	$ 265	$ 293	$ 273	$ 299
In offices outside the U.S.	**61**	63	58	108	121
Corporate					
In U.S. offices	**34**	2	13	8	5
In offices outside the U.S.	**3**	32	4	24	3
Total	**$ 350**	$ 362	$ 368	$ 413	$ 428
Net credit losses on loans (NCLs)					
In U.S. offices	**$ 668**	$ 688	$ 670	$ 548	$ 606
In offices outside the U.S.	**219**	162	202	318	355
Total	**$ 887**	$ 850	$ 872	$ 866	$ 961
Other—net(1)(2)(3)(4)(5)(6)	**$ (84)**	$ 25	$ (450)	$ (84)	$ (374)
Allowance for credit losses on loans (ACLL) at end of period	**$ 16,309**	$ 15,952	$ 15,393	$ 16,455	$ 17,715
ACLL as a percentage of EOP loans(7)	**2.54 %**	2.44 %	2.35 %	2.49 %	2.69 %
Allowance for credit losses on unfunded lending commitments (ACLUC)(8)	**$ 2,089**	$ 2,193	$ 2,343	$ 1,871	$ 2,063
Total ACLL and ACLUC	**$ 18,398**	$ 18,145	$ 17,736	$ 18,326	$ 19,778
Net consumer credit losses on loans	**$ 881**	$ 827	$ 841	$ 781	$ 922
As a percentage of average consumer loans	**0.98 %**	0.94 %	0.97 %	0.83 %	0.98 %
Net corporate credit losses on loans	**$ 6**	$ 23	$ 31	$ 85	$ 39
As a percentage of average corporate loans	**0.01 %**	0.03 %	0.04 %	0.11 %	0.05 %
ACLL by type at end of period(9)					
Consumer	**$ 13,361**	$ 12,983	$ 12,368	$ 14,040	$ 15,105
Corporate	**2,948**	2,969	3,025	2,415	2,610
Total	**$ 16,309**	$ 15,952	$ 15,393	$ 16,455	$ 17,715

(1) 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.
(2) The third quarter of 2022 includes a decrease of approximately $84 million related to FX translation.
(3) The second quarter of 2022 includes an increase of approximately $25 million related to FX translation.
(4) 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.
(5) The fourth quarter of 2021 includes an approximate $90 million reclass related to the announced sale of Citi's consumer banking operations in the Philippines. The ACLL was reclassified to *Other assets* during 4Q21. 4Q21 consumer also includes a decrease of approximately $6 million related to FX translation.
(6) The third quarter of 2021 includes an approximate $280 million reclass related to the announced sale of Citi's consumer banking business in Australia. The ACLL was reclassified to *Other assets* during 3Q21. 3Q21 consumer also includes a decrease of approximately $80 million related to FX translation.

(7) September 30, 2022, June 30, 2022, March 31, 2022, December 31, 2021 and September 30, 2021 exclude $3.9 billion, $4.5 billion, $5.7 billion, $6.1 billion and $7.2 billion, respectively, of loans that are carried at fair value.
(8) Represents additional credit reserves recorded as *Other liabilities* on the Consolidated Balance Sheet.
(9) 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:

	September 30, 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]	**$ 10.6**	**$ 140.4**	**7.5 %**
North America mortgages[3]	**0.2**	**97.9**	**0.2**
North America other[3]	**0.8**	**40.1**	**2.0**
International cards	**0.9**	**11.8**	**7.6**
International other[3]	**0.9**	**67.2**	**1.3**
Total[1]	**$ 13.4**	**$ 357.4**	**3.7 %**
Corporate			
Commercial and industrial	**$ 2.0**	**$ 151.6**	**1.3 %**
Financial institutions	**0.3**	**66.9**	**0.4**
Mortgage and real estate	**0.4**	**21.7**	**1.8**
Installment and other	**0.2**	**44.5**	**0.4**
Total[1]	**$ 2.9**	**$ 284.7**	**1.0 %**
Loans at fair value[1]	**N/A**	**$ 3.9**	**N/A**
Total Citigroup	**$ 16.3**	**$ 646.0**	**2.5 %**

	December 31, 2021		
In billions of dollars	ACLL	EOP loans, net of unearned income	ACLL as a percentage of EOP loans[1]
Consumer			
North America cards[2]	$ 10.8	$ 133.9	8.1 %
North America mortgages[3]	0.5	89.1	0.6
North America other[3]	0.4	40.7	1.0
International cards	1.2	17.8	6.7
International other[3]	1.2	95.0	1.3
Total[1]	$ 14.1	$ 376.5	3.7 %
Corporate			
Commercial and industrial	$ 1.6	$ 147.0	1.1 %
Financial institutions	0.3	71.8	0.4
Mortgage and real estate	0.3	20.3	1.5
Installment and other	0.2	46.1	0.4
Total[1]	$ 2.4	$ 285.2	0.8 %
Loans at fair value[1]	N/A	$ 6.1	N/A
Total Citigroup	$ 16.5	$ 667.8	2.5 %

(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 September 30, 2022, the $10.6 billion of ACLL represented approximately 48 months of coincident net credit loss coverage. As of September 30, 2022, Branded cards ACLL as a percentage of EOP loans was 6.2% and Retail services ACLL as a percentage of EOP loans was 10.1%. As of December 31, 2021, the $10.8 billion of loan loss reserves represented approximately 63 months of coincident net credit loss coverage. The decrease in the coincident coverage ratio at September 30, 2022 was primarily due to the relatively higher levels of NCLs during the third quarter of 2022. As of December 31, 2021, Branded cards ACLL as a percentage of EOP loans was 7.1% and Retail services ACLL as a percentage of EOP loans was 10.0%.
(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	September 30, 2022 Funded exposure(1)	ACLL	ACLL as a % of funded exposure
Transportation and industrials	$ 52,978	$ 734	1.4 %
Technology, media and telecom	30,164	354	1.2
Consumer retail	32,305	327	1.0
Real estate	45,582	493	1.1
Power, chemicals, metals and mining	18,611	366	2.0
Banks and finance companies	38,537	248	0.6
Energy and commodities	14,628	186	1.3
Asset managers and funds	20,988	28	0.1
Health	8,865	73	0.8
Insurance	3,350	10	0.3
Public sector	12,982	52	0.4
Financial markets infrastructure	57	—	—
Securities firms	797	21	2.6
Other industries	4,464	48	1.1
Total classifiably managed loans(2)	$ 284,308	$ 2,940	1.0 %
Loans managed on a delinquency basis(3)	$ 431	$ 7	1.6 %
Total	$ 284,739	$ 2,947	1.0 %

(1) Funded exposure excludes loans carried at fair value of $3.6 billion that are not subject to ACLL under the CECL standard.
(2) As of September 30, 2022, the ACLL shown above reflects coverage of 0.4% of funded investment-grade exposure and 3.2% of funded non-investment-grade exposure.
(3) Primarily associated with delinquency-managed loans including commercial credit cards and other loans, and unearned income at September 30, 2022.

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

In millions of dollars, except percentages	December 31, 2021 Funded exposure(1)	ACLL	ACLL as a % of funded exposure
Transportation and industrials	$ 51,502	$ 597	1.2 %
Technology, media and telecom	28,542	170	0.6
Consumer retail	32,894	288	0.9
Real estate	46,220	509	1.1
Power, chemicals, metals and mining	20,224	151	0.7
Banks and finance companies	36,804	197	0.5
Energy and commodities	13,485	268	2.0
Asset managers and funds	26,879	34	0.1
Health	8,826	73	0.8
Insurance	3,162	8	0.3
Public sector	12,464	74	0.6
Financial markets infrastructure	109	—	—
Securities firms	613	10	1.6
Other industries	2,803	28	1.0
Total classifiably managed loans(2)	$ 284,527	$ 2,407	0.8 %
Loans managed on a delinquency basis(3)	$ 636	$ 8	1.3 %
Total	$ 285,163	$ 2,415	0.8 %

(1) Funded exposure excludes loans carried at fair value of $6.1 billion that are not subject to ACLL under the CECL standard.
(2) As of December 31, 2021, the ACLL shown above reflects coverage of 0.7% of funded investment-grade exposure and 2.3% 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, 2021.

Non-Accrual Loans and Assets and Renegotiated Loans
For additional information on Citi's non-accrual loans and assets and renegotiated loans, see "Non-Accrual Loans and Assets and Renegotiated Loans" in Citi's 2021 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	**Sept. 30, 2022**	Jun. 30, 2022	Mar. 31, 2022	Dec. 31, 2021	Sept. 30, 2021
Corporate non-accrual loans by region(1)(2)(3)					
North America	**$ 276**	$ 304	$ 462	$ 510	$ 923
EMEA	**598**	712	688	367	407
Latin America	**555**	563	631	568	679
Asia	**56**	76	85	108	110
Total	**$ 1,485**	$ 1,655	$ 1,866	$ 1,553	$ 2,119
Corporate non-accrual loans(1)(2)(3)					
Banking	**$ 1,085**	$ 1,015	$ 1,323	$ 1,239	$ 1,739
Services	**185**	353	297	70	74
Markets	**—**	11	13	12	13
Mexico SBMM	**215**	276	233	232	293
Total	**$ 1,485**	$ 1,655	$ 1,866	$ 1,553	$ 2,119
Consumer non-accrual loans(1)					
U.S. Personal Banking and Global Wealth	**$ 585**	$ 536	$ 586	$ 680	$ 637
Asia Consumer(4)	**30**	34	38	209	259
Mexico Consumer	**486**	493	512	524	549
Legacy Holdings Assets—Consumer	**300**	317	381	413	425
Total	**$ 1,401**	$ 1,380	$ 1,517	$ 1,826	$ 1,870
Total non-accrual loans	**$ 2,886**	$ 3,035	$ 3,383	$ 3,379	$ 3,989

(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 68%, 52%, 66%, 56% and 58% of Citi's corporate non-accrual loans were performing at September 30, 2022, June 30, 2022, March 31, 2022, December 31, 2021 and September 30, 2021, respectively.
(3) The September 30, 2022 total corporate non-accrual loans represented 0.51% of total corporate loans.
(4) Asia Consumer includes balances in certain EMEA countries for all periods presented.

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

In millions of dollars	Three Months Ended September 30, 2022			Three Months Ended September 30, 2021		
	Corporate	**Consumer**	**Total**	Corporate	Consumer	Total
Non-accrual loans at beginning of quarter	**$ 1,655**	**$ 1,380**	**$ 3,035**	$ 2,250	$ 2,132	$ 4,382
Additions	**372**	**417**	**789**	318	501	819
Sales and transfers to HFS	**(15)**	**(4)**	**(19)**	(26)	(55)	(81)
Returned to performing	**(41)**	**(68)**	**(109)**	(13)	(195)	(208)
Paydowns/settlements	**(442)**	**(130)**	**(572)**	(344)	(254)	(598)
Charge-offs	**(43)**	**(168)**	**(211)**	(45)	(229)	(274)
Other	**(1)**	**(26)**	**(27)**	(21)	(30)	(51)
Ending balance	**$ 1,485**	**$ 1,401**	**$ 2,886**	$ 2,119	$ 1,870	$ 3,989

In millions of dollars	Nine Months Ended September 30, 2022			Nine Months Ended September 30, 2021		
	Corporate	**Consumer**	**Total**	Corporate	Consumer	Total
Non-accrual loans at beginning of year	**$ 1,553**	**$ 1,826**	**$ 3,379**	$ 3,046	$ 2,622	$ 5,668
Additions	**1,913**	**1,060**	**2,973**	1,222	1,798	3,020
Sales and transfers to HFS	**(21)**	**(228)**	**(249)**	(521)	(248)	(769)
Returned to performing	**(294)**	**(324)**	**(618)**	(125)	(605)	(730)
Paydowns/settlements	**(1,511)**	**(425)**	**(1,936)**	(1,122)	(630)	(1,752)
Charge-offs	**(148)**	**(463)**	**(611)**	(362)	(1,026)	(1,388)
Other	**(7)**	**(45)**	**(52)**	(19)	(41)	(60)
Ending balance	**$ 1,485**	**$ 1,401**	**$ 2,886**	$ 2,119	$ 1,870	$ 3,989

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	**Sept. 30, 2022**	Jun. 30, 2022	Mar. 31, 2022	Dec. 31, 2021	Sept. 30, 2021
OREO					
North America	**$ 9**	$ 7	$ 14	$ 15	$ 10
EMEA	**—**	—	—	—	—
Latin America	**5**	5	7	8	10
Asia	**2**	1	5	4	1
Total OREO	**$ 16**	$ 13	$ 26	$ 27	$ 21
Non-accrual assets					
Corporate non-accrual loans	**$ 1,485**	$ 1,655	$ 1,866	$ 1,553	$ 2,119
Consumer non-accrual loans	**1,401**	1,380	1,517	1,826	1,870
Non-accrual loans (NAL)	**$ 2,886**	$ 3,035	$ 3,383	$ 3,379	$ 3,989
OREO	**$ 16**	$ 13	$ 26	$ 27	$ 21
Non-accrual assets (NAA)	**$ 2,902**	$ 3,048	$ 3,409	$ 3,406	$ 4,010
NAL as a percentage of total loans	**0.45 %**	0.46 %	0.51 %	0.51 %	0.60 %
NAA as a percentage of total assets	**0.12**	0.13	0.14	0.15	0.17
ACLL as a percentage of NAL(1)	**565 %**	526 %	455 %	487 %	444 %

(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).

Renegotiated Loans

The following table presents Citi's loans modified in TDRs:

In millions of dollars		**Sept. 30, 2022**		Dec. 31, 2021
Corporate renegotiated loans[1]				
In U.S. offices				
Commercial and industrial[2]	**$**	**69**	$	103
Mortgage and real estate		**2**		2
Financial institutions		**—**		—
Other		**13**		20
Total	**$**	**84**	$	125
In offices outside the U.S.				
Commercial and industrial[2]	**$**	**45**	$	133
Mortgage and real estate		**12**		18
Financial institutions		**—**		—
Other		**9**		8
Total	**$**	**66**	$	159
Total corporate renegotiated loans	**$**	**150**	$	284
Consumer renegotiated loans[3]				
In U.S. offices				
Mortgage and real estate	**$**	**1,345**	$	1,485
Cards		**1,143**		1,269
Installment and other		**20**		26
Total	**$**	**2,508**	$	2,780
In offices outside the U.S.				
Mortgage and real estate	**$**	**147**	$	227
Cards		**69**		313
Installment and other		**94**		428
Total	**$**	**310**	$	968
Total consumer renegotiated loans	**$**	**2,818**	$	3,748

(1) Includes $150 million and $284 million of non-accrual loans included in the non-accrual loans table above at September 30, 2022 and December 31, 2021, respectively.

(2) In addition to modifications reflected as TDRs at September 30, 2022 and December 31, 2021, Citi may have modifications that were not considered TDRs because the modifications did not involve a concession or because they qualified for exemptions from TDR accounting provided by the CARES Act or the interagency guidance.

(3) Includes $555 million and $664 million of non-accrual loans included in the non-accrual loans table above at September 30, 2022 and December 31, 2021, respectively. The remaining loans were accruing interest.

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 2021 Form 10-K.

High-Quality Liquid Assets (HQLA)

	Citibank			Citi non-bank and other entities			Total		
In billions of dollars	**Sept. 30, 2022**	Jun. 30, 2022	Sept. 30, 2021	**Sept. 30, 2022**	Jun. 30, 2022	Sept. 30, 2021	**Sept. 30, 2022**	Jun. 30, 2022	Sept. 30, 2021
Available cash	**$ 202.2**	$ 188.1	$ 255.1	**$ 2.1**	$ 1.7	$ 3.5	**$ 204.3**	$ 189.8	$ 258.6
U.S. sovereign	**144.6**	149.4	108.9	**69.4**	55.4	64.3	**214.0**	204.8	173.2
U.S. agency/agency MBS	**52.5**	54.4	45.3	**4.7**	4.6	6.0	**57.2**	59.0	51.3
Foreign government debt(1)	**63.3**	60.4	50.2	**15.7**	13.9	11.2	**79.0**	74.3	61.4
Other investment grade	**2.0**	2.0	1.7	**0.6**	1.3	0.3	**2.6**	3.3	2.0
Total HQLA (AVG)	**$ 464.6**	$ 454.3	$ 461.2	**$ 92.5**	$ 76.9	$ 85.3	**$ 557.1**	$ 531.2	$ 546.5

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, Singapore, Korea and Hong Kong.

The table above includes average amounts of HQLA held at Citigroup's operating entities that are eligible for inclusion in the calculation of Citigroup's consolidated Liquidity Coverage ratio (LCR), pursuant to the U.S. LCR rules. These amounts include the HQLA needed to meet the minimum requirements at these entities as well as any amounts in excess of these minimums that are available to be transferred to other entities within Citigroup. Citigroup's average HQLA for the third quarter of 2022 increased quarter-over-quarter, primarily driven by an increase in unsecured wholesale funding.

As of September 30, 2022, Citigroup had approximately $967 billion of available liquidity resources to support client and business needs, including end-of-period 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.

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	**Sept. 30, 2022**	Jun. 30, 2022	Sept. 30, 2021
HQLA	**$ 557.1**	$ 531.2	$ 546.5
Net outflows	**477.0**	460.2	474.8
LCR	**117 %**	115 %	115 %
HQLA in excess of net outflows	**$ 80.1**	$ 71.0	$ 71.7

Note: The amounts are presented on an average basis.

As of September 30, 2022, Citigroup's average LCR increased from the quarter ended June 30, 2022. The increase was primarily driven by an increase in average HQLA, partially offset by an increase in net outflows.

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

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

The final rule became effective on July 1, 2021, while public disclosure requirements to report the ratio will occur on a semiannual basis beginning June 30, 2023. Citi was in compliance with the final rule as of September 30, 2022.

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	**3Q22**	2Q22	3Q21
Personal Banking and Wealth Management			
U.S. Retail banking	**$ 36**	$ 34	$ 34
U.S. Cards	**138**	133	124
Global Wealth	**151**	150	151
Total	**$ 325**	$ 317	$ 309
Institutional Clients Group			
Services	**$ 82**	$ 85	$ 76
Banking	**197**	199	196
Markets	**12**	13	17
Total	**$ 291**	$ 297	$ 289
Total *Legacy Franchises*(1)	**$ 39**	$ 43	$ 71
Total Citigroup loans (AVG)	**$ 655**	$ 657	$ 669
Total Citigroup loans (EOP)	**$ 646**	$ 657	$ 665

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

End-of-period loans decreased 3% year-over-year, largely driven by the impact of foreign exchange translation and lower balances in *Legacy Franchises.* End-of-period loans declined 2% sequentially.

On an average basis, loans declined 2% year-over-year and were largely unchanged sequentially. The year-over-year decline was primarily due to the impact of foreign exchange translation and lower balances in *Legacy Franchises*, which more than offset growth in both *PBWM* and *ICG*. The decline in *Legacy Franchises* primarily reflected the reclassification of loans to *Other assets* to reflect held-for-sale accounting as a result of the signing of sale agreements for consumer franchises in Asia and EMEA, as well as the impact of the Korea wind-down. *PBWM* average loans increased 5% year-over-year, primarily driven by Branded cards and Retail services. *ICG* average loans increased 1% year-over-year, largely driven by trade finance in TTS.

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	**3Q22**	2Q22	3Q21
Personal Banking and Wealth Management			
U.S. Personal Banking	**$ 115**	$ 116	$ 114
Global Wealth	**313**	319	310
Total	**$ 428**	$ 435	$ 424
Institutional Clients Group			
TTS	**$ 664**	$ 665	$ 668
Securities services	**131**	137	135
Markets	**22**	28	28
Total	**$ 817**	$ 830	$ 831
Legacy Franchises(1)	**$ 50**	$ 51	$ 80
Corporate/Other	**$ 21**	$ 7	$ 8
Total Citigroup deposits (AVG)	**$ 1,316**	$ 1,323	$ 1,343
Total Citigroup deposits (EOP)	**$ 1,306**	$ 1,322	$ 1,348

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

End-of-period deposits decreased 3% year-over-year, largely driven by the impact of foreign exchange translation and lower balances in *Legacy Franchises.* End-of-period deposits decreased 1% sequentially.

On an average basis, deposits declined 2% year-over-year and were largely unchanged sequentially. The year-over-year decline primarily reflected the impact of foreign exchange translation and a decline in *Legacy Franchises*, partially offset by growth in *Corporate/Other*. The decline in *Legacy Franchises* was due to the impact of held-for-sale accounting as a result of the signing of sale agreements for consumer franchises in Asia and EMEA. *ICG* average deposits declined 2% year-over-year, driven by decreases in TTS, Securities services and Markets, largely reflecting the impact of foreign exchange translation. *PBWM* average deposits increased 1% year-over-year, driven by modest growth in both U.S. Personal Banking and Global Wealth. *Corporate/Other* average deposits increased $13 billion year-over-year due to the issuance of institutional certificates of deposit, as Citi continues to diversify its funding profile.

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 7.8 years as of September 30, 2022, compared to 8.6 years as of the prior year and 8.0 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	**Sept. 30, 2022**	Jun. 30, 2022	Sept. 30, 2021
Non-bank[(1)]			
Benchmark debt:			
Senior debt	**$ 112.7**	$ 120.3	$ 123.9
Subordinated debt	**22.4**	24.0	26.0
Trust preferred	**1.6**	1.6	1.7
Customer-related debt	**86.9**	84.9	74.7
Local country and other[(2)]	**7.0**	7.8	7.2
Total non-bank	**$ 230.6**	$ 238.6	$ 233.5
Bank			
FHLB borrowings	**$ 7.3**	$ 2.3	$ 5.8
Securitizations[(3)]	**8.4**	9.5	11.0
Citibank benchmark senior debt	**2.5**	2.6	3.6
Local country and other[(2)]	**4.3**	4.4	4.3
Total bank	**$ 22.5**	$ 18.8	$ 24.7
Total long-term debt	**$ 253.1**	$ 257.4	$ 258.2

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 September 30, 2022, non-bank included $71.4 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 declined 2% year-over-year, as declines in unsecured benchmark debt at both the bank and non-banking entities, as well as securitizations at the bank, were partially offset by the issuance of customer-related debt at the non-bank entities. Sequentially, long-term debt outstanding declined 2%, largely driven by a decline in senior debt at the non-bank entities, partially offset by an increase in FHLB borrowings at the bank.

As part of its liability management, Citi has considered, and may continue to consider, opportunities to redeem or repurchase its long-term debt pursuant to open market purchases, tender offers or other means. Such redemptions and repurchases help reduce Citi's overall funding costs. During the third quarter of 2022, Citi redeemed or repurchased an aggregate of approximately $9.8 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:

	3Q22		2Q22		3Q21	
In billions of dollars	**Maturities**	**Issuances**	Maturities	Issuances	Maturities	Issuances
Non-bank						
Benchmark debt:						
Senior debt	**$ 7.4**	**$ 4.7**	$ 3.5	$ 6.0	$ 2.8	$ 0.3
Subordinated debt	**0.9**	**—**	—	—	—	—
Trust preferred	**—**	**—**	—	—	—	—
Customer-related debt	**7.5**	**14.5**	5.0	21.8	6.9	9.8
Local country and other	**1.4**	**0.8**	0.3	0.4	0.6	1.3
Total non-bank	**$ 17.2**	**$ 20.0**	$ 8.8	$ 28.2	$ 10.3	$ 11.4
Bank						
FHLB borrowings	**$ —**	**$ 5.0**	$ 1.0	$ 2.3	$ 3.8	$ —
Securitizations	**1.1**	**—**	—	—	—	—
Citibank benchmark senior debt	**—**	**—**	0.9	—	—	—
Local country and other	**0.3**	**0.1**	0.6	0.1	0.5	1.0
Total bank	**$ 1.4**	**$ 5.1**	$ 2.5	$ 2.4	$ 4.3	$ 1.0
Total	**$ 18.6**	**$ 25.1**	$ 11.3	$ 30.6	$ 14.6	$ 12.4

The table below shows Citi's aggregate long-term debt maturities (including repurchases and redemptions) year-to-date in 2022, as well as its aggregate expected remaining long-term debt maturities by year as of September 30, 2022:

		Maturities							
In billions of dollars	**2022 YTD**	2022	2023	2024	2025	2026	2027	Thereafter	Total
Non-bank									
Benchmark debt:									
Senior debt	**$ 15.3**	$ —	$ 4.6	$ 10.3	$ 11.7	$ 22.9	$ 6.7	$ 56.5	$ 112.7
Subordinated debt	**0.9**	—	1.2	0.9	4.8	2.3	3.6	9.6	22.4
Trust preferred	**0.1**	—	—	—	—	—	—	1.6	1.6
Customer-related debt	**20.0**	2.8	16.2	13.1	11.8	5.3	7.4	30.3	86.9
Local country and other	**2.1**	0.3	2.9	—	—	0.7	—	3.1	7.0
Total non-bank	**$ 38.4**	$ 3.1	$ 24.9	$ 24.3	$ 28.3	$ 31.2	$ 17.7	$ 101.1	$ 230.6
Bank									
FHLB borrowings	**$ 5.3**	$ —	$ 4.3	$ 3.0	$ —	$ —	$ —	$ —	$ 7.3
Securitizations	**1.1**	0.8	3.4	1.3	0.4	—	0.8	1.7	8.4
Citibank benchmark senior debt	**0.9**	—	—	2.5	—	—	—	—	2.5
Local country and other	**1.3**	0.9	0.6	1.2	0.2	0.1	—	1.3	4.3
Total bank	**$ 8.6**	$ 1.7	$ 8.3	$ 8.0	$ 0.6	$ 0.1	$ 0.8	$ 3.0	$ 22.5
Total long-term debt	**$ 47.0**	$ 4.8	$ 33.2	$ 32.3	$ 28.9	$ 31.3	$ 18.5	$ 104.1	$ 253.1

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 to fund efficiently both (i) secured lending activity and (ii) a portion of the securities inventory held in the context of market making and customer activities. Citi also executes a smaller portion of its secured funding transactions through its bank entities, which are typically collateralized by government debt securities. Generally, daily 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 securities inventory.

Secured funding of $203 billion as of September 30, 2022 decreased 3% from the prior-year period and increased 2% sequentially, driven by normal business activity. The average balance for secured funding was approximately $207 billion for the quarter ended September 30, 2022.

The portion of secured funding in the broker-dealer subsidiaries that funds secured lending is commonly referred to as "matched book" activity. The majority of this activity is secured by high-quality liquid securities such as U.S. Treasury securities, U.S. agency securities and foreign government debt securities. Other secured funding 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 matched book assets.

The remainder of the secured funding activity in the broker-dealer subsidiaries serves to fund securities inventory held in the context of market making and customer activities. To maintain reliable funding under a wide range of market conditions, including under periods of stress, Citi manages these activities by taking into consideration the quality of the underlying collateral and establishing minimum required funding tenors. The weighted average maturity of Citi's secured funding of less liquid securities inventory was greater than 110 days as of September 30, 2022.

Citi manages the risks in its secured funding by conducting daily stress tests to account for changes in capacity, tenor, haircut, collateral profile and client actions. In addition, Citi maintains counterparty diversification by establishing concentration triggers and assessing counterparty reliability and stability under stress. Citi generally sources secured funding from more than 150 counterparties.

Short-Term Borrowings

Citi's short-term borrowings of $47 billion increased 60% year-over-year and 18% sequentially, reflecting an increase in FHLB advances and commercial paper issuance, as Citi continues to diversify its funding profile (see Note 16 for further information on Citigroup's and its affiliates' outstanding short-term borrowings).

Credit Ratings

While not included in the table below, the long-term and short-term ratings of Citigroup Global Markets Holdings Inc. (CGMHI) were A/A-1 at S&P Global Ratings and A+/F1 at Fitch as of September 30, 2022.

Ratings as of September 30, 2022

	Citigroup Inc.			Citibank, N.A.		
	Senior debt	**Commercial paper**	**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 Moody's, Fitch 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 2021 Form 10-K.

Citigroup Inc. and Citibank—Potential Derivative Triggers

As of September 30, 2022, 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 $0.6 billion, compared to $0.5 billion as of June 30, 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 September 30, 2022, 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 $0.8 billion, compared to $0.7 billion as of June 30, 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 September 30, 2022, 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 $1.4 billion, compared to $1.2 billion as of June 30, 2022 (see also Note 19). 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. As of September 30, 2022, Citibank had liquidity commitments of approximately $11.0 billion to consolidated asset-backed commercial paper conduits, compared to $9.0 billion as of June 30, 2022 (see Note 18 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 re-evaluate their deposit relationships with Citibank. This re-evaluation could result in clients adjusting their discretionary deposit levels or changing their depository institution, which could potentially reduce certain deposit levels at Citibank. However, Citi could choose to adjust pricing, offer alternative deposit products to its existing customers or seek to attract deposits from new customers, in addition to the mitigating actions referenced above.

MARKET RISK

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 2021 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 Treasury Risk Management, a second line of defense team reporting to the Treasury 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 level and/or shape of interest rate curves;
- Client behavior in response to changes in interest rate (e.g., mortgage prepayments, deposit betas); and
- Changes in maturity of instruments resulting from changes in 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 modelling and other factors.

During the third quarter of 2022, Citi transitioned its IRE analysis, employing enhanced 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 (see the table below for details).

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 VAR. It excludes impacts from any positions which are included in total trading and credit portfolio VAR.

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 Common Equity Tier 1 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 Common Equity Tier 1 Capital ratio) relative to Citi's capital generation capacity.

The following table presents the 12-month estimated impact to Citi's net interest income, *AOCI* and the Common Equity Tier 1 Capital ratio, each assuming an unanticipated parallel instantaneous 100 basis point (bps) increase in interest rates:

In millions of dollars, except as otherwise noted	**Sept. 30, 2022**	Jun. 30, 2022	Sept. 30, 2021
Parallel interest rate shock +100 bps			
Interest rate exposure[(1)(2)]			
U.S. dollar	**$ 677**	$ 122	$ 827
All other currencies	**1,483**	1,946	1,623
Total	**$ 2,160**	$ 2,068	$ 2,450
As a percentage of average interest-earning assets	**0.10 %**	0.10 %	0.11 %
Estimated initial negative impact to *AOCI* (after-tax)[(1)]	**$ (969)**	$ (2,522)	$ (4,914)
Estimated initial impact on Common Equity Tier 1 Capital ratio (bps)	**(9)**	(10)	(30)

(1) Excludes trading book and fair value option banking book portfolios and replaces them with the associated transfer pricing.
(2) The estimated impact to Citi's net interest income under the prior IRE methodology was $931 million, $1,025 million and $737 million for September 30, 2022, June 30, 2022 and September 30, 2021, respectively.
(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 third quarter of 2022 increased modestly quarter-over-quarter and decreased year-over-year, primarily reflecting the net impact of lower expected gains due to U.S. dollar interest rate moves that have already been realized and changes in Citi's balance sheet. At progressively higher interest rate levels, the marginal net interest income benefit is lower, as Citi assumes it will pass on a larger share of rate changes to depositors (i.e., higher betas), further reducing Citi's IRE sensitivity. Currency-specific interest rate changes and balance sheet factors may drive quarter-to-quarter volatility in Citi's estimated IRE.

In a 100 bps upward rate shock scenario, Citi expects that the $969 million 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 three months.

Scenario Analysis

The following table presents the estimated impact to Citi's net interest income, *AOCI* and Common Equity Tier 1 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 September 30, 2022. The 100 bps downward rate scenarios are impacted by the low level of interest rates in several countries and the assumption that market interest rates, as well as rates paid to depositors and charged to borrowers, do not fall below zero (i.e., the "flooring assumption"). The 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[(1)]					
U.S. dollar	$ 677	$ 443	$ 211	$ (304)	$ (824)
All other currencies	1,483	1,280	228	(205)	(1,304)
Total	$ 2,160	$ 1,723	$ 439	$ (509)	$ (2,128)
Estimated initial impact to *AOCI* (after-tax)[(2)]	$ (969)	$ (862)	$ (175)	$ 99	$ 927
Estimated initial impact to Common Equity Tier 1 Capital ratio (bps)	(9)	(8)	(2)	1	9

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) The estimated impact to Citi's net interest income under the previous IRE measure is $931 million, $961 million, $63 million, $(59) million and $(1,016) million for Scenarios 1 through 5, respectively.
(2) 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 remains larger under Scenario 2 than Scenario 3, as Citi's Banking Book has relatively higher interest rate exposure to the short end of the yield curve. For U.S. dollars, exposure to downward rate shocks is larger in magnitude than to upward rate shocks. This is because of the lower benefit to net interest income from Citi's deposit base at higher rate levels, as well as the prepayment effects on mortgage loans and mortgage-backed securities. For other 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 as 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 September 30, 2022, 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 0.97%, as a result of changes to Citi's foreign currency translation adjustment in *AOCI*, net of hedges. This impact would be primarily due to changes in the value of the Mexican peso, Euro, Singapore dollar and Indian rupee.

This impact is also before any mitigating actions Citi may take, including ongoing management of its foreign currency translation exposure. Specifically, as currency movements change the value of Citi's net investments in foreign currency-denominated capital, these movements also change the value of Citi's risk-weighted assets denominated in those currencies. This, coupled with Citi's foreign currency hedging strategies, such as foreign currency borrowings, foreign currency forwards and other currency hedging instruments, lessens the impact of foreign currency movements on Citi's Common Equity Tier 1 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 as compared to an unanticipated parallel shock, as described above.

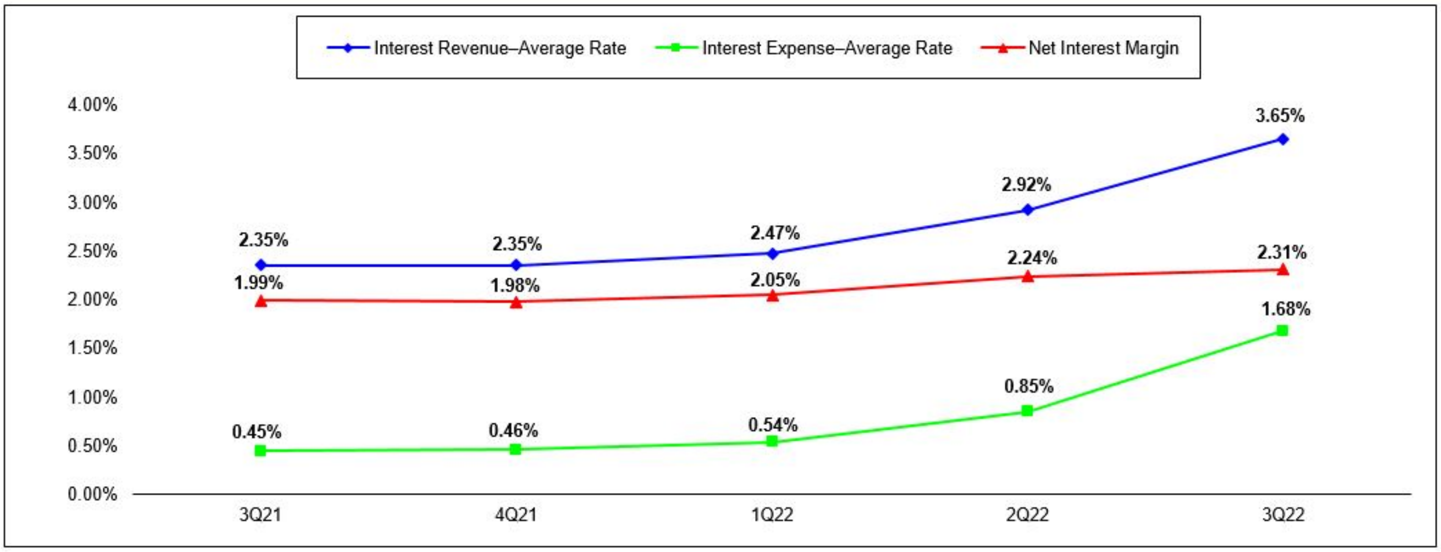
The effect of Citi's ongoing management strategies with respect to quarterly changes in foreign exchange rates, and the quarterly impact of these changes on Citi's TCE and Common Equity Tier 1 Capital ratio, are shown in the table below. See Note 17 for additional information on the changes in *AOCI*.

	For the quarter ended		
In millions of dollars, except as otherwise noted	**Sept. 30, 2022**	Jun. 30, 2022	Sept. 30, 2021
Change in FX spot rate[1]	**(4.5)%**	(4.9)%	(2.7)%
Change in TCE due to FX translation, net of hedges	**$ (2,121)**	$ (1,335)	$ (1,042)
As a percentage of TCE	**(1.4)%**	(0.9)%	(0.7)%
Estimated impact to Common Equity Tier 1 Capital ratio (on a fully implemented basis) due to changes in FX translation, net of hedges (bps)	**(2)**	5	(1)

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

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	**3rd Qtr. 2022**	2nd Qtr. 2022	3rd Qtr. 2021	**Change 3Q22 vs. 3Q21**
Interest revenue[1]	**$ 19,965**	$ 15,674	$ 12,696	**57 %**
Interest expense[2]	**7,356**	3,666	1,959	**275**
Net interest income, taxable equivalent basis[1]	**$ 12,609**	$ 12,008	$ 10,737	**17 %**
Interest revenue—average rate[3]	**3.65 %**	2.92 %	2.35 %	**130 bps**
Interest expense—average rate	**1.68**	0.85	0.45	**123 bps**
Net interest margin[3][4]	**2.31**	2.24	1.99	**32 bps**
Interest-rate benchmarks				
Two-year U.S. Treasury note—average rate	**3.38 %**	2.72 %	0.23 %	**315 bps**
10-year U.S. Treasury note—average rate	**3.10**	2.93	1.32	**178 bps**
10-year vs. two-year spread	**(28) bps**	21 bps	109 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 $46 million, $44 million and $46 million for the three months ended September 30, 2022, June 30, 2022 and September 30, 2021, respectively.

(2) Interest expense associated with certain hybrid financial instruments, which are classified as *Long-term debt* and accounted for at fair value, is reported together with any changes in fair value as part of *Principal transactions* in the Consolidated Statement of Income and is therefore not reflected in *Interest expense* in the table above.

(3) The average rate on interest 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	**3rd Qtr. 2022**	2nd Qtr. 2022	3rd Qtr. 2021	**Change 3Q22 vs. 3Q21**
Net interest income (NII)—taxable equivalent basis(1) per above	**$ 12,609**	$ 12,008	$ 10,737	**17 %**
ICG Markets NII—taxable equivalent basis(1)	**1,230**	1,386	1,266	**(3)**
Non-*ICG* Markets NII—taxable equivalent basis(1)	**$ 11,379**	$ 10,622	$ 9,471	**20 %**

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

Citi's net interest income in the third quarter of 2022 increased 18% to $12.6 billion versus the prior-year period. As presented in the table above, Citi's net interest income on a taxable equivalent basis increased 17% year-over-year, or $1.9 billion, driven by higher net interest income in non-*ICG* Markets, while net interest income in *ICG* Markets (Fixed income markets and Equity markets) declined 3%. The increase in non-*ICG* Markets net interest income primarily reflected higher interest rates, growth in interest-earning balances from cards, improved deposit spreads in Services and higher income from Citi's investment portfolio. The decline 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 2.31% on a taxable equivalent basis in the third quarter of 2022, an increase of 7 basis points from the prior quarter, primarily driven by the impact of higher interest rates and improved deposit spreads in Services.

Additional Interest Rate Details

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

Taxable Equivalent Basis

Quarterly—Assets	**Average volume**			**Interest revenue**			**% Average rate**		
In millions of dollars, except rates	**3rd Qtr. 2022**	2nd Qtr. 2022	3rd Qtr. 2021	**3rd Qtr. 2022**	2nd Qtr. 2022	3rd Qtr. 2021	**3rd Qtr. 2022**	2nd Qtr. 2022	3rd Qtr. 2021
Deposits with banks[(4)]	**$ 256,444**	$ 227,377	$ 294,160	**$ 1,218**	$ 658	$ 147	**1.88 %**	1.16 %	0.20 %
Securities borrowed and purchased under agreements to resell[(5)]									
In U.S. offices	**$ 200,951**	$ 190,065	$ 176,926	**$ 1,285**	$ 458	$ 70	**2.54 %**	0.97 %	0.16 %
In offices outside the U.S.[(4)]	**160,768**	159,455	146,257	**891**	347	194	**2.20**	0.87	0.53
Total	**$ 361,719**	$ 349,520	$ 323,183	**$ 2,176**	$ 805	$ 264	**2.39 %**	0.92 %	0.32 %
Trading account assets[(6)(7)]									
In U.S. offices	**$ 143,102**	$ 139,087	$ 133,649	**$ 1,196**	$ 632	$ 665	**3.32 %**	1.82 %	1.97 %
In offices outside the U.S.[(4)]	**129,894**	136,850	154,993	**795**	1,030	620	**2.43**	3.02	1.59
Total	**$ 272,996**	$ 275,937	$ 288,642	**$ 1,991**	$ 1,662	$ 1,285	**2.89 %**	2.42 %	1.77 %
Investments									
In U.S. offices									
Taxable	**$ 355,293**	$ 357,249	$ 332,337	**$ 1,521**	$ 1,132	$ 935	**1.70 %**	1.27 %	1.12 %
Exempt from U.S. income tax	**11,809**	11,898	11,973	**110**	108	99	**3.70**	3.64	3.28
In offices outside the U.S.[(4)]	**146,312**	150,435	153,802	**1,379**	1,147	873	**3.74**	3.06	2.25
Total	**$ 513,414**	$ 519,582	$ 498,112	**$ 3,010**	$ 2,387	$ 1,907	**2.33 %**	1.84 %	1.52 %
Consumer loans[(8)]									
In U.S. offices	**$ 273,324**	$ 264,240	$ 254,052	**$ 6,064**	$ 5,348	$ 4,964	**8.80 %**	8.12 %	7.75 %
In offices outside the U.S.[(4)]	**83,023**	88,291	119,164	**1,316**	1,253	1,603	**6.29**	5.69	5.34
Total	**$ 356,347**	$ 352,531	$ 373,216	**$ 7,380**	$ 6,601	$ 6,567	**8.22 %**	7.51 %	6.98 %
Corporate loans[(8)]									
In U.S. offices	**$ 141,539**	$ 142,180	$ 134,363	**$ 1,449**	$ 1,285	$ 1,071	**4.06 %**	3.63 %	3.16 %
In offices outside the U.S.[(4)]	**156,832**	162,776	160,908	**1,981**	1,632	1,259	**5.01**	4.02	3.10
Total	**$ 298,371**	$ 304,956	$ 295,271	**$ 3,430**	$ 2,917	$ 2,330	**4.56 %**	3.84 %	3.13 %
Total loans[(8)]									
In U.S. offices	**$ 414,863**	$ 406,420	$ 388,415	**$ 7,513**	$ 6,633	$ 6,035	**7.18 %**	6.55 %	6.16 %
In offices outside the U.S.[(4)]	**239,855**	251,067	280,072	**3,297**	2,885	2,862	**5.45**	4.61	4.05
Total	**$ 654,718**	$ 657,487	$ 668,487	**$ 10,810**	$ 9,518	$ 8,897	**6.55 %**	5.81 %	5.28 %
Other interest-earning assets[(9)]	**$ 110,619**	$ 121,629	$ 71,193	**$ 760**	$ 644	$ 196	**2.73 %**	2.12 %	1.09 %
Total interest-earning assets	**$ 2,169,910**	$ 2,151,532	$ 2,143,777	**$ 19,965**	$ 15,674	$ 12,696	**3.65 %**	2.92 %	2.35 %
Non-interest-earning assets[(6)]	**$ 229,536**	$ 228,521	$ 202,248						
Total assets	**$ 2,399,446**	$ 2,380,053	$ 2,346,025						

Nine Months—Assets	**Average volume**		**Interest revenue**		**% Average rate**	
In millions of dollars, except rates	**Nine Months 2022**	Nine Months 2021	**Nine Months 2022**	Nine Months 2021	**Nine Months 2022**	Nine Months 2021
Deposits with banks[4]	**$ 248,119**	$ 299,315	**$ 2,172**	$ 418	**1.17 %**	0.19 %
Securities borrowed and purchased under agreements to resell[5]						
In U.S. offices	**$ 189,671**	$ 170,761	**$ 1,852**	$ 272	**1.31 %**	0.21 %
In offices outside the U.S.[4]	**161,954**	145,700	**1,523**	491	**1.26**	0.45
Total	**$ 351,625**	$ 316,461	**$ 3,375**	$ 763	**1.28 %**	0.32 %
Trading account assets[6][7]						
In U.S. offices	**$ 139,682**	$ 143,639	**$ 2,420**	$ 1,996	**2.32 %**	1.86 %
In offices outside the U.S.[4]	**133,449**	155,894	**2,381**	2,099	**2.39**	1.80
Total	**$ 273,131**	$ 299,533	**$ 4,801**	$ 4,095	**2.35 %**	1.83 %
Investments						
In U.S. offices						
Taxable	**$ 355,483**	$ 316,038	**$ 3,674**	$ 2,608	**1.38 %**	1.10 %
Exempt from U.S. income tax	**11,773**	12,496	**313**	331	**3.55**	3.54
In offices outside the U.S.[4]	**150,016**	151,566	**3,477**	2,592	**3.10**	2.29
Total	**$ 517,272**	$ 480,100	**$ 7,464**	$ 5,531	**1.93 %**	1.54 %
Consumer loans[8]						
In U.S. offices	**$ 264,941**	$ 252,032	**$ 16,457**	$ 14,740	**8.30 %**	7.82 %
In offices outside the U.S.[4]	**88,762**	124,112	**3,786**	5,050	**5.70**	5.44
Total	**$ 353,703**	$ 376,144	**$ 20,243**	$ 19,790	**7.65 %**	7.03 %
Corporate loans[8]						
In U.S. offices	**$ 140,198**	$ 131,661	**$ 3,846**	$ 3,137	**3.67 %**	3.19 %
In offices outside the U.S.[4]	**159,693**	160,441	**4,978**	3,659	**4.17**	3.05
Total	**$ 299,891**	$ 292,102	**$ 8,824**	$ 6,796	**3.93 %**	3.11 %
Total loans[8]						
In U.S. offices	**$ 405,139**	$ 383,693	**$ 20,303**	$ 17,877	**6.70 %**	6.23 %
In offices outside the U.S.[4]	**248,455**	284,553	**8,764**	8,709	**4.72**	4.09
Total	**$ 653,594**	$ 668,246	**$ 29,067**	$ 26,586	**5.95 %**	5.32 %
Other interest-earning assets[9]	**$ 117,354**	$ 72,325	**$ 1,953**	$ 404	**2.23 %**	0.75 %
Total interest-earning assets	**$ 2,161,095**	$2,135,980	**$ 48,832**	$ 37,797	**3.02 %**	2.37 %
Non-interest-earning assets[6]	**$ 223,418**	$ 198,896				
Total assets	**$ 2,384,513**	$2,334,876				

(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 $132 million and $150 million for the nine months ended September 30, 2022 and September 30, 2021, respectively.
(2) Interest rates and amounts include the effects of risk management activities associated with the respective asset categories.
(3) Monthly or quarterly averages have been used by certain subsidiaries where daily averages are unavailable.
(4) Average rates reflect prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.
(5) Average volumes of securities borrowed or purchased under agreements to resell are reported net pursuant to ASC 210-20-45. However, *Interest revenue* excludes the impact of ASC 210-20-45.
(6) The fair value carrying amounts of derivative contracts are reported net, pursuant to ASC 815-10-45, in *Non-interest-earning assets* and *Other non-interest-bearing liabilities*.
(7) *Interest expense* on *Trading account liabilities* of *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 volume**			**Interest expense**			**% Average rate**		
In millions of dollars, except rates	**3rd Qtr. 2022**	2nd Qtr. 2022	3rd Qtr. 2021	**3rd Qtr. 2022**	2nd Qtr. 2022	3rd Qtr. 2021	**3rd Qtr. 2022**	2nd Qtr. 2022	3rd Qtr. 2021
Deposits									
In U.S. offices[4]	**$ 569,903**	$ 554,182	$ 558,990	**$ 1,743**	$ 545	$ 275	**1.21 %**	0.39 %	0.20 %
In offices outside the U.S.[5]	**505,456**	513,820	538,800	**1,527**	875	455	**1.20**	0.68	0.34
Total	**$ 1,075,359**	$ 1,068,002	$1,097,790	**$ 3,270**	$ 1,420	$ 730	**1.21 %**	0.53 %	0.26 %
Securities loaned and sold under agreements to repurchase[6]									
In U.S. offices	**$ 111,513**	$ 112,011	$ 132,810	**$ 864**	$ 391	$ 195	**3.07 %**	1.40 %	0.58 %
In offices outside the U.S.[5]	**95,677**	96,388	96,137	**387**	264	92	**1.60**	1.10	0.38
Total	**$ 207,190**	$ 208,399	$ 228,947	**$ 1,251**	$ 655	$ 287	**2.40 %**	1.26 %	0.50 %
Trading account liabilities[7][8]									
In U.S. offices	**$ 56,447**	$ 52,714	$ 43,740	**$ 255**	$ 24	$ 28	**1.79 %**	0.18 %	0.25 %
In offices outside the U.S.[5]	**72,078**	72,096	64,963	**217**	113	78	**1.19**	0.63	0.48
Total	**$ 128,525**	$ 124,810	$ 108,703	**$ 472**	$ 137	$ 106	**1.46 %**	0.44 %	0.39 %
Short-term borrowings and other interest-bearing liabilities[9]									
In U.S. offices	**$ 103,375**	$ 94,028	$ 65,584	**$ 654**	$ 217	$ (19)	**2.51 %**	0.93 %	(0.11)%
In offices outside the U.S.[5]	**50,947**	60,211	27,132	**91**	51	27	**0.71**	0.34	0.39
Total	**$ 154,322**	$ 154,239	$ 92,716	**$ 745**	$ 268	$ 8	**1.92 %**	0.70 %	0.03 %
Long-term debt[10]									
In U.S. offices	**$ 165,834**	$ 164,832	$ 181,723	**$ 1,572**	$ 1,143	$ 802	**3.76 %**	2.78 %	1.75 %
In offices outside the U.S.[5]	**3,495**	3,892	4,061	**46**	43	26	**5.22**	4.43	2.54
Total	**$ 169,329**	$ 168,724	$ 185,784	**$ 1,618**	$ 1,186	$ 828	**3.79 %**	2.82 %	1.77 %
Total interest-bearing liabilities	**$ 1,734,725**	$ 1,724,174	$1,713,940	**$ 7,356**	$ 3,666	$ 1,959	**1.68 %**	0.85 %	0.45 %
Demand deposits in U.S. offices	**$ 140,271**	$ 143,426	$ 122,731						
Other non-interest-bearing liabilities[7]	**325,283**	313,926	307,078						
Total liabilities	**$ 2,200,279**	$ 2,181,526	$2,143,749						
Citigroup stockholders' equity	**$ 198,694**	$ 197,976	$ 201,608						
Noncontrolling interests	**473**	551	668						
Total equity	**$ 199,167**	$ 198,527	$ 202,276						
Total liabilities and stockholders' equity	**$ 2,399,446**	$ 2,380,053	$2,346,025						
Net interest income as a percentage of average interest-earning assets[11]									
In U.S. offices	**$ 1,278,682**	$ 1,247,713	$1,246,588	**$ 7,458**	$ 7,070	$ 6,686	**2.31 %**	2.27 %	2.13 %
In offices outside the U.S.[6]	**891,228**	903,819	897,189	**5,151**	4,938	4,051	**2.29**	2.19	1.79
Total	**$ 2,169,910**	$ 2,151,532	$2,143,777	**$ 12,609**	$ 12,008	$ 10,737	**2.31 %**	2.24 %	1.99 %

Nine Months—Liabilities	Average volume		Interest expense		% Average rate	
In millions of dollars, except rates	**Nine Months 2022**	Nine Months 2021	**Nine Months 2022**	Nine Months 2021	**Nine Months 2022**	Nine Months 2021
Deposits						
In U.S. offices[4]	**$ 561,368**	$ 520,311	**$ 2,525**	$ 827	**0.60 %**	0.21 %
In offices outside the U.S.[5]	**513,121**	561,938	**3,036**	1,291	**0.79**	0.31
Total	**$ 1,074,489**	$1,082,249	**$ 5,561**	$ 2,118	**0.69 %**	0.26 %
Securities loaned and sold under agreements to repurchase[6]						
In U.S. offices	**$ 113,772**	$ 140,153	**$ 1,416**	$ 536	**1.66 %**	0.51 %
In offices outside the U.S.[5]	**94,791**	93,463	**772**	264	**1.09**	0.38
Total	**$ 208,563**	$ 233,616	**$ 2,188**	$ 800	**1.40 %**	0.46 %
Trading account liabilities[7][8]						
In U.S. offices	**$ 52,584**	$ 47,990	**$ 315**	$ 80	**0.80 %**	0.22 %
In offices outside the U.S.[5]	**69,965**	68,078	**441**	290	**0.84**	0.57
Total	**$ 122,549**	$ 116,068	**$ 756**	$ 370	**0.82 %**	0.43 %
Short-term borrowings and other interest bearing liabilities[9]						
In U.S. offices	**$ 92,022**	$ 69,314	**$ 884**	$ (36)	**1.28 %**	(0.07)%
In offices outside the U.S.[5]	**57,119**	23,933	**184**	106	**0.43**	0.59
Total	**$ 149,141**	$ 93,247	**$ 1,068**	$ 70	**0.96 %**	0.10 %
Long-term debt[10]						
In U.S. offices	**$ 165,880**	$ 191,408	**$ 3,604**	$ 2,559	**2.90 %**	1.79 %
In offices outside the U.S.[5]	**3,780**	4,396	**125**	55	**4.42**	1.67
Total	**$ 169,660**	$ 195,804	**$ 3,729**	$ 2,614	**2.94 %**	1.78 %
Total interest-bearing liabilities	**$ 1,724,402**	$1,720,984	**$ 13,302**	$ 5,972	**1.03 %**	0.46 %
Demand deposits in U.S. offices	**$ 137,682**	$ 86,009				
Other non-interest-bearing liabilities[7]	**322,927**	325,777				
Total liabilities	**$ 2,185,011**	$2,132,770				
Citigroup stockholders' equity	**$ 198,945**	$ 201,426				
Noncontrolling interests	**557**	680				
Total equity	**$ 199,502**	$ 202,106				
Total liabilities and stockholders' equity	**$ 2,384,513**	$2,334,876				
Net interest income as a percentage of average interest-earning assets[11]						
In U.S. offices	**$ 1,257,817**	$1,237,799	**$ 21,386**	$ 19,539	**2.27 %**	2.11 %
In offices outside the U.S.[6]	**903,278**	898,182	**14,144**	12,286	**2.09**	1.83
Total	**$ 2,161,095**	$2,135,981	**$ 35,530**	$ 31,825	**2.20 %**	1.99 %

(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)

	3Q22 vs. 2Q22			3Q22 vs. 3Q21		
	Increase (decrease) due to change in:			Increase (decrease) due to change in:		
In millions of dollars	Average volume	Average rate	Net change	Average volume	Average rate	Net change
Deposits with banks(3)	$ 93	$ 467	$ 560	$ (21)	$ 1,092	$ 1,071
Securities borrowed and purchased under agreements to resell						
In U.S. offices	$ 28	$ 799	$ 827	$ 11	$ 1,204	$ 1,215
In offices outside the U.S.(3)	3	541	544	21	676	697
Total	$ 31	$ 1,340	$ 1,371	$ 32	$ 1,880	$ 1,912
Trading account assets(4)						
In U.S. offices	$ 18	$ 546	$ 564	$ 50	$ 481	$ 531
In offices outside the U.S.(3)	(50)	(185)	(235)	(113)	288	175
Total	$ (32)	$ 361	$ 329	$ (63)	$ 769	$ 706
Investments(1)						
In U.S. offices	$ (7)	$ 398	$ 391	$ 72	$ 525	$ 597
In offices outside the U.S.(3)	(32)	264	232	(44)	550	506
Total	$ (39)	$ 662	$ 623	$ 28	$ 1,075	$ 1,103
Consumer loans (net of unearned income)(5)						
In U.S. offices	$ 189	$ 527	$ 716	$ 395	$ 705	$ 1,100
In offices outside the U.S.(3)	(78)	141	63	(541)	254	(287)
Total	$ 111	$ 668	$ 779	$ (146)	$ 959	$ 813
Corporate loans (net of unearned income)(5)						
In U.S. offices	$ (5)	$ 169	$ 164	$ 60	$ 318	$ 378
In offices outside the U.S.(3)	(62)	411	349	(33)	755	722
Total	$ (67)	$ 580	$ 513	$ 27	$ 1,073	$ 1,100
Loans (net of unearned income)(5)						
In U.S. offices	$ 184	$ 696	$ 880	$ 455	$ 1,023	$ 1,478
In offices outside the U.S.(3)	(140)	552	412	(574)	1,009	435
Total	$ 44	$ 1,248	$ 1,292	$ (119)	$ 2,032	$ 1,913
Other interest-earning assets(6)	$ (62)	$ 178	$ 116	$ 152	$ 412	$ 564
Total interest revenue	$ 35	$ 4,256	$ 4,291	$ 9	$ 7,260	$ 7,269

(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)]

In millions of dollars	3Q22 vs. 2Q22 Increase (decrease) due to change in: Average volume	Average rate	Net change	3Q22 vs. 3Q21 Increase (decrease) due to change in: Average volume	Average rate	Net change
Deposits						
In U.S. offices	$ 15	$ 1,183	$ 1,198	$ 6	$ 1,462	$ 1,468
In offices outside the U.S.[(3)]	(14)	666	652	(30)	1,102	1,072
Total	$ 1	$ 1,849	$ 1,850	$ (24)	$ 2,564	$ 2,540
Securities loaned and sold under agreements to repurchase						
In U.S. offices	$ (2)	$ 475	$ 473	$ (37)	$ 706	$ 669
In offices outside the U.S.[(3)]	(2)	125	123	—	295	295
Total	$ (4)	$ 600	$ 596	$ (37)	$ 1,001	$ 964
Trading account liabilities[(4)]						
In U.S. offices	$ 2	$ 229	$ 231	$ 11	$ 216	$ 227
In offices outside the U.S.[(3)]	—	104	104	9	130	139
Total	$ 2	$ 333	$ 335	$ 20	$ 346	$ 366
Short-term borrowings and other interest-bearing liabilities[(5)]						
In U.S. offices	$ 24	$ 413	$ 437	$ (5)	$ 678	$ 673
In offices outside the U.S.[(3)]	(9)	49	40	34	30	64
Total	$ 15	$ 462	$ 477	$ 29	$ 708	$ 737
Long-term debt						
In U.S. offices	$ 7	$ 422	$ 429	$ (76)	$ 846	$ 770
In offices outside the U.S.[(3)]	(5)	8	3	(4)	24	20
Total	$ 2	$ 430	$ 432	$ (80)	$ 870	$ 790
Total interest expense	$ 16	$ 3,674	$ 3,690	$ (92)	$ 5,489	$ 5,397
Net interest income	$ 18	$ 583	$ 601	$ 102	$ 1,770	$ 1,872

(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*.

Analysis of Changes in Interest Revenue[1][2][3]

	Nine Months 2022 vs. Nine Months 2021		
	Increase (decrease) due to change in:		
In millions of dollars	Average volume	Average rate	Net change
Deposits with banks[3]	**$ (83)**	**$ 1,837**	**$ 1,754**
Securities borrowed and purchased under agreements to resell			
In U.S. offices	**$ 33**	**$ 1,547**	**$ 1,580**
In offices outside the U.S.[3]	**61**	**971**	**1,032**
Total	**$ 94**	**$ 2,518**	**$ 2,612**
Trading account assets[4]			
In U.S. offices	**$ (57)**	**$ 481**	**$ 424**
In offices outside the U.S.[3]	**(332)**	**614**	**282**
Total	**$ (389)**	**$ 1,095**	**$ 706**
Investments[1]			
In U.S. offices	**$ 373**	**$ 675**	**$ 1,048**
In offices outside the U.S.[3]	**(27)**	**912**	**885**
Total	**$ 346**	**$ 1,587**	**$ 1,933**
Consumer loans (net of unearned income)[5]			
In U.S. offices	**$ 776**	**$ 941**	**$ 1,717**
In offices outside the U.S.[3]	**(1,498)**	**234**	**(1,264)**
Total	**$ (722)**	**$ 1,175**	**$ 453**
Corporate loans (net of unearned income)[5]			
In U.S. offices	**$ 213**	**$ 496**	**$ 709**
In offices outside the U.S.[3]	**(17)**	**1,336**	**1,319**
Total	**$ 196**	**$ 1,832**	**$ 2,028**
Total loans[5]			
In U.S. offices	**$ 989**	**$ 1,437**	**$ 2,426**
In offices outside the U.S.[3]	**(1,515)**	**1,570**	**55**
Total	**$ (526)**	**$ 3,007**	**$ 2,481**
Other interest-earning assets[6]	**$ 371**	**$ 1,178**	**$ 1,549**
Total interest revenue	**$ (187)**	**$ 11,222**	**$ 11,035**

(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]

	Nine Months 2022 vs. Nine Months 2021		
	Increase (decrease) due to change in:		
In millions of dollars	Average volume	Average rate	Net change
Deposits			
In U.S. offices	$ 70	$ 1,628	$ 1,698
In offices outside the U.S.[3]	(121)	1,866	1,745
Total	$ (51)	$ 3,494	$ 3,443
Securities loaned and sold under agreements to repurchase			
In U.S. offices	$ (119)	$ 999	$ 880
In offices outside the U.S.[3]	4	504	508
Total	$ (115)	$ 1,503	$ 1,388
Trading account liabilities[4]			
In U.S. offices	$ 9	$ 226	$ 235
In offices outside the U.S.[3]	8	143	151
Total	$ 17	$ 369	$ 386
Short-term borrowings and other interest bearing liabilities[5]			
In U.S. offices	$ (8)	$ 928	$ 920
In offices outside the U.S.[3]	113	(35)	78
Total	$ 105	$ 893	$ 998
Long-term debt			
In U.S. offices	$ (379)	$ 1,424	$ 1,045
In offices outside the U.S.[3]	(9)	79	70
Total	$ (388)	$ 1,503	$ 1,115
Total interest expense	$ (432)	$ 7,762	$ 7,330
Net interest income	$ 245	$ 3,460	$ 3,705

(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 (three years) market volatility. As of September 30, 2022, Citi estimates that the conservative features of the VAR calibration contribute an approximate 40% add-on to what would be a VAR estimated under the assumption of stable and perfectly, normally distributed markets. As of June 30, 2022, the add-on was 53%.

As presented in the table below, Citi's average trading VAR for the third quarter of 2022 increased quarter-over-quarter, mainly due to higher market volatilities of interest rates in the *ICG* Markets businesses.

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

In millions of dollars	**September 30, 2022**	**Third Quarter 2022 Average**	June 30, 2022	Second Quarter 2022 Average	September 30, 2021	Third Quarter 2021 Average
Interest rate	**$ 109**	**$ 113**	$ 122	$ 94	$ 65	$ 61
Credit spread	**60**	**80**	69	70	62	73
Covariance adjustment(1)	**(39)**	**(59)**	(45)	(45)	(43)	(42)
Fully diversified interest rate and credit spread(2)	**$ 130**	**$ 134**	$ 146	$ 119	$ 84	$ 92
Foreign exchange	**14**	**28**	35	36	42	42
Equity	**32**	**26**	25	24	36	36
Commodity	**36**	**37**	38	45	36	36
Covariance adjustment(1)	**(92)**	**(94)**	(96)	(106)	(103)	(105)
Total trading VAR—all market risk factors, including general and specific risk (excluding credit portfolios)(2)	**$ 120**	**$ 131**	$ 148	$ 118	$ 95	$ 101
Specific risk-only component(3)	**$ (2)**	**$ —**	$ 4	$ (2)	$ (2)	$ 3
Total trading VAR—general market risk factors only (excluding credit portfolios)	**$ 122**	**$ 131**	$ 144	$ 120	$ 97	$ 98
Incremental impact of the credit portfolio(4)	**$ 23**	**$ 28**	$ 7	$ 17	$ 33	$ 38
Total trading and credit portfolio VAR	**$ 143**	**$ 159**	$ 155	$ 135	$ 128	$ 139

(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, 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:

	Third Quarter 2022		Second Quarter 2022		Third Quarter 2021	
In millions of dollars	**Low**	**High**	Low	High	Low	High
Interest rate	**$ 91**	**$ 137**	$ 79	$ 123	$ 51	$ 76
Credit spread	**60**	**99**	65	78	62	96
Fully diversified interest rate and credit spread	**$ 118**	**$ 151**	$ 105	$ 147	$ 77	$ 115
Foreign exchange	**13**	**43**	32	40	38	46
Equity	**21**	**33**	17	40	24	50
Commodity	**33**	**41**	33	65	27	55
Total trading	**$ 113**	**$ 149**	$ 102	$ 148	$ 86	$ 120
Total trading and credit portfolio	**134**	**173**	119	155	114	166

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		September 30, 2022
Total—all market risk factors, including general and specific risk		
Average—during quarter	$	**130**
High—during quarter		**154**
Low—during quarter		**110**

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 September 30, 2022, 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 2021 Form 10-K.

LIBOR Transition Risk

The Adjustable Interest Rate (LIBOR) Act (the LIBOR Act), enacted earlier this year, provides for the use of a statutory replacement for the overnight, one-month, three-month, six month and 12-month tenors of USD LIBOR in all contracts governed by U.S. law that lack adequate fallback provisions. On July 28, 2022, the Federal Reserve Board published in the Federal Register its proposed rulemaking that would implement the LIBOR Act. The proposal contains the Federal Reserve Board's recommendation of benchmark replacements for various product types. As required by the LIBOR Act, each proposed replacement rate is based on the Secured Overnight Financing Rate (SOFR).

Citi continues to review the effect of the LIBOR Act and the Federal Reserve Board's proposal and monitor its ongoing rulemaking process, which is expected to facilitate the transition to replacement rates for Citi's USD LIBOR-linked securities, loans and contracts without fallbacks or fallbacks based on USD LIBOR that are governed by U.S. law and yet to be remediated.

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 2021 Form 10-K. For information about Citi's LIBOR transition risks, see "Risk Factors—Other Risks" in the 2021 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 September 30, 2022. (Including the U.S., the total exposure as of September 30, 2022 to the top 25 countries would represent approximately 97% 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 38% 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 88% of the total U.K. funded loans and 89% of the total U.K. unfunded commitments were investment grade as of September 30, 2022.

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 3Q22	Total as of 2Q22	Total as of 3Q21	Total as a % of Citi as of 3Q22
United Kingdom	$33.9	$ 5.3	$ —	$ —	$ 2.6	$ 38.1	$ 16.0	$ (5.3)	$ 3.2	$ (0.8)	**$93.0**	$95.3	$111.6	5.3 %
Mexico	7.7	0.1	20.7		0.3	7.9	1.5	(1.6)	17.4	2.3	**56.3**	57.3	60.0	3.2
Ireland	14.9	—	—	—	3.9	30.5	0.5	(0.2)	—	0.7	**50.3**	50.4	45.3	2.8
Hong Kong	10.8	20.1	—	—	0.5	7.0	2.1	(1.7)	10.3	1.1	**50.2**	49.1	52.8	2.8
Singapore	8.8	18.5	—	—	0.3	5.8	1.1	(0.7)	8.8	1.9	**44.5**	47.6	46.0	2.5
Brazil	11.6	—	—	—	0.1	3.3	6.5	(0.9)	5.7	3.5	**29.8**	28.5	24.4	1.7
India	7.1	—	—	3.4	0.7	4.7	1.1	(1.0)	8.6	1.0	**25.6**	27.7	30.3	1.4
South Korea	3.6	—	8.4	—	0.2	1.5	1.4	(0.8)	8.2	0.3	**22.8**	25.5	34.2	1.3
Germany	0.4	—	—	—	0.2	5.9	7.0	(3.7)	7.6	3.0	**20.4**	21.9	14.4	1.2
China	5.8	—	3.0	—	0.8	1.7	1.5	(1.0)	6.5	0.8	**19.1**	18.8	20.2	1.1
Japan	1.6	—	—	—	—	3.7	5.5	(2.7)	4.2	5.6	**17.9**	12.1	19.3	1.0
Jersey	2.5	3.5	—	—	—	10.1	0.2	(0.2)	—	—	**16.1**	16.8	14.9	0.9
United Arab Emirates	7.3	1.5	—	—	0.7	4.0	0.3	(0.4)	2.4	—	**15.8**	15.9	16.6	0.9
Canada	1.6	1.5	—	—	0.1	6.3	1.9	(1.7)	3.6	2.5	**15.8**	16.1	16.9	0.9
Australia[(8)]	6.9	0.4	—	—	—	4.9	1.8	(0.9)	0.8	0.6	**14.5**	15.2	17.7	0.8
Taiwan	4.6	—	—	7.5	0.1	1.1	0.9	(0.1)	0.1	0.2	**14.4**	14.9	17.0	0.8
Poland	2.8	—	1.3		—	2.2	1.4	(0.1)	4.8	0.1	**12.5**	13.3	11.2	0.7
Malaysia	1.3	—	—	2.8	0.1	0.8	0.2	(0.1)	3.0	(0.1)	**8.0**	8.1	8.2	0.5
Thailand	1.2	—	—	2.4	—	1.8	0.1	—	1.9	—	**7.4**	7.6	8.0	0.4
Indonesia	1.9	—	—	0.5	—	1.2	1.0	(0.1)	1.0	0.1	**5.6**	5.5	5.8	0.3
Philippines[(9)]	0.7	—	—	—	0.1	0.2	2.7	—	1.6	—	**5.3**	5.3	4.0	0.3
Russia[(10)]	0.9	—	0.7	—	—	0.2	1.4	(0.1)	1.4	0.1	**4.6**	5.5	5.5	0.3
Luxembourg	—	0.9	—	—	—	—	0.4	(0.4)	3.5	—	**4.4**	4.2	5.3	0.2
South Africa	1.4	—	—	—	—	0.5	0.2	(0.2)	2.3	0.1	**4.3**	3.4	3.8	0.2
Italy	0.3	—	—	—	—	1.5	1.1	(1.9)	—	2.9	**3.9**	2.7	2.0	0.2
Total as a % of Citi's total exposure														**31.8 %**
Total as a % of Citi's non-U.S. total exposure														**91.4 %**

(1) *PBWM* loans reflect funded loans, including those related to the Private bank, net of unearned income. As of September 30, 2022, Private bank loans in the table above totaled $21.3 billion, concentrated in Singapore ($5.4 billion), the U.K. ($5.1 billion) and Hong Kong ($4.9 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 available-for-sale, recorded at fair market value, and debt securities held-to-maturity, 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) September 30, 2022 and June 30, 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.

(8) September 30, 2021 includes *Legacy Franchises* loans reclassified to HFS as a result of Citi's agreement to sell its consumer banking business in Australia, which closed on June 1, 2022. For additional information, see "*Legacy Franchises*" above and Note 2.

(9) June 30, 2022 includes *Legacy Franchises* loans reclassified to HFS as a result of Citi's agreement to sell its consumer banking business in the Philippines, which closed on August 1, 2022. For additional information, see "*Legacy Franchises*" above and Note 2.

(10) September 30, 2022 includes approximately $250 million of Russian government securities pledged as collateral to clearing houses. Given the geopolitical uncertainty in Russia, it is no longer possible to conclude, with a well-founded basis, the collectability of such pledged collateral in the Russian legal system in the event of a clearing house default.

Russia

Introduction

In Russia, Citi has operated through both its *ICG* and *Legacy Franchises* segments. Citi continues to monitor the war in Ukraine, related sanctions and economic conditions and continues to mitigate its Russia exposures and risks as appropriate.

As previously disclosed, Citi intends to wind down nearly all of its consumer, local commercial and institutional banking businesses in the country. As a result, 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 Businesses" below.

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 2021 Form 10-K.

Impact of Russia's Invasion of Ukraine on Citi's Businesses

Russia-related Balance Sheet Exposures

Citi's 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	**September 30, 2022**	June 30, 2022	December 31, 2021	Change 3Q22 vs. 2Q22
Loans	$ 1.6	$ 2.5	$ 2.9	$ (0.9)
Investment securities(1)	1.4	1.5	1.5	(0.1)
Net MTM on derivatives/repos(2)	1.4	1.3	0.4	0.1
Total hedges (on loans and CVA)	(0.1)	(0.2)	(0.1)	0.1
Unfunded(3)	0.2	0.3	0.7	(0.1)
Trading accounts assets	0.1	0.1	—	—
Country risk exposure (included in Top 25 Country Exposures)	**$ 4.6**	**$ 5.5**	**$ 5.4**	**$ (0.9)**
Cash on deposit and placements(4)	3.0	2.5	1.0	0.5
Reverse repurchase agreements(2)	—	—	1.8	—
Total third-party exposure(5)	**$ 7.6**	**$ 8.0**	**$ 8.2**	**$ (0.4)**
Additional exposures to Russian counterparties that are not held by the Russian subsidiary	0.3	0.4	1.6	(0.1)
Total Russia exposure(6)	**$ 7.9**	**$ 8.4**	**$ 9.8**	**$ (0.5)**

(1) Investment securities include debt securities available-for-sale (AFS), recorded at fair market value, primarily local government debt securities. There were no impairment losses recognized during the second and third quarters of 2022.

(2) Net mark-to-market (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 and have increased primarily due to borrower paydowns as risk mitigation activities have reduced AO Citibank's loan portfolio.

(5) The majority of AO Citibank's third-party exposures was funded with domestic deposit liabilities from both corporate and personal banking clients.

(6) Citigroup's currency translation adjustment (CTA) loss included in its *Accumulated other comprehensive income (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 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 third quarter of 2022, Citi continued to reduce its operations in Russia and Russia-related exposures, resulting in a net decrease in Total Russia exposure of $0.5 billion, shown in the table above, as well as a change in composition of exposure as mitigation efforts have reduced Citi's third-party credit risk. Depreciation of the ruble against the U.S. dollar resulted in a decrease in exposure of $0.7 billion, partially offset by a $0.2 billion increase in exposure in local currency terms, driven by earnings plus ongoing portfolio reductions, net proceeds of which are deposited with the Central Bank of Russia.

Citi's continued risk mitigation efforts include *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. The decline in overall exposure was also driven by a reduction in exposures to Russian counterparties not held by AO Citibank.

Citi's net investment in Russia was approximately $1.3 billion as of September 30, 2022 (compared to $1.2 billion as of June 30, 2022). The increase was primarily driven by earnings generated by AO Citibank during the quarter, partially offset by depreciation of the ruble against the U.S. dollar. A portion of Citi's net investment was hedged for foreign currency depreciation as of September 30, 2022, using forward foreign exchange contracts executed with international peer banks. 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. In the event of a loss of control of AO Citibank, Citi would be required to write off its net investment of approximately $1.3 billion (compared to $1.2 billion as of June 30, 2022), recognize a pretax CTA loss of approximately $1.0 billion through earnings (compared to $0.9 billion as of June 30, 2022), and recognize a loss of $0.3 billion (compared to $0.4 billion as of June 30, 2022) on intercompany liabilities owed by AO Citibank to other Citi entities outside Russia (see "Deconsolidation Risk" below).

3Q22 Earnings and Other Impacts on Citi's Businesses

Citi's *ICG*, *PBWM* and *Legacy Franchises* segments and *Corporate/Other* were impacted by various macroeconomic factors and volatilities, including Russia's invasion of Ukraine and its direct and indirect impact on the European and global economy. 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 September 30, 2022, Citigroup's ACL included a $1.2 billion remaining credit reserve for Citi's direct and indirect Russian exposure (down from $1.6 billion at June 30, 2022), consisting of approximately $0.5 billion (compared to $0.8 billion at June 30, 2022) related to Citi's direct exposures to Russian counterparties and approximately $0.7 billion (compared to $0.8 billion at June 30, 2022) related to the impact of the war in Ukraine on the broader global macroeconomic environment.

Citi's Wind-Down of Its Russia Operations

In August 2022, Citi disclosed its decision to wind down its Russia consumer and local commercial banking businesses, including actively pursuing portfolio sales. In connection with the wind-down plan, Citi expects to incur approximately $170 million in costs (excluding the impact from any portfolio sales), primarily over the next 18 months, largely driven by restructuring, vendor termination fees and other related charges.

On October 28, 2022, Citi entered into an agreement to sell a portfolio of ruble-denominated personal installment loans, totaling approximately $345 million in outstanding loan balances as of the third quarter of 2022, to Uralsib, a Russian commercial bank. Citi expects to incur a loss of approximately $35 million as a result of the sale, which is expected to close in the fourth quarter of 2022. In connection with the portfolio sale, Citi also entered into a referral agreement to transfer to Uralsib a portfolio of ruble-denominated credit card loans, subject to customer consents. The outstanding card loans balance was approximately $320 million as of the third quarter of 2022. Citi will refer credit card customers, who at the customers' sole discretion will be eligible to refinance their outstanding card loan balances with Uralsib.

Moreover, Citi 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. At this time, Citi expects to incur estimated costs of approximately $100 million in connection with this action. The wind-down of the institutional banking business could accelerate the substantial liquidation of AO Citibank, and therefore impact the timing of the release of the related CTA loss into earnings.

Deconsolidation Risk

Citi's operations in Russia subject it to various risks, including, among others, foreign currency volatility, including appreciations or devaluations; business restrictions; sanctions or asset freezes; or other deconsolidation events (for additional information, see "Risk Factors—Other Risks" in Citi's 2021 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 September 30, 2022, Citi continued to consolidate AO Citibank because none of the deconsolidation factors were triggered.

As discussed above, in the event of a loss of control of AO Citibank, Citi would be required to write off its net investment of approximately $1.3 billion (compared to $1.2 billion as of June 30, 2022), recognize a CTA loss of approximately $1.0 billion through earnings (compared to $0.9 billion as of June 30, 2022), and recognize a loss of $0.3 billion (compared to $0.4 billion as of June 30, 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 $1.0 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 its role as paying agent, 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 2021 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 September 30, 2022, these exposures amounted to $1.0 billion, unchanged from June 30, 2022, and were exclusively composed of third-party assets held on the Citi Ukraine subsidiary.

Argentina
Citi operates in Argentina through its *ICG* businesses. As of September 30, 2022, Citi's net investment in its Argentine operations was approximately $1.7 billion. Citi uses the U.S. dollar as the functional currency for its operations in countries that are deemed highly inflationary under U.S. GAAP. Citi uses Argentina's official market exchange rate to remeasure its net Argentine peso-denominated assets into the U.S. dollar. As of September 30, 2022, the official Argentine peso exchange rate against the U.S. dollar was 147.34.

As previously disclosed, the Central Bank of Argentina has continued to maintain certain capital and currency controls that 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 loss on its capital in Argentina. 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 economically hedges 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 September 30, 2022, the international NDF market had very limited liquidity, resulting in Citi being unable to economically hedge 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 September 30, 2022. 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 risk associated with its Argentine exposures. For additional information on emerging markets risks, see "Risk Factors—Strategic Risks" in Citi's 2021 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 2021 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 2021 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 upon 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). Adjudicating the temporary nature of fair value impairments 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, 20 and 21 in this Form 10-Q and Note 1 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

Citi's Allowance for Credit Losses (ACL)

The table below shows Citi's ACL as of the third quarter of 2022. For information on the drivers of Citi's ACL build in the quarter, see "3Q22 Changes in the ACL" below. For information on refinement in the ACL estimation approach to introduce multiple macroeconomic scenarios to the quantitative component of the ACL, see Note 1. For additional information on Citi's accounting policy on accounting for credit losses under ASC Topic 326, *Financial Instruments—Credit losses; Current Expected Credit Losses (CECL)*, see Note 1 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

	ACL										
In millions of dollars	Balance Dec. 31, 2021	1Q22 build (release)	1Q22 FX/ Other	Balance Mar. 31, 2022	2Q22 build (release)	2Q22 FX/ Other	Balance Jun. 30, 2022	**3Q22 build (release)**	**3Q22 FX/ Other**	**Balance Sept. 30, 2022**	**ACLL/EOP loans Sept. 30, 2022[1]**
ICG	$ 2,241	$ 596	$ 5	$ 2,842	$ (76)	$ 25	$ 2,791	$ 75	$ (61)	$ 2,805	
Legacy Franchises corporate (Mexico SBMM)	174	5	4	183	(3)	(2)	178	(34)	(1)	143	
Total corporate ACLL	**$ 2,415**	**$ 601**	**$ 9**	**$ 3,025**	**$ (79)**	**$ 23**	**$ 2,969**	**$ 41**	**$ (62)**	**$ 2,948**	**1.04 %**
U.S. Cards[1]	$ 10,840	$ (1,009)	$ —	$ 9,831	$ 447	$ —	$ 10,278	$ 303	$ (2)	$ 10,579	**7.53 %**
Retail banking and Global Wealth	1,181	(53)	(5)	1,123	191	(1)	1,313	$ 57	$ (1)	$ 1,369	
Total *PBWM*	$ 12,021	$ (1,062)	$ (5)	$ 10,954	$ 638	$ (1)	$ 11,591	$ 360	$ (3)	$ 11,948	
Legacy Franchises consumer	2,019	(151)	(454)	1,414	(25)	3	1,392	40	(19)	1,413	
Total consumer ACLL	**$ 14,040**	**$ (1,213)**	**$ (459)**	**$ 12,368**	**$ 613**	**$ 2**	**$ 12,983**	**$ 400**	**$ (22)**	**$ 13,361**	**3.74 %**
Total ACLL	**$ 16,455**	**$ (612)**	**$ (450)**	**$ 15,393**	**$ 534**	**$ 25**	**$ 15,952**	**$ 441**	**$ (84)**	**$ 16,309**	**2.54 %**
Allowance for credit losses on unfunded lending commitments (ACLUC)	$ 1,871	$ 474	$ (2)	$ 2,343	$ (159)	$ 9	$ 2,193	$ (71)	$ (33)	$ 2,089	
Total ACLL and ACLUC	$ 18,326	$ (138)	$ (452)	$ 17,736	$ 375	$ 34	$ 18,145	$ 370	$ (117)	$ 18,398	
Other[2]	148	(6)	(6)	136	27	16	179	83	(6)	256	
Total ACL	**$ 18,474**	**$ (144)**	**$ (458)**	**$ 17,872**	**$ 402**	**$ 50**	**$ 18,324**	**$ 453**	**$ (123)**	**$ 18,654**	

(1) As of September 30, 2022, in U.S. Personal Banking, Branded cards ACLL/EOP loans was 6.2% and Retail services ACLL/EOP loans was 10.1%.
(2) Includes ACL on HTM securities and *Other assets*.

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 portfolio characteristics and current economic conditions not 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) reasonable and supportable 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 that inform the forecasts, 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 current economic factors and credit trends, including housing prices, unemployment and gross domestic product (GDP).

Qualitative Component

The qualitative management adjustment component includes, among other things, management adjustments to reflect certain portfolio characteristics not captured in the quantitative component, such as concentrations, collateral valuation, idiosyncratic events and other factors as required by banking supervisory guidance for the ACL. The qualitative management adjustment component also reflects uncertainty around the war in Ukraine and potential global recession, considering macroeconomic and market factors, including inflation, interest rates and commodity prices. The impact of these factors to industries and sectors that are more vulnerable was considered. Qualitative reserves also include the potential for normalization in portfolio performance and consumer behavior, after record low losses as a result of government stimulus and market liquidity.

Scenario Probability Weighting

Citi's ACL is estimated using three probability-weighted macroeconomic scenarios—base, upside and downside. The weights are calculated 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. Changes in these factors in future quarters will impact the weights assigned in those quarters.

Citi's downside scenario incorporates more adverse macroeconomic assumptions than the base scenario assumptions.

Macroeconomic Variables

Citi considers a multitude of macroeconomic variables for the base, upside and downside macroeconomic scenario forecasts it uses to estimate the ACL, including domestic and international variables for its global portfolios and exposures. 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 3Q21 to 3Q22:

	Quarterly average			
U.S. unemployment	**4Q22**	**2Q23**	**4Q23**	**8-quarter average[1]**
Citi forecast at 3Q21	3.9 %	3.8 %	3.8 %	4.0 %
Citi forecast at 4Q21	3.8	3.7	3.7	3.8
Citi forecast at 1Q22	3.5	3.5	3.5	3.6
Citi forecast at 2Q22	3.6	3.7	3.9	3.7
Citi forecast at 3Q22	3.7	4.0	4.3	4.0

(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	**2022**	**2023**	**2024**
Citi forecast at 3Q21	3.9 %	2.1 %	1.8 %
Citi forecast at 4Q21	4.0	2.2	1.8
Citi forecast at 1Q22	3.3	2.4	2.1
Citi forecast at 2Q22	2.6	1.8	2.0
Citi forecast at 3Q22	1.6	0.6	1.9

(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 3Q22, U.S. Real GDP growth is lower than the 2Q22 forecast, however it is expected to remain strong during the remainder of 2022 but decline in 2023, and the unemployment rate is expected to increase modestly over the forecast horizon, broadly returning to pre-pandemic levels.

3Q22 Changes in the ACL

As further discussed below, in the third quarter of 2022, Citi had a build of $0.4 billion for the ACL for its consumer portfolios and a build of $0.1 billion for its corporate portfolios, for a net ACL build of $0.5 billion. The build was primarily driven by loan growth in consumer portfolios and a deterioration in macroeconomic forecasts primarily impacting the corporate portfolio, partially offset by the continued release of COVID-19–related uncertainty reserves and reductions in Russia exposures. Based on its latest macroeconomic forecast, Citi believes its analysis of the ACL reflects the forward view of the economic environment as of September 30, 2022. See Note 14 for additional information.

Consumer
Citi's consumer ACLL is largely driven by U.S. Cards in U.S. Personal Banking. As discussed above, Citi had a build of $0.4 billion in the ACLL for its consumer portfolios in the third quarter of 2022, primarily driven by U.S. Cards loan growth, which increased the ACLL balance to $13.4 billion, or 3.74% of total consumer loans.

For U.S. Cards, the level of reserves as a percentage of EOP loans increased to 7.53% at September 30, 2022, compared to 7.48% at June 30, 2022. For the remaining consumer exposures, the level of reserves relative to EOP loans was 1.3% at September 30, 2022, compared to 1.2% at June 30, 2022.

Corporate
Citi had a corporate ACLL build of $41 million in the third quarter of 2022. The build was primarily driven by a deterioration in macroeconomic forecasts, partially offset by the release of a COVID-19–related uncertainty reserve and reductions in Russia exposures. Including FX/Other, the ACLL reserve balance decreased by $21 million to $2.9 billion, or 1.04% of total corporate funded loans.

ACLUC
Citi had an ACLUC release of $0.1 billion in the third quarter of 2022, which reduced the ACLUC reserve balance, included in *Other liabilities*, to $2.1 billion. The release was primarily driven by reductions in Russia exposures, partially offset by a build for a deterioration in macroeconomic forecasts primarily impacting the corporate portfolio.

ACL on Other Financial Assets
Citi had an ACL build on other financial assets carried at amortized cost of $0.1 billion in the third quarter of 2022, which increased the ACL reserve balance included in *Other assets* to $0.3 billion. The build was primarily driven by a deterioration in macroeconomic forecasts primarily impacting the corporate portfolio. See Note 14 for additional information.

ACLL and Non-accrual Ratios
At September 30, 2022, the ratio of the ACLL to total funded loans was 2.54% (3.74% for consumer loans and 1.04% for corporate loans), compared to 2.44% at June 30, 2022 (3.65% for consumer loans and 1.00% for corporate loans).

Citi's total non-accrual loans were $2.9 billion at September 30, 2022, down $149 million from June 30, 2022. Consumer non-accrual loans of $1.4 billion at September 30, 2022 were unchanged from June 30, 2022. Corporate non-accrual loans decreased $170 million to $1.5 billion at September 30, 2022, compared to $1.7 billion at June 30, 2022. In addition, the ratio of non-accrual loans to total loans was 0.51% and 0.39% for corporate and consumer loans, respectively, at September 30, 2022.

Regulatory Capital Impact
Citi has elected to phase in the CECL impact for regulatory capital purposes. After two years with no impact on capital, the CECL adoption impact commenced phase in with 25% of the impact (net of deferred taxes) recognized on January 1, 2022, with an additional 25% to be recognized on the first day of each subsequent year through January 1, 2025. In addition, 25% of the build (pretax) made in 2020 and 2021 was deferred and is being amortized over the same timeframe.

See Notes 1 and 14 for a further description of the ACL and related accounts.

Goodwill
Citi tests goodwill for impairment annually and conducts interim assessments between annual tests if an event occurs or circumstances change that would more-likely-than-not reduce the fair value of a reporting unit below its carrying amount. These events or circumstances include, among other things, a significant adverse change in the business climate, a decision to sell or dispose of all or a significant portion of a reporting unit or a sustained decrease in Citi's stock price.

Citi had historically performed its annual goodwill impairment test as of July 1 each year. During the quarter ended September 30, 2022, the Company voluntarily changed its annual impairment assessment date from July 1 to October 1. Based on interim impairment tests performed within the period between the previous annual test on July 1, 2021 and the annual test to be performed on October 1, 2022, no more than 12 months will have elapsed between goodwill impairment tests of any of Citi's reporting units. The change in measurement date represents a change in method of applying an accounting principle. This change is preferable because it better aligns the Company's goodwill impairment testing procedures with its annual planning process and with its fiscal year-end. Citi continues to monitor each reporting unit for triggering events for purposes of goodwill impairment testing. The change in accounting principle did not result in any, nor does Citi expect the change in accounting principle to result in any, delay, acceleration, or avoidance of an impairment charge.

During the first quarter of 2022, Citi performed an interim goodwill impairment test due to the previously disclosed changes in operating segments and reporting units during the quarter. The test resulted in an impairment of $535 million related to the Asia Consumer reporting unit within *Legacy Franchises*, due to the changes to Citi's operating segments and reporting units during the quarter, as well as the timing of mutual execution of sale agreements for Asia consumer banking businesses.

During the second quarter of 2022, Citi's Banking reporting unit within the *ICG* operating segment was negatively impacted by the industry-wide decline in investment banking activity and macroeconomic challenges and uncertainties. These conditions resulted in a corresponding decline in the operating results of the Banking reporting unit as of June 30, 2022, and qualitatively indicated that the Banking reporting unit's fair value could be insufficient to support its carrying value, inclusive of goodwill.

Accordingly, Citi performed an interim goodwill impairment test for the Banking reporting unit as of June 30,

2022. This included completing an independent valuation of the Banking reporting unit as of June 30, 2022, which concluded that the fair value of the Banking reporting unit exceeded its book value, inclusive of goodwill. The results of the impairment test showed that the fair value of the Banking reporting unit as a percentage of its carrying value was 102%, with the carrying value including approximately $1.5 billion of goodwill. Therefore, no impairment charge was recorded during the quarter. No other events or circumstances were identified to indicate that the fair values of Citi's other reporting units were more-likely-than-not reduced below their respective carrying amounts.

During the third quarter of 2022, Citi's Banking reporting unit within the *ICG* operating segment continued to be negatively impacted by the industry-wide decline in investment banking activity amid ongoing macroeconomic challenges and uncertainties as of September 30, 2022, qualitatively indicating that the Banking reporting unit's fair value could be insufficient to support its carrying value, inclusive of goodwill.

Accordingly, Citi performed an interim goodwill impairment test for the Banking reporting unit as of September 30, 2022. This included completing an independent valuation of the Banking reporting unit as of September 30, 2022, which concluded that the fair value of the Banking reporting unit exceeded its book value, inclusive of goodwill. The results of the impairment test showed that the fair value of the Banking reporting unit as a percentage of its carrying value was 106%, with the carrying value including approximately $1.5 billion of goodwill. Therefore, no impairment charge was recorded during the quarter. No other events or circumstances were identified to indicate that the fair values of Citi's other reporting units were more-likely-than-not reduced below their respective carrying amounts.

Also, during the third quarter of 2022, Citi performed an interim goodwill impairment test on the Mexico Consumer/SBMM reporting unit as of July 1, 2022 to satisfy the requirement that no more than 12 months elapse between the tests for all reporting units. The test resulted in no impairment as the fair value of the Mexico Consumer/SBMM reporting unit was greater than its carrying value.

Based on the interim impairment tests, the fair value of Citi's reporting units as a percentage of their allocated carrying values ranged from approximately 106% to 267%, resulting in no further impairment recognized as of September 30, 2022.

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, including key assumptions and related uncertainties that drive the fair value of the Banking reporting unit.

Litigation Accruals

See the discussion in Note 24 for information regarding Citi's policies on establishing accruals for litigation and regulatory contingencies.

INCOME TAXES

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 2021 Form 10-K.

The table below summarizes Citi's net DTAs balance:

Jurisdiction/Component	**DTAs balance**	
In billions of dollars	**September 30, 2022**	December 31, 2021
Total U.S.	**$ 24.3**	$ 22.1
Total foreign	**2.8**	2.7
Total	**$ 27.1**	$ 24.8

At September 30, 2022, Citigroup had recorded net DTAs of approximately $27.1 billion, an increase of $0.5 billion from June 30, 2022, and an increase of $2.3 billion from December 31, 2021. The increase from year-end 2021 was primarily a result of losses in *Other comprehensive income*.

Of Citi's $27.1 billion of net DTAs at September 30, 2022, $11.7 billion of net DTAs arising from net operating loss, foreign tax credit and general business credit tax carry-forwards, as well as $1.3 billion of DTAs from temporary differences that exceed 10%/15% limitations, were excluded from Citi's Common Equity Tier 1 Capital as of September 30, 2022. DTAs arising from net operating loss, foreign tax credit and general business credit tax carry-forwards are required to be entirely deducted from Common Equity Tier 1 Capital under the U.S. Basel III rules. DTAs arising from temporary differences are required to be deducted from capital only if these DTAs exceed 10%/15% limitations under the U.S. Basel III rules.

DTA Realizability

Citi believes that realization of the net DTAs of $27.1 billion at September 30, 2022 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*).

Effective Tax Rate

Citi's reported effective tax rate for the third quarter of 2022 was 20.0%, compared to the third quarter of 2021 effective tax rate of 20.4%.

Tax Legislation

The Inflation Reduction Act, signed into law on August 16, 2022, had no impact on Citi's third quarter results. The Act includes a new corporate alternative minimum tax (AMT) and a 1% excise tax on stock buybacks, both effective January 1,

2023. The corporate AMT is a 15% minimum tax on financial statement income after adjusting for foreign taxes paid. Corporate AMT paid in one year is creditable against regular corporate tax liability in future years. Citi does not expect to pay material amounts of corporate AMT given its profitability and tax profile.

The 1% excise tax is a non-deductible tax on the fair market value of stock repurchased in the taxable year, reduced by the fair market value of any stock issued in the same year.

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 September 30, 2022. 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, in its First Quarter of 2022 Form 10-Q, identified and reported certain activities pursuant to Section 219 for the first quarter of 2022. Citi did not identify any reportable activities pursuant to Section 219 for the second and third quarters of 2022.

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 also 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 individual business's discussion and analysis of its results of operations above, in Citi's First Quarter of 2022 Form 10-Q, in Citi's Second Quarter of 2022 Form 10-Q, in Citi's 2021 Form 10-K and in Citi's other SEC filings; (ii) the factors listed and described under "Risk Factors" in Citi's 2021 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 volatilities, including, among others, a continued elevated level of inflation and related financial impacts on consumers and clients and their sentiments; 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 or significantly lower economic growth in Europe, the U.S. and other countries; economic and geopolitical challenges in China, including a slowing of the Chinese economy and related impacts or any policy actions, and rising tensions between China and Taiwan; significant disruptions and volatility in financial markets, including continued volatility in U.K. financial markets and adverse impacts to market liquidity and investor demand for certain assets; foreign currency volatility and devaluations and continued strength in the U.S. dollar; distress and volatility in emerging markets, including sovereign debt pricing; geopolitical tensions and conflicts, including the Russia–Ukraine war; protracted or widespread trade tensions; financial market, other economic and political disruption driven by populist movements and governments; natural disasters; additional pandemics; and election outcomes, including the U.S. midterm elections and effects of a potentially divided government, such as with respect to raising the federal debt limit;
- impacts related to or resulting from the war in Ukraine, including further escalation of tensions between Russia and the U.S. and its allies; the potential adverse effects on Citi's ability to wind down its activities in Russia, whether due to governmental or regulatory approvals, requirements or other actions, or otherwise; potential negative impacts on Citi's businesses and customers in and related to Russia and Ukraine, including credit costs or other losses, charges or other negative financial or strategic impacts, including from any expropriation or other deconsolidation event; impacts from existing and future financial and economic sanctions and export controls against Russian organizations and/or individuals imposed by the U.S., the EU, the U.K. and other jurisdictions; rising food and energy insecurity, particularly in emerging markets; commodity and energy market disruptions; inflationary impacts; additional supply chain disruptions; the impact of cyber incidents; and the resulting negative impacts and uncertainties on regional and global financial markets and economic conditions;
- challenges and uncertainties related to any potential resurgence of the COVID-19 pandemic in the U.S. and globally, including any variants becoming more prevalent and impactful, and the impact on global financial markets and economic conditions, Citi's consumer and corporate borrowers, and Citi's businesses and overall results of operations and financial condition;
- 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 (most recently in June 2022), which is based upon the results of the CCAR process as well as supervisory stress tests; recalibration of the GSIB surcharge; Citi's results of operations and financial condition; the capital impact related to Citi's divestitures, which involve significant execution complexity, including the timing of transaction signings and closings, as well as achievement of the expected results from the divestitures; Citi's DTA utilization; forecasts of macroeconomic conditions; Citi's implementation and maintenance of an effective capital planning framework, and 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; elevated levels of liquidity in the financial system related to the pandemic; the reduction of central bank balance sheets and the impact on liquidity in the financial system; changes in regulatory capital rules, requirements or interpretations, including adoption of the U.S. SA-CCR rule for purposes of future supervisory stress testing or otherwise; and changes to the U.S. regulatory capital framework, including among other things, 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 due to the differing priorities of the current U.S. presidential administration, changes in regulatory leadership or focus and actions of Congress including as a result of the U.S. midterm elections; 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 those by the EU; 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 additional disclosure and other requirements proposed by the SEC regarding special purpose acquisition companies (SPACs) that more closely align SPAC transaction requirements with those for an initial public offering with the objective of enhancing investor protection and expanding the responsibilities of underwriters; and the potential impact of these final requirements on the results of operations of *ICG*'s Banking reporting unit;
- Citi's ability, as part of its transformation initiatives and strategic refresh, to achieve its projected or expected results from its continued investments and other initiatives, including to improve its data and technology infrastructure, risk management and controls and further strengthen safety and soundness, deepen client relationships and enhance client offerings and capabilities in order to simplify Citi and streamline its allocation of resources, including as a result of factors that Citi cannot control, such as macroeconomic uncertainties and challenges, a continued elevated level of inflation and the highly competitive environment for talent, 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 Global Wealth business and its exits of remaining consumer banking businesses in Asia and EMEA and consumer, small business and middle-market banking operations in Mexico, and Citi's wind-down of its activities in Russia, 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 additional foreign currency translation adjustment (CTA) or other losses, charges or other negative financial or strategic impacts, which could be material;
- 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;
- the potential impact to Citi if its interpretation or application of the complex income and non-income based tax laws to which it is subject, such as the Tax Cuts and Jobs Act (Tax Reform), the Foreign Tax Credit guidelines that became effective in March 2022, and withholding, stamp, service and other non-income taxes, 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 economic environment; changes in consumer sentiment, spending patterns and credit card usage behaviors; a decline in sales and revenues, partner store closures, government-imposed restrictions, reduced air and business travel or other operational difficulties of the retailer or merchant; early termination of a particular relationship; or other factors, such as bankruptcies, liquidations, restructurings, consolidations or other similar events, whether due to the impact of the pandemic or otherwise;
- Citi's ability in its resolution plan submissions to address any shortcomings or deficiencies identified 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 continue to execute its strategies, if Citi is unable to attract, retain and motivate highly qualified employees, particularly given the highly competitive environment for talent;
- 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; emerging technologies; changes in the payments space; growth of digital assets; 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., a manual error by any Citi trader that causes system or market disruptions or losses for Citi or its clients), which can be exacerbated by staffing challenges and processing backlogs; fraud, theft or malice; insufficient (or limited) straight-through processing between legacy systems leading to 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, as well as disruptions in the operations of Citi's businesses, clients, customers or other third parties; and the increased reputational, legal and compliance risks resulting from any such failure or disruption of its operational process or systems, including fines or legal or regulatory actions or proceedings;
- the increasing risk of continually evolving, sophisticated cybersecurity activities faced by financial institutions and others, including Citi and third parties with which it does business, that could result in, among other things, theft,

loss, misuse or disclosure of confidential 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 to, or the application of incorrect, assumptions, judgments or estimates in Citi's financial statements, including the assessment of goodwill or other assets for impairment; estimates of Citi's ACL, which depends on its CECL models and assumptions and forecasted macroeconomic conditions and qualitative management adjustment component; reserves related to litigation, regulatory and tax matters exposures; valuation of DTAs; and fair value of certain assets and liabilities;
- the financial impact from reclassification of any CTA component of *AOCI*, including related hedges and taxes, into Citi's earnings, due to the sale, substantial liquidation or any other deconsolidation event of any foreign entity, such as those related to any of Citi's *Legacy Franchises* segment or exit businesses, whether due to Citi's strategic refresh or otherwise;
- the potential impact of settlement charges under any of Citi's pension plans, whether due to plan settlements (including lump sum payments) for a year exceeding the service plus interest costs or due to more than 10% of the plan's projected benefit obligation being settled;
- 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 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 as a result of various factors, including, among others, general disruptions in the financial markets, governmental fiscal and monetary policies, regulatory changes or negative investor perceptions of Citi's creditworthiness, unexpected increases in cash or collateral requirements and the 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 ratings downgrade of Citi or one or more of its more significant subsidiaries or issuing entities on Citi's funding and liquidity as well as 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 and risk management practices and controls, customer and client protection, market practices, anti-money laundering and sanctions, 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 risk management, compliance, data quality management and governance and internal controls, and policies and procedures; Citi's ability to remediate deficiencies on a timely and sufficient basis, including the resulting significant investments required for such remediation efforts; 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, cost or unavailability of hedges on foreign investments; foreign currency volatility and devaluations; sovereign volatility; election outcomes; regulatory changes and political events; foreign exchange controls, including inability to access indirect foreign exchange mechanisms; macroeconomic volatility and disruptions, including with respect to commodity prices as well as repricing of assets and resulting impacts; the impacts of inflation and food and energy insecurity; 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;

- 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 and reputational risks and costs and data-related challenges, including as a result of any new SEC rules related to climate change disclosures, such as those proposed by the SEC, 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; 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.

This page intentionally left blank.

FINANCIAL STATEMENTS AND NOTES TABLE OF CONTENTS

CONSOLIDATED FINANCIAL STATEMENTS

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

CONSOLIDATED STATEMENT OF INCOME (UNAUDITED)

Citigroup Inc. and Subsidiaries

In millions of dollars, except per share amounts	Three Months Ended September 30, 2022	Three Months Ended September 30, 2021	Nine Months Ended September 30, 2022	Nine Months Ended September 30, 2021
Revenues				
Interest revenue	**$ 19,919**	$ 12,650	**$ 48,700**	$ 37,647
Interest expense	**7,356**	1,959	**13,302**	5,972
Net interest income	**$ 12,563**	$ 10,691	**$ 35,398**	$ 31,675
Commissions and fees	**$ 2,139**	$ 3,399	**$ 7,159**	$ 10,443
Principal transactions	**2,625**	2,233	**11,740**	8,450
Administration and other fiduciary fees	**915**	1,007	**2,904**	2,990
Realized gains (losses) on sales of investments, net	**52**	117	**74**	655
Impairment losses on investments:				
Impairment losses on investments and other assets	**(91)**	(30)	**(277)**	(112)
Provision for credit losses on AFS debt securities[1]	**5**	(1)	**7**	(1)
Net impairment losses recognized in earnings	**(86)**	(31)	**(270)**	(113)
Other revenue	**$ 300**	$ 31	**$ 327**	$ 767
Total non-interest revenues	**$ 5,945**	$ 6,756	**$ 21,934**	$ 23,192
Total revenues, net of interest expense	**$ 18,508**	$ 17,447	**$ 57,332**	$ 54,867
Provisions for credit losses and for benefits and claims				
Provision for credit losses on loans	**$ 1,328**	$ (188)	**$ 2,972**	$ (2,793)
Provision for credit losses on held-to-maturity (HTM) debt securities	**10**	(10)	**28**	(17)
Provision for credit losses on other assets	**73**	(3)	**76**	3
Policyholder benefits and claims	**25**	22	**74**	89
Provision for credit losses on unfunded lending commitments	**(71)**	(13)	**244**	(595)
Total provisions for credit losses and for benefits and claims[2]	**$ 1,365**	$ (192)	**$ 3,394**	$ (3,313)
Operating expenses				
Compensation and benefits	**$ 6,745**	$ 6,058	**$ 20,037**	$ 18,041
Premises and equipment	**557**	560	**1,719**	1,694
Technology/communication	**2,145**	1,997	**6,229**	5,744
Advertising and marketing	**407**	402	**1,132**	1,012
Other operating	**2,895**	2,760	**9,190**	8,170
Total operating expenses	**$ 12,749**	$ 11,777	**$ 38,307**	$ 34,661
Income from continuing operations before income taxes	**$ 4,394**	$ 5,862	**$ 15,631**	$ 23,519
Provision for income taxes	**879**	1,193	**3,002**	4,680
Income from continuing operations	**$ 3,515**	$ 4,669	**$ 12,629**	$ 18,839
Discontinued operations				
Income (loss) from discontinued operations	**$ (6)**	$ (1)	**$ (270)**	$ 7
Benefit for income taxes	**—**	—	**(41)**	—
Income (loss) from discontinued operations, net of taxes	**$ (6)**	$ (1)	**$ (229)**	$ 7
Net income before attribution to noncontrolling interests	**$ 3,509**	$ 4,668	**$ 12,400**	$ 18,846
Noncontrolling interests	**30**	24	**68**	67
Citigroup's net income	**$ 3,479**	$ 4,644	**$ 12,332**	$ 18,779
Basic earnings per share[3]				
Income from continuing operations	**$ 1.64**	$ 2.17	**$ 5.99**	$ 8.70
Income from discontinued operations, net of taxes	**—**	—	**(0.12)**	—
Net income	**$ 1.64**	$ 2.17	**$ 5.87**	$ 8.70
Weighted average common shares outstanding *(in millions)*	**1,936.8**	2,009.3	**1,950.0**	2,049.3
Diluted earnings per share[3]				
Income from continuing operations	**$ 1.63**	$ 2.15	**$ 5.95**	$ 8.64
Income (loss) from discontinued operations, net of taxes	**—**	—	**(0.12)**	—
Net income	**$ 1.63**	$ 2.15	**$ 5.84**	$ 8.65
Adjusted weighted average diluted common shares outstanding *(in millions)*	**1,955.1**	2,026.2	**1,967.1**	2,065.3

(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 September 30,		Nine Months Ended September 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Citigroup's net income	**$ 3,479**	$ 4,644	**$ 12,332**	$ 18,779
Add: Citigroup's other comprehensive income[1]				
Net change in unrealized gains and losses on debt securities, net of taxes[1]	**$ (580)**	$ (279)	**$ (6,358)**	$ (2,538)
Net change in debt valuation adjustment (DVA), net of taxes[2]	**872**	(82)	**3,632**	(186)
Net change in cash flow hedges, net of taxes	**(763)**	(201)	**(2,970)**	(930)
Benefit plans liability adjustment, net of taxes	**37**	135	**119**	936
Net change in foreign currency translation adjustment, net of taxes and hedges	**(2,399)**	(1,312)	**(4,043)**	(2,063)
Net change in excluded component of fair value hedges, net of taxes	**30**	8	**87**	(12)
Citigroup's total other comprehensive income (loss)	**$ (2,803)**	$ (1,731)	**$ (9,533)**	$ (4,793)
Citigroup's total comprehensive income	**$ 676**	$ 2,913	**$ 2,799**	$ 13,986
Add: Other comprehensive income (loss) attributable to noncontrolling interests	**$ (44)**	$ (31)	**$ (126)**	$ (71)
Add: Net income (loss) attributable to noncontrolling interests	**30**	24	**68**	67
Total comprehensive income	**$ 662**	$ 2,906	**$ 2,741**	$ 13,982

(1) See Note 17.
(2) See Note 20.

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

CONSOLIDATED BALANCE SHEET *Citigroup Inc. and Subsidiaries*

In millions of dollars		**September 30, 2022 (Unaudited)**		December 31, 2021
Assets				
Cash and due from banks (including segregated cash and other deposits)	**$**	**26,502**	$	27,515
Deposits with banks, net of allowance		**273,105**		234,518
Securities borrowed and purchased under agreements to resell (including $229,019 and $216,466 as of September 30, 2022 and December 31, 2021, respectively, at fair value), net of allowance		**349,214**		327,288
Brokerage receivables, net of allowance		**79,696**		54,340
Trading account assets (including $132,928 and $133,828 pledged to creditors as of September 30, 2022 and December 31, 2021, respectively)		**358,260**		331,945
Investments:				
Available-for-sale debt securities (including $7,504 and $9,226 pledged to creditors as of September 30, 2022 and December 31, 2021, respectively), net of allowance		**232,143**		288,522
Held-to-maturity debt securities (fair value of which is $239,807 and $216,038 as of September 30, 2022 and December 31, 2021, respectively) (includes $— and $1,460 pledged to creditors as of September 30, 2022 and December 31, 2021, respectively), net of allowance		**267,864**		216,963
Equity securities (including $850 and $1,032 at fair value as of September 30, 2022 and December 31, 2021, respectively)		**8,009**		7,337
Total investments	**$**	**508,016**	$	512,822
Loans:				
Consumer (including $241 and $12 as of September 30, 2022 and December 31, 2021, respectively, at fair value)		**357,583**		376,534
Corporate (including $3,638 and $6,070 as of September 30, 2022 and December 31, 2021, respectively, at fair value)		**288,377**		291,233
Loans, net of unearned income	**$**	**645,960**	$	667,767
Allowance for credit losses on loans (ACLL)		**(16,309)**		(16,455)
Total loans, net	**$**	**629,651**	$	651,312
Goodwill		**19,326**		21,299
Intangible assets (including MSRs of $647 and $404 as of September 30, 2022 and December 31, 2021, respectively, at fair value)		**4,485**		4,495
Other assets (including $9,947 and $12,342 as of September 30, 2022 and December 31, 2021, respectively, at fair value), net of allowance		**132,809**		125,879
Total assets	**$**	**2,381,064**	$	2,291,413

Statement continues on the next page.

In millions of dollars, except shares and per share amounts		**September 30, 2022 (Unaudited)**		December 31, 2021
Liabilities				
Non-interest-bearing deposits in U.S. offices	**$**	**135,514**	$	158,552
Interest-bearing deposits in U.S. offices (including $911 and $879 as of September 30, 2022 and December 31, 2021, respectively, at fair value)		**570,920**		543,283
Non-interest-bearing deposits in offices outside the U.S.		**98,904**		97,270
Interest-bearing deposits in offices outside the U.S. (including $1,529 and $787 as of September 30, 2022 and December 31, 2021, respectively, at fair value)		**501,148**		518,125
Total deposits	**$**	**1,306,486**	$	1,317,230
Securities loaned and sold under agreements to repurchase (including $73,107 and $56,694 as of September 30, 2022 and December 31, 2021, respectively, at fair value)		**203,429**		191,285
Brokerage payables (including $3,213 and $3,575 as of September 30, 2022 and December 31, 2021, respectively, at fair value)		**87,841**		61,430
Trading account liabilities		**196,479**		161,529
Short-term borrowings (including $6,569 and $7,358 as of September 30, 2022 and December 31, 2021, respectively, at fair value)		**47,368**		27,973
Long-term debt (including $91,825 and $82,609 as of September 30, 2022 and December 31, 2021, respectively, at fair value)		**253,068**		254,374
Other liabilities		**87,276**		74,920
Total liabilities	**$**	**2,181,947**	$	2,088,741
Stockholders' equity				
Preferred stock ($1.00 par value; authorized shares: 30 million), issued shares: **as of September 30, 2022—759,800** and as of December 31, 2021—759,800, at aggregate liquidation value	**$**	**18,995**	$	18,995
Common stock ($0.01 par value; authorized shares: 6 billion), issued shares: **as of September 30, 2022—3,099,669,424** and as of December 31, 2021—3,099,651,835		**31**		31
Additional paid-in capital		**108,347**		108,003
Retained earnings		**193,462**		184,948
Treasury stock, at cost: **September 30, 2022—1,162,816,560 shares** and December 31, 2021—1,115,296,641 shares		**(73,977)**		(71,240)
Accumulated other comprehensive income (loss) (*AOCI*)		**(48,298)**		(38,765)
Total Citigroup stockholders' equity	**$**	**198,560**	$	201,972
Noncontrolling interests		**557**		700
Total equity	**$**	**199,117**	$	202,672
Total liabilities and equity	**$**	**2,381,064**	$	2,291,413

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

In millions of dollars	Three Months Ended September 30, 2022	Three Months Ended September 30, 2021	Nine Months Ended September 30, 2022	Nine Months Ended September 30, 2021
Preferred stock at aggregate liquidation value				
Balance, beginning of period	**$ 18,995**	$ 17,995	**$ 18,995**	$ 19,480
Issuance of new preferred stock	**—**	—	**—**	2,300
Redemption of preferred stock	**—**	—	**—**	(3,785)
Balance, end of period	**$ 18,995**	$ 17,995	**$ 18,995**	$ 17,995
Common stock and additional paid-in capital (APIC)				
Balance, beginning of period	**$ 108,241**	$ 107,851	**$ 108,034**	$ 107,877
Employee benefit plans	**137**	60	**343**	(3)
Preferred stock issuance costs (new issuances, net of reclassifications to retained earnings for redemptions)	**—**	—	**—**	40
Other	**—**	42	**1**	39
Balance, end of period	**$ 108,378**	$ 107,953	**$ 108,378**	$ 107,953
Retained earnings				
Balance, beginning of period	**$ 191,261**	$ 179,686	**$ 184,948**	$ 168,272
Citigroup's net income	**3,479**	4,644	**12,332**	18,779
Common dividends[1]	**(1,001)**	(1,040)	**(3,025)**	(3,176)
Preferred dividends	**(277)**	(266)	**(794)**	(811)
Other (primarily reclassifications from APIC for preferred issuance costs on redemptions)	**—**	—	**1**	(40)
Balance, end of period	**$ 193,462**	$ 183,024	**$ 193,462**	$ 183,024
Treasury stock, at cost				
Balance, beginning of period	**$ (73,988)**	$ (68,253)	**$ (71,240)**	$ (64,129)
Employee benefit plans[2]	**11**	7	**513**	483
Treasury stock acquired[3]	**—**	(3,000)	**(3,250)**	(7,600)
Balance, end of period	**$ (73,977)**	$ (71,246)	**$ (73,977)**	$ (71,246)
Citigroup's accumulated other comprehensive income (loss)				
Balance, beginning of period	**$ (45,495)**	$ (35,120)	**$ (38,765)**	$ (32,058)
Citigroup's total other comprehensive income	**(2,803)**	(1,731)	**(9,533)**	(4,793)
Balance, end of period	**$ (48,298)**	$ (36,851)	**$ (48,298)**	$ (36,851)
Total Citigroup common stockholders' equity	**$ 179,565**	$ 182,880	**$ 179,565**	$ 182,880
Total Citigroup stockholders' equity	**$ 198,560**	$ 200,875	**$ 198,560**	$ 200,875
Noncontrolling interests				
Balance, beginning of period	**$ 612**	$ 751	**$ 700**	$ 758
Transactions between noncontrolling-interest shareholders and the related consolidated subsidiary	**—**	—	**—**	—
Transactions between Citigroup and the noncontrolling-interest shareholders	**—**	1	**(34)**	2
Net income attributable to noncontrolling-interest shareholders	**30**	24	**68**	67
Distributions paid to noncontrolling-interest shareholders	**(39)**	—	**(51)**	—
Other comprehensive income (loss) attributable to noncontrolling-interest shareholders	**(44)**	(31)	**(126)**	(71)
Other	**(2)**	(10)	**—**	(21)
Net change in noncontrolling interests	**$ (55)**	$ (16)	**$ (143)**	$ (23)
Balance, end of period	**$ 557**	$ 735	**$ 557**	$ 735
Total equity	**$ 199,117**	$ 201,610	**$ 199,117**	$ 201,610

(1) Common dividends declared were $0.51 per share for each of the first, second and third quarters of 2022 and 2021.
(2) 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.
(3) Primarily consists of open market purchases under Citi's Board of Directors-approved common share repurchase program.

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

CONSOLIDATED STATEMENT OF CASH FLOWS (UNAUDITED)

Citigroup Inc. and Subsidiaries

In millions of dollars	Nine Months Ended September 30, 2022	2021
Cash flows from operating activities of continuing operations		
Net income before attribution of noncontrolling interests	**$ 12,400**	$ 18,846
Net income attributable to noncontrolling interests	**68**	67
Citigroup's net income	**$ 12,332**	$ 18,779
Income (loss) from discontinued operations, net of taxes	**(229)**	7
Income from continuing operations—excluding noncontrolling interests	**$ 12,561**	$ 18,772
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]	**(616)**	680
Depreciation and amortization	**3,154**	2,979
Deferred income taxes	**(576)**	1,393
Provisions for credit losses on loans and unfunded lending commitments	**3,216**	(3,388)
Realized gains from sales of investments	**(74)**	(655)
Impairment losses on investments and other assets	**277**	112
Goodwill impairment	**535**	—
Change in trading account assets	**(26,385)**	32,111
Change in trading account liabilities	**34,950**	11,259
Change in brokerage receivables net of brokerage payables	**1,055**	(4,664)
Change in loans HFS	**3,499**	(3,068)
Change in other assets	**(2,754)**	(3,174)
Change in other liabilities	**1,303**	8,989
Other, net	**(34,315)**	(2,161)
Total adjustments	**$ (16,731)**	$ 40,413
Net cash provided by (used in) operating activities of continuing operations	**$ (4,170)**	$ 59,185
Cash flows from investing activities of continuing operations		
Change in securities borrowed and purchased under agreements to resell	**$ (21,926)**	$ (42,984)
Change in loans	**(5,788)**	6,613
Proceeds from sales and securitizations of loans	**3,077**	1,134
Proceeds from divestitures[1]	**3,242**	—
Available-for-sale debt securities[2]:		
Purchases of investments	**(177,306)**	(164,613)
Proceeds from sales of investments	**86,454**	96,022
Proceeds from maturities of investments	**118,951**	90,415
Held-to-maturity debt securities[2]:		
Purchases of investments	**(39,288)**	(112,883)
Proceeds from maturities of investments	**9,913**	16,946
Capital expenditures on premises and equipment and capitalized software	**(3,667)**	(2,811)
Proceeds from sales of premises and equipment, subsidiaries and affiliates and repossessed assets	**46**	143
Other, net	**(530)**	(51)
Net cash used in investing activities of continuing operations	**$ (26,822)**	$ (112,069)
Cash flows from financing activities of continuing operations		
Dividends paid	**$ (3,777)**	$ (3,959)
Issuance of preferred stock	**—**	2,300
Redemption of preferred stock	**—**	(3,785)

CONSOLIDATED STATEMENT OF CASH FLOWS
(UNAUDITED) (Continued)

In millions of dollars	Nine Months Ended September 30, 2022	2021
Treasury stock acquired	**$ (3,250)**	$ (7,448)
Stock tendered for payment of withholding taxes	**(339)**	(328)
Change in securities loaned and sold under agreements to repurchase	**12,144**	9,659
Issuance of long-term debt	**85,459**	53,961
Payments and redemptions of long-term debt	**(47,011)**	(56,472)
Change in deposits	**8,947**	73,769
Change in short-term borrowings	**19,395**	169
Net cash provided by financing activities of continuing operations	**$ 71,568**	$ 67,866
Effect of exchange rate changes on cash and due from banks	**$ (3,002)**	$ (789)
Change in cash, due from banks and deposits with banks	**37,574**	14,193
Cash, due from banks and deposits with banks at beginning of period	**262,033**	309,615
Cash, due from banks and deposits with banks at end of period	**$ 299,607**	$ 323,808
Cash and due from banks (including segregated cash and other deposits)	**$ 26,502**	$ 28,906
Deposits with banks, net of allowance	**273,105**	294,902
Cash, due from banks and deposits with banks at end of period	**$ 299,607**	$ 323,808
Supplemental disclosure of cash flow information for continuing operations		
Cash paid during the period for income taxes	**$ 2,684**	$ 3,063
Cash paid during the period for interest	**12,557**	5,983
Non-cash investing activities[(1)(3)]		
Transfer of investment securities from AFS to HTM	**$ 21,688**	$ —
Decrease in net loans associated with divestitures reclassified to HFS	**16,956**	8,291
Decrease in goodwill associated with divestitures reclassified to HFS	**876**	—
Transfers to loans HFS (*Other assets*) from loans	**4,037**	5,329
Non-cash financing activities[(1)]		
Decrease in deposits associated with divestitures reclassified to HFS	**$ 19,691**	$ 6,912
Decrease in long-term debt associated with divestitures reclassified to HFS	**—**	521

(1) See Note 2 for further information on significant disposals.
(2) Citi has revised the Consolidated Statement of Cash Flows to present purchases of investments, sales of investments and proceeds from maturities of investments separately between available-for-sale debt securities and held-to-maturity debt securities. Citi had no sales of held-to-maturity debt securities during the periods presented.
(3) 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 23 for more information and balances as of September 30, 2022.

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 September 30, 2022 and for the three- and nine-month periods ended September 30, 2022 and 2021 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, 2021, Citigroup's Current Report on Form 8-K dated May 10, 2022 (as amended by a Current Report on Form 8-K/A dated May 10, 2022) with Historical Consolidated Financial Statements and Notes conformed to reflect changes in Citigroup's reportable segments from those contained in Citi's 2021 Annual Report on Form 10-K included as an exhibit thereto (such Current Report on Form 8-K together with Citigroup's 2021 Annual Report on Form 10-K, collectively referred to as the 2021 Form 10-K), Citigroup's Quarterly Report on Form 10-Q for the quarter ended March 31, 2022 (First Quarter of 2022 Form 10-Q), and Citigroup's Quarterly Report on Form 10-Q for the quarter ended June 30, 2022 (Second Quarter of 2022 Form 10-Q).

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.

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

See Note 1 to the Consolidated Financial Statements in Citigroup's 2021 Form 10-K for a summary of all of Citigroup's significant accounting policies.

ACCOUNTING CHANGES

Voluntary Change in Goodwill Impairment Assessment Date

During the third quarter of 2022, the Company voluntarily changed its annual goodwill impairment assessment date from July 1 to October 1. See Note 15 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 qualitative management adjustment to reflect 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.

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.

Accounting for Deposit Insurance Expenses

During the fourth quarter of 2021, Citi changed its presentation of the deposit insurance costs paid to the Federal Deposit Insurance Corporation (FDIC) and similar foreign regulators. These costs were previously presented within *Interest expense* and, as a result of this change, are now presented within *Other operating expenses*. Citi concluded that this presentation was preferable in Citi's circumstances, as it better reflected the nature of these deposit insurance costs in that these costs do not directly represent interest payments to creditors, but are similar in nature to other payments to regulatory agencies that are accounted for as operating expenses.

This change in income statement presentation represents a "change in accounting principle" under ASC Topic 250, *Accounting Changes and Error Corrections*, with retrospective application to the earliest period presented. This change in accounting principle resulted in a reclassification of $293 million and $912 million of deposit insurance expenses from *Interest expense* to *Other operating expenses*, for the quarter and nine months ended September 30, 2021. This change had no impact on Citi's net income or the total deposit insurance expense incurred by Citi.

FUTURE ACCOUNTING CHANGES

Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions

In June 2022, FASB issued Accounting Standards Update (ASU) 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 Citigroup 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.

Troubled Debt Restructurings 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 will adopt the ASU on its effective date, January 1, 2023 (early adoption is permitted). The ASU eliminates the requirement to measure the ACLL for TDRs using a discounted cash flow (DCF) approach. Citi expects to discontinue the use of a DCF approach for consumer loans upon adoption, which will result in an adjustment to the opening balances of the ACLL and retained earnings. The ASU will not affect the measurement of the ACLL for corporate loans. Citi is currently evaluating the potential impact on its Consolidated Financial Statements. The ASU also enhances disclosure of modifications of loans made to borrowers experiencing financial difficulty and requires that an entity disclose current-period gross write-offs by year of loan origination in credit quality disclosures. The amendments related to disclosures are required to be applied prospectively beginning as of the date of adoption.

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 will be 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 plans to adopt the targeted improvements in ASU 2018-12 on January 1, 2023 and is currently evaluating the impact of the standard on its insurance subsidiaries. Citi does not expect a material impact to its results of operations or financial condition as a result of adopting the standard.

2. DISCONTINUED OPERATIONS, SIGNIFICANT DISPOSALS AND OTHER BUSINESS EXITS

Discontinued Operations

The Company's results from *Discontinued operations* consisted of residual activities related to previously divested operations. All *Discontinued operations* results are recorded within *Corporate/Other*.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Total revenues, net of interest expense	**$ —**	$ —	**$ —**	$ —
Income (loss) from discontinued operations[1]	**$ (6)**	$ (1)	**$ (270)**	$ 7
Benefit for income taxes	**—**	—	**(41)**	—
Income (loss) from discontinued operations, net of taxes	**$ (6)**	$ (1)	**$ (229)**	$ 7

(1) Amounts in each period relate to the sale of the Egg Banking business in 2011.

During the second quarter of 2022, the Company finalized the settlement of certain liabilities related to its legacy consumer operation in the U.K. (the legacy operation), including an indemnification liability related to its sale of the Egg Banking business in 2011, which led to the substantial liquidation of the legacy operation. As a result, a CTA loss (net of hedges) in *AOCI* of approximately $400 million pretax ($345 million after-tax) related to the legacy operation was released to earnings in the second quarter of 2022. Out of the total CTA release, a $260 million pretax loss ($221 million after-tax loss) was attributable to the Egg Banking business noted above, reported in *Discontinued operations*, and therefore the corresponding CTA release was also reported in *Discontinued operations* during the second quarter of 2022. The remaining CTA release of a $140 million pretax loss ($124 million after-tax loss) related to Legacy Holdings Assets was reported as part of *Continuing operations* within *Legacy Franchises*.

While the legacy operation was divested in multiple sales over the years, each transaction did not result in substantial liquidation given that Citi retained certain liabilities noted above, which were gradually settled over time until reaching the point of substantial liquidation during the second quarter of 2022, triggering the release of the CTA loss to earnings.

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

Significant Disposals

As of September 30, 2022, Citi has entered into sale agreements for nine consumer banking businesses that Citi intends to exit, including the sales of the Australia and Philippines businesses, which closed in the second and third quarters of 2022, respectively. The sale agreements have resulted in a transfer to HFS over time of approximately $26 billion in assets, including approximately $17 billion of loans (net of allowance of $292 million) and approximately $20 billion in liabilities, including approximately $20 billion in deposits. As a result, these assets and liabilities held by each business were reclassified to HFS within *Other assets* and *Other liabilities*, respectively, on the Consolidated Balance Sheet. The following five sale transactions were identified as significant disposals within the *Legacy Franchises* segment. All sale transactions that have yet to close in the table below are subject to regulatory approvals and other closing conditions.

In millions of dollars			September 30, 2022									
			Assets						Liabilities			
Consumer banking business in	Sale agreement date	Expected close	Cash and deposits with banks	Loans[1]	Goodwill[2]	Other assets, advances to/from subsidiaries	Other assets	Total assets	Deposits	Long-term debt	Other liabilities	Total liabilities
Australia[3]	8/9/21	closed 6/1/2022	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
Philippines[4]	12/23/21	closed 8/1/2022	—	—	—	—	—	—	—	—	—	—
Thailand[5]	1/14/22	closed 11/1/2022	$ 16	$ 2,374	$ 145	$ 199	$ 81	$ 2,815	$ 865	$ —	$ 135	$ 1,000
Taiwan[5]	1/28/22	second half 2023	96	7,455	192	4,727	190	12,660	9,851	—	214	10,065
India[5]	3/30/22	first half 2023	24	3,431	313	2,134	99	6,001	5,472	—	191	5,663

	Income (loss) before taxes[6]			
	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Australia[3]	$ —	$ 95	$ 193	$ 236
Philippines[4]	7	47	72	114
Thailand	28	17	106	108
Taiwan	15	71	111	221
India	37	59	161	157

(1) Loans, net of allowance as of September 30, 2022: Thailand $67 million, Taiwan $56 million and India $44 million.

(2) For Thailand, includes intangible assets.

(3) On June 1, 2022, Citi completed the sale of its Australia consumer banking business, which was part of *Legacy Franchises*. The Australia consumer banking 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 $780 million ($650 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 currency translation adjustment (CTA) loss (net of hedges) ($470 million after-tax) already reflected in the *Accumulated other comprehensive income (AOCI)* component of equity. The sale closed on June 1, 2022, and the CTA-related balance was removed from the *AOCI* component of equity, resulting in a neutral CTA impact to Citi's Common Equity Tier 1 Capital. The income before taxes shown in the above table for Australia reflects Citi's ownership through June 1, 2022.

(4) On August 1, 2022, Citi completed the sale of its Philippines consumer banking business, which was part of *Legacy Franchises*. The Philippines consumer banking 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 $616 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.

(5) These sales are expected to result in an after-tax gain upon closing.

(6) Income before taxes for the period in which the individually significant component was classified as HFS for all prior periods presented. For Australia, excludes the pretax loss on sale. For the Philippines, excludes the pretax gain on sale.

Citi did not have any other significant disposals as of September 30, 2022. As of November 4, 2022, Citi had not entered into sale agreements for its two other consumer banking businesses to be sold in Asia and EMEA.

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 2021 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*.

During the first quarter of 2022, Citi recorded an additional pretax charge of $31 million, composed of gross charges connected to the Korea VERP.

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	$	1,052
Utilization		(1)
Foreign exchange		3
Balance at December 31, 2021	$	1,054
Additional charges	$	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 estimated cash charges for the wind-down are $1.1 billion, most of which were recognized in 2021.

See Note 8 for details on the pension impact of the Korea wind-down.

Wind-Down of Russia Consumer and Institutional Banking Businesses

On August 25, 2022, Citi disclosed 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.

In connection with the wind-down plan, Citi expects to incur approximately $170 million in costs, primarily over the next 18 months, largely driven by restructuring, vendor termination fees and other related charges. These costs do not include the impact of any potential portfolio sales, should such sales be executed. During the third quarter of 2022, Citi recorded a pretax charge of approximately $10 million, composed of severance costs reported in the *Legacy Franchises* operating segment.

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 October 28, 2022, Citi entered into an agreement to sell a portfolio of ruble-denominated personal installment loans, totaling approximately $345 million in outstanding loan balances as of the third quarter of 2022, to Uralsib, a Russian commercial bank. Citi expects to incur a loss of approximately $35 million as a result of the sale, which is expected to close in the fourth quarter of 2022. In connection with the portfolio sale, Citi also entered into a referral agreement to transfer to Uralsib a portfolio of ruble-denominated credit card loans, subject to customer consents. The outstanding card loans balance was approximately $320 million as of the third quarter of 2022. Citi will refer credit card customers, who at the customers' sole discretion will be eligible to refinance their outstanding card loan balances with Uralsib.

3. OPERATING SEGMENTS

Effective January 1, 2022, Citi changed its management structure resulting in changes in its operating segments and reporting units to reflect how the CEO, who is the chief operating decision maker, intends to manage the Company, allocate resources and measure performance. Citi reorganized its reporting into 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. The prior-period balances reflect reclassifications to conform the presentation in those periods to the current operating segment structure. Citi's consolidated results were not impacted by the changes discussed above and remain unchanged for all periods presented.

The operating segments are determined based on how management allocates resources and measures financial performance to make business decisions, and are reflective of the types of customers served and the products and services provided.

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 the entire continuum of wealth 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 net treasury results, offsets to certain line-item reclassifications and eliminations, and unallocated taxes, as well as discontinued operations.

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

In millions of dollars, except identifiable assets, average loans and average deposits in billions	Three Months Ended September 30, ICG 2022	ICG 2021	PBWM 2022	PBWM 2021	Legacy Franchises 2022	Legacy Franchises 2021	Corporate/Other 2022	Corporate/Other 2021	Total Citi 2022	Total Citi 2021
Net interest income	**$ 4,570**	$ 3,738	**$ 5,836**	$ 5,174	**$ 1,385**	$ 1,532	**$ 772**	$ 247	**$ 12,563**	$ 10,691
Non-interest revenue	**4,898**	6,253	**351**	678	**1,169**	4	**(473)**	(179)	**5,945**	6,756
Total revenues, net of interest expense	**$ 9,468**	$ 9,991	**$ 6,187**	$ 5,852	**$ 2,554**	$ 1,536	**$ 299**	$ 68	**$ 18,508**	$ 17,447
Operating expense	**6,541**	5,963	**4,077**	3,624	**1,845**	1,748	**286**	442	**12,749**	11,777
Provisions for credit losses	**86**	24	**1,109**	(201)	**167**	(14)	**3**	(1)	**1,365**	(192)
Income (loss) from continuing operations before taxes	**$ 2,841**	$ 4,004	**$ 1,001**	$ 2,429	**$ 542**	$ (198)	**$ 10**	$ (373)	**$ 4,394**	$ 5,862
Provision (benefits) for income taxes	**655**	889	**209**	533	**226**	3	**(211)**	(232)	**879**	1,193
Income (loss) from continuing operations	**$ 2,186**	$ 3,115	**$ 792**	$ 1,896	**$ 316**	$ (201)	**$ 221**	$ (141)	**$ 3,515**	$ 4,669
Identifiable assets (September 30, 2022 and December 31, 2021)	**$ 1,706**	$ 1,613	**$ 479**	$ 464	**$ 100**	$ 125	**$ 96**	$ 89	**$ 2,381**	$ 2,291
Average loans	**291**	289	**325**	309	**39**	71	**—**	—	**655**	669
Average deposits	**817**	831	**428**	424	**50**	80	**21**	8	**1,316**	1,343

In millions of dollars, except average loans and average deposits in billions	Nine Months Ended September 30, ICG 2022	ICG 2021	PBWM 2022	PBWM 2021	Legacy Franchises 2022	Legacy Franchises 2021	Corporate/Other 2022	Corporate/Other 2021	Total Citi 2022	Total Citi 2021
Net interest income	**$12,874**	$11,231	**$16,790**	$15,324	**$ 4,367**	$ 4,716	**$ 1,367**	$ 404	**$ 35,398**	$ 31,675
Non-interest revenue	**19,173**	19,697	**1,331**	2,218	**2,053**	1,342	**(623)**	(65)	**21,934**	23,192
Total revenues, net of interest expense	**$32,047**	$30,928	**$18,121**	$17,542	**$ 6,420**	$ 6,058	**$ 744**	$ 339	**$ 57,332**	$ 54,867
Operating expense	**19,698**	17,724	**11,951**	10,593	**5,952**	5,288	**706**	1,056	**38,307**	34,661
Provisions for credit losses	**855**	(2,209)	**2,088**	(928)	**448**	(174)	**3**	(2)	**3,394**	(3,313)
Income (loss) from continuing operations before taxes	**$11,494**	$15,413	**$ 4,082**	$ 7,877	**$ 20**	$ 944	**$ 35**	$ (715)	**$ 15,631**	$ 23,519
Provision (benefits) for income taxes	**2,672**	3,435	**877**	1,756	**104**	333	**(651)**	(844)	**3,002**	4,680
Income (loss) from continuing operations	**$ 8,822**	$11,978	**$ 3,205**	$ 6,121	**$ (84)**	$ 611	**$ 686**	$ 129	**$ 12,629**	$ 18,839
Average loans	**$ 292**	$ 286	**$ 318**	$ 305	**$ 44**	$ 77	**$ —**	$ —	**$ 654**	$ 668
Average deposits	**824**	819	**437**	410	**52**	85	**11**	9	**1,324**	1,323

4. INTEREST REVENUE AND EXPENSE

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

In millions of dollars	Three Months Ended September 30, 2022	Three Months Ended September 30, 2021	Nine Months Ended September 30, 2022	Nine Months Ended September 30, 2021
Interest revenue				
Consumer loans	**$ 7,380**	$ 6,567	**$ 20,243**	$ 19,790
Corporate loans	**3,403**	2,307	**8,750**	6,726
Loan interest, including fees	**$ 10,783**	$ 8,874	**$ 28,993**	$ 26,516
Deposits with banks	**1,218**	147	**2,172**	418
Securities borrowed and purchased under agreements to resell	**2,176**	264	**3,375**	763
Investments, including dividends	**2,993**	1,885	**7,413**	5,455
Trading account assets(1)	**1,989**	1,284	**4,794**	4,091
Other interest-earning assets(2)	**760**	196	1,953	404
Total interest revenue	**$ 19,919**	$ 12,650	**$ 48,700**	$ 37,647
Interest expense				
Deposits	**$ 3,270**	$ 730	**$ 5,561**	$ 2,118
Securities loaned and sold under agreements to repurchase	**1,251**	287	**2,188**	800
Trading account liabilities(1)	**472**	106	**756**	370
Short-term borrowings and other interest-bearing liabilities(3)	**745**	8	**1,068**	70
Long-term debt	**1,618**	828	**3,729**	2,614
Total interest expense	**$ 7,356**	$ 1,959	**$ 13,302**	$ 5,972
Net interest income	**$ 12,563**	$ 10,691	**$ 35,398**	$ 31,675
Provision (benefit) for credit losses on loans	**1,328**	(188)	**2,972**	(2,793)
Net interest income after provision for credit losses on loans	**$ 11,235**	$ 10,879	**$ 32,426**	$ 34,468

(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 2021 Form 10-K.

The following tables present *Commissions and fees* revenue:

	Three Months Ended September 30, 2022				**Nine Months Ended September 30, 2022**			
In millions of dollars	**ICG**	**PBWM**	**Legacy Franchises**	**Total**	**ICG**	**PBWM**	**Legacy Franchises**	**Total**
Investment banking	**$ 725**	**$ —**	**$ —**	**$ 725**	**$ 2,477**	**$ —**	**$ —**	**$ 2,477**
Brokerage commissions	**356**	**167**	**48**	**571**	**1,209**	**621**	**169**	**1,999**
Credit and bank card income								
Interchange fees	**330**	**2,420**	**199**	**2,949**	**891**	**6,954**	**647**	**8,492**
Card-related loan fees	**12**	**64**	**66**	**142**	**32**	**201**	**226**	**459**
Card rewards and partner payments[1]	**(175)**	**(2,852)**	**(134)**	**(3,161)**	**(458)**	**(8,223)**	**(466)**	**(9,147)**
Deposit-related fees[2]	**262**	**25**	**13**	**300**	**807**	**128**	**49**	**984**
Transactional service fees	**270**	**5**	**20**	**295**	**791**	**14**	**72**	**877**
Corporate finance[3]	**87**	**—**	**—**	**87**	**339**	**3**	**—**	**342**
Insurance distribution revenue	**—**	**57**	**33**	**90**	**—**	**165**	**102**	**267**
Insurance premiums	**—**	**1**	**22**	**23**	**—**	**3**	**69**	**72**
Loan servicing	**13**	**14**	**4**	**31**	**32**	**36**	**11**	**79**
Other	**6**	**44**	**37**	**87**	**9**	**141**	**107**	**258**
Total commissions and fees[4]	**$ 1,886**	**$ (55)**	**$ 308**	**$ 2,139**	**$ 6,129**	**$ 43**	**$ 986**	**$ 7,159**

	Three Months Ended September 30, 2021				Nine Months Ended September 30, 2021			
In millions of dollars	ICG	PBWM	Legacy Franchises	Total	ICG	PBWM	Legacy Franchises	Total
Investment banking	$ 1,493	$ —	$ —	$ 1,493	$ 4,503	$ —	$ —	$ 4,503
Brokerage commissions	412	248	113	773	1,380	814	342	2,536
Credit and bank card income								
Interchange fees	225	2,107	210	2,542	580	5,861	635	7,076
Card-related loan fees	7	72	92	171	18	223	289	530
Card rewards and partner payments[1]	(119)	(2,415)	(126)	(2,660)	(298)	(6,673)	(375)	(7,346)
Deposit-related fees[2]	267	49	23	339	766	145	82	993
Transactional service fees	249	6	26	281	723	18	82	823
Corporate finance[3]	213	—	—	214	548	4	—	552
Insurance distribution revenue	—	77	40	117	—	237	128	365
Insurance premiums	—	1	24	25	—	9	66	75
Loan servicing	9	11	4	24	31	27	13	71
Other	(2)	46	36	80	15	145	105	265
Total commissions and fees[4]	$ 2,755	$ 202	$ 442	$ 3,399	$ 8,266	$ 810	$ 1,367	$ 10,443

(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 a decrease in net credit losses reduces Citi's liability for the partners' share for a given program year, would generally result in higher 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) Includes overdraft fees of $0 and $28 million for the three months ended September 30, 2022 and 2021, respectively, and $59 million and $75 million for the nine months ended September 30, 2022 and 2021, respectively. Overdraft fees are accounted for under ASC 310. Citi eliminated overdraft fees, returned-item fees and overdraft protection beginning in June 2022.

(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 $(2,872) million and $(2,208) million not accounted for under ASC 606, *Revenue from Contracts with Customers*, for the three months ended September 30, 2022 and 2021, respectively, and $(8,115) million and $(6,031) million for the nine months ended September 30, 2022 and 2021, respectively. Amounts reported in *Commissions and fees* accounted for under other guidance primarily include card-related loan fees, card reward programs and certain partner payments, corporate finance fees, insurance premiums and loan servicing fees.

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

In millions of dollars	Three Months Ended September 30, 2022				Nine Months Ended September 30, 2022			
	ICG	**PBWM**	**Legacy Franchises**	**Total**	**ICG**	**PBWM**	**Legacy Franchises**	**Total**
Custody fees	**$ 422**	**$ 21**	**$ 2**	**$ 445**	**$ 1,375**	**$ 67**	**$ 7**	**$ 1,449**
Fiduciary fees	**78**	**179**	**77**	**334**	**210**	**580**	**236**	**1,026**
Guarantee fees	**124**	**10**	**2**	**136**	**391**	**34**	**4**	**429**
Total administration and other fiduciary fees(1)	**$ 624**	**$ 210**	**$ 81**	**$ 915**	**$ 1,976**	**$ 681**	**$ 247**	**$ 2,904**

In millions of dollars	Three Months Ended September 30, 2021				Nine Months Ended September 30, 2021			
	ICG	PBWM	Legacy Franchises	Total	ICG	PBWM	Legacy Franchises	Total
Custody fees	$ 451	$ 23	$ 5	$ 479	$ 1,359	$ 68	$ 12	$ 1,439
Fiduciary fees	64	206	112	382	186	598	329	1,113
Guarantee fees	132	12	2	146	398	34	6	438
Total administration and other fiduciary fees(1)	$ 647	$ 241	$ 119	$ 1,007	$ 1,943	$ 700	$ 347	$ 2,990

(1) *Administration and other fiduciary fees* include $136 million and $146 million for the three months ended September 30, 2022 and 2021, respectively, and $429 million and $438 million for the nine months ended September 30, 2022 and 2021, respectively, that are not accounted for under ASC 606, *Revenue from Contracts with Customers*. These generally include guarantee fees.

6. PRINCIPAL TRANSACTIONS

Principal transactions revenue consists of realized and unrealized gains and losses from trading activities. Trading activities include revenues from fixed income, equities, credit and commodities products and foreign exchange transactions that are managed on a portfolio basis and characterized below based on the primary risk managed by each trading desk. 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 20.

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 September 30,		Nine Months Ended September 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Interest rate risks[1]	**$ 460**	$ 461	**$ 3,381**	$ 2,424
Foreign exchange risks[2]	**1,554**	924	**4,740**	2,851
Equity risks[3]	**411**	666	**1,687**	1,869
Commodity and other risks[4]	**403**	252	**1,466**	844
Credit products and risks[5]	**(203)**	(70)	**466**	462
Total	**$ 2,625**	$ 2,233	**$ 11,740**	$ 8,450

(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 2021 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 2021 Form 10-K.

Net (Benefit) Expense

The following tables summarize 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 September 30,							
	Pension plans				Postretirement benefit plans			
	U.S. plans		Non-U.S. plans		U.S. plans		Non-U.S. plans	
In millions of dollars	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021
Benefits earned during the period	**$ —**	$ —	**$ 26**	$ 36	**$ —**	$ —	**$ 1**	$ 2
Interest cost on benefit obligation	**120**	87	**91**	67	**4**	3	**21**	25
Expected return on assets	**(153)**	(173)	**(64)**	(65)	**(3)**	(3)	**(16)**	(22)
Amortization of unrecognized:								
Prior service benefit	**—**	—	**(2)**	(1)	**(2)**	(3)	**(2)**	(2)
Net actuarial loss (gain)	**36**	57	**16**	16	**(2)**	—	**2**	4
Settlement loss(1)	**—**	—	**—**	1	**—**	—	**—**	—
Total net (benefit) expense	**$ 3**	$ (29)	**$ 67**	$ 54	**$ (3)**	$ (3)	**$ 6**	$ 7

(1) (Gains) losses due to settlement relate to divestiture activities.

	Nine Months Ended September 30,							
	Pension plans				Postretirement benefit plans			
	U.S. plans		Non-U.S. plans		U.S. plans		Non-U.S. plans	
In millions of dollars	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021
Benefits earned during the period	**$ —**	$ —	**$ 90**	$ 113	**$ —**	$ —	**$ 2**	$ 6
Interest cost on benefit obligation	**311**	264	**243**	199	**11**	9	**67**	74
Expected return on plan assets	**(461)**	(529)	**(196)**	(189)	**(9)**	(10)	**(54)**	(65)
Amortization of unrecognized:								
Prior service cost (benefit)	**1**	1	**(5)**	(4)	**(7)**	(7)	**(6)**	(7)
Net actuarial loss (gain)	**136**	173	**43**	48	**(5)**	(1)	**4**	12
Curtailment (gain)(1)	**—**	—	**(23)**	—	**—**	—	**—**	—
Settlement (gain) loss(1)	**—**	—	**(10)**	5	**—**	—	**—**	—
Total net (benefit) expense	**$ (13)**	$ (91)	**$ 142**	$ 172	**$ (10)**	$ (9)	**$ 13**	$ 20

(1) (Gains) losses due to curtailment and settlement relate to divestiture activities. Total net expense for non-U.S. plans includes a $36 million net benefit related to the wind-down of Citi's consumer banking business in Korea.

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:

	Nine Months Ended September 30, 2022			
	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	$ 12,766	$ 8,001	$ 501	$ 1,169
Plans measured annually	(23)	(2,071)	—	(298)
Projected benefit obligation at beginning of year—Significant Plans	$ 12,743	$ 5,930	$ 501	$ 871
First quarter activity	(1,234)	(285)	(50)	(71)
Second quarter activity	(1,051)	(907)	(45)	(49)
Projected benefit obligation at June 30, 2022—Significant Plans	$ 10,458	$ 4,738	$ 406	$ 751
Benefits earned during the period	—	12	—	—
Interest cost on benefit obligation	120	70	4	19
Actuarial (gain)(1)	(642)	(278)	(24)	(33)
Benefits paid, net of participants' contributions and government subsidy	(230)	(79)	(12)	(14)
Settlement (gain)(2)	—	(2)	—	—
Foreign exchange impact and other	—	(83)	—	—
Projected benefit obligation at period end—Significant Plans	$ 9,706	$ 4,378	$ 374	$ 723
Change in plan assets				
Plan assets at fair value at beginning of year	$ 12,977	$ 7,614	$ 319	$ 1,043
Plans measured annually	—	(1,419)	—	(7)
Plan assets at fair value at beginning of year—Significant Plans	$ 12,977	$ 6,195	$ 319	$ 1,036
First quarter activity	(1,030)	(226)	(19)	(135)
Second quarter activity	(1,108)	(762)	(34)	(73)
Plan assets at fair value at June 30, 2022—Significant Plans	$ 10,839	$ 5,207	$ 266	$ 828
Actual return on plan assets	(497)	(310)	(10)	(42)
Company contributions, net of reimbursements	13	12	6	—
Benefits paid, net of participants' contributions and government subsidy	(230)	(79)	(12)	(14)
Settlement (gain)(2)	—	(2)	—	—
Foreign exchange impact and other	—	(86)	—	—
Plan assets at fair value at period end—Significant Plans	$ 10,125	$ 4,742	$ 250	$ 772
Qualified plans(3)	$ 941	$ 364	$ (124)	$ 49
Nonqualified plans(4)	(522)	—	—	—
Funded status of the plans at period end—Significant Plans	$ 419	$ 364	$ (124)	$ 49
Net amount recognized at period end				
Benefit asset	$ 941	$ 793	$ —	$ 49
Benefit liability	(522)	(429)	(124)	—
Net amount recognized on the balance sheet—Significant Plans	$ 419	$ 364	$ (124)	$ 49
Amounts recognized in *AOCI* at period end(5)				
Prior service (expense) benefit	$ —	$ (1)	$ 85	$ 35
Net actuarial (loss) gain	(6,438)	(1,060)	127	(236)
Net amount recognized in equity (pretax)—Significant Plans	$ (6,438)	$ (1,061)	$ 212	$ (201)
Accumulated benefit obligation at period end—Significant Plans	$ 9,705	$ 4,205	$ 374	$ 723

(1) During 2022, the actuarial gain is primarily due to the increase in global discount rates.
(2) Gains due to settlement relate to divestiture activities.
(3) 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, 2022 and no minimum required funding is expected for 2022.
(4) The nonqualified plans of the Company are unfunded.

(5) 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 September 30, 2022	Nine Months Ended September 30, 2022
Beginning of period balance, net of tax[1][2]	**$ (5,770)**	**$ (5,852)**
Actuarial assumptions changes and plan experience	**977**	**4,001**
Net asset (loss) due to difference between actual and expected returns	**(1,084)**	**(4,221)**
Net amortization	**43**	**159**
Curtailment/settlement (gain)[3]	**—**	**(32)**
Foreign exchange impact and other	**60**	**193**
Change in deferred taxes, net	**41**	**19**
Change, net of tax	**$ 37**	**$ 119**
End of period balance, net of tax[1][2]	**$ (5,733)**	**$ (5,733)**

(1) See Note 17 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

The discount rates utilized during the period in determining the pension and postretirement net (benefit) expense for the Significant Plans are as follows:

	Three Months Ended	
Net (benefit) expense assumed discount rates during the period	**Sept. 30, 2022**	Sept. 30, 2021
U.S. plans		
Qualified pension	**4.80 %**	2.75 %
Nonqualified pension	**4.80**	2.70
Postretirement	**4.75**	2.60
Non-U.S. plans		
Pension	**2.00–10.75**	0.25–9.25
Weighted average	**6.68**	4.23
Postretirement	**10.75**	9.50

The discount rates utilized at period end in determining the pension and postretirement benefit obligations for the Significant Plans are as follows:

Plan obligations assumed discount rates at period ended	**Sept. 30, 2022**	Jun. 30, 2022	Mar. 31, 2022
U.S. plans			
Qualified pension	**5.65 %**	4.80 %	3.80 %
Nonqualified pension	**5.60**	4.80	3.85
Postretirement	**5.65**	4.75	3.85
Non-U.S. plans			
Pension	**2.10–11.30**	2.00–10.75	1.10–10.00
Weighted average	**7.64**	6.68	5.55
Postretirement	**11.25**	10.75	10.10

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 September 30, 2022	
In millions of dollars	One-percentage-point increase	One-percentage-point decrease
Pension		
U.S. plans	$ 6	$ (7)
Non-U.S. plans	—	2
Postretirement		
Non-U.S. plans	(1)	1

Contributions

For the U.S. pension plans, there were no required minimum cash contributions during the first nine months of 2022.

The following table summarizes the Company's actual contributions for the nine months ended September 30, 2022 and 2021, as well as expected Company contributions for the remainder of 2022 and the actual contributions made in 2021:

	Pension plans				Postretirement plans			
	U.S. plans[1]		Non-U.S. plans		U.S. plans		Non-U.S. plans	
In millions of dollars	**2022**	2021	**2022**	2021	**2022**	2021	**2022**	2021
Company contributions (reimbursements)[2][3] for the nine months ended September 30	**$ 41**	$ 41	**$ 417**	$ 116	**$ 5**	$ 19	**$ 7**	$ 6
Company contributions made during the remainder of the year	**—**	15	**—**	39	**—**	3	**—**	2
Company contributions expected to be made during the remainder of the year[3]	**16**		**26**		**2**		**2**	

(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 September 30,		Nine Months Ended September 30,	
In millions of dollars	**2022**	2021	**2022**	2021
U.S. plans	**$ 119**	$ 113	**$ 356**	$ 324
Non-U.S. plans	**98**	87	**303**	270

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 September 30,		Nine Months Ended September 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Service-related expense				
Amortization of unrecognized:				
Net actuarial loss	**$ 1**	$ 1	**$ 2**	$ 2
Total service-related expense	**$ 1**	$ 1	**$ 2**	$ 2
Non-service-related expense	**$ 2**	$ 3	**$ 8**	$ 7
Total net expense	**$ 3**	$ 4	**$ 10**	$ 9

9. EARNINGS PER SHARE

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars, except per share amounts	**2022**	2021	**2022**	2021
Earnings per common share				
Income from continuing operations before attribution to noncontrolling interests	**$ 3,515**	$ 4,669	**$ 12,629**	$ 18,839
Less: Noncontrolling interests from continuing operations	**30**	24	**68**	67
Net income from continuing operations (for EPS purposes)	**$ 3,485**	$ 4,645	**$ 12,561**	$ 18,772
Income (loss) from discontinued operations, net of taxes	**(6)**	(1)	**(229)**	7
Citigroup's net income	**$ 3,479**	$ 4,644	**$ 12,332**	$ 18,779
Less: Preferred dividends	**277**	266	**794**	811
Net income available to common shareholders	**$ 3,202**	$ 4,378	**$ 11,538**	$ 17,968
Less: Dividends and undistributed earnings allocated to employee restricted and deferred shares with rights to dividends, applicable to basic EPS	**28**	26	**89**	134
Net income allocated to common shareholders for basic EPS	**$ 3,174**	$ 4,352	**$ 11,449**	$ 17,834
Weighted-average common shares outstanding applicable to basic EPS *(in millions)*	**1,936.8**	2,009.3	**1,950.0**	2,049.3
Basic earnings per share[1]				
Income from continuing operations	**$ 1.64**	$ 2.17	**$ 5.99**	$ 8.70
Discontinued operations	**—**	—	**(0.12)**	—
Net income per share—basic	**$ 1.64**	$ 2.17	**$ 5.87**	$ 8.70
Diluted earnings per share				
Net income allocated to common shareholders for basic EPS	**$ 3,174**	$ 4,352	**$ 11,449**	$ 17,834
Add back: Dividends allocated to employee restricted and deferred shares with rights to dividends that are forfeitable	**11**	8	**30**	23
Net income allocated to common shareholders for diluted EPS	**$ 3,185**	$ 4,360	**$ 11,479**	$ 17,857
Weighted-average common shares outstanding applicable to basic EPS *(in millions)*	**1,936.8**	2,009.3	**1,950.0**	2,049.3
Effect of dilutive securities				
Options[2]	**—**	—	**—**	—
Other employee plans	**18.3**	16.9	**17.1**	16.0
Adjusted weighted-average common shares outstanding applicable to diluted EPS *(in millions)*[3]	**1,955.1**	2,026.2	**1,967.1**	2,065.3
Diluted earnings per share[1]				
Income from continuing operations	**$ 1.63**	$ 2.15	**$ 5.95**	$ 8.64
Discontinued operations	**—**	—	**(0.12)**	—
Net income per share—diluted	**$ 1.63**	$ 2.15	**$ 5.84**	$ 8.65

(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, second and third quarters of 2022 and 2021, 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 2021 Form 10-K.

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

In millions of dollars	**September 30, 2022**	December 31, 2021
Securities purchased under agreements to resell	**$ 268,471**	$ 236,252
Deposits paid for securities borrowed	**80,812**	91,042
Total, net[1]	**$ 349,283**	$ 327,294
Allowance for credit losses on securities purchased and borrowed[2]	**(69)**	(6)
Total, net of allowance	**$ 349,214**	$ 327,288

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

In millions of dollars	**September 30, 2022**	December 31, 2021
Securities sold under agreements to repurchase	**$ 186,055**	$ 174,255
Deposits received for securities loaned	**17,374**	17,030
Total, net[1]	**$ 203,429**	$ 191,285

(1) The above tables do not include securities-for-securities lending transactions of $3.2 billion and $3.6 billion at September 30, 2022 and December 31, 2021, 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 20 and 21. 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 21. 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 September 30, 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	**$ 368,675**	**$ 100,204**	**$ 268,471**	**$ 188,620**	**$ 79,851**
Deposits paid for securities borrowed	**89,452**	**8,640**	**80,812**	**12,272**	**68,540**
Total	**$ 458,127**	**$ 108,844**	**$ 349,283**	**$ 200,892**	**$ 148,391**

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	**$ 286,259**	**$ 100,204**	**$ 186,055**	**$ 74,279**	**$ 111,776**
Deposits received for securities loaned	**26,014**	**8,640**	**17,374**	**1,302**	**16,072**
Total	**$ 312,273**	**$ 108,844**	**$ 203,429**	**$ 75,581**	**$ 127,848**

	As of December 31, 2021				
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	$ 367,594	$ 131,342	$ 236,252	$ 205,349	$ 30,903
Deposits paid for securities borrowed	107,041	15,999	91,042	17,326	73,716
Total	$ 474,635	$ 147,341	$ 327,294	$ 222,675	$ 104,619

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	$ 305,597	$ 131,342	$ 174,255	$ 85,184	$ 89,071
Deposits received for securities loaned	33,029	15,999	17,030	2,868	14,162
Total	$ 338,626	$ 147,341	$ 191,285	$ 88,052	$ 103,233

(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 September 30, 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	**$ 138,287**	**$ 77,589**	**$ 27,855**	**$ 42,528**	**$ 286,259**
Deposits received for securities loaned	**19,746**	**325**	**458**	**5,485**	**26,014**
Total	**$ 158,033**	**$ 77,914**	**$ 28,313**	**$ 48,013**	**$ 312,273**

	As of December 31, 2021				
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	$ 127,679	$ 93,257	$ 32,908	$ 51,753	$ 305,597
Deposits received for securities loaned	23,387	6	1,392	8,244	33,029
Total	$ 151,066	$ 93,263	$ 34,300	$ 59,997	$ 338,626

The following tables present the gross amounts of liabilities associated with repurchase agreements and securities lending agreements by class of underlying collateral:

	As of September 30, 2022		
In millions of dollars	**Repurchase agreements**	**Securities lending agreements**	**Total**
U.S. Treasury and federal agency securities	**$ 105,681**	**$ 119**	**$ 105,800**
State and municipal securities	**1,141**	**—**	**1,141**
Foreign government securities	**120,050**	**110**	**120,160**
Corporate bonds	**15,176**	**67**	**15,243**
Equity securities	**10,263**	**25,541**	**35,804**
Mortgage-backed securities	**24,007**	**—**	**24,007**
Asset-backed securities	**1,749**	**—**	**1,749**
Other	**8,192**	**177**	**8,369**
Total	**$ 286,259**	**$ 26,014**	**$ 312,273**

	As of December 31, 2021		
In millions of dollars	Repurchase agreements	Securities lending agreements	Total
U.S. Treasury and federal agency securities	$ 85,861	$ 90	$ 85,951
State and municipal securities	1,053	—	1,053
Foreign government securities	133,352	212	133,564
Corporate bonds	20,398	152	20,550
Equity securities	25,653	32,517	58,170
Mortgage-backed securities	33,573	—	33,573
Asset-backed securities	1,681	—	1,681
Other	4,026	58	4,084
Total	$ 305,597	$ 33,029	$ 338,626

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 2021 Form 10-K.

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

In millions of dollars	**September 30, 2022**	December 31, 2021
Receivables from customers	**$ 26,670**	$ 26,403
Receivables from brokers, dealers and clearing organizations	**53,026**	27,937
Total brokerage receivables[(1)]	**$ 79,696**	$ 54,340
Payables to customers	**$ 69,531**	$ 52,158
Payables to brokers, dealers and clearing organizations	**18,310**	9,272
Total brokerage payables[(1)]	**$ 87,841**	$ 61,430

(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 2021 Form 10-K.

The following table presents Citi's investments by category:

In millions of dollars	**September 30, 2022**	December 31, 2021
Debt securities available-for-sale (AFS)	**$ 232,143**	$ 288,522
Debt securities held-to-maturity (HTM)(1)	**267,864**	216,963
Marketable equity securities carried at fair value(2)	**431**	543
Non-marketable equity securities carried at fair value(2)(5)	**419**	489
Non-marketable equity securities measured using the measurement alternative(3)	**1,690**	1,413
Non-marketable equity securities carried at cost(4)	**5,469**	4,892
Total investments	**$ 508,016**	$ 512,822

(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 $26 million and $145 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 September 30, 2022 and December 31, 2021, respectively.

The following table presents interest and dividend income on investments:

	Three Months Ended September 30,		**Nine Months Ended September 30,**	
In millions of dollars	**2022**	2021	**2022**	2021
Taxable interest	**$ 2,714**	$ 1,777	**$ 7,001**	$ 5,152
Interest exempt from U.S. federal income tax	**220**	73	**263**	196
Dividend income	**59**	35	**149**	107
Total interest and dividend income on investments	**$ 2,993**	$ 1,885	**$ 7,413**	$ 5,455

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

	Three Months Ended September 30,		**Nine Months Ended September 30,**	
In millions of dollars	**2022**	2021	**2022**	2021
Gross realized investment gains	**$ 102**	$ 142	**$ 282**	$ 757
Gross realized investment losses	**(50)**	(25)	**(208)**	(102)
Net realized gains (losses) on sales of investments	**$ 52**	$ 117	**$ 74**	$ 655

Debt Securities Available-for-Sale

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

	September 30, 2022					December 31, 2021				
In millions of dollars	**Amortized cost**	**Gross unrealized gains**	**Gross unrealized losses**	**Allowance for credit losses**	**Fair value**	Amortized cost	Gross unrealized gains	Gross unrealized losses	Allowance for credit losses	Fair value
Debt securities AFS										
Mortgage-backed securities[1]										
U.S. government-sponsored agency guaranteed[2]	**$ 12,214**	**$ 7**	**$ 890**	**$ —**	**$ 11,331**	$ 33,064	$ 453	$ 301	$ —	$ 33,216
Residential	**479**	**—**	**3**	**—**	**476**	380	1	1	—	380
Commercial	**4**	**—**	**—**	**—**	**4**	25	—	—	—	25
Total mortgage-backed securities	**$ 12,697**	**$ 7**	**$ 893**	**$ —**	**$ 11,811**	$ 33,469	$ 454	$ 302	$ —	$ 33,621
U.S. Treasury and federal agency securities										
U.S. Treasury	**$ 92,595**	**$ 41**	**$ 2,973**	**$ —**	**$ 89,663**	$ 122,669	$ 615	$ 844	$ —	$122,440
Agency obligations	**—**	**—**	**—**	**—**	**—**	—	—	—	—	—
Total U.S. Treasury and federal agency securities	**$ 92,595**	**$ 41**	**$ 2,973**	**$ —**	**$ 89,663**	$ 122,669	$ 615	$ 844	$ —	$122,440
State and municipal[3]	**$ 2,368**	**$ 8**	**$ 223**	**$ —**	**$ 2,153**	$ 2,643	$ 79	$ 101	$ —	$ 2,621
Foreign government	**121,815**	**400**	**3,244**	**—**	**118,971**	119,426	337	1,023	—	118,740
Corporate	**5,773**	**37**	**296**	**1**	**5,513**	5,972	33	77	8	5,920
Asset-backed securities[1]	**277**	**1**	**2**	**—**	**276**	304	—	1	—	303
Other debt securities	**3,764**	**—**	**8**	**—**	**3,756**	4,880	1	4	—	4,877
Total debt securities AFS	**$ 239,289**	**$ 494**	**$ 7,639**	**$ 1**	**$232,143**	$ 289,363	$ 1,519	$ 2,352	$ 8	$288,522

(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 18 for mortgage- and asset-backed securitizations in which the Company has other involvement.

(2) In June 2022, Citibank transferred $21.5 billion of agency residential mortgage-backed securities from AFS classification to HTM classification in accordance with ASC 320. At the time of transfer, the securities were in an unrealized loss position of $2.3 billion. The loss amounts will remain in *AOCI* and will be amortized over the remaining life of the securities.

(3) In September 2022, Citibank transferred $165 million of municipal bonds from AFS classification to HTM classification in accordance with ASC 320. At the time of transfer, the bonds were in an unrealized loss position of $12 million. The loss amounts will remain in *AOCI* and will be amortized over the remaining life of the securities.

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
September 30, 2022						
Debt securities AFS						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	**$ 9,471**	**$ 615**	**$ 1,922**	**$ 275**	**$ 11,393**	**$ 890**
Residential	**46**	**3**	**—**	**—**	**46**	**3**
Commercial	**3**	**—**	**1**	**—**	**4**	**—**
Total mortgage-backed securities	**$ 9,520**	**$ 618**	**$ 1,923**	**$ 275**	**$ 11,443**	**$ 893**
U.S. Treasury	**$ 44,899**	**$ 1,300**	**$ 33,305**	**$ 1,673**	**$ 78,204**	**$ 2,973**
State and municipal	**488**	**40**	**1,308**	**183**	**1,796**	**223**
Foreign government	**79,279**	**2,514**	**13,266**	**730**	**92,545**	**3,244**
Corporate	**4,068**	**270**	**394**	**26**	**4,462**	**296**
Asset-backed securities	**159**	**2**	**—**	**—**	**159**	**2**
Other debt securities	**2,271**	**8**	**—**	**—**	**2,271**	**8**
Total debt securities AFS	**$ 140,684**	**$ 4,752**	**$ 50,196**	**$ 2,887**	**$ 190,880**	**$ 7,639**
December 31, 2021						
Debt securities AFS						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	$ 17,039	$ 270	$ 698	$ 31	$ 17,737	$ 301
Non-U.S. residential	96	1	1	—	97	1
Commercial	—	—	—	—	—	—
Total mortgage-backed securities	$ 17,135	$ 271	$ 699	$ 31	$ 17,834	$ 302
U.S. Treasury and federal agency securities						
U.S. Treasury	$ 56,448	$ 713	$ 6,310	$ 131	$ 62,758	$ 844
Agency obligations	—	—	—	—	—	—
Total U.S. Treasury and federal agency securities	$ 56,448	$ 713	$ 6,310	$ 131	$ 62,758	$ 844
State and municipal	$ 229	$ 3	$ 874	$ 98	$ 1,103	$ 101
Foreign government	64,319	826	9,924	197	74,243	1,023
Corporate	2,655	77	22	—	2,677	77
Asset-backed securities	108	1	—	—	108	1
Other debt securities	3,439	4	—	—	3,439	4
Total debt securities AFS	$ 144,333	$ 1,895	$ 17,829	$ 457	$ 162,162	$ 2,352

The following table presents the amortized cost and fair value of AFS debt securities by contractual maturity dates:

	September 30, 2022		December 31, 2021	
In millions of dollars	**Amortized cost**	**Fair value**	Amortized cost	Fair value
Mortgage-backed securities(1)				
Due within 1 year	**$ 42**	**$ 42**	$ 188	$ 189
After 1 but within 5 years	**514**	**502**	211	211
After 5 but within 10 years	**365**	**337**	523	559
After 10 years	**11,776**	**10,930**	32,547	32,662
Total	**$ 12,697**	**$ 11,811**	$ 33,469	$ 33,621
U.S. Treasury and federal agency securities				
Due within 1 year	**$ 16,839**	**$ 16,737**	$ 34,321	$ 34,448
After 1 but within 5 years	**75,414**	**72,631**	87,987	87,633
After 5 but within 10 years	**342**	**295**	361	359
After 10 years	**—**	**—**	—	—
Total	**$ 92,595**	**$ 89,663**	$ 122,669	$ 122,440
State and municipal				
Due within 1 year	**$ 18**	**$ 19**	$ 40	$ 40
After 1 but within 5 years	**101**	**99**	121	124
After 5 but within 10 years	**263**	**247**	156	161
After 10 years	**1,986**	**1,788**	2,326	2,296
Total	**$ 2,368**	**$ 2,153**	$ 2,643	$ 2,621
Foreign government				
Due within 1 year	**$ 55,925**	**$ 55,735**	$ 49,263	$ 49,223
After 1 but within 5 years	**62,444**	**60,195**	64,555	63,961
After 5 but within 10 years	**2,564**	**2,239**	3,736	3,656
After 10 years	**882**	**802**	1,872	1,900
Total	**$ 121,815**	**$ 118,971**	$ 119,426	$ 118,740
All other(2)				
Due within 1 year	**$ 4,396**	**$ 4,378**	$ 5,175	$ 5,180
After 1 but within 5 years	**4,592**	**4,420**	5,177	5,149
After 5 but within 10 years	**770**	**743**	750	750
After 10 years	**56**	**4**	54	21
Total	**$ 9,814**	**$ 9,545**	$ 11,156	$ 11,100
Total debt securities AFS	**$ 239,289**	**$ 232,143**	$ 289,363	$ 288,522

(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.
(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
September 30, 2022				
Debt securities HTM				
Mortgage-backed securities(2)				
U.S. government-sponsored agency guaranteed(3)	**$ 89,020**	**$ 2**	**$ 11,160**	**$ 77,862**
Non-U.S. residential	**467**	**—**	**—**	**467**
Commercial	**1,100**	**4**	**1**	**1,103**
Total mortgage-backed securities	**$ 90,587**	**$ 6**	**$ 11,161**	**$ 79,432**
U.S. Treasury securities	**$ 134,969**	**$ —**	**$ 14,672**	**$ 120,297**
State and municipal(4)	**9,215**	**18**	**1,111**	**8,122**
Foreign government	**2,014**	**—**	**115**	**1,899**
Asset-backed securities(2)	**31,079**	**4**	**1,026**	**30,057**
Total debt securities HTM, net	**$ 267,864**	**$ 28**	**$ 28,085**	**$ 239,807**
December 31, 2021				
Debt securities HTM				
Mortgage-backed securities(2)				
U.S. government-sponsored agency guaranteed	$ 63,885	$ 1,076	$ 925	$ 64,036
Non-U.S. residential	736	3	—	739
Commercial	1,070	4	2	1,072
Total mortgage-backed securities	$ 65,691	$ 1,083	$ 927	$ 65,847
U.S. Treasury securities	$ 111,819	$ 30	$ 1,632	$ 110,217
State and municipal(5)	8,923	589	12	9,500
Foreign government	1,651	4	36	1,619
Asset-backed securities(2)	28,879	8	32	28,855
Total debt securities HTM, net	$ 216,963	$ 1,714	$ 2,639	$ 216,038

(1) Amortized cost is reported net of ACL of $115 million and $87 million at September 30, 2022 and December 31, 2021, 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 18 for mortgage- and asset-backed securitizations in which the Company has other involvement.
(3) In June 2022, Citibank transferred $21.5 billion of agency residential mortgage-backed securities from AFS classification to HTM classification in accordance with ASC 320. At the time of transfer, the securities were in an unrealized loss position of $2.3 billion. The loss amounts will remain in *AOCI* and will be amortized over the remaining life of the securities.
(4) In September 2022, Citibank transferred $165 million of municipal bonds from AFS classification to HTM classification in accordance with ASC 320. At the time of transfer, the bonds were in an unrealized loss position of $12 million. The loss amounts will remain in *AOCI* and will be amortized over the remaining life of the securities.
(5) In February 2021, the Company transferred $237 million of state and municipal bonds from AFS classification to HTM classification in accordance with ASC 320. At the time of transfer, the securities were in an unrealized gain position of $14 million. The gain amounts will remain in *AOCI* and will be amortized over the remaining life of the securities.

The following table presents the carrying value and fair value of HTM debt securities by contractual maturity dates:

	September 30, 2022		December 31, 2021	
In millions of dollars	**Amortized cost(1)**	**Fair value**	Amortized cost(1)	Fair value
Mortgage-backed securities				
Due within 1 year	**$ 32**	**$ 32**	$ 152	$ 151
After 1 but within 5 years	**683**	**663**	684	725
After 5 but within 10 years	**1,520**	**1,386**	1,655	1,739
After 10 years	**88,352**	**77,351**	63,200	63,232
Total	**$ 90,587**	**$ 79,432**	$ 65,691	$ 65,847
U.S. Treasury securities				
Due within 1 year	**$ —**	**$ —**	$ —	$ —
After 1 but within 5 years	**89,774**	**81,540**	65,498	64,516
After 5 but within 10 years	**45,195**	**38,757**	46,321	45,701
After 10 years	**—**	**—**	—	—
Total	**$ 134,969**	**$ 120,297**	$ 111,819	$ 110,217
State and municipal				
Due within 1 year	**$ 41**	**$ 41**	$ 51	$ 50
After 1 but within 5 years	**121**	**120**	166	170
After 5 but within 10 years	**935**	**880**	908	951
After 10 years	**8,118**	**7,081**	7,798	8,329
Total	**$ 9,215**	**$ 8,122**	$ 8,923	$ 9,500
Foreign government				
Due within 1 year	**$ —**	**$ —**	$ 292	$ 291
After 1 but within 5 years	**2,014**	**1,899**	1,359	1,328
After 5 but within 10 years	**—**	**—**	—	—
After 10 years	**—**	**—**	—	—
Total	**$ 2,014**	**$ 1,899**	$ 1,651	$ 1,619
All other(2)				
Due within 1 year	**$ —**	**$ —**	$ —	$ —
After 1 but within 5 years	**—**	**—**	—	—
After 5 but within 10 years	**11,857**	**11,603**	11,520	11,515
After 10 years	**19,222**	**18,454**	17,359	17,340
Total	**$ 31,079**	**$ 30,057**	$ 28,879	$ 28,855
Total debt securities HTM	**$ 267,864**	**$ 239,807**	$ 216,963	$ 216,038

(1) Amortized cost is reported net of ACL of $115 million and $87 million at September 30, 2022 and December 31, 2021, respectively.
(2) Includes corporate and asset-backed securities.

HTM Debt Securities Delinquency and Non-Accrual Details

Citi did not have any HTM securities that were delinquent or on non-accrual status at September 30, 2022 or December 31, 2021.

There were no purchased credit-deteriorated HTM debt securities held by the Company as of September 30, 2022 or December 31, 2021.

Evaluating Investments for Impairment

AFS Debt Securities

Overview—AFS Debt Securities
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 2021 Form 10-K.

Recognition and Measurement of Impairment
The following tables present total impairment on *Investments* recognized in earnings:

	Three Months Ended September 30, 2022			Three Months Ended September 30, 2021		
In millions of dollars	**AFS**	**Other assets**	**Total**	AFS	Other assets	Total
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	74	—	74	21	—	21
Total impairment losses recognized in earnings	$ 74	$ —	$ 74	$ 21	$ —	$ 21

	Nine Months Ended September 30, 2022			Nine Months Ended September 30, 2021		
In millions of dollars	**AFS**	**Other assets**	**Total**	AFS	Other assets	Total
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	254	—	254	99	—	99
Total impairment losses recognized in earnings	$ 254	$ —	$ 254	$ 99	$ —	$ 99

Allowance for Credit Losses on AFS Debt Securities

	Three Months Ended September 30, 2022	
In millions of dollars	Corporate	Total AFS
Allowance for credit losses at beginning of period	**$ 6**	**$ 6**
Gross write-offs	—	—
Gross recoveries	**5**	**5**
Net credit losses (NCLs)	**$ 5**	**$ 5**
NCLs	**$ (5)**	**$ (5)**
Credit losses on securities without previous credit losses	—	—
Net reserve builds (releases) on securities with previous credit losses	—	—
Total provision for credit losses	**$ (5)**	**$ (5)**
Initial allowance on newly purchased credit-deteriorated securities during the period	—	—
Allowance for credit losses at end of period	**$ 1**	**$ 1**

	Nine Months Ended September 30, 2022	
In millions of dollars	Corporate	Total AFS
Allowance for credit losses at beginning of period	**$ 8**	**$ 8**
Gross write-offs	—	—
Gross recoveries	**5**	**5**
Net credit losses (NCLs)	**$ 5**	**$ 5**
NCLs	**$ (5)**	**$ (5)**
Credit losses on securities without previous credit losses	—	—
Net reserve builds (releases) on securities with previous credit losses	**(2)**	**(2)**
Total provision for credit losses	**$ (7)**	**$ (7)**
Initial allowance on newly purchased credit-deteriorated securities during the period	—	—
Allowance for credit losses at end of period	**$ 1**	**$ 1**

In millions of dollars	Three Months Ended September 30, 2021 Corporate	Total AFS
Allowance for credit losses at beginning of period	$ 5	$ 5
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	$ 6	$ 6

In millions of dollars	Nine Months Ended September 30, 2021 Corporate	Total AFS
Allowance for credit losses at beginning of period	$ 5	$ 5
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	$ 6	$ 6

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 2021 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 September 30, 2022 and December 31, 2021:

In millions of dollars	**September 30, 2022**	December 31, 2021
Measurement alternative:		
Carrying value	**$ 1,690**	$ 1,413

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

	Three Months Ended September 30,		**Nine Months Ended September 30,**	
In millions of dollars	**2022**	2021	**2022**	2021
Measurement alternative:(1)				
Impairment losses	**$ 17**	$ 9	**$ 23**	$ 13
Downward changes for observable prices	**—**	—	**—**	—
Upward changes for observable prices	**7**	86	**141**	382

(1) See Note 20 for additional information on these nonrecurring fair value measurements.

In millions of dollars	**Life-to-date amounts on securities still held September 30, 2022**
Measurement alternative:	
Impairment losses	**$ 103**
Downward changes for observable prices	**3**
Upward changes for observable prices	**831**

A similar impairment analysis is performed for non-marketable equity securities carried at cost. For the three months ended September 30, 2022 and 2021, 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 2021 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	**September 30, 2022**	December 31, 2021
In North America offices[1]		
Commercial and industrial	**$ 52,990**	$ 48,364
Financial institutions	**43,667**	49,804
Mortgage and real estate[2]	**17,762**	15,965
Installment and other	**21,222**	20,143
Lease financing	**383**	415
Total	**$ 136,024**	$ 134,691
In offices outside North America[1]		
Commercial and industrial	**$ 100,570**	$ 102,735
Financial institutions	**23,604**	22,158
Mortgage and real estate[2]	**4,005**	4,374
Installment and other	**19,653**	22,812
Lease financing	**48**	40
Governments and official institutions	**4,473**	4,423
Total	**$ 152,353**	$ 156,542
Corporate loans, net of unearned income[3]	**$ 288,377**	$ 291,233

(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 ($750) million and ($770) million at September 30, 2022 and December 31, 2021, respectively. Unearned income on corporate loans primarily represents interest received in advance, but not yet earned, on loans originated on a discounted basis.

The Company sold and/or reclassified to held-for-sale $2.2 billion and $3.7 billion of corporate loans during the three and nine months ended September 30, 2022, respectively, and $1.0 billion and $4.1 billion of corporate loans during the three and nine months ended September 30, 2021, respectively. The Company did not have significant purchases of corporate loans classified as held-for-investment for the three and nine months ended September 30, 2022 or 2021.

Corporate Loan Delinquencies and Non-Accrual Details at September 30, 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	$ 598	$ 691	$ 1,289	$ 1,085	$ 149,236	$ 151,610
Financial institutions	147	140	287	178	66,439	66,904
Mortgage and real estate	22	15	37	110	21,573	21,720
Lease financing	—	—	—	10	421	431
Other	46	126	172	102	43,800	44,074
Loans at fair value						3,638
Total	$ 813	$ 972	$ 1,785	$ 1,485	$ 281,469	$ 288,377

Corporate Loan Delinquencies and Non-Accrual Details at December 31, 2021

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	$ 1,072	$ 239	$ 1,311	$ 1,263	$ 144,430	$ 147,004
Financial institutions	320	166	486	2	71,279	71,767
Mortgage and real estate	1	1	2	136	20,153	20,291
Lease financing	—	—	—	14	441	455
Other	77	19	96	138	45,412	45,646
Loans at fair value						6,070
Total	$ 1,470	$ 425	$ 1,895	$ 1,553	$ 281,715	$ 291,233

(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) Total loans include loans at fair value, which are not included in the various delinquency columns.

Corporate Loans Credit Quality Indicators

	Recorded investment in loans[1]							
	Term loans by year of origination							
In millions of dollars	2022	2021	2020	2019	2018	Prior	Revolving line of credit arrangements[2]	September 30, 2022
Investment grade[3]								
Commercial and industrial[4]	$ 40,874	$ 6,736	$ 3,544	$ 3,550	$ 2,771	$ 7,943	$ 38,771	$ 104,189
Financial institutions[4]	10,942	4,787	1,053	1,104	764	1,722	37,679	58,051
Mortgage and real estate	3,376	2,997	3,858	2,779	1,393	2,083	174	16,660
Other[5]	6,583	2,113	1,689	829	2,216	4,221	22,732	40,383
Total investment grade	$ 61,775	$ 16,633	$ 10,144	$ 8,262	$ 7,144	$ 15,969	$ 99,356	$ 219,283
Non-investment grade[3]								
Accrual								
Commercial and industrial[4]	$ 16,582	$ 4,509	$ 1,858	$ 1,275	$ 1,134	$ 4,267	$ 16,711	$ 46,336
Financial institutions[4]	4,674	1,006	217	232	53	423	2,070	8,675
Mortgage and real estate	532	761	513	782	1,049	865	448	4,950
Other[5]	929	615	493	394	121	306	1,152	4,010
Non-accrual								
Commercial and industrial[4]	157	107	111	81	71	147	411	1,085
Financial institutions	41	35	—	—	—	—	102	178
Mortgage and real estate	—	31	28	—	—	15	36	110
Other[5]	13	1	8	38	10	13	29	112
Total non-investment grade	$ 22,928	$ 7,065	$ 3,228	$ 2,802	$ 2,438	$ 6,036	$ 20,959	$ 65,456
Loans at fair value[6]								$ 3,638
Corporate loans, net of unearned income	$ 84,703	$ 23,698	$ 13,372	$ 11,064	$ 9,582	$ 22,005	$ 120,315	$ 288,377

	Recorded investment in loans[1]							
	Term loans by year of origination							
In millions of dollars	2021	2020	2019	2018	2017	Prior	Revolving line of credit arrangements[2]	December 31, 2021
Investment grade[3]								
Commercial and industrial[4]	$ 42,422	$ 5,529	$ 4,642	$ 3,757	$ 2,911	$ 8,392	$ 30,588	$ 98,241
Financial institutions[4]	12,862	1,678	1,183	1,038	419	1,354	43,630	62,164
Mortgage and real estate	2,423	3,660	3,332	2,015	1,212	1,288	141	14,071
Other[5]	9,037	3,099	1,160	2,789	330	4,601	18,727	39,743
Total investment grade	$ 66,744	$ 13,966	$ 10,317	$ 9,599	$ 4,872	$ 15,635	$ 93,086	$ 214,219
Non-investment grade[3]								
Accrual								
Commercial and industrial[4]	$ 16,783	$ 2,281	$ 2,343	$ 2,024	$ 1,412	$ 3,981	$ 18,676	$ 47,500
Financial institutions[4]	4,325	347	567	101	71	511	3,679	9,601
Mortgage and real estate	1,275	869	1,228	1,018	493	586	615	6,084
Other[5]	1,339	349	554	364	119	245	3,236	6,206
Non-accrual								
Commercial and industrial[4]	53	119	64	104	94	117	712	1,263
Financial institutions	—	—	—	—	—	—	2	2
Mortgage and real estate	11	8	2	49	10	25	31	136
Other[5]	19	5	19	19	—	90	—	152
Total non-investment grade	$ 23,805	$ 3,978	$ 4,777	$ 3,679	$ 2,199	$ 5,555	$ 26,951	$ 70,944
Loans at fair value[6]								$ 6,070
Corporate loans, net of unearned income	$ 90,549	$ 17,944	$ 15,094	$ 13,278	$ 7,071	$ 21,190	$ 120,037	$ 291,233

(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.

Non-Accrual Corporate Loans

The following tables present non-accrual loan information by corporate loan type and interest income recognized on non-accrual corporate loans:

	September 30, 2022				Three Months Ended September 30, 2022	Nine Months Ended September 30, 2022
In millions of dollars	**Recorded investment[1]**	**Unpaid principal balance**	**Related specific allowance**	**Average carrying value[2]**	**Interest income recognized**	**Interest income recognized[3]**
Non-accrual corporate loans						
Commercial and industrial	**$ 1,085**	**$ 1,837**	**$ 368**	**$ 1,047**	**$ 10**	**$ 28**
Financial institutions	**178**	**236**	**51**	**33**	**—**	**—**
Mortgage and real estate	**110**	**110**	**1**	**83**	**—**	**2**
Lease financing	**10**	**10**	**—**	**10**	**—**	**—**
Other	**102**	**186**	**6**	**95**	**—**	**3**
Total non-accrual corporate loans	**$ 1,485**	**$ 2,379**	**$ 426**	**$ 1,268**	**$ 10**	**$ 33**

	December 31, 2021			
In millions of dollars	Recorded investment[1]	Unpaid principal balance	Related specific allowance	Average carrying value[2]
Non-accrual corporate loans				
Commercial and industrial	$ 1,263	$ 1,858	$ 198	$ 1,839
Financial institutions	2	55	—	4
Mortgage and real estate	136	285	10	163
Lease financing	14	14	—	21
Other	138	165	4	134
Total non-accrual corporate loans	$ 1,553	$ 2,377	$ 212	$ 2,161

	September 30, 2022		December 31, 2021	
In millions of dollars	**Recorded investment[1]**	**Related specific allowance**	Recorded investment[1]	Related specific allowance
Non-accrual corporate loans with specific allowances				
Commercial and industrial	**$ 723**	**$ 368**	$ 637	$ 198
Financial institutions	**176**	**51**	—	—
Mortgage and real estate	**57**	**1**	29	10
Other	**49**	**6**	37	4
Total non-accrual corporate loans with specific allowances	**$ 1,005**	**$ 426**	$ 703	$ 212
Non-accrual corporate loans without specific allowances				
Commercial and industrial	**$ 362**	N/A	$ 626	N/A
Financial institutions	**2**	N/A	2	N/A
Mortgage and real estate	**53**	N/A	107	N/A
Lease financing	**10**	N/A	14	N/A
Other	**53**	N/A	101	N/A
Total non-accrual corporate loans without specific allowances	**$ 480**	**N/A**	$ 850	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) Average carrying value represents the average recorded investment balance and does not include related specific allowances.
(3) Interest income recognized for the three and nine months ended September 30, 2021 was $8 million and $39 million, respectively.
N/A Not applicable

Corporate Troubled Debt Restructurings[1]

For the Three and Nine Months Ended September 30, 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[2]	TDRs involving changes in the amount and/or timing of interest payments[3]	TDRs involving changes in the amount and/or timing of both principal and interest payments
Three Months Ended September 30, 2022				
Commercial and industrial	$ 11	$ —	$ —	$ 11
Mortgage and real estate	1	1	—	—
Other	7	—	—	7
Total	$ 19	$ 1	$ —	$ 18
Nine Months Ended September 30, 2022				
Commercial and industrial	$ 26	$ —	$ —	$ 26
Mortgage and real estate	1	1	—	—
Other	30	—	—	30
Total	$ 57	$ 1	$ —	$ 56

For the Three and Nine Months Ended September 30, 2021

In millions of dollars	Carrying value of TDRs modified during the period	TDRs involving changes in the amount and/or timing of principal payments[2]	TDRs involving changes in the amount and/or timing of interest payments[3]	TDRs involving changes in the amount and/or timing of both principal and interest payments
Three Months Ended September 30, 2021				
Commercial and industrial	$ 2	$ —	$ —	$ 2
Mortgage and real estate	—	—	—	—
Other	4	—	—	4
Total	$ 6	$ —	$ —	$ 6
Nine Months Ended September 30, 2021				
Commercial and industrial	$ 75	$ —	$ —	$ 75
Mortgage and real estate	4	—	—	4
Other	4	—	—	4
Total	$ 83	$ —	$ —	$ 83

(1) The above tables do not include loan modifications that meet the TDR relief criteria in the CARES Act or the interagency guidance.
(2) 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.
(3) TDRs involving changes in the amount or timing of interest payments may involve a below-market interest rate.

The following table presents total corporate loans modified in a TDR as well as those TDRs that defaulted and for which the payment default occurred within one year of a permanent modification. Default is defined as 60 days past due, except for classifiably managed commercial banking loans, where default is defined as 90 days past due.

		TDR loans that re-defaulted within one year of modification during the			TDR loans that re-defaulted within one year of modification during the	
In millions of dollars	**TDR balances at September 30, 2022**	**Three Months Ended September 30, 2022**	**Nine Months Ended September 30, 2022**	TDR balances at September 30, 2021	Three Months Ended September 30, 2021	Nine Months Ended September 30, 2021
Commercial and industrial	$ 114	$ —	$ —	$ 249	$ —	$ —
Mortgage and real estate	14	—	—	19	—	—
Other	22	—	—	36	—	—
Total[1]	$ 150	$ —	$ —	$ 304	$ —	$ —

(1) 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 represents unsecured credit card lending to customers of Branded cards and Retail services.
- Personal, small business and other loans in North America is 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 first mortgages and Home equity 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 represents 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 is primarily composed of secured and unsecured loans to customers of *PBWM* and *Legacy Franchises*. A significant portion of *PBWM* loans are classifiably managed and represent 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.

Consumer Loans, Delinquencies and Non-Accrual Status

In millions of dollars at September 30, 2022	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]	**$ 92,339**	**$ 434**	**$ 337**	**$ 271**	**$ 93,381**	**$ 83**	**$ 450**	**$ 533**	**$ 178**
Home equity loans[8][9]	**4,629**	**26**	**139**	**—**	**4,794**	**52**	**167**	**219**	**—**
Credit cards	**138,030**	**1,269**	**1,105**	**—**	**140,404**	**—**	**—**	**—**	**1,105**
Personal, small business and other[10]	**39,977**	**55**	**60**	**18**	**40,110**	**2**	**62**	**64**	**13**
Total	**$ 274,975**	**$ 1,784**	**$ 1,641**	**$ 289**	**$ 278,689**	**$ 137**	**$ 679**	**$ 816**	**$ 1,296**
In offices outside North America[6]									
Residential mortgages[7][9]	**$ 27,144**	**$ 51**	**$ 86**	**$ —**	**$ 27,281**	**$ —**	**$ 295**	**$ 295**	**$ 10**
Credit cards	**11,508**	**131**	**125**	**—**	**11,764**	**—**	**103**	**103**	**51**
Personal, small business and other[10]	**39,658**	**111**	**80**	**—**	**39,849**	**3**	**184**	**187**	**—**
Total	**$ 78,310**	**$ 293**	**$ 291**	**$ —**	**$ 78,894**	**$ 3**	**$ 582**	**$ 585**	**$ 61**
Total Citigroup[11]	**$ 353,285**	**$ 2,077**	**$ 1,932**	**$ 289**	**$ 357,583**	**$ 140**	**$ 1,261**	**$ 1,401**	**$ 1,357**

(1) Loans less than 30 days past due are presented as current.
(2) Includes $241 million of residential first mortgages recorded at fair value.
(3) Excludes loans guaranteed by U.S. government-sponsored agencies. Excludes delinquencies on $33.9 billion and $19.4 billion of classifiably managed Private bank loans in North America and outside North America, respectively.
(4) Loans modified under Citi's 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 and $0.0 billion of residential first mortgage loans in process of foreclosure in North America and outside North America, respectively, and $19.3 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: $36.6 billion in North America, approximately $33.9 billion of which are classifiably managed, and as of September 30, 2022 approximately 96% were rated investment grade; and $28.5 billion outside North America, approximately $19.4 billion of which are classifiably managed, and as of September 30, 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 $671 million. Unearned income on consumer loans primarily represents unamortized origination fees and costs, premiums and discounts.

Consumer Loans, Delinquencies and Non-Accrual Status

In millions of dollars at December 31, 2021	Total current[1][2]	30–89 days past due[3][4][5]	≥ 90 days past due[3][4][5]	Past due government guaranteed[5][6]	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[7]									
Residential first mortgages[8]	$ 82,087	$ 381	$ 499	$ 394	$ 83,361	$ 134	$ 559	$ 693	$ 282
Home equity loans[9][10]	5,546	43	156	—	5,745	64	221	285	—
Credit cards	132,050	947	871	—	133,868	—	—	—	871
Personal, small business and other[11]	40,533	126	16	38	40,713	2	70	72	30
Total	$ 260,216	$ 1,497	$ 1,542	$ 432	$ 263,687	$ 200	$ 850	$1,050	$ 1,183
In offices outside North America[7]									
Residential mortgages[8]	$ 37,566	$ 165	$ 158	$ —	$ 37,889	$ —	$ 409	$ 409	$ 10
Credit cards	17,428	192	188	—	17,808	—	140	140	133
Personal, small business and other[11]	56,930	145	75	—	57,150	—	227	227	—
Total	$ 111,924	$ 502	$ 421	$ —	$ 112,847	$ —	$ 776	$ 776	$ 143
Total Citigroup[12]	$ 372,140	$ 1,999	$ 1,963	$ 432	$ 376,534	$ 200	$ 1,626	$1,826	$ 1,326

(1) Loans less than 30 days past due are presented as current.
(2) Includes $12 million of residential first mortgages recorded at fair value.
(3) Excludes loans guaranteed by U.S. government-sponsored agencies. Excludes $35.3 billion and $24.5 billion of classifiably managed Private bank loans in North America and outside North America, respectively.
(4) Loans modified under Citi's consumer relief programs continue to be reported in the same delinquency bucket they were in at the time of modification, and thus almost all 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) Conformed to be consistent with the current period's delineation between delinquency-managed and classifiably managed loans.
(6) 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 $0.3 billion.
(7) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.
(8) 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 reporting unit.
(9) Includes approximately $0.1 billion of home equity loans in process of foreclosure.
(10) Fixed-rate home equity loans and loans extended under home equity lines of credit, which are typically in junior lien positions.
(11) Includes loans related to the Global Wealth business: $37.9 billion in North America, approximately $35.3 billion of which are classifiably managed, and as of December 31, 2021 approximately 95% were rated investment grade; and $34.6 billion outside North America, approximately $24.5 billion of which are classifiably managed, and as of December 31, 2021 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.
(12) Consumer loans are net of unearned income of $629 million. Unearned income on consumer loans primarily represents unamortized origination fees and costs, premiums and discounts.

Interest Income Recognized for Non-Accrual Consumer Loans

In millions of dollars	Three Months Ended September 30, 2022	Three Months Ended September 30, 2021	Nine Months Ended September 30, 2022	Nine Months Ended September 30, 2021
In North America offices[1]				
Residential first mortgages	**$ 3**	$ 3	**$ 9**	$ 10
Home equity loans	**1**	2	**3**	6
Credit cards	**—**	—	**—**	—
Personal, small business and other	**1**	—	**2**	—
Total	**$ 5**	$ 5	**$ 14**	$ 16
In offices outside North America[1]				
Residential mortgages	**$ 2**	$ —	**$ 2**	$ —
Credit cards	**—**	—	**—**	—
Personal, small business and other	**—**	—	**—**	—
Total	**$ 2**	$ —	**$ 2**	$ —
Total Citigroup	**$ 7**	$ 5	**$ 16**	$ 16

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

During the three and nine months ended September 30, 2022, the Company sold and/or reclassified to HFS $0 million and $337 million of consumer loans, respectively. During the three and nine months ended September 30, 2021, the Company sold and/or reclassified to HFS $346 million and $1,449 million of consumer loans, respectively. 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 and nine months ended September 30, 2022 or 2021. See Note 2 for additional information regarding Citigroup’s businesses 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 $80.4 billion and $114.3 billion in the consumer loan portfolio outside of the U.S. as of September 30, 2022 and December 31, 2021, 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]	**September 30, 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	**$ 504**	**$ 6,083**	**$ 10,880**			
2021	**628**	**6,029**	**12,782**			
2020	**472**	**4,806**	**10,893**			
2019	**302**	**2,673**	**5,424**			
2018	**302**	**1,110**	**1,908**			
Prior	**2,043**	**6,754**	**13,031**			
Total residential first mortgages	**$ 4,251**	**$ 27,455**	**$ 54,918**	**$ —**	**$ 6,757**	**$ 93,381**
Home equity loans (pre-reset)	**$ 237**	**$ 913**	**$ 1,280**			
Home equity loans (post-reset)	**496**	**890**	**948**			
Total home equity loans	**$ 733**	**$ 1,803**	**$ 2,228**	**$ —**	**$ 30**	**$ 4,794**
Credit cards[5]	**$ 26,172**	**$ 55,368**	**$ 56,529**	**$ —**	**$ 1,787**	**$ 139,856**
Personal, small business and other						
2022	**$ 162**	**$ 397**	**$ 594**			
2021	**99**	**194**	**250**			
2020	**17**	**24**	**36**			
2019	**25**	**29**	**36**			
2018	**15**	**15**	**15**			
Prior	**124**	**190**	**145**			
Total personal, small business and other[6]	**$ 442**	**$ 849**	**$ 1,076**	**$ 33,910**	**$ 2,922**	**$ 39,199**
Total	**$ 31,598**	**$ 85,475**	**$ 114,751**	**$ 33,910**	**$ 11,496**	**$ 277,230**

FICO score distribution—U.S. portfolio[1][2]	December 31, 2021					
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						
2021	$ 626	$ 6,729	$ 12,349			
2020	508	5,102	12,153			
2019	373	3,074	6,167			
2018	394	1,180	2,216			
2017	343	1,455	2,568			
Prior	2,053	6,540	12,586			
Total residential first mortgages	$ 4,297	$ 24,080	$ 48,039	$ —	$ 6,945	$ 83,361
Home equity loans (pre-reset)	$ 263	$ 1,030	$ 1,539			
Home equity loans (post-reset)	639	1,047	1,160			
Total home equity loans	$ 902	$ 2,077	$ 2,699	$ —	$ 67	$ 5,745
Credit cards[5]	$ 23,115	$ 52,907	$ 55,137	$ —	$ 2,192	$ 133,351
Personal, small business and other						
2021	$ 59	$ 201	$ 319			
2020	22	41	64			
2019	42	53	68			
2018	34	35	37			
2017	7	8	9			
Prior	120	179	143			
Total personal, small business and other[6]	$ 284	$ 517	$ 640	$ 35,324	$ 3,041	$ 39,806
Total	$ 28,598	$ 79,581	$ 106,515	$ 35,324	$ 12,245	$ 262,263

(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 $33.9 billion and $35.3 billion of Private bank loans as of September 30, 2022 and December 31, 2021, respectively, which are classifiably managed within Global Wealth and are primarily evaluated for credit risk based on their internal risk ratings. As of September 30, 2022 and December 31, 2021, approximately 96% and 95% 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) Excludes $548 million and $517 million of balances related to Canada for September 30, 2022 and December 31, 2021, respectively.
(6) Excludes $911 million and $907 million of balances related to Canada for September 30, 2022 and December 31, 2021, respectively.

Loan-to-Value (LTV) Ratios—U.S. Consumer Mortgages

The following tables provide details on the LTV ratios for Citi's U.S. consumer mortgage portfolio 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	**September 30, 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	**$ 14,631**	**$ 3,653**	**$ 3**		
2021	**19,790**	**737**	**31**		
2020	**17,274**	**138**	**—**		
2019	**8,948**	**111**	**26**		
2018	**3,667**	**67**	**8**		
Prior	**23,077**	**130**	**82**		
Total residential first mortgages	**$ 87,387**	**$ 4,836**	**$ 150**	**$ 1,008**	**$ 93,381**
Home equity loans (pre-reset)	**$ 2,278**	**$ 28**	**$ 58**		
Home equity loans (post-reset)	**2,271**	**22**	**31**		
Total home equity loans	**$ 4,549**	**$ 50**	**$ 89**	**$ 106**	**$ 4,794**
Total	**$ 91,936**	**$ 4,886**	**$ 239**	**$ 1,114**	**$ 98,175**

LTV distribution—U.S. portfolio	December 31, 2021				
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					
2021	$ 18,107	$ 2,723	$ 34		
2020	18,715	446	—		
2019	10,047	269	29		
2018	4,117	136	11		
2017	4,804	103	4		
Prior	22,161	128	14		
Total residential first mortgages	$ 77,951	$ 3,805	$ 92	$ 1,513	$ 83,361
Home equity loans (pre-reset)	$ 2,637	$ 46	$ 69		
Home equity loans (post-reset)	2,751	52	32		
Total home equity loans	$ 5,388	$ 98	$ 101	$ 158	$ 5,745
Total	$ 83,339	$ 3,903	$ 193	$ 1,671	$ 89,106

(1) Residential first mortgages with no LTV information available are primarily due to 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]	**September 30, 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	**$ 2,347**	**$ 865**	**$ —**		
2021	**4,316**	**1,076**	**3**		
2020	**3,653**	**342**	**—**		
2019	**3,243**	**62**	**1**		
2018	**2,193**	**7**	**—**		
Prior	**8,873**	**34**	**8**		
Total	**$ 24,625**	**$ 2,386**	**$ 12**	**$ 258**	**$ 27,281**

LTV distribution—outside of U.S. portfolio[1]	December 31, 2021				
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					
2021	$ 6,334	$ 989	$ —		
2020	5,996	292	—		
2019	5,293	116	1		
2018	3,729	32	—		
2017	2,739	38	—		
Prior	12,190	102	14		
Total	$ 36,281	$ 1,569	$ 15	$ 24	$ 37,889

(1) Mortgage portfolios outside of the U.S. are primarily in Global Wealth. As of September 30, 2022 and December 31, 2021, mortgage portfolios outside of the U.S. have an average LTV of approximately 49% and 46%, respectively.

Consumer Loans and Ratios Outside of North America

In millions of dollars at September 30, 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	3Q22 NCL ratio	3Q21 NCL ratio
Residential mortgages(3)	**$ 27,281**	**$ —**	**$ 27,281**	**0.19 %**	**0.32 %**	**0.18 %**	0.10 %
Credit cards	**11,764**	**—**	**11,764**	**1.11**	**1.06**	**3.22**	3.99
Personal, small business and other(4)	**39,849**	**19,432**	**20,417**	**0.54**	**0.39**	**0.74**	0.92
Total	**$ 78,894**	**$ 19,432**	**$ 59,462**	**0.49 %**	**0.49 %**	**0.91 %**	1.10 %

In millions of dollars at December 31, 2021	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)	$ 37,889	$ —	$ 37,889	0.44 %	0.42 %
Credit cards	17,808	—	17,808	1.08	1.06
Personal, small business and other(4)	57,150	24,482	32,668	0.44	0.23
Total	$ 112,847	$ 24,482	$ 88,365	0.57 %	0.48 %

(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 September 30, 2022 and December 31, 2021, approximately 94% and 94% of these loans, respectively, were rated investment grade.
(3) Includes $19.3 billion and $19.8 billion as of September 30, 2022 and December 31, 2021, respectively, of residential mortgages related to the Global Wealth business.
(4) Includes $28.5 billion and $34.6 billion as of September 30, 2022 and December 31, 2021, respectively, of loans related to the Global Wealth business.

Impaired Consumer Loans

The following tables present information about impaired consumer loans and interest income recognized on impaired consumer loans:

	Balance at September 30, 2022				Three Months Ended September 30,		Nine Months Ended September 30,	
					2022	2021	**2022**	2021
In millions of dollars	**Recorded investment(1)(2)**	**Unpaid principal balance**	**Related specific allowance(3)(4)**	**Average carrying value(5)**	**Interest income recognized(6)**	Interest income recognized(6)	**Interest income recognized(6)**	Interest income recognized(6)
Mortgage and real estate								
Residential first mortgages	**$ 1,242**	**$ 1,361**	**$ 49**	**$ 1,337**	**$ 23**	$ 23	**$ 94**	$ 67
Home equity loans	**250**	**319**	**(7)**	**245**	**2**	2	**7**	7
Credit cards	**1,212**	**1,212**	**461**	**1,328**	**14**	24	**47**	92
Personal, small business and other	**114**	**114**	**72**	**207**	**4**	14	**11**	41
Total	**$ 2,818**	**$ 3,006**	**$ 575**	**$ 3,117**	**$ 43**	$ 63	**$ 159**	$ 207

In millions of dollars	Balance at December 31, 2021			
	Recorded investment[1][2]	Unpaid principal balance	Related specific allowance[3][4]	Average carrying value[5]
Mortgage and real estate				
Residential first mortgages	$ 1,521	$ 1,595	$ 87	$ 1,564
Home equity loans	191	344	(1)	336
Credit cards	1,582	1,609	594	1,795
Personal, small business and other	454	461	133	505
Total	$ 3,748	$ 4,009	$ 813	$ 4,200

(1) Recorded investment in a loan includes net deferred loan fees and costs, unamortized premium or discount and direct write-downs and includes accrued interest only on credit card loans.

(2) At September 30, 2022, $144 million of residential first mortgages and $75 million of home equity loans do not have a specific allowance. At December 31, 2021, $190 million of residential first mortgages and $94 million of home equity loans do not have a specific allowance because they are accounted for based on collateral value, and that value is in excess of the outstanding loan balance.

(3) Included in the *Allowance for credit losses on loans*.

(4) The negative allowance on home equity loans resulted from expected recoveries on previously written-off accounts.

(5) Average carrying value represents the average recorded investment ending balance for the last four quarters and does not include the related specific allowance.

(6) Includes amounts recognized on both accrual and cash basis.

Consumer Troubled Debt Restructurings(1)

	For the Three Months Ended September 30, 2022					
In millions of dollars, except number of loans modified	Number of loans modified	Post-modification recorded investment(2)(3)	Deferred principal(4)	Contingent principal forgiveness(5)	Principal forgiveness(6)	Average interest rate reduction
In North America offices(7)						
Residential first mortgages	235	$ 58	$ —	$ —	$ —	— %
Home equity loans	117	14	—	—	—	—
Credit cards	46,326	203	—	—	—	18
Personal, small business and other	132	3	—	—	—	7
Total(8)	46,810	$ 278	$ —	$ —	$ —	
In offices outside North America(7)						
Residential mortgages	172	$ 6	$ —	$ —	$ —	— %
Credit cards	3,519	15	—	—	—	27
Personal, small business and other	575	6	—	—	1	8
Total(8)	4,266	$ 27	$ —	$ —	$ 1	

	For the Nine Months Ended September 30, 2022					
In millions of dollars, except number of loans modified	Number of loans modified	Post-modification recorded investment(2)(9)	Deferred principal(4)	Contingent principal forgiveness(5)	Principal forgiveness(6)	Average interest rate reduction
In North America offices(7)						
Residential first mortgages	860	$ 195	$ —	$ —	$ —	— %
Home equity loans	324	30	—	—	—	—
Credit cards	123,886	533	—	—	—	18
Personal, small business and other	383	5	—	—	—	5
Total(8)	125,453	$ 763	$ —	$ —	$ —	
In offices outside North America(7)						
Residential mortgages	465	$ 16	$ —	$ —	$ —	— %
Credit cards	11,981	50	—	—	1	24
Personal, small business and other	1,842	22	—	—	1	8
Total(8)	14,288	$ 88	$ —	$ —	$ 2	

	For the Three Months Ended September 30, 2021					
In millions of dollars, except number of loans modified	Number of loans modified	Post-modification recorded investment(2)(3)	Deferred principal(4)	Contingent principal forgiveness(5)	Principal forgiveness(6)	Average interest rate reduction
In North America offices(7)						
Residential first mortgages	285	$ 49	$ —	$ —	$ —	1 %
Home equity loans	33	2	—	—	—	—
Credit cards	33,746	159	—	—	—	18
Personal, small business and other	169	1	—	—	—	5
Total(8)	34,233	$ 211	$ —	$ —	$ —	
In offices outside North America(7)						
Residential mortgages	451	$ 22	$ —	$ —	$ —	— %
Credit cards	16,082	71	—	—	2	15
Personal, small business and other	7,336	49	—	—	2	9
Total(8)	23,869	$ 142	$ —	$ —	$ 4	

	For the Nine Months Ended September 30, 2021					
In millions of dollars, except number of loans modified	Number of loans modified	Post-modification recorded investment(2)(9)	Deferred principal(4)	Contingent principal forgiveness(5)	Principal forgiveness(6)	Average interest rate reduction
In North America offices(7)						
Residential first mortgages	955	$ 169	$ —	$ —	$ —	— %
Home equity loans	145	11		—	—	—
Credit cards	129,129	640	—	—	—	17
Personal, small business and other	855	11	—	—	—	3
Total(8)	131,084	$ 831	$ —	$ —	$ —	
In offices outside North America(7)						
Residential mortgages	1,448	$ 74	$ —	$ —	$ —	— %
Credit cards	58,978	267	—	—	10	14
Personal, small business and other	21,654	164	—	—	6	10
Total(8)	82,080	$ 505	$ —	$ —	$ 16	

(1) The above tables do not include loan modifications that meet the TDR relief criteria in the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) or the interagency guidance.
(2) Post-modification balances include past-due amounts that are capitalized at the modification date.
(3) Post-modification balances in North America include $1.8 million and $3.8 million of residential first mortgages to borrowers who have gone through Chapter 7 bankruptcy in the three months ended September 30, 2022 and September 30, 2021, respectively. These amounts include $1.8 million and $1.6 million of residential first mortgages that were newly classified as TDRs in the three months ended September 30, 2022 and September 30, 2021, respectively, based on previously received OCC guidance.
(4) Represents portion of contractual loan principal that is non-interest bearing, but still due from the borrower. Such deferred principal is charged off at the time of permanent modification to the extent that the related loan balance exceeds the underlying collateral value.
(5) Represents portion of contractual loan principal that is non-interest bearing and, depending upon borrower performance, eligible for forgiveness.
(6) Represents portion of contractual loan principal that was forgiven at the time of permanent modification.
(7) North America includes the U.S., Canada and Puerto Rico. Mexico is included in offices outside North America.
(8) The above tables reflect activity for restructured loans that were considered TDRs during the reporting period.
(9) Post-modification balances in North America include $3.7 million and $10.7 million of residential first mortgages to borrowers who have gone through Chapter 7 bankruptcy in the nine months ended September 30, 2022 and September 30, 2021, respectively. These amounts include $3.7 million and $4.1 million of residential first mortgages that were newly classified as TDRs in the nine months ended September 30, 2022 and September 30, 2021, respectively, based on previously received OCC guidance.

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 September 30, 2022	Three Months Ended September 30, 2021	Nine Months Ended September 30, 2022	Nine Months Ended September 30, 2021
In North America offices[1]				
Residential first mortgages	**$ 6**	$ 10	**$ 23**	$ 43
Home equity loans	**1**	1	**3**	8
Credit cards	**62**	60	**178**	196
Personal, small business and other	**—**	1	**—**	3
Total	**$ 69**	$ 72	**$ 204**	$ 250
In offices outside North America[1]				
Residential mortgages	**$ 2**	$ 9	**$ 9**	$ 31
Credit cards	**3**	36	**10**	133
Personal, small business and other	**1**	29	**3**	87
Total	**$ 6**	$ 74	**$ 22**	$ 251

(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 September 30, 2022			Three Months Ended December 31, 2021			Three Months Ended September 30, 2021		
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	**$ —**	**$ 7**	**$ —**	$ —	$ 4	$ —	$ —	$ 6	$ —
Allowance for credit losses at acquisition date	**—**	**—**	**—**	—	—	—	—	—	—
Discount or premium attributable to non-credit factors	**—**	**—**	**—**	—	—	—	—	—	—
Par value (amortized cost basis)	**$ —**	**$ 7**	**$ —**	$ —	$ 4	$ —	$ —	$ 6	$ —

(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 September 30, 2022	Three Months Ended September 30, 2021	Nine Months Ended September 30, 2022	Nine Months Ended September 30, 2021
Allowance for credit losses on loans (ACLL) at beginning of period	**$ 15,952**	$ 19,238	**$ 16,455**	$ 24,956
Gross credit losses on loans	**$ (1,237)**	$ (1,389)	**$ (3,689)**	$ (5,441)
Gross recoveries on loans	**350**	428	**1,080**	1,412
Net credit losses on loans (NCLs)	**$ (887)**	$ (961)	**$ (2,609)**	$ (4,029)
Replenishment of NCLs	**$ 887**	$ 961	**$ 2,609**	$ 4,029
Net reserve builds (releases) for loans	**519**	(1,010)	**259**	(6,262)
Net specific reserve builds (releases) for loans	**(78)**	(139)	**104**	(560)
Total provision for credit losses on loans (PCLL)	**$ 1,328**	$ (188)	**$ 2,972**	$ (2,793)
Other, net (see table below)	**(84)**	(374)	**(509)**	(419)
ACLL at end of period	**$ 16,309**	$ 17,715	**$ 16,309**	$ 17,715
Allowance for credit losses on unfunded lending commitments (ACLUC) at beginning of period[1]	**$ 2,193**	$ 2,073	**$ 1,871**	$ 2,655
Provision (release) for credit losses on unfunded lending commitments	**(71)**	(13)	**244**	(595)
Other, net	**(33)**	3	**(26)**	3
ACLUC at end of period[1]	**$ 2,089**	$ 2,063	**$ 2,089**	$ 2,063
Total allowance for credit losses on loans, leases and unfunded lending commitments[2]	**$ 18,398**	$ 19,778	**$ 18,398**	$ 19,778

Other, net details In millions of dollars	Three Months Ended September 30, 2022	Three Months Ended September 30, 2021	Nine Months Ended September 30, 2022	Nine Months Ended September 30, 2021
Reclasses of consumer ACLL to HFS[3]	**$ —**	$ (278)	**$ (350)**	$ (278)
FX translation and other	**(84)**	(96)	**(159)**	(141)
Other, net	**$ (84)**	$ (374)	**$ (509)**	$ (419)

(1) Represents additional credit loss reserves for unfunded lending commitments and letters of credit recorded in *Other liabilities* on the Consolidated Balance Sheet.
(2) See below for ACL on *HTM debt securities* and *Other assets*.
(3) See Note 2.

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

	Three Months Ended					
	September 30, 2022			September 30, 2021		
In millions of dollars	**Corporate**	**Consumer**	**Total**	Corporate	Consumer	Total
ACLL at beginning of period	**$ 2,969**	**$ 12,983**	**$ 15,952**	$ 2,672	$ 16,566	$ 19,238
Charge-offs	**(43)**	**(1,194)**	**(1,237)**	(47)	(1,342)	(1,389)
Recoveries	**37**	**313**	**350**	8	420	428
Replenishment of NCLs	**6**	**881**	**887**	39	922	961
Net reserve builds (releases)	**145**	**374**	**519**	(26)	(984)	(1,010)
Net specific reserve builds (releases)	**(104)**	**26**	**(78)**	(21)	(118)	(139)
Other	**(62)**	**(22)**	**(84)**	(15)	(359)	(374)
Ending balance	**$ 2,948**	**$ 13,361**	**$ 16,309**	$ 2,610	$ 15,105	$ 17,715

	Nine Months Ended					
	September 30, 2022			September 30, 2021		
In millions of dollars	**Corporate**	**Consumer**	**Total**	Corporate	Consumer	Total
ACLL at beginning of period	**$ 2,415**	**$ 14,040**	**$ 16,455**	$ 4,776	$ 20,180	$ 24,956
Charge-offs	**(148)**	**(3,541)**	**(3,689)**	(383)	(5,058)	(5,441)
Recoveries	**88**	**992**	**1,080**	82	1,330	1,412
Replenishment of NCLs	**60**	**2,549**	**2,609**	301	3,728	4,029
Net reserve builds (releases)	**394**	**(135)**	**259**	(1,970)	(4,292)	(6,262)
Net specific reserve builds (releases)	**169**	**(65)**	**104**	(167)	(393)	(560)
Other	**(30)**	**(479)**	**(509)**	(29)	(390)	(419)
Ending balance	**$ 2,948**	**$ 13,361**	**$ 16,309**	$ 2,610	$ 15,105	$ 17,715

	September 30, 2022			December 31, 2021		
In millions of dollars	**Corporate**	**Consumer**	**Total**	Corporate	Consumer	Total
ACLL						
Collectively evaluated	**$ 2,522**	**$ 12,784**	**$ 15,306**	$ 2,203	$ 13,227	$ 15,430
Individually evaluated	**426**	**575**	**1,001**	212	813	1,025
Purchased credit deteriorated	**—**	**2**	**2**	—	—	—
Total ACLL	**$ 2,948**	**$ 13,361**	**$ 16,309**	$ 2,415	$ 14,040	$ 16,455
Loans, net of unearned income						
Collectively evaluated	**$ 283,254**	**$ 354,414**	**$ 637,668**	$ 283,610	$ 372,655	$ 656,265
Individually evaluated	**1,485**	**2,818**	**4,303**	1,553	3,748	5,301
Purchased credit deteriorated	**—**	**110**	**110**	—	119	119
Held at fair value	**3,638**	**241**	**3,879**	6,070	12	6,082
Total loans, net of unearned income	**$ 288,377**	**$ 357,583**	**$ 645,960**	$ 291,233	$ 376,534	$ 667,767

Allowance for Credit Losses on HTM Debt Securities

	Three Months Ended September 30, 2022				
In millions of dollars	Mortgage-backed	State and municipal	Foreign government	Asset-backed	Total HTM
Allowance for credit losses on HTM debt securities at beginning of quarter	$ 2	$ 94	$ 3	$ 6	$ 105
Gross credit losses	—	—	—	—	—
Gross recoveries	—	—	—	—	—
Net credit losses (NCLs)	$ —	$ —	$ —	$ —	$ —
Replenishment of NCLs	$ —	$ —	$ —	$ —	$ —
Net reserve builds (releases)	1	15	—	(6)	10
Net specific reserve builds (releases)	—	—	—	—	—
Total provision for credit losses on HTM debt securities	$ 1	$ 15	$ —	$ (6)	$ 10
Allowance for credit losses on HTM debt securities at end of quarter	$ 3	$ 109	$ 3	$ —	$ 115

	Nine Months Ended September 30, 2022				
In millions of dollars	Mortgage-backed	State and municipal	Foreign government	Asset-backed	Total HTM
Allowance for credit losses on HTM debt securities at beginning of year	$ 6	$ 76	$ 3	$ 2	$ 87
Gross credit losses	—	—	—	—	—
Gross recoveries	—	—	—	—	—
Net credit losses (NCLs)	$ —	$ —	$ —	$ —	$ —
Replenishment of NCLs	$ —	$ —	$ —	$ —	$ —
Net reserve builds (releases)	(3)	33	—	(2)	28
Net specific reserve builds (releases)	—	—	—	—	—
Total provision for credit losses on HTM debt securities	$ (3)	$ 33	$ —	$ (2)	$ 28
Allowance for credit losses on HTM debt securities at end of quarter	$ 3	$ 109	$ 3	$ —	$ 115

Allowance for Credit Losses on HTM Debt Securities

In millions of dollars	Three Months Ended September 30, 2021 Mortgage-backed	State and municipal	Foreign government	Asset-backed	Total HTM
Allowance for credit losses on HTM debt securities at beginning of quarter	$ 5	$ 72	$ 5	$ 1	$ 83
Gross credit losses	—	—	—	—	—
Gross recoveries	—	—	—	—	—
Net credit losses (NCLs)	$ —	$ —	$ —	$ —	$ —
Replenishment of NCLs	$ —	$ —	$ —	$ —	$ —
Net reserve builds (releases)	—	(5)	(1)	—	(6)
Net specific reserve builds (releases)	(4)	—	—	—	(4)
Total provision for credit losses on HTM debt securities	$ (4)	$ (5)	$ (1)	$ —	$ (10)
Other, net	$ —	$ —	$ —	$ —	$ —
Allowance for credit losses on HTM debt securities at end of quarter	$ 1	$ 67	$ 4	$ 1	$ 73

In millions of dollars	Nine Months Ended September 30, 2021 Mortgage-backed	State and municipal	Foreign government	Asset-backed	Total HTM
Allowance for credit losses on HTM debt securities at beginning of year	$ 3	$ 74	$ 6	$ 3	$ 86
Gross credit losses	—	—	—	—	—
Gross recoveries	3	—	—	—	3
Net credit losses (NCLs)	$ 3	$ —	$ —	$ —	$ 3
Replenishment of NCLs	$ (3)	$ —	$ —	$ —	$ (3)
Net reserve builds	2	(7)	(2)	(3)	(10)
Net specific reserve builds (releases)	(4)	—	—	—	(4)
Total provision for credit losses on HTM debt securities	$ (5)	$ (7)	$ (2)	$ (3)	$ (17)
Other, net	$ —	$ —	$ —	$ 1	$ 1
Allowance for credit losses on HTM debt securities at end of quarter	$ 1	$ 67	$ 4	$ 1	$ 73

Allowance for Credit Losses on Other Assets

In millions of dollars	Deposits with banks	Securities borrowed and purchased under agreements to resell	Brokerage receivables	All other assets[1]	Total
	Three Months Ended September 30, 2022				
Allowance for credit losses on other assets at beginning of quarter	$ 17	$ 27	$ —	$ 30	$ 74
Gross credit losses	—	—	—	(4)	(4)
Gross recoveries	—	—	—	—	—
Net credit losses (NCLs)	$ —	$ —	$ —	$ (4)	$ (4)
Replenishment of NCLs	$ —	$ —	$ —	$ 4	$ 4
Net reserve builds (releases)	23	45	—	1	69
Total provision for credit losses	$ 23	$ 45	$ —	$ 5	$ 73
Other, net	$ —	$ (3)	$ —	$ 1	$ (2)
Allowance for credit losses on other assets at end of quarter	$ 40	$ 69	$ —	$ 32	$ 141

In millions of dollars	Deposits with banks	Securities borrowed and purchased under agreements to resell	Brokerage receivables	All other assets[1]	Total
	Nine Months Ended September 30, 2022				
Allowance for credit losses on other assets at beginning of year	$ 21	$ 6	$ —	$ 26	$ 53
Gross credit losses	—	—	—	(19)	(19)
Gross recoveries	—	—	—	2	2
Net credit losses (NCLs)	$ —	$ —	$ —	$ (17)	$ (17)
Replenishment of NCLs	$ —	$ —	$ —	$ 17	$ 17
Net reserve builds (releases)	19	35	—	5	59
Total provision for credit losses	$ 19	$ 35	$ —	$ 22	$ 76
Other, net[2]	$ —	$ 28	$ —	$ 1	$ 29
Allowance for credit losses on other assets at end of quarter	$ 40	$ 69	$ —	$ 32	$ 141

(1) Primarily accounts receivable.
(2) Includes $30 million of ACL transferred from *ICG* loans ACL during the second quarter of 2022 for securities borrowed and purchased under agreements to resell.

Allowance for Credit Losses on Other Assets

In millions of dollars	Three Months Ended September 30, 2021 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	$ 24	$ 8	$ —	$ 28	$ 60
Gross credit losses	—	—	—	—	—
Gross recoveries	—	—	—	—	—
Net credit losses (NCLs)	$ —	$ —	$ —	$ —	$ —
Replenishment of NCLs	$ —	$ —	$ —	$ —	$ —
Net reserve builds (releases)	—	1	—	(4)	(3)
Total provision for credit losses	$ —	$ 1	$ —	$ (4)	$ (3)
Other, net	$ —	$ —	$ —	$ 1	$ 1
Allowance for credit losses on other assets at end of quarter	$ 24	$ 9	$ —	$ 25	$ 58

In millions of dollars	Nine Months Ended September 30, 2021 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 year	$ 20	$ 10	$ —	$ 25	$ 55
Gross credit losses	—	—	—	—	—
Gross recoveries	—	—	—	—	—
Net credit losses (NCLs)	$ —	$ —	$ —	$ —	$ —
Replenishment of NCLs	$ —	$ —	$ —	$ —	$ —
Net reserve builds (releases)	5	(1)	—	(1)	3
Total provision for credit losses	$ 5	$ (1)	$ —	$ (1)	$ 3
Other, net	$ (1)	$ —	$ —	$ 1	$ —
Allowance for credit losses on other assets at end of quarter	$ 24	$ 9	$ —	$ 25	$ 58

(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, 2021	$ 9,215	$ 9,717	$ 2,367	$ 21,299
Impairment(1)	—	—	(535)	(535)
Divestitures(2)	—	—	(873)	(873)
Foreign currency translation	(44)	18	—	(26)
Balance at March 31, 2022	$ 9,171	$ 9,735	$ 959	$ 19,865
Foreign currency translation	(223)	(20)	(25)	(268)
Balance at June 30, 2022	$ 8,948	$ 9,715	$ 934	$ 19,597
Foreign currency translation	(272)	—	1	(271)
Balance at September 30, 2022	**$ 8,676**	**$ 9,715**	**$ 935**	**$ 19,326**

(1) Goodwill impairment of $535 million (approximately $489 million after-tax) was incurred in the Asia Consumer reporting unit of *Legacy Franchises* in the first quarter of 2022, due to the re-segmentation and change of reporting units as well as the sequence of the signing of sale agreements.
(2) Primarily relates to Citi's agreements to sell its consumer banking businesses in Malaysia, Thailand, Indonesia, Vietnam, Taiwan, India and Bahrain within Asia Consumer, during the first quarter of 2022 and reclassified as HFS as of March 31, 2022. See Note 2.

Citi had historically performed its annual goodwill impairment test as of July 1 each year. During the quarter ended September 30, 2022, the Company voluntarily changed its annual impairment assessment date from July 1 to October 1. Based on interim impairment tests performed within the period between the previous annual test on July 1, 2021 and the annual test to be performed on October 1, 2022, no more than 12 months will have elapsed between goodwill impairment tests of any of Citi's reporting units. The change in measurement date represents a change in method of applying an accounting principle. This change is preferable because it better aligns the Company's goodwill impairment testing procedures with its annual planning process and with its fiscal year-end. Citi continues to monitor each reporting unit for triggering events for purposes of goodwill impairment testing. The change in accounting principle did not result in any, nor does Citi expect the change in accounting principle to result in any, delay, acceleration or avoidance of an impairment charge.

As discussed in Note 3, effective January 1, 2022, as part of its strategic refresh, Citi made changes to its management structure, which resulted in changes in its operating segments and reporting units to reflect how the CEO, who is the chief operating decision maker, intends to manage the Company, allocate resources and measure performance. Goodwill balances were reallocated across the new reporting units based on their relative fair values using the valuation performed as of the effective date of the reorganization. Further, the goodwill balances associated with certain Asia Consumer businesses within the *Legacy Franchises* operating segment were reclassified to HFS as of March 31, 2022. See Note 2 for a discussion of Citi's divestiture activities.

The reorganization of Citi's reporting structure and the announced sales of businesses within a reporting unit were identified as triggering events for purposes of goodwill impairment testing. Consistent with the requirements of ASC 350, interim goodwill impairment tests were performed that resulted in an impairment of $535 million to the Asia Consumer reporting unit within the *Legacy Franchises* operating segment, due to the implementation of Citi's revised operating segments and reporting units, as well as the timing of mutual execution of sale agreements for Asia consumer banking businesses. This impairment was recorded in the first quarter of 2022 as an operating expense. The interim goodwill impairment tests were performed using a combination of the income approach, market approach and bids from buyers, where available, to determine the fair value of the reporting units.

During the second quarter of 2022, Citi's Banking reporting unit within the *ICG* operating segment was negatively impacted by the industry-wide decline in investment banking activity and macroeconomic challenges and uncertainties. These conditions resulted in a corresponding decline in the operating results of the Banking reporting unit as of June 30, 2022 and were identified as a triggering event for purposes of goodwill impairment testing. Consistent with the requirements of ASC 350, an interim goodwill impairment test was performed that resulted in no impairment of the Banking reporting unit within the *ICG* operating segment. The results of the impairment test showed that the fair value of the Banking reporting unit as a percentage of its carrying value was 102%, with the carrying value including approximately $1.5 billion of goodwill. No other events or circumstances were identified for any other reporting unit as a triggering event for purposes of goodwill impairment testing. The interim goodwill impairment test was performed using a combination of the income approach and market approach to determine the fair value of the reporting unit.

During the third quarter of 2022, Citi's Banking reporting unit within the *ICG* operating segment continued to be negatively impacted by the industry-wide decline in investment banking activity amid ongoing macroeconomic challenges and uncertainties. The presence of these conditions was identified as a triggering event for the purposes of goodwill impairment testing. Consistent with the requirements of ASC 350, an interim goodwill impairment test was performed that resulted in no impairment of the Banking reporting unit. The results of the impairment test showed that the fair value of the Banking reporting unit as a percentage of its carrying value was 106%, with the carrying value including approximately $1.5 billion of goodwill. No other events or circumstances were identified for any other reporting unit as a triggering event for purposes of goodwill impairment testing. The interim goodwill impairment test was performed using a combination of the income approach and market approach to determine the fair value of the reporting unit.

Also, during the third quarter of 2022, Citi performed an interim goodwill impairment test on the Mexico Consumer/SBMM reporting unit as of July 1, 2022 to satisfy the requirement that no more than 12 months elapse between the tests for all reporting units. The test resulted in no impairment as the fair value of the Mexico Consumer/SBMM reporting unit was greater than its carrying value. The interim goodwill impairment test was performed using the market approach to determine the fair value of the reporting unit.

For the interim impairment tests performed in 2022, the valuation of reporting units used either the market approach, income approach, or a combination of both. Under the market approach, Citi estimated fair value by comparing the business to similar businesses or guideline companies whose securities are actively traded in public markets. Under the income approach, Citi used a discounted cash flow (DCF) model in which cash flows anticipated over several periods, plus a terminal value at the end of that time horizon, are discounted to their present value using an appropriate rate that is commensurate with the risk inherent within the reporting unit.

The key assumptions used to determine the fair value of Citi's reporting units consisted primarily of significant unobservable inputs (Level 3 fair value inputs), including discount rates, estimated cash flows, growth rates, earnings multiples and/or transaction multiples of similar businesses or guideline public companies, and bids from buyers. The DCF method employs a capital asset pricing model in estimating the discount rate based on several factors, including market interest rates, and includes adjustments for market risk and company-specific risk. Estimated cash flows are based on internally developed estimates and the growth rates are based on industry knowledge and historical performance.

Based on the interim impairment tests, the fair values of all of Citi's other reporting units as a percentage of their allocated carrying values ranged from approximately 106% to 267%, resulting in no further impairment recognized as of September 30, 2022.

While the inherent risk of uncertainty is embedded in the key assumptions used in the valuations, the economic and business environments continue to evolve as management implements its strategic refresh. If management's future estimate 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:

	September 30, 2022			December 31, 2021		
In millions of dollars	**Gross carrying amount**	**Accumulated amortization**	**Net carrying amount**	Gross carrying amount	Accumulated amortization	Net carrying amount
Purchased credit card relationships	**$ 5,513**	**$ 4,391**	**$ 1,122**	$ 5,579	$ 4,348	$ 1,231
Credit card contract-related intangibles(1)	**3,902**	**1,479**	**2,423**	3,912	1,372	2,540
Core deposit intangibles	**35**	**35**	**—**	39	39	—
Other customer relationships	**345**	**256**	**89**	429	305	124
Present value of future profits	**32**	**30**	**2**	31	29	2
Indefinite-lived intangible assets	**186**	**—**	**186**	183	—	183
Other	**27**	**11**	**16**	37	26	11
Intangible assets (excluding MSRs)	**$ 10,040**	**$ 6,202**	**$ 3,838**	$ 10,210	$ 6,119	$ 4,091
Mortgage servicing rights (MSRs)(2)	**647**	**—**	**647**	404	—	404
Total intangible assets	**$ 10,687**	**$ 6,202**	**$ 4,485**	$ 10,614	$ 6,119	$ 4,495

(1) Primarily reflects contract-related intangibles associated with the American Airlines, The Home Depot, Costco and AT&T credit card program agreements, which represented 97% of the aggregate net carrying amount as of both September 30, 2022 and December 31, 2021.

(2) See Note 18 for additional information on Citi's MSRs.

The changes in intangible assets were as follows:

In millions of dollars	Net carrying amount at December 31, 2021	**Acquisitions/ renewals/ divestitures**	**Amortization**	**Impairments**	**FX translation and other**	**Net carrying amount at September 30, 2022**
Purchased credit card relationships[1]	$ 1,231	**$ 3**	**$ (105)**	**$ —**	**$ (7)**	**$ 1,122**
Credit card contract-related intangibles[2]	2,540	**—**	**(116)**	**—**	**(1)**	**2,423**
Core deposit intangibles	—	**—**	**—**	**—**	**—**	**—**
Other customer relationships	124	**10**	**(18)**	**—**	**(27)**	**89**
Present value of future profits	2	**—**	**—**	**—**	**—**	**2**
Indefinite-lived intangible assets	183	**—**	**—**	**—**	**3**	**186**
Other	11	**33**	**(25)**	**—**	**(3)**	**16**
Intangible assets (excluding MSRs)	$ 4,091	**$ 46**	**$ (264)**	**$ —**	**$ (35)**	**$ 3,838**
Mortgage servicing rights (MSRs)[3]	404					**647**
Total intangible assets	$ 4,495					**$ 4,485**

(1) Reflects intangibles for the value of cardholder relationships, which are discrete from partner contract-related intangibles, and includes credit card accounts primarily in the Costco, Macy's and Sears portfolios.

(2) Primarily reflects contract-related intangibles associated with the American Airlines, The Home Depot, Costco and AT&T credit card program agreements, which represented 97% of the aggregate net carrying amount as of both September 30, 2022 and December 31, 2021.

(3) See Note 18 for additional information on Citi's MSRs, including the rollforward for the three and nine months ended September 30, 2022.

16. DEBT

For additional information regarding Citi's short-term borrowings and long-term debt, see Note 17 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

Short-Term Borrowings

In millions of dollars		September 30, 2022		December 31, 2021
Commercial paper				
Bank[1]	**$**	**11,113**	$	9,026
Broker-dealer and other[2]		**14,465**		6,992
Total commercial paper	**$**	**25,578**	$	16,018
Other borrowings[3]		**21,790**		11,955
Total	**$**	**47,368**	$	27,973

(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 September 30, 2022 and December 31, 2021, collateralized short-term advances from the Federal Home Loan Banks were $12.0 billion and $0.0 billion, respectively.

Long-Term Debt

In millions of dollars		September 30, 2022		December 31, 2021
Citigroup Inc.[1]	**$**	**159,251**	$	164,945
Bank[2]		**22,463**		23,567
Broker-dealer and other[3]		**71,354**		65,862
Total	**$**	**253,068**	$	254,374

(1) Represents the parent holding company.
(2) Represents Citibank entities as well as other bank entities. At September 30, 2022 and December 31, 2021, collateralized long-term advances from the Federal Home Loan Banks were $7.3 billion and $5.3 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 and $1.7 billion at September 30, 2022 and December 31, 2021, respectively.

The following table summarizes Citi's outstanding trust preferred securities at September 30, 2022:

							Junior subordinated debentures owned by trust			
Trust	**Issuance date**	**Securities issued**		**Liquidation value[1]**	**Coupon rate[2]**	**Common shares issued to parent**		**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.

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

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

Three and Nine Months Ended September 30, 2022

In millions of dollars	Net unrealized gains (losses) on debt securities	Debt valuation adjustment (DVA)[1]	Cash flow hedges[2]	Benefit plans[3]	Foreign currency translation adjustment (CTA), net of hedges[4][5]	Excluded component of fair value hedges	Accumulated other comprehensive income (loss)
Three Months Ended September 30, 2022							
Balance, June 30, 2022	$ (6,392)	$ 1,573	$ (2,106)	$ (5,770)	$ (32,810)	$ 10	$ (45,495)
Other comprehensive income before reclassifications	(595)	874	(870)	5	(2,423)	31	(2,978)
Increase (decrease) due to amounts reclassified from *AOCI*	15	(2)	107	32	24	(1)	175
Change, net of taxes	$ (580)	$ 872	$ (763)	$ 37	$ (2,399)	$ 30	$ (2,803)
Balance at September 30, 2022	**$ (6,972)**	**$ 2,445**	**$ (2,869)**	**$ (5,733)**	**$ (35,209)**	**$ 40**	**$ (48,298)**
Nine Months Ended September 30, 2022							
Balance, December 31, 2021	$ (614)	$ (1,187)	$ 101	$ (5,852)	$ (31,166)	$ (47)	$ (38,765)
Other comprehensive income before reclassifications	(6,490)	3,635	(2,709)	26	(4,412)	81	(9,869)
Increase (decrease) due to amounts reclassified from *AOCI*	132	(3)	(261)	93	369	6	336
Change, net of taxes	$ (6,358)	$ 3,632	$ (2,970)	$ 119	$ (4,043)	$ 87	$ (9,533)
Balance at September 30, 2022	**$ (6,972)**	**$ 2,445**	**$ (2,869)**	**$ (5,733)**	**$ (35,209)**	**$ 40**	**$ (48,298)**

Footnotes to the table above appear on the following page.

Three and Nine Months Ended September 30, 2021

In millions of dollars	Net unrealized gains (losses) on debt securities	Debt valuation adjustment (DVA)(1)	Cash flow hedges(2)	Benefit plans(3)	Foreign currency translation adjustment (CTA), net of hedges(4)	Excluded component of fair value hedges	Accumulated other comprehensive income (loss)
Three Months Ended September 30, 2021							
Balance, June 30, 2021	$ 1,061	$ (1,523)	$ 864	$ (6,063)	$ (29,392)	$ (67)	$ (35,120)
Other comprehensive income before reclassifications	(204)	(138)	2	84	(1,325)	7	(1,574)
Increase (decrease) due to amounts reclassified from *AOCI*	(75)	56	(203)	51	13	1	(157)
Change, net of taxes	$ (279)	$ (82)	$ (201)	$ 135	$ (1,312)	$ 8	$ (1,731)
Balance at September 30, 2021	$ 782	$ (1,605)	$ 663	$ (5,928)	$ (30,704)	$ (59)	$ (36,851)
Nine Months Ended September 30, 2021							
Balance, December 31, 2020	$ 3,320	$ (1,419)	$ 1,593	$ (6,864)	$ (28,641)	$ (47)	$ (32,058)
Other comprehensive income before reclassifications	(2,101)	(295)	(318)	773	(2,076)	(14)	(4,031)
Increase (decrease) due to amounts reclassified from *AOCI*	(437)	109	(612)	163	13	2	(762)
Change, net of taxes	$ (2,538)	$ (186)	$ (930)	$ 936	$ (2,063)	$ (12)	$ (4,793)
Balance at September 30, 2021	$ 782	$ (1,605)	$ 663	$ (5,928)	$ (30,704)	$ (59)	$ (36,851)

(1) Reflects the after-tax valuation of Citi's fair value option liabilities. See "Market Valuation Adjustments" in Note 20.
(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 South Korean won, Euro, Russian ruble, Mexican peso, Polish zloty and Japanese yen against the U.S. dollar and changes in related tax effects and hedges for the three months ended September 30, 2022. Primarily reflects the movements in (by order of impact) the South Korean won, Euro, Japanese yen, Indian rupee, Chinese yuan and British pound sterling against the U.S. dollar and changes in related tax effects and hedges for the nine months ended September 30, 2022. Primarily reflects the movements in (by order of impact) the Mexican peso, South Korean won, Euro, Chilean peso and Brazilian real against the U.S. dollar and changes in related tax effects and hedges for the three months ended September 30, 2021. Primarily reflects the movements in (by order of impact) the Mexican peso, South Korean won, Euro, Chilean peso and Japanese yen against the U.S. dollar and changes in related tax effects and hedges for the nine months ended September 30, 2021. Amounts recorded in the CTA component of *AOCI* remain in *AOCI* until the sale or substantial liquidation of the foreign entity, at which point such amounts related to the foreign entity are reclassified into earnings.
(5) September 30, 2022 reflects a reduction of approximately $470 million (after-tax) ($620 million pretax) currency translation adjustment (CTA) loss (net of hedges) recorded in June 2022, associated with the closing of Citi's sale of its consumer banking business in Australia (see Note 2). The reduction from *AOCI* had a neutral impact on Citi's Common Equity Tier 1 Capital.

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

Three and Nine Months Ended September 30, 2022

In millions of dollars	Pretax	Tax effect	After-tax
Three Months Ended September 30, 2022			
Balance, June 30, 2022	$ (53,566)	$ 8,071	$ (45,495)
Change in net unrealized gains (losses) on debt securities	(850)	270	(580)
Debt valuation adjustment (DVA)	1,159	(287)	872
Cash flow hedges	(1,025)	262	(763)
Benefit plans	(4)	41	37
Foreign currency translation adjustment	(2,238)	(161)	(2,399)
Excluded component of fair value hedges	40	(10)	30
Change	$ (2,918)	$ 115	$ (2,803)
Balance at September 30, 2022	**$ (56,484)**	**$ 8,186**	**$ (48,298)**
Nine Months Ended September 30, 2022			
Balance, December 31, 2021	$ (45,383)	$ 6,618	$ (38,765)
Change in net unrealized gains (losses) on debt securities	(8,464)	2,106	(6,358)
Debt valuation adjustment (DVA)	4,800	(1,168)	3,632
Cash flow hedges	(3,933)	963	(2,970)
Benefit plans	100	19	119
Foreign currency translation adjustment	(3,720)	(323)	(4,043)
Excluded component of fair value hedges	116	(29)	87
Change	$ (11,101)	$ 1,568	$ (9,533)
Balance at September 30, 2022	**$ (56,484)**	**$ 8,186**	**$ (48,298)**

Three and Nine Months Ended September 30, 2021

In millions of dollars	Pretax	Tax effect	After-tax
Three Months Ended September 30, 2021			
Balance, June 30, 2021	$ (41,087)	$ 5,967	$ (35,120)
Change in net unrealized gains (losses) on debt securities	(374)	95	(279)
Debt valuation adjustment (DVA)	(107)	25	(82)
Cash flow hedges	(265)	64	(201)
Benefit plans	175	(40)	135
Foreign currency translation adjustment	(1,325)	13	(1,312)
Excluded component of fair value hedges	12	(4)	8
Change	$ (1,884)	$ 153	$ (1,731)
Balance, September 30, 2021	$ (42,971)	$ 6,120	$ (36,851)
Nine Months Ended September 30, 2021			
Balance, December 31, 2020	$ (36,992)	$ 4,934	$ (32,058)
Change in net unrealized gains (losses) on debt securities	(3,439)	901	(2,538)
Debt valuation adjustment (DVA)	(256)	70	(186)
Cash flow hedges	(1,219)	289	(930)
Benefit plans	1,166	(230)	936
Foreign currency translation adjustment	(2,217)	154	(2,063)
Excluded component of fair value hedges	(14)	2	(12)
Change	$ (5,979)	$ 1,186	$ (4,793)
Balance, September 30, 2021	$ (42,971)	$ 6,120	$ (36,851)

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 September 30,		Nine Months Ended September 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Realized (gains) losses on sales of investments	**$ (52)**	$ (117)	**$ (74)**	$ (655)
Gross impairment losses	**74**	21	**254**	99
Subtotal, pretax	**$ 22**	$ (96)	**$ 180**	$ (556)
Tax effect	**(7)**	21	**(48)**	119
Net realized (gains) losses on investments after-tax[(1)]	**$ 15**	$ (75)	**$ 132**	$ (437)
Realized DVA (gains) losses on fair value option liabilities, pretax	**$ (3)**	$ 72	**$ (4)**	$ 141
Tax effect	**1**	(16)	**1**	(32)
Net realized DVA, after-tax	**$ (2)**	$ 56	**$ (3)**	$ 109
Interest rate contracts	**$ 141**	$ (269)	**$ (344)**	$ (809)
Foreign exchange contracts	**1**	1	**3**	3
Subtotal, pretax	**$ 142**	$ (268)	**$ (341)**	$ (806)
Tax effect	**(35)**	65	**80**	194
Amortization of cash flow hedges, after-tax[(2)]	**$ 107**	$ (203)	**$ (261)**	$ (612)
Amortization of unrecognized:				
Prior service cost (benefit)	**$ (6)**	$ (5)	**$ (17)**	$ (17)
Net actuarial loss	**49**	74	**177**	232
Curtailment/settlement impact[(3)]	**—**	1	**(33)**	5
Subtotal, pretax	**$ 43**	$ 70	**$ 127**	$ 220
Tax effect	**(11)**	(19)	**(34)**	(57)
Amortization of benefit plans, after-tax[(3)]	**$ 32**	$ 51	**$ 93**	$ 163
Excluded component of fair value hedges, pretax	**$ (1)**	$ 1	**$ 9**	$ 2
Tax effect	**—**	—	**(3)**	—
Excluded component of fair value hedges, after-tax	**$ (1)**	$ 1	**$ 6**	$ 2
Foreign currency translation adjustment, pretax	**$ 26**	$ 20	**$ 423**	$ 20
Tax effect	**(2)**	(7)	**(54)**	(7)
Foreign currency translation adjustment, after-tax	**$ 24**	$ 13	**$ 369**	$ 13
Total amounts reclassified out of *AOCI*, pretax	**$ 229**	$ (201)	**$ 394**	$ (979)
Total tax effect	**(54)**	44	**(58)**	217
Total amounts reclassified out of *AOCI*, after-tax	**$ 175**	$ (157)	**$ 336**	$ (762)

(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 19 for additional details.
(3) See Note 8 for additional details.

18. SECURITIZATIONS AND VARIABLE INTEREST ENTITIES

For additional information regarding Citi's use of special purpose entities (SPEs) and variable interest entities (VIEs), see Note 21 to the Consolidated Financial Statements in Citi's 2021 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 September 30, 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	$ 31,139	$ 31,139	$ —	$ —	$ —	$ —	$ —	$ —
Mortgage securitizations[4]								
U.S. agency-sponsored	112,923	—	112,923	2,019	—	—	49	2,068
Non-agency-sponsored	59,730	—	59,730	2,606	—	7	—	2,613
Citi-administered asset-backed commercial paper conduits	15,583	15,583	—	—	—	—	—	—
Collateralized loan obligations (CLOs)	7,563	—	7,563	2,580	—	—	—	2,580
Asset-based financing[5]	236,093	8,929	227,164	36,588	1,050	11,421	—	49,059
Municipal securities tender option bond trusts (TOBs)	2,521	665	1,856	10	—	1,395	—	1,405
Municipal investments	21,677	3	21,674	2,738	3,252	3,810	—	9,800
Client intermediation	696	325	371	58	—	—	13	71
Investment funds	492	82	410	5	5	20	—	30
Other	—	—	—	—	—	—	—	—
Total	$ 488,417	$ 56,726	$ 431,691	$ 46,604	$ 4,307	$ 16,653	$ 62	$ 67,626

	As of December 31, 2021							
				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	$ 31,518	$ 31,518	$ —	$ —	$ —	$ —	$ —	$ —
Mortgage securitizations[4]								
U.S. agency-sponsored	113,641	—	113,641	1,582	—	—	43	1,625
Non-agency-sponsored	60,851	632	60,219	2,479	—	5	—	2,484
Citi-administered asset-backed commercial paper conduits	14,018	14,018	—	—	—	—	—	—
Collateralized loan obligations (CLOs)	8,302	—	8,302	2,636	—	—	—	2,636
Asset-based financing[5]	246,632	11,085	235,547	32,242	1,139	12,189	—	45,570
Municipal securities tender option bond trusts (TOBs)	3,251	905	2,346	2	—	1,498	—	1,500
Municipal investments	20,597	3	20,594	2,512	3,617	3,562	—	9,691
Client intermediation	904	297	607	75	—	—	224	299
Investment funds	498	179	319	—	—	12	1	13
Other	—	—	—	—	—	—	—	—
Total	$ 500,212	$ 58,637	$ 441,575	$ 41,528	$ 4,756	$ 17,266	$ 268	$ 63,818

(1) The definition of maximum exposure to loss is included in the text that follows this table.
(2) Included on Citigroup's September 30, 2022 and December 31, 2021 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. See "Re-securitizations" below for further discussion.
(5) Included within this line are loans to third-party-sponsored private equity funds, which represent $75 billion and $100 billion in unconsolidated VIE assets and $500 million and $497 million in maximum exposure to loss as of September 30, 2022 and December 31, 2021, respectively.

The previous tables do not include:

- certain venture capital investments made by some of the Company's private equity subsidiaries, as the Company accounts for these investments in accordance with the Investment Company Audit Guide (codified in ASC 946);
- 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 September 30, 2022 and December 31, 2021, the Company's maximum exposure to loss related to these transactions was $43.4 billion and $55.6 billion, respectively (for more information on these positions, see Note 13 and Note 26 to the Consolidated Financial Statements in Citigroup's 2021 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 20 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	**September 30, 2022 (Unaudited)**	December 31, 2021
Assets of consolidated VIEs to be used to settle obligations of consolidated VIEs		
Cash and due from banks	**$ 63**	$ 260
Trading account assets	**8,274**	10,038
Investments	**616**	844
Loans, net of unearned income		
Consumer	**34,333**	34,677
Corporate	**15,815**	14,312
Loans, net of unearned income	**$ 50,148**	$ 48,989
Allowance for credit losses on loans (ACLL)	**(2,446)**	(2,668)
Total loans, net	**$ 47,702**	$ 46,321
Other assets	**71**	1,174
Total assets of consolidated VIEs to be used to settle obligations of consolidated VIEs	**$ 56,726**	$ 58,637

In millions of dollars	**September 30, 2022 (Unaudited)**	December 31, 2021
Liabilities of consolidated VIEs for which creditors or beneficial interest holders do not have recourse to the general credit of Citigroup		
Short-term borrowings	**$ 10,073**	$ 8,376
Long-term debt	**10,438**	12,579
Other liabilities	**266**	694
Total liabilities of consolidated VIEs for which creditors or beneficial interest holders do not have recourse to the general credit of Citigroup	**$ 20,777**	$ 21,649

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:

	September 30, 2022		December 31, 2021	
In millions of dollars	**Liquidity facilities**	**Loan/equity commitments**	Liquidity facilities	Loan/equity commitments
Non-agency-sponsored mortgage securitizations	**$ —**	**$ 7**	$ —	$ 5
Asset-based financing	**—**	**11,421**	—	12,189
Municipal securities tender option bond trusts (TOBs)	**1,395**	**—**	1,498	—
Municipal investments	**—**	**3,810**	—	3,562
Investment funds	**—**	**20**	—	12
Other	**—**	**—**	—	—
Total funding commitments	**$ 1,395**	**$ 15,258**	$ 1,498	$ 15,768

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	**September 30, 2022**	December 31, 2021
Cash	**$ —**	$ —
Trading account assets	**1.6**	1.4
Investments	**8.7**	8.8
Total loans, net of allowance	**40.0**	35.4
Other	**0.6**	0.8
Total assets	**$ 50.9**	$ 46.4

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	**September 30, 2022**	December 31, 2021
Ownership interests in principal amount of trust credit card receivables		
Sold to investors via trust-issued securities	**$ 8.6**	$ 9.7
Retained by Citigroup as trust-issued securities	**6.5**	7.2
Retained by Citigroup via non-certificated interests	**17.8**	16.1
Total	**$ 32.9**	$ 33.0

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

	Three Months Ended September 30,		**Nine Months Ended September 30,**	
In billions of dollars	**2022**	2021	**2022**	2021
Proceeds from new securitizations	**$ —**	$ —	**$ —**	$ —
Pay down of maturing notes	**(1.1)**	—	**(1.1)**	(4.7)

Master Trust Liabilities (at Par Value)
The weighted average maturity of the third-party term notes issued by the Master Trust was 3.3 years as of September 30, 2022 and 3.6 years as of December 31, 2021.

In billions of dollars	**Sept. 30, 2022**	Dec. 31, 2021
Term notes issued to third parties	**$ 7.3**	$ 8.4
Term notes retained by Citigroup affiliates	**1.7**	2.2
Total Master Trust liabilities	**$ 9.0**	$ 10.6

Omni Trust Liabilities (at Par Value)
The weighted average maturity of the third-party term notes issued by the Omni Trust was 0.7 years as of September 30, 2022 and 1.6 years as of December 31, 2021.

In billions of dollars	**Sept. 30, 2022**	Dec. 31, 2021
Term notes issued to third parties	**$ 1.3**	$ 1.3
Term notes retained by Citigroup affiliates	**4.8**	5.0
Total Omni Trust liabilities	**$ 6.1**	$ 6.3

Mortgage Securitizations

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

	Three Months Ended September 30,			
	2022		2021	
In billions of dollars	**U.S. agency-sponsored mortgages**	**Non-agency-sponsored mortgages**	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages
Principal securitized	**$ 1.4**	**$ 1.1**	$ 0.5	$ 1.7
Proceeds from new securitizations	**1.4**	**1.0**	0.5	1.9
Contractual servicing fees received	**—**	**—**	—	—
Cash flows received on retained interests and other new cash flows	**—**	**—**	—	—
Purchases of previously transferred financial assets	**—**	**—**	—	—

	Nine Months Ended September 30,			
	2022		2021	
In billions of dollars	**U.S. agency-sponsored mortgages**	**Non-agency-sponsored mortgages**	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages
Principal securitized	**$ 5.4**	**$ 11.3**	$ 5.4	$ 19.8
Proceeds from new securitizations	**5.2**	**11.0**	5.6	19.7
Contractual servicing fees received	**0.1**	**—**	0.1	—
Cash flows received on retained interests and other new cash flows	**—**	**0.1**	—	—
Purchases of previously transferred financial assets	**0.1**	**—**	0.1	—

Note: Excludes re-securitization transactions.

Gains recognized on the securitization of U.S. agency-sponsored mortgages were $1 million and $1 million for the three and nine months ended September 30, 2022, respectively. Gains recognized on the securitization of non-agency-sponsored mortgages were $21 million and $94 million for the three and nine months ended September 30, 2022, respectively.

Gains recognized on the securitization of U.S. agency-sponsored mortgages were $2 million and $3 million for the three and nine months ended September 30, 2021, respectively. Gains recognized on the securitization of non-agency-sponsored mortgages were $121 million and $423 million for the three and nine months ended September 30, 2021, respectively.

	September 30, 2022			December 31, 2021		
		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)	**$ 647**	**$ 1,069**	**$ 945**	$ 374	$ 1,452	$ 955

(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 $35 million related to personal loan securitizations at September 30, 2022.

(3) Retained interests consist of Level 2 and Level 3 assets depending on the observability of significant inputs. See Note 20 for more information about fair value measurements.

Key assumptions used in measuring the fair value of retained interests at the date of sale or securitization of mortgage receivables were as follows:

	Three Months Ended September 30, 2022		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	**Senior interests**	**Subordinated interests**
Weighted average discount rate	**9.6 %**	**NM**	**5.7 %**
Weighted average constant prepayment rate	**2.6 %**	**NM**	**9.1 %**
Weighted average anticipated net credit losses[2]	**NM**	**NM**	**0.7 %**
Weighted average life	**9.4 years**	**NM**	**5.3 years**

	Nine Months Ended September 30, 2022		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	**Senior interests**	**Subordinated interests**
Weighted average discount rate	**8.2 %**	**3.4 %**	**4.2 %**
Weighted average constant prepayment rate	**2.6 %**	**5.9 %**	**11.7 %**
Weighted average anticipated net credit losses[2]	**NM**	**2.9 %**	**0.5 %**
Weighted average life	**9.2 years**	**6.5 years**	**5.7 years**

	Three Months Ended September 30, 2021		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Weighted average discount rate	8.6 %	2.2 %	2.4 %
Weighted average constant prepayment rate	5.9 %	4.3 %	13.3 %
Weighted average anticipated net credit losses[2]	NM	0.8 %	0.2 %
Weighted average life	7.4 years	3.2 years	4.9 years

	Nine Months Ended September 30, 2021		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Weighted average discount rate	8.8 %	2.2 %	2.8 %
Weighted average constant prepayment rate	5.3 %	6.3 %	10.6 %
Weighted average anticipated net credit losses[2]	NM	1.4 %	1.0 %
Weighted average life	7.6 years	3.4 years	5.4 years

(1) Disclosure of non-agency-sponsored mortgages as senior and subordinated interests is indicative of the interests' position in the capital structure of the securitization.

(2) Anticipated net credit losses represent estimated loss severity associated with defaulted mortgage loans underlying the mortgage securitizations disclosed above. Anticipated net credit losses, in this instance, do not represent total credit losses incurred to date, nor do they represent credit losses expected on retained interests in mortgage securitizations.

NM Anticipated net credit losses are not meaningful due to U.S. agency guarantees.

The interests retained by the Company range from highly rated and/or senior in the capital structure to unrated and/or residual interests. Key assumptions used in measuring the fair value of retained interests in securitizations of mortgage receivables at period end were as follows:

	September 30, 2022		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Weighted average discount rate	**5.9 %**	**1.5 %**	**NM**
Weighted average constant prepayment rate	**4.8 %**	**15.0 %**	**NM**
Weighted average anticipated net credit losses[2]	**NM**	**1.0 %**	**NM**
Weighted average life	**8.2 years**	**1.5 years**	**NM**

	December 31, 2021		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Weighted average discount rate	3.7 %	16.2 %	4.0 %
Weighted average constant prepayment rate	14.5 %	6.8 %	9.0 %
Weighted average anticipated net credit losses[2]	NM	1.0 %	2.0 %
Weighted average life	5.1 years	8.8 years	18.0 years

(1) Disclosure of non-agency-sponsored mortgages as senior and subordinated interests is indicative of the interests' position in the capital structure of the securitization.
(2) Anticipated net credit losses represent estimated loss severity associated with defaulted mortgage loans underlying the mortgage securitizations disclosed above. Anticipated net credit losses, in this instance, do not represent total credit losses incurred to date, nor do they represent credit losses expected on retained interests in mortgage securitizations.
NM Anticipated net credit losses are not meaningful due to U.S. agency guarantees.

The sensitivity of the fair value to adverse changes of 10% and 20% in each of the key assumptions is presented in the tables below. The negative effect of each change is calculated independently, holding all other assumptions constant. Because the key assumptions may not be independent, the net effect of simultaneous adverse changes in the key assumptions may be less than the sum of the individual effects shown below.

	September 30, 2022		
		Non-agency-sponsored mortgages	
In millions of dollars	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Discount rate			
Adverse change of 10%	**$ (21)**	**$ —**	**$ —**
Adverse change of 20%	**(40)**	**—**	**—**
Constant prepayment rate			
Adverse change of 10%	**(12)**	**—**	**—**
Adverse change of 20%	**(24)**	**—**	**—**
Anticipated net credit losses			
Adverse change of 10%	**NM**	**—**	**—**
Adverse change of 20%	**NM**	**—**	**—**

In millions of dollars	December 31, 2021 U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages Senior interests	Subordinated interests
Discount rate			
Adverse change of 10%	$ (6)	$ (1)	$ —
Adverse change of 20%	(11)	(1)	—
Constant prepayment rate			
Adverse change of 10%	(19)	—	—
Adverse change of 20%	(37)	—	—
Anticipated net credit losses			
Adverse change of 10%	NM	—	—
Adverse change of 20%	NM	—	—

NM Anticipated net credit losses are not meaningful due to U.S. agency guarantees.

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

In billions of dollars, except liquidation losses in millions	Securitized assets Sept. 30, 2022	Dec. 31, 2021	90 days past due Sept. 30, 2022	Dec. 31, 2021	Liquidation losses Three Months Ended September 30, 2022	2021	Nine Months Ended September 30, 2022	2021
Securitized assets								
Residential mortgages[1]	**$ 29.3**	$ 29.2	**$ 0.5**	$ 0.4	**$ 1**	$ 2	**$ 3**	$ 8
Commercial and other	**28.8**	26.2	**—**	—	**—**	—	**—**	—
Total	**$ 58.1**	$ 55.4	**$ 0.5**	$ 0.4	**$ 1**	$ 2	**$ 3**	$ 8

(1) Securitized assets include $0.2 billion of personal loan securitizations as of September 30, 2022.

Mortgage Servicing Rights (MSRs)

The fair value of Citi's capitalized MSRs was $647 million and $409 million at September 30, 2022 and 2021, respectively. The MSRs correspond to principal loan balances of $48 billion and $48 billion as of September 30, 2022 and 2021, respectively. The following table summarizes the changes in capitalized MSRs:

In millions of dollars	Three Months Ended September 30, 2022	2021	Nine Months Ended September 30, 2022	2021
Balance, beginning of period	**$ 600**	$ 419	**$ 404**	$ 336
Originations	**25**	8	**94**	76
Changes in fair value of MSRs due to changes in inputs and assumptions	**37**	(3)	**195**	49
Other changes[1]	**(15)**	(15)	**(46)**	(52)
Sales of MSRs	**—**	—	**—**	—
Balance, as of September 30	**$ 647**	$ 409	**$ 647**	$ 409

(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 September 30,		Nine Months Ended September 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Servicing fees	**$ 31**	$ 32	**$ 90**	$ 100
Late fees	**1**	1	**3**	2
Ancillary fees	**—**	—	**—**	—
Total MSR fees	**$ 32**	$ 33	**$ 93**	$ 102

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 September 30, 2022 and 2021. These securities are backed by either residential or commercial mortgages and are often structured on behalf of clients.

As of September 30, 2022 and December 31, 2021, 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 and nine months ended September 30, 2022, Citi transferred agency securities with a fair value of approximately $5.3 billion and $20.3 billion, respectively, to re-securitization entities compared to approximately $12.6 billion and $37.1 billion for the three and nine months ended September 30, 2021, respectively.

As of September 30, 2022, the fair value of Citi-retained interests in agency re-securitization transactions structured by Citi totaled approximately $1.4 billion (including $747 million related to re-securitization transactions executed in 2022), an increase from $1.2 billion as of December 31, 2021 (including $641 million related to re-securitization transactions executed in 2021), 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 September 30, 2022 and December 31, 2021 were approximately $76.0 billion and $78.4 billion, respectively.

As of September 30, 2022 and December 31, 2021, the Company did not consolidate any private label or agency re-securitization entities.

Citi-Administered Asset-Backed Commercial Paper Conduits

At September 30, 2022 and December 31, 2021, the commercial paper conduits administered by Citi had approximately $15.6 billion and $14.0 billion of purchased assets outstanding, respectively, and had incremental funding commitments with clients of approximately $17.0 billion and $18.3 billion, respectively.

Substantially all of the funding of the conduits is in the form of short-term commercial paper. At September 30, 2022 and December 31, 2021, the weighted average remaining lives of the commercial paper issued by the conduits were approximately 65 and 70 days, respectively.

The primary credit enhancement provided to the conduit investors is in the form of transaction-specific credit enhancements described above. Each asset purchased by the conduit is structured with transaction-specific credit enhancement 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 $200 million. The letters of credit provided by the Company to the conduits total approximately $1.6 billion and $1.3 billion as of September 30, 2022 and December 31, 2021, 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 September 30, 2022 and December 31, 2021, the Company owned $4.6 billion and $4.9 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.

Collateralized Loan Obligations (CLOs)

There were no new securitizations during the three and nine months ended September 30, 2022 and 2021. The following table summarizes selected retained interests related to Citigroup CLOs:

In millions of dollars	**Sept. 30, 2022**	Dec. 31, 2021
Carrying value of retained interests	**$ 681**	$ 921

All of Citi's retained interests were held-to-maturity securities as of September 30, 2022 and December 31, 2021.

Municipal Securities Tender Option Bond (TOB) Trusts
At September 30, 2022 and December 31, 2021, none of the municipal bonds owned by non-customer TOB trusts were subject to a credit guarantee provided by the Company.

At September 30, 2022 and December 31, 2021, liquidity agreements provided with respect to customer TOB trusts totaled $1.4 billion and $1.5 billion, respectively, of which $0.8 billion and $0.6 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 $2.0 billion as of September 30, 2022 and December 31, 2021, 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.

	September 30, 2022		December 31, 2021	
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	**$ 39,681**	**$ 7,767**	$ 32,932	$ 7,461
Corporate loans	**24,486**	**14,870**	18,257	12,581
Other (including investment funds, airlines and shipping)	**162,997**	**26,422**	184,358	25,528
Total	**$ 227,164**	**$ 49,059**	$ 235,547	$ 45,570

19. 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 22 to the Consolidated Financial Statements in Citi's 2021 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	**September 30, 2022**	December 31, 2021	**September 30, 2022**	December 31, 2021
Interest rate contracts				
Swaps	**$ 241,324**	$ 267,035	**$ 23,601,980**	$ 21,873,538
Futures and forwards	**—**	—	**2,646,937**	2,383,702
Written options	**—**	—	**1,804,687**	1,584,451
Purchased options	**—**	—	**1,722,756**	1,428,376
Total interest rate contracts	**$ 241,324**	$ 267,035	**$ 29,776,360**	$ 27,270,067
Foreign exchange contracts				
Swaps	**$ 44,981**	$ 47,298	**$ 6,486,067**	$ 6,288,193
Futures, forwards and spot	**40,271**	50,926	**3,877,382**	4,316,242
Written options	**—**	—	**951,315**	664,942
Purchased options	**—**	—	**938,775**	651,958
Total foreign exchange contracts	**$ 85,252**	$ 98,224	**$ 12,253,539**	$ 11,921,335
Equity contracts				
Swaps	**$ —**	$ —	**$ 257,136**	$ 269,062
Futures and forwards	**—**	—	**85,257**	71,363
Written options	**—**	—	**520,219**	492,433
Purchased options	**—**	—	**438,795**	398,129
Total equity contracts	**$ —**	$ —	**$ 1,301,407**	$ 1,230,987
Commodity and other contracts				
Swaps	**$ —**	$ —	**$ 93,580**	$ 91,962
Futures and forwards	**1,381**	2,096	**173,404**	157,195
Written options	**—**	—	**55,264**	51,224
Purchased options	**—**	—	**52,101**	47,868
Total commodity and other contracts	**$ 1,381**	$ 2,096	**$ 374,349**	$ 348,249
Credit derivatives(1)				
Protection sold	**$ —**	$ —	**$ 662,018**	$ 572,486
Protection purchased	**—**	—	**698,039**	645,996
Total credit derivatives	**$ —**	$ —	**$ 1,360,057**	$ 1,218,482
Total derivative notionals	**$ 327,957**	$ 367,355	**$ 45,065,712**	$ 41,989,120

(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 September 30, 2022 and December 31, 2021. 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 September 30, 2022	Derivatives classified in Trading account assets/liabilities[1][2]	
Derivatives instruments designated as ASC 815 hedges	**Assets**	**Liabilities**
Over-the-counter	$ 601	$ —
Cleared	139	68
Interest rate contracts	**$ 740**	**$ 68**
Over-the-counter	$ 2,343	$ 1,806
Cleared	14	—
Foreign exchange contracts	**$ 2,357**	**$ 1,806**
Total derivatives instruments designated as ASC 815 hedges	**$ 3,097**	**$ 1,874**
Derivatives instruments not designated as ASC 815 hedges		
Over-the-counter	$ 131,748	$ 125,570
Cleared	57,713	57,704
Exchange traded	382	323
Interest rate contracts	**$ 189,843**	**$ 183,597**
Over-the-counter	$ 250,015	$ 246,503
Cleared	954	1,005
Exchange traded	—	4
Foreign exchange contracts	**$ 250,969**	**$ 247,512**
Over-the-counter	$ 28,909	$ 31,335
Cleared	32	3
Exchange traded	31,915	32,568
Equity contracts	**$ 60,856**	**$ 63,906**
Over-the-counter	$ 47,061	$ 39,429
Exchange traded	2,334	3,101
Commodity and other contracts	**$ 49,395**	**$ 42,530**
Over-the-counter	$ 6,399	$ 5,343
Cleared	3,826	3,999
Credit derivatives	**$ 10,225**	**$ 9,342**
Total derivatives instruments not designated as ASC 815 hedges	**$ 561,288**	**$ 546,887**
Total derivatives	**$ 564,385**	**$ 548,761**
Less: Netting agreements[3]	$ (431,992)	$ (431,992)
Less: Netting cash collateral received/paid[4]	(34,709)	(44,172)
Net receivables/payables included on the Consolidated Balance Sheet[5]	**$ 97,684**	**$ 72,597**
Additional amounts subject to an enforceable master netting agreement, but not offset on the Consolidated Balance Sheet		
Less: Cash collateral received/paid	**$ (1,789)**	**$ (2,034)**
Less: Non-cash collateral received/paid	**(5,216)**	**(14,274)**
Total net receivables/payables[5]	**$ 90,679**	**$ 56,289**

(1) The derivative fair values are also presented in Note 20.

(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 $353 billion, $46 billion and $33 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 $7 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, 2021	Derivatives classified in Trading account assets/liabilities[1][2]	
Derivatives instruments designated as ASC 815 hedges	Assets	Liabilities
Over-the-counter	$ 1,167	$ 6
Cleared	122	89
Interest rate contracts	$ 1,289	$ 95
Over-the-counter	$ 1,338	$ 1,472
Cleared	6	—
Foreign exchange contracts	$ 1,344	$ 1,472
Total derivatives instruments designated as ASC 815 hedges	$ 2,633	$ 1,567
Derivatives instruments not designated as ASC 815 hedges		
Over-the-counter	$ 152,524	$ 138,114
Cleared	11,579	11,821
Exchange traded	96	44
Interest rate contracts	$ 164,199	$ 149,979
Over-the-counter	$ 133,357	$ 133,548
Cleared	848	278
Foreign exchange contracts	$ 134,205	$ 133,826
Over-the-counter	$ 23,452	$ 28,352
Cleared	19	—
Exchange traded	21,781	21,332
Equity contracts	$ 45,252	$ 49,684
Over-the-counter	$ 29,279	$ 29,833
Exchange traded	1,065	1,546
Commodity and other contracts	$ 30,344	$ 31,379
Over-the-counter	$ 6,896	$ 6,959
Cleared	3,322	4,056
Credit derivatives	$ 10,218	$ 11,015
Total derivatives instruments not designated as ASC 815 hedges	$ 384,218	$ 375,883
Total derivatives	$ 386,851	$ 377,450
Less: Netting agreements[3]	$ (292,628)	$ (292,628)
Less: Netting cash collateral received/paid[4]	(24,447)	(29,306)
Net receivables/payables included on the Consolidated Balance Sheet[5]	$ 69,776	$ 55,516
Additional amounts subject to an enforceable master netting agreement, but not offset on the Consolidated Balance Sheet		
Less: Cash collateral received/paid	$ (907)	$ (538)
Less: Non-cash collateral received/paid	(5,777)	(13,607)
Total net receivables/payables[5]	$ 63,092	$ 41,371

(1) The derivative fair values are also presented in Note 20.

(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 $259 billion, $14 billion and $20 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 $10 billion of derivative asset and $11 billion of derivative liability fair values not subject to enforceable master netting agreements, respectively.

For the three and nine months ended September 30, 2022 and 2021, amounts recognized in *Principal transactions* in the Consolidated Statement of Income include certain derivatives not designated in a qualifying hedging relationship. Citigroup presents this disclosure by business classification, showing derivative gains and losses related to its trading activities together with gains and losses related to non-derivative instruments within the same trading portfolios, as this represents how these portfolios are risk managed. See Note 6 for further information.

The amounts recognized in *Other revenue* in the Consolidated Statement of Income related to derivatives not designated in a qualifying hedging relationship are 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 September 30,		**Nine Months Ended September 30,**	
In millions of dollars	**2022**	2021	**2022**	2021
Interest rate contracts	**$ 26**	$ 9	**$ 170**	$ (66)
Foreign exchange	**(33)**	(26)	**(114)**	(60)
Total	**$ (7)**	$ (17)	**$ 56**	$ (126)

Fair Value Hedges

Hedging of Benchmark Interest Rate Risk

Citigroup's fair value hedges 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.

Citigroup has executed a last-of-layer hedge, which permits an entity to hedge the interest rate risk of a stated portion of a closed portfolio of prepayable financial assets that are expected to remain outstanding for the designated tenor of the hedge. In accordance with ASC 815, an entity may exclude prepayment risk when measuring the change in fair value of the hedged item attributable to interest rate risk under the last-of-layer approach. Similar to other fair value hedges, where the hedged item is an asset, the fair value of the hedged item attributable to interest rate risk will be presented in *Interest revenue* along with the change in the fair value of the hedging instrument.

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 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, 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. Citi also excludes changes in the fair value of forward points from the assessment of hedge effectiveness and records them in *Other comprehensive income.*

The following table summarizes the gains (losses) on the Company's fair value hedges:

In millions of dollars	Gains (losses) on fair value hedges[1]							
	Three Months Ended September 30,				Nine Months Ended September 30,			
	2022		2021		**2022**		2021	
	Other revenue	**Net interest income**	Other revenue	Net interest income	**Other revenue**	**Net interest income**	Other revenue	Net interest income
Gain (loss) on the hedging derivatives included in assessment of the effectiveness of fair value hedges								
Interest rate hedges	**$ —**	**$ (1,855)**	$ —	$ (747)	**$ —**	**$ (8,238)**	$ —	$ (4,228)
Foreign exchange hedges	**(964)**	**—**	(724)	—	**(2,623)**	**—**	(714)	—
Commodity hedges	**(977)**	**—**	(166)	—	**(362)**	**—**	(732)	—
Total gain (loss) on the hedging derivatives included in assessment of the effectiveness of fair value hedges	**$ (1,941)**	**$ (1,855)**	$ (890)	$ (747)	**$ (2,985)**	**$ (8,238)**	$ (1,446)	$ (4,228)
Gain (loss) on the hedged item in designated and qualifying fair value hedges								
Interest rate hedges	**$ —**	**$ 1,793**	$ —	$ 667	**$ —**	**$ 8,036**	$ —	$ 3,934
Foreign exchange hedges	**964**	**—**	725	—	**2,621**	**—**	715	—
Commodity hedges	**977**	**—**	166	—	**362**	**—**	732	—
Total gain (loss) on the hedged item in designated and qualifying fair value hedges	**$ 1,941**	**$ 1,793**	$ 891	$ 667	**$ 2,983**	**$ 8,036**	$ 1,447	$ 3,934
Net gain (loss) on the hedging derivatives excluded from assessment of the effectiveness of fair value hedges								
Interest rate hedges	**$ —**	**$ —**	$ —	$ —	**$ —**	**$ (11)**	$ —	$ (3)
Foreign exchange hedges[2]	**79**	**—**	79	—	**183**	**—**	96	—
Commodity hedges	**7**	**—**	42	—	**30**	**—**	(33)	—
Total net gain (loss) on the hedging derivatives excluded from assessment of the effectiveness of fair value hedges	**$ 86**	**$ —**	$ 121	$ —	**$ 213**	**$ (11)**	$ 63	$ (3)

(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.

(2) Amounts relate to the premium associated with forward contracts (differential between spot and contractual forward rates) that are excluded from the assessment of hedge effectiveness and are generally reflected directly in earnings. 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 $40 million and $116 million for the three and nine months ended September 30, 2022 and $12 million and $(14) million for the three and nine months ended September 30, 2021, respectively.

Cumulative Basis Adjustment

Upon electing to apply ASC 815 fair value hedge accounting, the carrying value of the hedged item is adjusted to reflect the cumulative changes in the hedged risk. This cumulative basis adjustment becomes part of the carrying amount of the hedged item until the hedged item is derecognized from the balance sheet. The table below presents the carrying amount of Citi's hedged assets and liabilities under qualifying fair value hedges at September 30, 2022 and December 31, 2021, 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 September 30, 2022			
Debt securities AFS(1)(3)	**$ 97,753**	**$ (3,207)**	**$ (383)**
Long-term debt	**139,620**	**(6,706)**	**(1,879)**
As of December 31, 2021			
Debt securities AFS(2)(3)	$ 62,733	$ 149	$ 212
Long-term debt	149,305	623	3,936

(1) These amounts include a cumulative basis adjustment of $(113) million for active hedges and $(316) million for de-designated hedges as of September 30, 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 September 30, 2022) in a last-of-layer hedging relationship.

(2) These amounts include a cumulative basis adjustment of $24 million for active hedges and $(92) million for de-designated hedges as of December 31, 2021, related to certain prepayable financial assets designated as the hedged item in a fair value hedge using the last-of-layer approach. The Company designated approximately $6 billion as the hedged amount (from a closed portfolio of prepayable financial assets with a carrying value of $25 billion as of December 31, 2021) 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 September 30, 2022 is approximately $(1.6) billion. The maximum length of time over which forecasted cash flows are hedged is 10 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 17.

	Three Months Ended September 30,				**Nine Months Ended September 30,**			
In millions of dollars	**2022**		2021		**2022**		2021	
Amount of gain (loss) recognized in *AOCI* on derivatives								
Interest rate contracts		**$ (1,196)**		$ 19		**$ (3,637)**		$ (397)
Foreign exchange contracts		**29**		(16)		**45**		(16)
Total gain (loss) recognized in *AOCI*		**$ (1,167)**		$ 3		**$ (3,592)**		$ (413)
	Other revenue	**Net interest revenue**	Other revenue	Net interest revenue	**Other revenue**	**Net interest revenue**	Other revenue	Net interest revenue
Amount of gain (loss) reclassified from *AOCI* to earnings[1]								
Interest rate contracts	**$ —**	**$ (141)**	$ —	$ 269	**$ —**	**$ 344**	$ —	$ 809
Foreign exchange contracts	**(1)**	**—**	(1)	—	**(3)**	**—**	(3)	—
Total gain (loss) reclassified from *AOCI* into earnings	**$ (1)**	**$ (141)**	$ (1)	$ 269	**$ (3)**	**$ 344**	$ (3)	$ 809
Net pretax change in cash flow hedges included within *AOCI*		**$ (1,025)**		$ (265)		**$ (3,933)**		$ (1,219)

(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

Citi uses foreign currency forwards, cross-currency swaps, options and foreign currency-denominated debt instruments to manage the foreign exchange risk associated with Citi'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 within *AOCI*.

The pretax gain (loss) recorded in Foreign currency translation adjustment within *AOCI*, related to net investment hedges, was $812 million and $1.5 billion for the three and nine months ended September 30, 2022 and $700 million and $831 million for the three and nine months ended September 30, 2021, respectively. The three and nine months ended September 30, 2022 include a $1.0 million pretax gain and $46 million pretax loss related to net investment hedges, respectively, which were reclassified from *AOCI* into earnings (recorded in *Other revenue*).

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 September 30, 2022	Receivable(1)	Payable(2)	Protection purchased	Protection sold
By industry of counterparty				
Banks	$ 2,367	$ 2,985	$ 109,040	$ 109,216
Broker-dealers	2,135	1,415	46,379	42,384
Non-financial	64	8	2,147	1,888
Insurance and other financial institutions	5,659	4,934	540,473	508,530
Total by industry of counterparty	$ 10,225	$ 9,342	$ 698,039	$ 662,018
By instrument				
Credit default swaps and options	$ 8,366	$ 8,547	$ 682,184	$ 654,560
Total return swaps and other	1,859	795	15,855	7,458
Total by instrument	$ 10,225	$ 9,342	$ 698,039	$ 662,018
By rating of reference entity				
Investment grade	$ 4,534	$ 3,742	$ 540,193	$ 508,631
Non-investment grade	5,691	5,600	157,846	153,387
Total by rating of reference entity	$ 10,225	$ 9,342	$ 698,039	$ 662,018
By maturity				
Within 1 year	$ 2,276	$ 1,918	$ 153,088	$ 159,624
From 1 to 5 years	5,319	4,878	461,986	422,941
After 5 years	2,630	2,546	82,965	79,453
Total by maturity	$ 10,225	$ 9,342	$ 698,039	$ 662,018

(1) The fair value amount receivable is composed of $8,304 million under protection purchased and $1,921 million under protection sold.
(2) The fair value amount payable is composed of $2,170 million under protection purchased and $7,172 million under protection sold.

In millions of dollars at December 31, 2021	Fair values		Notionals	
	Receivable[1]	Payable[2]	Protection purchased	Protection sold
By industry of counterparty				
Banks	$ 2,375	$ 3,031	$ 108,415	$ 103,756
Broker-dealers	1,962	1,139	44,364	40,068
Non-financial	113	306	2,785	2,728
Insurance and other financial institutions	5,768	6,539	490,432	425,934
Total by industry of counterparty	$ 10,218	$ 11,015	$ 645,996	$ 572,486
By instrument				
Credit default swaps and options	$ 9,923	$ 10,234	$ 628,136	$ 565,131
Total return swaps and other	295	781	17,860	7,355
Total by instrument	$ 10,218	$ 11,015	$ 645,996	$ 572,486
By rating of reference entity				
Investment grade	$ 4,149	$ 4,258	$ 511,652	$ 448,944
Non-investment grade	6,069	6,757	134,344	123,542
Total by rating of reference entity	$ 10,218	$ 11,015	$ 645,996	$ 572,486
By maturity				
Within 1 year	$ 878	$ 1,462	$ 133,866	$ 115,603
From 1 to 5 years	6,674	6,638	454,617	413,174
After 5 years	2,666	2,915	57,513	43,709
Total by maturity	$ 10,218	$ 11,015	$ 645,996	$ 572,486

(1) The fair value amount receivable is composed of $3,705 million under protection purchased and $6,513 million under protection sold.
(2) The fair value amount payable is composed of $7,354 million under protection purchased and $3,661 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 September 30, 2022 and December 31, 2021 was $23 billion and $19 billion, respectively. The Company posted $20 billion and $16 billion as collateral for this exposure in the normal course of business as of September 30, 2022 and December 31, 2021, 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 September 30, 2022, the Company could be required to post an additional $1.3 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 $0.1 billion upon the single notch downgrade, resulting in aggregate cash obligations and collateral requirements of approximately $1.4 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 $0.7 billion and $2.9 billion as of September 30, 2022 and December 31, 2021, respectively.

At September 30, 2022, the fair value of these previously derecognized assets was $0.7 billion. The fair value of the total return swaps as of September 30, 2022 was $22 million recorded as gross derivative assets and $30 million recorded as gross derivative liabilities. At December 31, 2021, the fair value of these previously derecognized assets was $2.9 billion, and the fair value of the total return swaps was $13 million recorded as gross derivative assets and $58 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.

20. FAIR VALUE MEASUREMENT

For additional information regarding fair value measurement at Citi, see Note 24 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

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 September 30, 2022 and December 31, 2021:

	Credit and funding valuation adjustments contra-liability (contra-asset)	
In millions of dollars	**September 30, 2022**	December 31, 2021
Counterparty CVA	**$ (1,020)**	$ (705)
Asset FVA	**(718)**	(433)
Citigroup (own credit) CVA	**775**	379
Liability FVA	**257**	110
Total CVA and FVA—derivative instruments	**$ (706)**	$ (649)

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 September 30,		Nine Months Ended September 30,	
In millions of dollars	**2022**	2021	**2022**	2021
Counterparty CVA	**$ (10)**	$ 25	**$ (211)**	$ 68
Asset FVA	**(96)**	(23)	**(247)**	71
Own credit CVA	**29**	34	**327**	(44)
Liability FVA	**58**	(63)	**148**	(52)
Total CVA and FVA—derivative instruments	**$ (19)**	$ (27)	**$ 17**	$ 43
DVA related to own FVO liabilities[1]	**$ 1,159**	$ (107)	**$ 4,800**	$ (256)
Total CVA, DVA and FVA	**$ 1,140**	$ (134)	**$ 4,817**	$ (213)

(1) See Notes 1 and 17 to the Consolidated Financial Statements in Citi's 2021 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.

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 September 30, 2022 and December 31, 2021. 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 September 30, 2022	Level 1	Level 2	Level 3	Gross inventory	Netting[1]	Net balance
Assets						
Securities borrowed and purchased under agreements to resell	$ —	$ 326,645	$ 141	$ 326,786	$ (97,767)	$ 229,019
Trading non-derivative assets						
Trading mortgage-backed securities						
U.S. government-sponsored agency guaranteed	—	30,517	672	31,189	—	31,189
Residential	1	853	142	996	—	996
Commercial	—	817	116	933	—	933
Total trading mortgage-backed securities	$ 1	$ 32,187	$ 930	$ 33,118	$ —	$ 33,118
U.S. Treasury and federal agency securities	$ 77,742	$ 2,740	$ —	$ 80,482	$ —	$ 80,482
State and municipal	—	2,068	22	2,090	—	2,090
Foreign government	41,515	27,530	380	69,425	—	69,425
Corporate	1,530	14,164	460	16,154	—	16,154
Equity securities	33,153	7,740	187	41,080	—	41,080
Asset-backed securities	—	1,557	612	2,169	—	2,169
Other trading assets[2]	1	15,378	679	16,058	—	16,058
Total trading non-derivative assets	$ 153,942	$ 103,364	$ 3,270	$ 260,576	$ —	$ 260,576
Trading derivatives						
Interest rate contracts	$ 730	$ 186,092	$ 3,761	$ 190,583		
Foreign exchange contracts	—	252,468	858	253,326		
Equity contracts	57	58,446	2,353	60,856		
Commodity contracts	—	47,989	1,406	49,395		
Credit derivatives	—	8,802	1,423	10,225		
Total trading derivatives—before netting and collateral	$ 787	$ 553,797	$ 9,801	$ 564,385		
Netting agreements					$ (431,992)	
Netting of cash collateral received					(34,709)	
Total trading derivatives—after netting and collateral	$ 787	$ 553,797	$ 9,801	$ 564,385	$ (466,701)	$ 97,684
Investments						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	$ —	$ 11,305	$ 26	$ 11,331	$ —	$ 11,331
Residential	—	437	39	476	—	476
Commercial	—	4	—	4	—	4
Total investment mortgage-backed securities	$ —	$ 11,746	$ 65	$ 11,811	$ —	$ 11,811
U.S. Treasury and federal agency securities	$ 89,618	$ 45	$ —	$ 89,663	$ —	$ 89,663
State and municipal	—	1,578	575	2,153	—	2,153
Foreign government	51,713	66,398	860	118,971	—	118,971
Corporate	2,437	2,739	337	5,513	—	5,513
Marketable equity securities	233	188	10	431	—	431
Asset-backed securities	—	274	2	276	—	276
Other debt securities	—	3,756	—	3,756	—	3,756
Non-marketable equity securities[3]	—	9	384	393	—	393
Total investments	$ 144,001	$ 86,733	$ 2,233	$ 232,967	$ —	$ 232,967

Table continues on the next page.

In millions of dollars at September 30, 2022	Level 1	Level 2	Level 3	Gross inventory	Netting(1)	Net balance
Loans	$ —	$ 3,244	$ 635	$ 3,879	$ —	$ 3,879
Mortgage servicing rights	—	—	647	647	—	647
Non-trading derivatives and other financial assets measured on a recurring basis	$ 3,318	$ 6,579	$ 50	$ 9,947	$ —	$ 9,947
Total assets	$ 302,048	$ 1,080,362	$ 16,777	$ 1,399,187	$ (564,468)	$ 834,719
Total as a percentage of gross assets(4)	21.6%	77.2%	1.2%			
Liabilities						
Interest-bearing deposits	$ —	$ 2,424	$ 16	$ 2,440	$ —	$ 2,440
Securities loaned and sold under agreements to repurchase	—	155,912	997	156,909	(83,802)	73,107
Trading account liabilities						
Securities sold, not yet purchased	108,425	15,350	103	123,878	—	123,878
Other trading liabilities	—	2	2	4	—	4
Total trading liabilities	$ 108,425	$ 15,352	$ 105	$ 123,882	$ —	$ 123,882
Trading derivatives						
Interest rate contracts	$ 358	$ 179,520	$ 3,787	$ 183,665		
Foreign exchange contracts	—	248,737	581	249,318		
Equity contracts	84	61,530	2,292	63,906		
Commodity contracts	—	41,377	1,153	42,530		
Credit derivatives	—	7,806	1,536	9,342		
Total trading derivatives—before netting and collateral	$ 442	$ 538,970	$ 9,349	$ 548,761		
Netting agreements					$ (431,992)	
Netting of cash collateral paid					(44,172)	
Total trading derivatives—after netting and collateral	$ 442	$ 538,970	$ 9,349	$ 548,761	$ (476,164)	$ 72,597
Short-term borrowings	$ —	$ 6,534	$ 35	$ 6,569	$ —	$ 6,569
Long-term debt	—	60,115	31,710	91,825	—	91,825
Total non-trading derivatives and other financial liabilities measured on a recurring basis	$ 3,064	$ 136	$ 13	$ 3,213	$ —	$ 3,213
Total liabilities	$ 111,931	$ 779,443	$ 42,225	$ 933,599	$ (559,966)	$ 373,633
Total as a percentage of gross liabilities(4)	12.0 %	83.5 %	4.5 %			

(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 21. Also includes physical commodities accounted for at the lower of cost or fair value and unfunded credit products.
(3) Amounts exclude $0.1 billion 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, 2021	Level 1	Level 2	Level 3	Gross inventory	Netting[1]	Net balance
Assets						
Securities borrowed and purchased under agreements to resell	$ —	$ 342,030	$ 231	$ 342,261	$ (125,795)	$216,466
Trading non-derivative assets						
Trading mortgage-backed securities						
U.S. government-sponsored agency guaranteed	—	34,534	496	35,030	—	35,030
Residential	1	643	104	748	—	748
Commercial	—	778	81	859	—	859
Total trading mortgage-backed securities	$ 1	$ 35,955	$ 681	$ 36,637	$ —	$ 36,637
U.S. Treasury and federal agency securities	$ 44,900	$ 3,230	$ 4	$ 48,134	$ —	$ 48,134
State and municipal	—	1,995	37	2,032	—	2,032
Foreign government	39,176	31,485	23	70,684	—	70,684
Corporate	1,544	16,156	412	18,112	—	18,112
Equity securities	53,833	10,047	174	64,054	—	64,054
Asset-backed securities	—	981	613	1,594	—	1,594
Other trading assets[2]	—	20,346	576	20,922	—	20,922
Total trading non-derivative assets	$ 139,454	$ 120,195	$ 2,520	$ 262,169	$ —	$262,169
Trading derivatives						
Interest rate contracts	$ 90	$ 161,500	$ 3,898	$ 165,488		
Foreign exchange contracts	—	134,912	637	135,549		
Equity contracts	41	43,904	1,307	45,252		
Commodity contracts	—	28,547	1,797	30,344		
Credit derivatives	—	9,299	919	10,218		
Total trading derivatives—before netting and collateral	$ 131	$ 378,162	$ 8,558	$ 386,851		
Netting agreements					$ (292,628)	
Netting of cash collateral received[3]					(24,447)	
Total trading derivatives—after netting and collateral	$ 131	$ 378,162	$ 8,558	$ 386,851	$ (317,075)	$ 69,776
Investments						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	$ —	$ 33,165	$ 51	$ 33,216	$ —	$ 33,216
Residential	—	286	94	380	—	380
Commercial	—	25	—	25	—	25
Total investment mortgage-backed securities	$ —	$ 33,476	$ 145	$ 33,621	$ —	$ 33,621
U.S. Treasury and federal agency securities	$ 122,271	$ 168	$ 1	$ 122,440	$ —	$122,440
State and municipal	—	1,849	772	2,621	—	2,621
Foreign government	56,842	61,112	786	118,740	—	118,740
Corporate	2,861	2,871	188	5,920	—	5,920
Marketable equity securities	350	177	16	543	—	543
Asset-backed securities	—	300	3	303	—	303
Other debt securities	—	4,877	—	4,877	—	4,877
Non-marketable equity securities[4]	—	28	316	344	—	344
Total investments	$ 182,324	$ 104,858	$ 2,227	$ 289,409	$ —	$289,409

Table continues on the next page.

In millions of dollars at December 31, 2021	Level 1	Level 2	Level 3	Gross inventory	Netting[1]	Net balance
Loans	$ —	$ 5,371	$ 711	$ 6,082	$ —	$ 6,082
Mortgage servicing rights	—	—	404	404	—	404
Non-trading derivatives and other financial assets measured on a recurring basis	$ 4,075	$ 8,194	$ 73	$ 12,342	$ —	$ 12,342
Total assets	$ 325,984	$ 958,810	$ 14,724	$ 1,299,518	$ (442,870)	$856,648
Total as a percentage of gross assets[5]	25.1%	73.8%	1.1%			
Liabilities						
Interest-bearing deposits	$ —	$ 1,483	$ 183	$ 1,666	$ —	$ 1,666
Securities loaned and sold under agreements to repurchase	—	174,318	643	174,961	(118,267)	56,694
Trading account liabilities						
Securities sold, not yet purchased	82,675	23,268	65	106,008	—	106,008
Other trading liabilities	—	5	—	5	—	5
Total trading liabilities	$ 82,675	$ 23,273	$ 65	$ 106,013	$ —	$106,013
Trading derivatives						
Interest rate contracts	$ 56	$ 147,846	$ 2,172	$ 150,074		
Foreign exchange contracts	—	134,572	726	135,298		
Equity contracts	60	46,177	3,447	49,684		
Commodity contracts	—	30,004	1,375	31,379		
Credit derivatives	—	10,065	950	11,015		
Total trading derivatives—before netting and collateral	$ 116	$ 368,664	$ 8,670	$ 377,450		
Netting agreements					$ (292,628)	
Netting of cash collateral paid[3]					(29,306)	
Total trading derivatives—after netting and collateral	$ 116	$ 368,664	$ 8,670	$ 377,450	$ (321,934)	$ 55,516
Short-term borrowings	$ —	$ 7,253	$ 105	$ 7,358	$ —	$ 7,358
Long-term debt	—	57,100	25,509	82,609	—	82,609
Total non-trading derivatives and other financial liabilities measured on a recurring basis	$ 3,574	$ —	$ 1	$ 3,575	$ —	$ 3,575
Total liabilities	$ 86,365	$ 632,091	$ 35,176	$ 753,632	$ (440,201)	$313,431
Total as a percentage of gross liabilities[5]	11.5 %	83.9 %	4.7 %			

(1) Represents netting of (i) the amounts due under securities purchased under agreements to resell and the amounts owed under securities sold under agreements to repurchase and (ii) derivative exposures covered by a qualifying master netting agreement and cash collateral offsetting.

(2) Includes positions related to investments in unallocated precious metals, as discussed in Note 21. 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 $0.1 billion 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 and nine months ended September 30, 2022 and 2021. 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	Jun. 30, 2022	Principal transactions	Other[1][2]	into Level 3	out of Level 3	Purchases	Issuances	Sales	Settlements	Sept. 30, 2022	Unrealized gains (losses) still held[3]
Assets											
Securities borrowed and purchased under agreements to resell	$ 183	$ (1)	$ —	$ —	$ —	$ 128	$ —	$ —	$ (169)	$ 141	$ 3
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	708	(28)	—	54	(153)	310	—	(219)	—	672	(33)
Residential	153	(2)	—	25	(22)	33	—	(45)	—	142	(2)
Commercial	138	(4)	—	20	(17)	5	—	(26)	—	116	1
Total trading mortgage-backed securities	$ 999	$ (34)	$ —	$ 99	$ (192)	$ 348	$ —	$ (290)	$ —	$ 930	$ (34)
U.S. Treasury and federal agency securities	$ 1	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ (1)	$ —	$ —
State and municipal	80	4	—	4	(6)	14	—	(74)	—	22	—
Foreign government	364	(14)	—	5	(4)	70	—	(41)	—	380	(9)
Corporate	537	21	—	193	(72)	91	—	(310)	—	460	(15)
Marketable equity securities	133	48	—	71	(12)	34	—	(87)	—	187	(26)
Asset-backed securities	554	(7)	—	68	(25)	196	—	(174)	—	612	(18)
Other trading assets	816	32	—	74	(280)	191	11	(161)	(4)	679	(19)
Total trading non-derivative assets	$ 3,484	$ 50	$ —	$ 514	$ (591)	$ 944	$ 11	$ (1,137)	$ (5)	$ 3,270	$ (121)
Trading derivatives, net[4]											
Interest rate contracts	$ 881	$ (278)	$ —	$ (503)	$ (12)	$ (195)	$ 1	$ 83	$ (3)	$ (26)	$ (142)
Foreign exchange contracts	156	(171)	—	32	(3)	(146)	—	212	197	277	121
Equity contracts	(101)	162	—	60	222	(347)	—	28	37	61	(150)
Commodity contracts	255	110	—	140	(134)	(60)	—	(2)	(56)	253	151
Credit derivatives	(349)	(110)	—	53	124	(36)	—	1	204	(113)	(164)
Total trading derivatives, net[4]	$ 842	$ (287)	$ —	$ (218)	$ 197	$ (784)	$ 1	$ 322	$ 379	$ 452	$ (184)

Table continues on the next page.

In millions of dollars	Jun. 30, 2022	Net realized/unrealized gains (losses) incl. in[1]: Principal transactions	Net realized/unrealized gains (losses) incl. in[1]: Other[1][2]	Transfers: into Level 3	Transfers: out of Level 3	Purchases	Issuances	Sales	Settlements	Sept. 30, 2022	Unrealized gains (losses) still held[3]
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	$ 28	$ —	$ (2)	$ —	$ —	$ —	$ —	$ —	$ —	$ 26	$ (2)
Residential	40	—	(4)	—	—	3	—	—	—	39	(5)
Commercial	—	—	—	—	—	—	—	—	—	—	—
Total investment mortgage-backed securities	$ 68	$ —	$ (6)	$ —	$ —	$ 3	$ —	$ —	$ —	$ 65	$ (7)
U.S. Treasury and federal agency securities	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
State and municipal	539	—	(20)	81	—	—	—	(25)	—	575	(14)
Foreign government	1,001	—	(53)	6	(56)	224	—	(262)	—	860	(44)
Corporate	334	—	4	1	(3)	1	—	—	—	337	—
Marketable equity securities	10	—	—	—	—	—	—	—	—	10	—
Asset-backed securities	1	—	8	—	—	—	—	(7)	—	2	—
Other debt securities	—	—	—	—	—	—	—	—	—	—	—
Non-marketable equity securities	310	—	(3)	—	(10)	87	—	—	—	384	—
Total investments	$ 2,263	$ —	$ (70)	$ 88	$ (69)	$ 315	$ —	$ (294)	$ —	$ 2,233	$ (65)
Loans	$ 325	$ —	$ 5	$ 83	$ (3)	$ —	$ 333	$ —	$ (108)	$ 635	$ (6)
Mortgage servicing rights	600	—	37		—		25		(15)	647	38
Other financial assets measured on a recurring basis	63	—	(19)	22	—	7	(1)	(16)	(6)	50	(12)
Liabilities											
Interest-bearing deposits	$ 18	$ —	$ 3	$ —	$ —	$ —	$ 2	$ —	$ (1)	$ 16	$ —
Securities loaned and sold under agreements to repurchase	593	36	—	—	—	437	33	—	(30)	997	—
Trading account liabilities											
Securities sold, not yet purchased	72	(10)	—	13	(2)	46	—	—	(36)	103	(13)
Other trading liabilities	—	(2)	—	—	—	—	—	—	—	2	—
Short-term borrowings	81	12	—	1	(40)	—	6	—	(1)	35	(17)
Long-term debt	29,778	3,734	—	2,831	(811)	—	3,838	—	(192)	31,710	3,336
Other financial liabilities measured on a recurring basis	—	—	(8)	5	—	—	—		—	13	—

(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 September 30, 2022.

(4) Total Level 3 trading derivative assets and liabilities have been netted in these tables for presentation purposes only.

In millions of dollars	Dec. 31, 2021	Net realized/unrealized gains (losses) incl. in[1] Principal transactions	Other[1][2]	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Sept. 30, 2022	Unrealized gains (losses) still held[3]
Assets											
Securities borrowed and purchased under agreements to resell	$ 231	$ (2)	$ —	$ —	$ —	$ 252	$ —	$ —	$ (340)	$ 141	$ 14
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	496	(41)	—	181	(311)	794	—	(447)	—	672	(53)
Residential	104	(2)	—	86	(54)	118	—	(110)	—	142	(1)
Commercial	81	(9)	—	117	(51)	14	—	(36)	—	116	7
Total trading mortgage-backed securities	$ 681	$ (52)	$ —	$ 384	$ (416)	$ 926	$ —	$ (593)	$ —	$ 930	$ (47)
U.S. Treasury and federal agency securities	$ 4	$ (4)	$ —	$ 2	$ (1)	$ —	$ —	$ —	$ (1)	$ —	$ —
State and municipal	37	9	—	75	(26)	15	—	(88)	—	22	(1)
Foreign government	23	(40)	—	304	(5)	157	—	(59)	—	380	(19)
Corporate	412	89	—	455	(350)	919	—	(1,065)	—	460	(109)
Marketable equity securities	174	34	—	134	(99)	142	—	(198)	—	187	(47)
Asset-backed securities	613	(26)	—	208	(192)	589	—	(580)	—	612	(151)
Other trading assets	576	158	—	407	(372)	557	27	(662)	(12)	679	(95)
Total trading non-derivative assets	$ 2,520	$ 168	$ —	$ 1,969	$ (1,461)	$ 3,305	$ 27	$ (3,245)	$ (13)	$ 3,270	$ (469)
Trading derivatives, net[4]											
Interest rate contracts	$ 1,726	$ 322	$ —	$ (430)	$ (815)	$ (186)	$ 7	$ 77	$ (727)	$ (26)	$ (332)
Foreign exchange contracts	(89)	993	—	(443)	(9)	29	20	(399)	175	277	240
Equity contracts	(2,140)	2,159	—	(13)	429	58	—	(288)	(144)	61	1,021
Commodity contracts	422	732	—	95	(543)	60	—	(144)	(369)	253	412
Credit derivatives	(31)	(167)	—	(12)	(27)	(36)	—	—	160	(113)	(260)
Total trading derivatives, net[4]	$ (112)	$ 4,039	$ —	$ (803)	$ (965)	$ (75)	$ 27	$ (754)	$ (905)	$ 452	$ 1,081

Table continues on the next page.

		Net realized/unrealized gains (losses) incl. in[1]		Transfers							
In millions of dollars	Dec. 31, 2021	Principal transactions	Other[1][2]	into Level 3	out of Level 3	Purchases	Issuances	Sales	Settlements	Sept. 30, 2022	Unrealized gains (losses) still held[3]
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	$ 51	$ —	$ (11)	$ 1	$ (10)	$ 4	$ —	$ (9)	$ —	$ 26	$ (5)
Residential	94	—	(10)	—	(39)	3	—	(9)	—	39	(6)
Commercial	—	—	—	—	—	—	—	—	—	—	—
Total investment mortgage-backed securities	$ 145	$ —	$ (21)	$ 1	$ (49)	$ 7	$ —	$ (18)	$ —	$ 65	$ (11)
U.S. Treasury and federal agency securities	$ 1	$ —	$ (1)	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
State and municipal	772	—	(98)	81	(142)	1	—	(39)	—	575	(73)
Foreign government	786	—	(92)	256	(169)	609	—	(530)	—	860	(36)
Corporate	188	—	(3)	154	(3)	1	—	—	—	337	(2)
Marketable equity securities	16	—	(6)	—	—	—	—	—	—	10	—
Asset-backed securities	3	—	19	—	—	—	—	(20)	—	2	—
Other debt securities	—	—	—	—	—	—	—	—	—	—	—
Non-marketable equity securities	316	—	(15)	11	(10)	107	—	(25)	—	384	—
Total investments	$ 2,227	$ —	$ (217)	$ 503	$ (373)	$ 725	$ —	$ (632)	$ —	$ 2,233	$ (122)
Loans	$ 711	$ —	$ (185)	$ 84	$ (198)	$ —	$ 334	$ —	$ (111)	$ 635	$ (52)
Mortgage servicing rights	404	—	195	—	—	—	94	—	(46)	647	194
Other financial assets measured on a recurring basis	73	—	(13)	29	(16)	21	39	(17)	(66)	50	8
Liabilities											
Interest-bearing deposits	$ 183	$ —	$ 6	$ 7	$ (122)	$ —	$ 20	$ —	$ (66)	$ 16	$ —
Securities loaned and sold under agreements to repurchase	643	86	—	—	(3)	453	33	—	(43)	997	—
Trading account liabilities											
Securities sold, not yet purchased	65	11	—	48	(21)	129	—	1	(108)	103	(6)
Other trading liabilities	—	(2)	—	—	—	—	—	—	—	2	—
Short-term borrowings	105	101	—	41	(61)	—	82	—	(31)	35	(22)
Long-term debt	25,509	11,979	—	9,574	(4,318)	—	13,537	—	(613)	31,710	9,530
Other financial liabilities measured on a recurring basis	1	—	(7)	5	—	—	—	—	—	13	—

(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 September 30, 2022.

(4) Total Level 3 trading derivative assets and liabilities have been netted in these tables for presentation purposes only.

In millions of dollars	Jun. 30, 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	Sept. 30, 2021	Unrealized gains (losses) still held[3]
Assets											
Securities borrowed and purchased under agreements to resell	$ 211	$ 1	$ —	$ 45	$ —	$ 43	$ —	$ —	$ (43)	$ 257	$ 3
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	376	20	—	60	(52)	154	—	(126)	—	432	17
Residential	95	2	—	5	(9)	19	—	(51)	—	61	3
Commercial	87	1	—	17	(12)	36	—	(9)	—	120	1
Total trading mortgage-backed securities	$ 558	$ 23	$ —	$ 82	$ (73)	$ 209	$ —	$ (186)	$ —	$ 613	$ 21
U.S. Treasury and federal agency securities	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
State and municipal	70	3	—	—	—	—	—	(2)	—	71	4
Foreign government	141	26	—	7	(98)	6	—	(49)	—	33	4
Corporate	823	3	—	123	(110)	246	—	(544)	—	541	16
Marketable equity securities	147	12	—	55	(9)	58	—	(58)	—	205	14
Asset-backed securities	692	101	—	128	(19)	186	—	(424)	—	664	(28)
Other trading assets	555	138	—	25	(67)	379	—	(115)	—	915	36
Total trading non-derivative assets	$ 2,986	$ 306	$ —	$ 420	$ (376)	$ 1,084	$ —	$ (1,378)	$ —	$ 3,042	$ 67
Trading derivatives, net[4]											
Interest rate contracts	$ 1,764	$ (160)	$ —	$ (79)	$ 56	$ 10	$ —	$ —	$ (100)	$ 1,491	$ (189)
Foreign exchange contracts	(184)	131	—	(71)	(22)	11	—	(3)	(70)	(208)	121
Equity contracts	(2,550)	538	—	(370)	668	134	—	(98)	(295)	(1,973)	452
Commodity contracts	142	200	—	(3)	106	44	—	(50)	(21)	418	218
Credit derivatives	(41)	(84)	—	24	116	—	—	—	35	50	(87)
Total trading derivatives, net[4]	$ (869)	$ 625	$ —	$ (499)	$ 924	$ 199	$ —	$ (151)	$ (451)	$ (222)	$ 515

Table continues on the next page.

In millions of dollars	Jun. 30, 2021	Net realized/unrealized gains (losses) incl. in[1]		Transfers		Purchases	Issuances	Sales	Settlements	Sept. 30, 2021	Unrealized gains (losses) still held[3]
		Principal transactions	Other[1][2]	into Level 3	out of Level 3						
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	$ 52	$ —	$ —	$ 20	$ (10)	$ —	$ —	$ (10)	$ —	$ 52	$ —
Residential	—	—	—	—	—	12	—	—	—	12	—
Commercial	—	—	—	—	—	—	—	—	—	—	—
Total investment mortgage-backed securities	$ 52	$ —	$ —	$ 20	$ (10)	$ 12	$ —	$ (10)	$ —	$ 64	$ —
U.S. Treasury and federal agency securities	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
State and municipal	748	—	(6)	—	—	2	—	(9)	—	735	(6)
Foreign government	957	—	(25)	63	(232)	99	—	(50)	—	812	(6)
Corporate	104	—	(2)	151	(41)	7	—	(27)	—	192	—
Marketable equity securities	—	—	—	—	—	—	—	—	—	—	—
Asset-backed securities	3	—	—	—	—	—	—	—	—	3	—
Other debt securities	—	—	—	—	—	—	—	—	—	—	—
Non-marketable equity securities	382	—	(36)	1	—	—	—	—	—	347	(53)
Total investments	$ 2,246	$ —	$ (69)	$ 235	$ (283)	$ 120	$ —	$ (96)	$ —	$ 2,153	$ (65)
Loans	$ 429	$ —	$ (16)	$ —	$ (20)	$ —	$ 336	$ —	$ (7)	$ 722	$ 14
Mortgage servicing rights	419	—	(3)	—	—	—	8	—	(15)	409	(3)
Other financial assets measured on a recurring basis	55	—	3	10	(4)	33	—	(11)	—	86	—
Liabilities											
Interest-bearing deposits	$ 154	$ —	$ (25)	$ —	$ —	$ —	$ 14	$ —	$ (11)	$ 182	$ 5
Securities loaned and sold under agreements to repurchase	488	(29)	—	183	—	—	—	—	(44)	656	6
Trading account liabilities											
Securities sold, not yet purchased	168	(22)	—	7	(4)	21	—	—	(126)	88	4
Other trading liabilities	1	1	—	—	—	—	—	—	—	—	4
Short-term borrowings	41	(1)	—	2	(12)	—	2	—	(31)	3	2
Long-term debt	25,068	486	—	2,052	(1,086)	—	1,526	—	(1,032)	26,042	434
Other financial liabilities measured on a recurring basis	4	—	—	—	—	—	—	—	(3)	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 other-than-temporary 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 September 30, 2021.

(4) Total Level 3 trading derivative assets and liabilities have been netted in these tables for presentation purposes only.

In millions of dollars	Dec. 31, 2020	Net realized/unrealized gains (losses) incl. in[1]: Principal transactions	Other[1][2]	Transfers: into Level 3	out of Level 3	Purchases	Issuances	Sales	Settlements	Sept. 30, 2021	Unrealized gains (losses) still held[3]
Assets											
Securities borrowed and purchased under agreements to resell	$ 320	$ (10)	$ —	$ 45	$ (49)	$ 319	$ —	$ —	$ (368)	$ 257	$ 25
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	27	21	—	312	(60)	268	—	(136)	—	432	31
Residential	340	24	—	74	(77)	220	—	(520)	—	61	17
Commercial	136	22	—	93	(53)	60	—	(138)	—	120	2
Total trading mortgage-backed securities	$ 503	$ 67	$ —	$ 479	$ (190)	$ 548	$ —	$ (794)	$ —	$ 613	$ 50
U.S. Treasury and federal agency securities	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
State and municipal	94	3	—	—	(29)	5	—	(2)	—	71	4
Foreign government	51	31	—	143	(126)	77	—	(143)	—	33	4
Corporate	375	78	—	441	(278)	721	—	(796)	—	541	(6)
Marketable equity securities	73	59	—	139	(51)	93	—	(108)	—	205	26
Asset-backed securities	1,606	349	—	163	(217)	1,120	—	(2,357)	—	664	(58)
Other trading assets	945	156	—	86	(196)	727	4	(803)	(4)	915	29
Total trading non-derivative assets	$ 3,647	$ 743	$ —	$ 1,451	$ (1,087)	$ 3,291	$ 4	$ (5,003)	$ (4)	$ 3,042	$ 49
Trading derivatives, net[4]											
Interest rate contracts	$ 1,614	$ (458)	$ —	$ 94	$ 377	$ 12	$ (84)	$ —	$ (64)	$ 1,491	$ (216)
Foreign exchange contracts	52	52	—	(63)	(18)	145	—	(300)	(76)	(208)	53
Equity contracts	(3,213)	1,150	—	(968)	1,566	243	—	(215)	(536)	(1,973)	237
Commodity contracts	292	750	—	7	(511)	138	—	(205)	(53)	418	272
Credit derivatives	48	(205)	—	39	45	—	—	—	123	50	(239)
Total trading derivatives, net[4]	$ (1,207)	$ 1,289	$ —	$ (891)	$ 1,459	$ 538	$ (84)	$ (720)	$ (606)	$ (222)	$ 107
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	$ 30	$ —	$ 2	$ 42	$ (10)	$ 3	$ —	$ (15)	$ —	$ 52	$ (53)
Residential	—	—	—	—	—	12	—	—	—	12	—
Commercial	—	—	—	—	—		—	—	—	—	—
Total investment mortgage-backed securities	$ 30	$ —	$ 2	$ 42	$ (10)	$ 15	$ —	$ (15)	$ —	$ 64	$ (53)
U.S. Treasury and federal agency securities	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —	$ —
State and municipal	834	—	(16)	58	(108)	5	—	(38)	—	735	(12)
Foreign government	268	—	(24)	503	(521)	744	—	(158)	—	812	(4)
Corporate	60	—	(13)	183	(41)	37	—	(34)	—	192	2
Marketable equity securities	—	—	—	—	—	—	—	—	—	—	—
Asset-backed securities	1	—	(21)	36	—	—	—	(13)	—	3	(25)
Other debt securities	—	—	—	—	—	—	—	—	—	—	—
Non-marketable equity securities	349	—	4	2	—	—	—	(8)	—	347	(53)
Total investments	$ 1,542	$ —	$ (68)	$ 824	$ (680)	$ 801	$ —	$ (266)	$ —	$ 2,153	$ (145)

Table continues on the next page.

In millions of dollars	Dec. 31, 2020	Net realized/unrealized gains (losses) incl. in[1] Principal transactions	Other[1][2]	Transfers into Level 3	out of Level 3	Purchases	Issuances	Sales	Settlements	Sept. 30, 2021	Unrealized gains (losses) still held[3]
Loans	$ 1,985	$ —	$ 332	$ 271	$ (2,071)	$ —	$ 337	$ —	$ (132)	$ 722	$ 111
Mortgage servicing rights	336	—	49	—	—	—	76	—	(52)	409	50
Other financial assets measured on a recurring basis	—	—	3	65	(4)	33	—	(11)	—	86	—
Liabilities											
Interest-bearing deposits	$ 206	$ —	$ (7)	$ —	$ (44)	$ —	$ 34	$ —	$ (21)	$ 182	$ (146)
Securities loaned and sold under agreements to repurchase	631	(22)	—	183	(483)	488	—	—	(185)	656	25
Trading account liabilities											
Securities sold, not yet purchased	214	39	—	69	(29)	41	—	—	(168)	88	4
Other trading liabilities	26	26	—	—	—	—	—	—	—	—	—
Short-term borrowings	219	31	—	44	(56)	—	27	—	(200)	3	2
Long-term debt	25,210	2,259	—	6,921	(7,054)	—	9,071	—	(5,847)	26,042	1,305
Other financial liabilities measured on a recurring basis	1	—	(3)	—	(4)	—	14	—	(13)	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 other-than-temporary 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 September 30, 2021.
(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, 2021 to September 30, 2022:

- During the three and nine months ended September 30, 2022, transfers of *Long-term debt* were $2.8 billion and $9.6 billion, respectively, from Level 2 to Level 3. Of the $9.6 billion transfer in the nine months ended September 30, 2022, approximately $6.8 billion related to interest rate option volatility inputs becoming unobservable and/or significant relative to their overall valuation, and $2.8 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 $0.8 billion and $4.3 billion of certain structured long-term debt products being transferred from Level 3 to Level 2 during the three and nine months ended September 30, 2022, respectively.

The following were the significant Level 3 transfers for the period December 31, 2020 to September 30, 2021:

- During the nine months ended September 30, 2021, transfers of *Loans* of $2.0 billion from Level 3 to Level 2 were primarily driven by equity forward and volatility inputs that have been assessed as not significant to the overall valuation of certain hybrid loan instruments, including equity options and long dated equity call spreads.
- During the three and nine months ended September 30, 2021, transfers of *Long-term debt* were $2.1 billion and $6.9 billion, respectively, from Level 2 to Level 3. Of the $6.9 billion transfer in the nine months ended September 30, 2021, approximately $5.9 billion related to interest option volatility inputs becoming unobservable and/or significant relative to their overall valuation, and $0.9 billion related to equity volatility inputs (in addition to the other volatility inputs, e.g, interest rate volatility inputs) becoming unobservable and/or significant relative to their overall valuation. In other instances, market changes have resulted in some 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 $1.1 billion and $7.1 billion of certain structured long-term debt products being transferred from Level 3 to Level 2 during the three and nine months ended September 30, 2021, respectively.
- During the nine months ended September 30, 2021, transfers of *Equity contracts* of $1.0 billion from Level 2 to Level 3 were due to equity forward and volatility inputs becoming an unobservable and/or significant input relative to the overall valuation of equity options and equity swaps. In other instances, market changes have resulted in observable equity forward and volatility inputs becoming an insignificant input to the overall valuation of the instrument (e.g., when an option becomes deep-in or deep-out of the money). This has resulted in $1.6 billion of certain *Equity contracts* being transferred from Level 3 to Level 2 during the nine months ended September 30, 2021.

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 September 30, 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	**$ 141**	Model-based	Interest rate	**2.40 %**	**2.40 %**	**2.40 %**
			Credit spread	**15 bps**	**15 bps**	**15 bps**
Mortgage-backed securities	**$ 645**	Yield analysis	Yield	**4.43 %**	**18.27 %**	**8.42 %**
	344	Price-based	Price	**$ 0.76**	**$ 109.46**	**$ 67.19**
State and municipal, foreign government, corporate and other debt securities	**$ 2,433**	Price-based	Price	**$ 0.01**	**$ 927.52**	**$ 186.59**
	891	Model-based	Equity forward	**77.40 %**	**254.90 %**	**103.70 %**
			Equity volatility	**— %**	**301.70 %**	**34.50 %**
Marketable equity securities[5]	**$ 156**	Price-based	Price	**$ —**	**$ 7,876.60**	**$ 74.30**
	26	Model-based	WAL	**2.48 years**	**2.48 years**	**2.48 years**
			Recovery *(in millions)*	**$ 7,148**	**$ 7,148**	**$ 7,148**
Asset-backed securities	**$ 451**	Price-based	Price	**$ 21.13**	**$ 145.00**	**$ 88.14**
Non-marketable equities	**$ 200**	Price-based	Illiquidity discount	**10.00 %**	**29.40 %**	**24.47 %**
	145	Comparables analysis	PE ratio	**13.20x**	**15.70x**	**15.08x**
	40	Model-based	Cost of capital	**8.10 %**	**17.50 %**	**10.40 %**
			Revenue multiple	**4.20x**	**10.50x**	**9.75x**
Derivatives—gross[6]						
Interest rate contracts (gross)	**$ 7,129**	Model-based	IR normal volatility	**0.33 %**	**1.78 %**	**1.04 %**
Foreign exchange contracts (gross)	**$ 1,331**	Model-based	IR basis	**(5.23)%**	**16.38 %**	**0.34 %**
			IR normal volatility	**0.33 %**	**1.78 %**	**0.32 %**
			Credit spread	**143 bps**	**879 bps**	**766 bps**
Equity contracts (gross)[7]	**$ 4,436**	Model-based	Equity volatility	**— %**	**301.69 %**	**41.90 %**
			Equity forward	**77.43 %**	**254.93 %**	**103.67 %**
			Equity-Equity correlation	**(6.49)%**	**100.00 %**	**87.19 %**
			Equity-FX correlation	**(95.00)%**	**80.00 %**	**(9.77)%**
			WAL	**2.48 years**	**2.48 years**	**2.48 years**
			Recovery *(in millions)*	**$ 7,148**	**$ 7,148**	**$ 7,148**
Commodity and other contracts (gross)	**$ 2,559**	Model-based	Commodity correlation	**(50.34)%**	**93.35 %**	**26.54 %**
			Commodity volatility	**15.49 %**	**133.07 %**	**25.90 %**
			Forward price	**17.53 %**	**524.16 %**	**123.15 %**
Credit derivatives (gross)	**$ 2,076**	Model-based	Credit spread	**13 bps**	**961 bps**	**154 bps**
	394	Price-based	Recovery rate	**2.00 %**	**75.00 %**	**37.55 %**
			Credit correlation	**10.00 %**	**90.00 %**	**43.22 %**
			Price	**$ —**	**$ 95.02**	**$ 7.13**
Nontrading derivatives and other financial assets and liabilities measured on a recurring basis (gross)	**$ 25**	Price-based	Price	**$ 0.73**	**$ 845.00**	**$ 214.89**
Loans and leases	**$ 337**	Price-based	Price	**$ —**	**$ 109.75**	**$ 81.61**

As of September 30, 2022	Fair value[1] (in millions)	Methodology	Input	Low[2][3]	High[2][3]	Weighted average[4]
	$ 297	Model-based	Equity volatility	**58.44 %**	**103.57 %**	**72.59 %**
			Forward price	**17.53 %**	**524.16 %**	**148.69 %**
			Commodity volatility	**15.49 %**	**133.07 %**	**25.90 %**
			Commodity correlation	**(50.34)%**	**93.35 %**	**26.54 %**
Mortgage servicing rights	**$ 571**	Cash flow	Yield	**0.80 %**	**13.20 %**	**5.97 %**
	76	Model-based	WAL	**4.07 years**	**10.23 years**	**8.19 years**
Liabilities						
Interest-bearing deposits	**$ 16**	Model-based	IR normal volatility	**0.23 %**	**0.64 %**	**0.42 %**
			Forward price	**100.00 %**	**100.00 %**	**100.00 %**
Securities loaned and sold under agreements to repurchase	**$ 997**	Model-based	Interest rate	**3.43 %**	**4.43 %**	**4.08 %**
Trading account liabilities						
Securities sold, not yet purchased and other trading liabilities	**$ 86**	Price-based	Price	**$ —**	**$ 12,100**	**$ 1,085**
Short-term borrowings and long-term debt	**$ 31,745**	Model-based	IR normal volatility	**0.33 %**	**20.00 %**	**1.57 %**
			Equity volatility	**— %**	**301.69 %**	**34.49 %**

As of December 31, 2021	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	$ 231	Model-based	Credit spread	15 bps	15 bps	15 bps
			Interest rate	0.26 %	0.72 %	0.50 %
Mortgage-backed securities	$ 279	Price-based	Price	$ 4	$ 118	$ 79
	526	Yield analysis	Yield	1.43 %	23.79 %	7.25 %
State and municipal, foreign government, corporate and other debt securities	$ 2,264	Price-based	Price	$ —	$ 995	$ 193
	415	Model-based	Equity volatility	0.08 %	290.64 %	53.94 %
Marketable equity securities[5]	$ 128	Price-based	Price	$ —	$ 73,000	$ 6,477
	43	Model-based	WAL	1.73 years	1.73 years	1.73 years
			Recovery *(in millions)*	$ 7,148	$ 7,148	$ 7,148
Asset-backed securities	$ 386	Price-based	Price	$ 5	$ 754	$ 87
	208	Yield analysis	Yield	2.43 %	19.35 %	8.18 %
Non-marketable equities	$ 121	Price-based	Illiquidity discount	10.00 %	36.00 %	26.43 %
	112	Comparables analysis	PE ratio	11.00x	29.00x	15.42x
	83	Model-based	Price	$ 3	$ 2,601	$ 2,029
			Adjustment factor	0.33x	0.44x	0.34x
			Revenue multiple	19.80x	30.00x	20.48x
			Cost of capital	17.50 %	20.00 %	17.57 %
Derivatives—gross[6]						
Interest rate contracts (gross)	$ 6,054	Model-based	IR normal volatility	0.24 %	0.94 %	0.70 %
Foreign exchange contracts (gross)	$ 1,364	Model-based	IR normal volatility	0.24 %	0.74 %	0.58 %
			FX volatility	2.13 %	107.42 %	11.21 %
			Credit spread	140 bps	696 bps	639 bps
Equity contracts (gross)[7]	$ 4,690	Model-based	Equity volatility	0.08 %	290.64 %	47.67 %
			Equity forward	57.99 %	165.83 %	89.45 %
			Equity-FX correlation	(95.00)%	80.00 %	(16.00)%

			Equity-Equity correlation	(6.49)%	99.00 %	85.61 %
Commodity and other contracts (gross)	$ 3,172	Model-based	Forward price	8.00 %	599.44 %	123.22 %
			Commodity volatility	10.87 %	188.30 %	26.85 %
			Commodity correlation	(50.52)%	89.83 %	(7.11)%
Credit derivatives (gross)	$ 1,480	Model-based	Credit spread	1.00 bps	874.72 bps	68.83 bps
	427	Price-based	Recovery rate	20.00 %	75.00 %	44.72 %
			Upfront points	2.74 %	99.96 %	59.37 %
			Price	$ 40	$ 103	$ 80
			Credit correlation	30.00 %	80.00 %	54.57 %
Non-trading derivatives and other financial assets and liabilities measured on a recurring basis (gross)	$ 69	Price-based	Price	$ 94	$ 2,598	$ 591
Loans and leases	$ 691	Model-based	Equity volatility	22.48 %	85.44 %	50.56 %
			Forward price	26.95 %	333.08 %	106.97 %
			Commodity volatility	10.87 %	188.30 %	26.85 %
			Commodity correlation	(50.52)%	89.83 %	(7.11)%
Mortgage servicing rights	$ 331	Cash flow	Yield	(1.20)%	12.10 %	4.51 %
	73	Model-based	WAL	2.75 years	5.86 years	5.14 years
Liabilities						
Interest-bearing deposits	$ 183	Model-based	IR normal volatility	0.34 %	0.88 %	0.68 %
			Equity volatility	0.08 %	290.64 %	54.05 %
			Equity forward	57.99 %	165.83 %	89.39 %
Securities loaned and sold under agreements to repurchase	$ 643	Model-based	Interest rate	0.12 %	1.95 %	1.47 %
Trading account liabilities						
Securities sold, not yet purchased and other trading liabilities	$ 63	Price-based	Price	$ —	$ 12,875	$ 1,707
Short-term borrowings and long-term debt	$ 25,514	Model-based	IR normal volatility	0.07 %	0.88 %	0.60 %
			Equity volatility	0.08 %	290.64 %	53.21 %
			Equity-IR correlation	(3.53)%	60.00 %	32.12 %
			Equity-FX correlation	(95.00)%	80.00 %	(15.98)%
			FX volatility	0.06 %	41.76 %	9.38 %

(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
September 30, 2022			
Loans HFS[1]	**$ 3,175**	**$ 1,151**	**$ 2,024**
Other real estate owned	**3**	**—**	**3**
Loans[2]	**126**	**—**	**126**
Non-marketable equity securities measured using the measurement alternative	**70**	**—**	**70**
Total assets at fair value on a nonrecurring basis	**$ 3,374**	**$ 1,151**	**$ 2,223**

In millions of dollars	Fair value	Level 2	Level 3
December 31, 2021			
Loans HFS[1]	$ 2,298	$ 986	$ 1,312
Other real estate owned	11	—	11
Loans[2]	144	—	144
Non-marketable equity securities measured using the measurement alternative	655	104	551
Total assets at fair value on a nonrecurring basis	$ 3,108	$ 1,090	$ 2,018

(1) Net of fair value 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 September 30, 2022	**Fair value[1]** *(in millions)*	**Methodology**	**Input**	**Low[2]**	**High**	**Weighted average[3]**
Loans held-for-sale	**$ 2,024**	Price-based	Price	**$ 80.40**	**$ 100.00**	**$ 91.24**
Other real estate owned	**$ 1**	Price-based	Appraised value[4]	**$ 10,200**	**$ 990,910**	**$ 730,901**
	1	Recovery analysis				
Loans[5]	**$ 126**	Recovery analysis	Appraised value[4]	**$ 12,000**	**$ 17,525,636**	**$ 2,578,191**
Non-marketable equity securities measured using the measurement alternative	**$ 40**	Price-based	Price	**$ 3.35**	**$ 196.50**	**$ 96.21**
	29	Comparable analysis	Revenue multiple	**9.26x**	**73.10x**	**31.10x**
			Discount to price percentage	**28.00 %**	**28.00 %**	**28.00 %**

As of December 31, 2021	Fair value[1] *(in millions)*	Methodology	Input	Low[2]	High	Weighted average[3]
Loans HFS	$ 1,312	Price-based	Price	$ 89	$ 100	$ 99
Other real estate owned	$ 4	Price-based	Appraised value[4]	$ 14,000	$ 2,392,464	$ 1,660,120
	5	Recovery analysis				
Loans[5]	$ 120	Recovery analysis	Appraised value[4]	$ 10,000	$ 3,900,000	$ 247,018
	24	Price-based	Price	3	75	35
			Recovery rate	84.00 %	100.00 %	84.00 %
Non-marketable equity securities measured using the measurement alternative	$ 551	Price-based	Price	$ 6	$ 1,339	$ 52

(1) The table above includes 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 September 30,		**Nine Months Ended September 30,**	
In millions of dollars	**2022**	2021	**2022**	2021
Loans HFS	**$ (250)**	$ (13)	**$ (413)**	$ (22)
Other real estate owned	**—**	—	**—**	—
Loans[1]	**10**	(10)	**17**	33
Non-marketable equity securities measured using the measurement alternative	**(14)**	72	**114**	363
Total nonrecurring fair value gains (losses)	**$ (254)**	$ 49	**$ (282)**	$ 374

(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.

	September 30, 2022		**Estimated fair value**		
In billions of dollars	**Carrying value**	**Estimated fair value**	**Level 1**	**Level 2**	**Level 3**
Assets					
Investments, net of allowance	**$ 273.3**	**$ 245.4**	**$ 122.2**	**$ 120.1**	**$ 3.1**
Securities borrowed and purchased under agreements to resell	**120.2**	**120.3**	**—**	**120.3**	**—**
Loans[(1)(2)]	**625.5**	**627.2**	**—**	**—**	**627.2**
Other financial assets[(2)(3)]	**410.9**	**410.9**	**281.0**	**18.6**	**111.3**
Liabilities					
Deposits	**$ 1,304.0**	**$ 1,299.4**	**$ —**	**$ 1,139.5**	**$ 159.9**
Securities loaned and sold under agreements to repurchase	**130.3**	**130.3**	**—**	**130.3**	**—**
Long-term debt[(4)]	**161.2**	**154.0**	**—**	**117.2**	**36.8**
Other financial liabilities[(5)]	**157.3**	**157.3**	**—**	**26.4**	**130.9**

	December 31, 2021		Estimated fair value		
In billions of dollars	Carrying value	Estimated fair value	Level 1	Level 2	Level 3
Assets					
Investments, net of allowance	$ 221.9	$ 221.0	$ 111.8	$ 106.4	$ 2.8
Securities borrowed and purchased under agreements to resell	110.8	110.8	—	106.4	4.4
Loans[(1)(2)]	644.8	659.6	—	—	659.6
Other financial assets[(2)(3)]	351.9	351.9	242.1	19.9	89.9
Liabilities					
Deposits	$ 1,315.6	$ 1,316.2	$ —	$ 1,153.9	$ 162.3
Securities loaned and sold under agreements to repurchase	134.6	134.6	—	134.5	0.1
Long-term debt[(4)]	171.8	184.6	—	171.9	12.7
Other financial liabilities[(5)]	111.1	111.1	—	17.0	94.1

(1) The carrying value of loans is net of the *Allowance for credit losses on loans* of $16.3 billion for September 30, 2022 and $16.5 billion for December 31, 2021. In addition, the carrying values exclude $0.4 billion and $0.5 billion of lease finance receivables at September 30, 2022 and December 31, 2021, 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 September 30, 2022 and December 31, 2021 were off-balance sheet liabilities of $11.3 billion and $8.1 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 cancellable by providing notice to the borrower.

21. 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*. Additional discussion regarding the applicable areas in which fair value elections were made is presented in Note 20.

The Company has elected fair value accounting for its mortgage servicing rights (MSRs). See Note 18 for additional details on Citi's MSRs.

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 September 30,		**Nine Months Ended September 30,**	
In millions of dollars	**2022**	2021	**2022**	2021
Assets				
Securities borrowed and purchased under agreements to resell	**$ (82)**	$ (28)	**$ (165)**	$ (64)
Trading account assets	**(69)**	(2)	**(307)**	151
Loans				
Certain corporate loans	**(372)**	(292)	**(2,227)**	376
Consumer loans	**—**	—	**(1)**	—
Total loans	**$ (372)**	$ (292)	**$ (2,228)**	$ 376
Other assets				
MSRs	**$ 37**	$ (3)	**$ 195**	$ 49
Certain mortgage loans HFS[(1)]	**(110)**	25	**(440)**	69
Total other assets	**$ (73)**	$ 22	**$ (245)**	$ 118
Total assets	**$ (596)**	$ (300)	**$ (2,945)**	$ 581
Liabilities				
Interest-bearing deposits	**$ 133**	$ 54	**$ 10**	$ (39)
Securities loaned and sold under agreements to repurchase	**63**	19	**159**	37
Trading account liabilities	**208**	5	**(241)**	15
Short-term borrowings[(2)]	**61**	140	**1,257**	332
Long-term debt[(2)]	**4,922**	975	**20,635**	542
Total liabilities	**$ 5,387**	$ 1,193	**$ 21,820**	$ 887

(1) Includes gains (losses) associated with interest rate lock commitments for those loans that have been originated and elected the fair value option.
(2) Includes DVA that is included in *AOCI*. See Notes 17 and 20.

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*.

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 gain of $1,159 million and a loss of $107 million for the three months ended September 30, 2022 and 2021, respectively, and a gain of $4,800 million and a loss of $256 million for the nine months ended September 30, 2022 and 2021, 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:

	September 30, 2022		December 31, 2021	
In millions of dollars	**Trading assets**	**Loans**	Trading assets	Loans
Carrying amount reported on the Consolidated Balance Sheet	**$ 6,436**	**$ 3,879**	$ 9,530	$ 6,082
Aggregate unpaid principal balance in excess of (less than) fair value	**434**	**(97)**	(100)	226
Balance of non-accrual loans or loans more than 90 days past due	**—**	**148**	—	1
Aggregate unpaid principal balance in excess of (less than) fair value for non-accrual loans or loans more than 90 days past due	**—**	**—**	—	—

In addition to the amounts reported above, $777 million and $719 million of unfunded commitments related to certain credit products selected for fair value accounting were outstanding as of September 30, 2022 and December 31, 2021, 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 September 30, 2022 and 2021 due to instrument-specific credit risk totaled to losses of $(69) million and $(10) 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 (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 $0.2 billion and $0.3 billion at September 30, 2022 and December 31, 2021, 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 September 30, 2022, there were approximately $16.4 billion and $12.4 billion of notional amounts of such forward purchase and forward sale derivative contracts outstanding, respectively.

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	**September 30, 2022**	December 31, 2021
Carrying amount reported on the Consolidated Balance Sheet	**$ 1,481**	$ 3,035
Aggregate fair value in excess of (less than) unpaid principal balance	**(53)**	70
Balance of non-accrual loans or loans more than 90 days past due	**4**	—
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 nine months ended September 30, 2022 and 2021 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. The Company elected the fair value option because these exposures are considered to be trading-related positions and, therefore, are managed on a fair value basis. These positions will continue to be classified as debt, deposits or derivatives classified as *Trading account liabilities* on the Company's Consolidated Balance Sheet according to their legal form.

The following table provides information about the carrying value of notes carried at fair value, disaggregated by type of risk:

In billions of dollars	**September 30, 2022**	December 31, 2021
Interest rate linked	**$ 45.2**	$ 38.9
Foreign exchange linked	**0.1**	—
Equity linked	**37.0**	36.1
Commodity linked	**5.1**	3.9
Credit linked	**4.4**	3.7
Total	**$ 91.8**	$ 82.6

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	**September 30, 2022**	December 31, 2021
Carrying amount reported on the Consolidated Balance Sheet	**$ 91,825**	$ 82,609
Aggregate unpaid principal balance in excess of (less than) fair value	**(2,745)**	(2,459)

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

In millions of dollars	**September 30, 2022**	December 31, 2021
Carrying amount reported on the Consolidated Balance Sheet	**$ 6,570**	$ 7,358
Aggregate unpaid principal balance in excess of (less than) fair value	**1**	(644)

22. 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 26 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

The following tables present information about Citi's guarantees at September 30, 2022 and December 31, 2021:

	Maximum potential amount of future payments			
In billions of dollars at September 30, 2022	**Expire within 1 year**	**Expire after 1 year**	**Total amount outstanding**	**Carrying value** *(in millions of dollars)*
Financial standby letters of credit	**$ 34.2**	**$ 56.0**	**$ 90.2**	**$ 864**
Performance guarantees	**6.2**	**5.3**	**11.5**	**66**
Derivative instruments considered to be guarantees	**21.6**	**40.7**	**62.3**	**475**
Loans sold with recourse	**—**	**1.7**	**1.7**	**15**
Securities lending indemnifications(1)	**108.8**	**—**	**108.8**	**—**
Credit card merchant processing(2)	**129.8**	**—**	**129.8**	**1**
Credit card arrangements with partners	**—**	**0.6**	**0.6**	**7**
Other	**0.4**	**10.5**	**10.9**	**33**
Total	**$ 301.0**	**$ 114.8**	**$ 415.8**	**$ 1,461**

	Maximum potential amount of future payments			
In billions of dollars at December 31, 2021	Expire within 1 year	Expire after 1 year	Total amount outstanding	Carrying value *(in millions of dollars)*
Financial standby letters of credit	$ 34.3	$ 58.4	$ 92.7	$ 791
Performance guarantees	6.6	6.4	13.0	47
Derivative instruments considered to be guarantees	14.6	48.9	63.5	514
Loans sold with recourse	—	1.7	1.7	15
Securities lending indemnifications(1)	121.9	—	121.9	—
Credit card merchant processing(2)	119.4	—	119.4	1
Credit card arrangements with partners	—	0.8	0.8	7
Other	2.0	12.0	14.0	34
Total	$ 298.8	$ 128.2	$ 427.0	$ 1,409

(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 September 30, 2022 and December 31, 2021, this maximum potential exposure was estimated to be approximately $130 billion and $119 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 $15 million and $19 million at September 30, 2022 and December 31, 2021, 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 September 30, 2022 and December 31, 2021, 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 September 30, 2022 or December 31, 2021 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 26 to the Consolidated Financial Statements in Citi's 2021 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 19 for a discussion of Citi's derivatives activities that are reflected in its Consolidated Financial Statements.

As a clearing member, Citi collects and remits cash and securities collateral (margin) between its clients and the respective CCP. In certain circumstances, Citi collects a higher amount of cash (or securities) from its clients than it needs to remit to the CCPs. This excess cash is then held at depository institutions such as banks or carry brokers.

There are two types of margin: initial and variation. Where Citi obtains benefits from or controls cash initial margin (e.g., retains an interest spread), cash initial margin collected from clients and remitted to the CCP or depository institutions is reflected within *Brokerage payables* (payables to customers) and *Brokerage receivables* (receivables from brokers, dealers and clearing organizations) or *Cash and due from banks*, respectively.

However, for exchange-traded and OTC-cleared derivatives contracts where Citi does not obtain benefits from or control the client cash balances, the client cash initial margin collected from clients and remitted to the CCP or depository institutions is not reflected on Citi's Consolidated Balance Sheet. These conditions are met when Citi has contractually agreed with the client that (i) Citi will pass through to the client all interest paid by the CCP or depository institutions on the cash initial margin, (ii) Citi will not utilize its right as a clearing member to transform cash margin into other assets, (iii) Citi does not guarantee and is not liable to the client for the performance of the CCP or the depository institution and (iv) the client cash balances are legally isolated from Citi's bankruptcy estate. The total amount of cash initial margin collected and remitted in this manner was approximately $17.4 billion and $18.7 billion as of September 30, 2022 and December 31, 2021, 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 September 30, 2022 and December 31, 2021, the total carrying amounts of the liabilities related to the guarantees and indemnifications included in the tables above amounted to approximately $1.5 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 $58.3 billion and $56.5 billion at September 30, 2022 and December 31, 2021, respectively. Securities and other marketable assets held as collateral amounted to $71.0 billion and $84.2 billion at September 30, 2022 and December 31, 2021, 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 $3.6 billion and $4.1 billion at September 30, 2022 and December 31, 2021, 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 September 30, 2022	**Investment grade**	**Non-investment grade**	**Not rated**	**Total**
Financial standby letters of credit	**$ 80.4**	**$ 9.8**	**$ —**	**$ 90.2**
Performance guarantees	**9.4**	**2.1**	**—**	**11.5**
Derivative instruments deemed to be guarantees	**—**	**—**	**62.3**	**62.3**
Loans sold with recourse	**—**	**—**	**1.7**	**1.7**
Securities lending indemnifications	**—**	**—**	**108.8**	**108.8**
Credit card merchant processing	**—**	**—**	**129.8**	**129.8**
Credit card arrangements with partners	**—**	**—**	**0.6**	**0.6**
Other	**0.2**	**10.7**	**—**	**10.9**
Total	**$ 90.0**	**$ 22.6**	**$ 303.2**	**$ 415.8**

	Maximum potential amount of future payments			
In billions of dollars at December 31, 2021	Investment grade	Non-investment grade	Not rated	Total
Financial standby letters of credit	$ 81.4	$ 11.3	$ —	$ 92.7
Performance guarantees	10.5	2.5	—	13.0
Derivative instruments deemed to be guarantees	—	—	63.5	63.5
Loans sold with recourse	—	—	1.7	1.7
Securities lending indemnifications	—	—	121.9	121.9
Credit card merchant processing	—	—	119.4	119.4
Credit card arrangements with partners	—	—	0.8	0.8
Other	—	12.0	2.0	14.0
Total	$ 91.9	$ 25.8	$ 309.3	$ 427.0

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]	September 30, 2022	December 31, 2021
Commercial and similar letters of credit	$ 1,028	$ 4,827	$ 5,855	$ 5,910
One- to four-family residential mortgages	1,159	1,636	2,795	4,351
Revolving open-end loans secured by one- to four-family residential properties	6,156	653	6,809	7,913
Commercial real estate, construction and land development	13,785	2,150	15,935	17,843
Credit card lines	608,930	85,756	694,686	700,559
Commercial and other consumer loan commitments	182,268	104,229	286,497	320,556
Other commitments and contingencies	5,214	148	5,362	5,649
Total	$ 818,540	$ 199,399	$ 1,017,939	$ 1,062,781

(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 September 30, 2022 and December 31, 2021, Citigroup had approximately $135.4 billion and $126.6 billion of unsettled reverse repurchase and securities borrowing agreements, and approximately $53.3 billion and $41.1 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 includes minimum reserve requirements with the Federal Reserve Bank and certain other central banks and cash segregated to satisfy rules regarding the protection of customer assets as required by Citigroup broker-dealers' primary regulators, including the United States Securities and Exchange Commission (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	September 30, 2022	December 31, 2021
Cash and due from banks	$ 5,216	$ 2,786
Deposits with banks, net of allowance	10,950	10,636
Total	$ 16,166	$ 13,422

In response to the COVID-19 pandemic, the Federal Reserve Bank and certain other central banks eased regulations related to minimum required cash deposited with central banks.

23. 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 have a weighted-average remaining lease term of approximately six years as of September 30, 2022.

For additional information regarding Citi's leases, see Note 1 and Note 26 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

The following table presents information on the Right of Use (ROU) asset and lease liabilities included in *Other assets* and *Other liabilities*, respectively.

In millions of dollars	**September 30, 2022**	December 31, 2021
ROU asset	**$ 2,932**	$ 2,914
Lease liability	**3,118**	3,116

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.

24. CONTINGENCIES

The following information supplements and amends, as applicable, the disclosure in Note 23 to the Consolidated Financial Statements of Citigroup's Second Quarter of 2022 Form 10-Q and First Quarter of 2022 Form 10-Q and in Note 27 to the Consolidated Financial Statements in Citi's 2021 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 September 30, 2022, 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 27 to the Consolidated Financial Statements in Citi's 2021 Form 10-K.

Foreign Exchange Matters

Antitrust and Other Litigation: On August 22, 2022, in NYPL v. JPMORGAN CHASE & CO., ET AL., the United States Court of Appeals for the Second Circuit denied plaintiffs' petition seeking appellate review of the decision denying class certification. Additional information concerning this action is publicly available in court filings under the docket numbers 15-CV-9300 (S.D.N.Y.) (Schofield, J.) and 22-698 (2d Cir.).

On October 4, 2022, in MICHAEL O'HIGGINS FX CLASS REPRESENTATIVE LIMITED v. BARCLAYS BANK PLC AND OTHERS and PHILLIP EVANS v. BARCLAYS BANK PLC AND OTHERS, the U.K.'s Competition Appeal Tribunal granted permission to both claimants to appeal its March 31, 2022 judgment on certification. Additional information concerning these actions is publicly available in court filings under the case numbers 1329/7/7/19 and 1336/7/7/19.

Interbank Offered Rates-Related Litigation and Other Matters

Antitrust and Other Litigation: On September 13, 2022, in MCCARTHY, ET AL. v. INTERCONTINENTAL EXCHANGE, INC., ET AL., the United States District Court for the Northern District of California granted defendants' motions to dismiss for lack of antitrust standing, but granted plaintiffs leave to amend. On October 4, 2022, plaintiffs filed an amended complaint. Plaintiffs continue to allege that defendants conspired to fix ICE LIBOR, assert claims under the Sherman Act and the Clayton Act, and seek declaratory relief, injunctive relief, and treble damages. Additional information concerning this action is publicly available in court filings under the docket number 20-CV-5832 (N.D. Cal.) (Donato, J.).

Madoff-Related Litigation

In the actions brought by the trustee appointed for the Securities Investor Protection Act liquidation of Bernard L. Madoff Investment Securities LLC (BLMIS), on September 27, 2022, the United States Bankruptcy Court for the Southern District of New York denied the motion to dismiss filed by Citibank, Citicorp North America, and CGML. Additional information concerning these actions is publicly available in court filings under the docket numbers 10-5345, 12-1700

(Bankr. S.D.N.Y.) (Morris, J.); 12-MC-115 (S.D.N.Y.) (Rakoff, J.); and 17-2992, 17-3076, 17-3139, 19-4282, 20-1333 (2d Cir.).

In the actions brought by liquidators of Fairfield Sentry Limited, on August 24, 2022, the United States District Court for the Southern District of New York affirmed various decisions of the bankruptcy court, which dismissed claims against Citibank NA London, Citigroup Global Markets Ltd. (CGML), Citivic Nominees Ltd., Citibank (Switzerland) AG, Cititrust Bahamas Ltd., and Citibank Korea Inc., and sustained a single claim against Citibank NA London, CGML, Citivic Nominees Ltd., and Citibank (Switzerland) AG. Beginning on September 26, 2022, the liquidators filed notices of appeal, and on September 30, 2022, the defendants sought review of the district court's decision with respect to the remaining claim. Additional information concerning these actions is publicly available in court filings under the docket numbers 10-13164, 10-3496, 10-3622, 10-3634, 10-4100, 10-3640, 11-2770, 12-1298, 12-1142 (Bankr. S.D.N.Y.) (Morris, J.); 19-3911, 19-4267, 19-4396, 19-4484, 19-5106, 19-5109, 19-5135, 21-2997, 21-3243, 21-3526, 21-3529, 21-3530, 21-3998, 21-4307, 21-4498, 21-4496 (S.D.N.Y.) (Broderick, J.); and 22-2101, 22-2557, 22-2122, 22-2562, 22-2216, 22-2545, 22-2308, 22-2591, 22-2502, 22-2553, 22-2398, 22-258 (2d Cir.).

Record-Keeping Matters

In September 2022, Citigroup Global Markets Inc. (CGMI) entered into a resolution with the U.S. Securities and Exchange Commission (SEC), and CGMI, Citibank, and Citigroup Energy Inc. (CEI) entered into a resolution with the U.S. Commodity Futures Trading Commission (CFTC), to resolve the SEC's and CFTC's respective investigations regarding compliance with record-keeping obligations in connection with business-related communications sent over unapproved electronic messaging channels. Under these resolutions, a $125 million civil monetary penalty was paid to the SEC, and a $75 million civil monetary penalty was paid to the CFTC.

Revlon-Related Wire Transfer Litigation

On September 8, 2022, the United States Court of Appeals for the Second Circuit ruled in Citi's favor and vacated the judgment of the district court, which had been in favor of the defendants. On September 22, 2022, the defendants filed a petition for rehearing and rehearing *en banc*, which the Court of Appeals denied. Additional information concerning this action is publicly available in court filings under the docket numbers 20-CV-6539 (S.D.N.Y.) (Furman, J.) and 21-487 (2d Cir.).

Shareholder Derivative and Securities Litigations

On August 2, 2022, a shareholder derivative action captioned LIPSHUTZ et al. v. COSTELLO et al. was filed in the United States District Court for the Eastern District of New York, purportedly on behalf of Citigroup (as nominal defendant) against Citigroup's current directors. The action raises substantially the same claims and allegations as IN RE CITIGROUP INC. SHAREHOLDER DERIVATIVE LITIGATION. The LIPSHUTZ action additionally asserts that plaintiffs made a litigation demand on the Citigroup Board of Directors and that the demand was wrongfully refused. On October 20, 2022, defendants moved to transfer the new action to the United States District Court for the Southern District of New York. Additional information concerning these actions is publicly available in court filings under the docket numbers 22 Civ. 4547 (E.D.N.Y.) (Kovner, J.) and 1:20-CV-09438 (S.D.N.Y.) (Preska, J.).

Sovereign Securities Litigation

Antitrust and Other Litigation: On September 15, 2022, in IN RE MEXICAN GOVERNMENT BONDS ANTITRUST LITIGATION, plaintiffs filed a notice of appeal to the United States Court of Appeals for the Second Circuit from the district court's order dismissing certain defendants, including Citibanamex, for lack of personal jurisdiction. Additional information concerning this action is publicly available in court filings under the docket numbers 18-CV-2830 (S.D.N.Y.) (Oetken, J.) and 22-2039 (2d Cir.).

Settlement Payments

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

25. 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 and nine months ended September 30, 2022 and 2021, Condensed Consolidating Balance Sheet as of September 30, 2022 and December 31, 2021 and Condensed Consolidating Statement of Cash Flows for the nine months ended September 30, 2022 and 2021 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 September 30, 2022				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$ 3,742	$ —	$ —	$ (3,742)	$ —
Interest revenue	—	2,973	16,946	—	19,919
Interest revenue—intercompany	1,190	689	(1,879)	—	—
Interest expense	1,324	1,740	4,292	—	7,356
Interest expense—intercompany	198	1,316	(1,514)	—	—
Net interest income	$ (332)	$ 606	$ 12,289	$ —	$ 12,563
Commissions and fees	$ —	$ 1,078	$ 1,061	$ —	$ 2,139
Commissions and fees—intercompany	—	(31)	31	—	—
Principal transactions	1,584	1,319	(278)	—	2,625
Principal transactions—intercompany	(1,887)	(809)	2,696	—	—
Other revenue	137	122	922	—	1,181
Other revenue—intercompany	(122)	(15)	137	—	—
Total non-interest revenues	$ (288)	$ 1,664	$ 4,569	$ —	$ 5,945
Total revenues, net of interest expense	$ 3,122	$ 2,270	$ 16,858	$ (3,742)	$ 18,508
Provisions for credit losses and for benefits and claims	$ —	$ 6	$ 1,359	$ —	$ 1,365
Operating expenses					
Compensation and benefits	$ 6	$ 1,427	$ 5,312	$ —	$ 6,745
Compensation and benefits—intercompany	1	—	(1)	—	—
Other operating	28	772	5,204	—	6,004
Other operating—intercompany	4	643	(647)	—	—
Total operating expenses	$ 39	$ 2,842	$ 9,868	$ —	$ 12,749
Equity in undistributed income of subsidiaries	$ 40	$ —	$ —	$ (40)	$ —
Income (loss) from continuing operations before income taxes	$ 3,123	$ (578)	$ 5,631	$ (3,782)	$ 4,394
Provision (benefit) for income taxes	(356)	(5)	1,240	—	879
Income (loss) from continuing operations	$ 3,479	$ (573)	$ 4,391	$ (3,782)	$ 3,515
Income (loss) from discontinued operations, net of taxes	—	—	(6)	—	(6)
Net income before attribution of noncontrolling interests	$ 3,479	$ (573)	$ 4,385	$ (3,782)	$ 3,509
Noncontrolling interests	—	—	30	—	30
Net income (loss)	$ 3,479	$ (573)	$ 4,355	$ (3,782)	$ 3,479
Comprehensive income					
Add: Other comprehensive income (loss)	$ (2,803)	$ (109)	$ 2,559	$ (2,450)	$ (2,803)
Total Citigroup comprehensive income (loss)	$ 676	$ (682)	$ 6,914	$ (6,232)	$ 676
Add: Other comprehensive income attributable to noncontrolling interests	$ —	$ —	$ (44)	$ —	$ (44)
Add: Net income attributable to noncontrolling interests	—	—	30	—	30
Total comprehensive income (loss)	$ 676	$ (682)	$ 6,900	$ (6,232)	$ 662

Condensed Consolidating Statements of Income and Comprehensive Income

In millions of dollars	Nine Months Ended September 30, 2022 Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$ 5,792	$ —	$ —	$ (5,792)	$ —
Interest revenue	—	5,328	43,372	—	48,700
Interest revenue—intercompany	3,124	1,121	(4,245)	—	—
Interest expense	3,801	2,636	6,865	—	13,302
Interest expense—intercompany	438	2,352	(2,790)	—	—
Net interest income	$ (1,115)	$ 1,461	$ 35,052	$ —	$ 35,398
Commissions and fees	$ —	$ 3,667	$ 3,492	$ —	$ 7,159
Commissions and fees—intercompany	(1)	95	(94)	—	—
Principal transactions	5,478	11,129	(4,867)	—	11,740
Principal transactions—intercompany	(5,846)	(8,246)	14,092	—	—
Other revenue	524	386	2,125	—	3,035
Other revenue—intercompany	(303)	(50)	353	—	—
Total non-interest revenues	$ (148)	$ 6,981	$ 15,101	$ —	$ 21,934
Total revenues, net of interest expense	$ 4,529	$ 8,442	$ 50,153	$ (5,792)	$ 57,332
Provisions for credit losses and for benefits and claims	$ —	$ 7	$ 3,387	$ —	$ 3,394
Operating expenses					
Compensation and benefits	$ 4	$ 4,262	$ 15,771	$ —	$ 20,037
Compensation and benefits—intercompany	12	—	(12)	—	—
Other operating	40	2,318	15,912	—	18,270
Other operating—intercompany	11	2,015	(2,026)	—	—
Total operating expenses	$ 67	$ 8,595	$ 29,645	$ —	$ 38,307
Equity in undistributed income of subsidiaries	$ 6,806	$ —	$ —	$ (6,806)	$ —
Income (loss) from continuing operations before income taxes	$ 11,268	$ (160)	$ 17,121	$ (12,598)	$ 15,631
Provision (benefit) for income taxes	(1,064)	(120)	4,186	—	3,002
Income (loss) from continuing operations	$ 12,332	$ (40)	$ 12,935	$ (12,598)	$ 12,629
Income (loss) from discontinued operations, net of taxes	—	—	(229)	—	(229)
Net income before attribution of noncontrolling interests	$ 12,332	$ (40)	$ 12,706	$ (12,598)	$ 12,400
Noncontrolling interests	—	—	68	—	68
Net income (loss)	$ 12,332	$ (40)	$ 12,638	$ (12,598)	$ 12,332
Comprehensive income					
Add: Other comprehensive income (loss)	$ (9,533)	$ 987	$ (2,710)	$ 1,723	$ (9,533)
Total Citigroup comprehensive income (loss)	$ 2,799	$ 947	$ 9,928	$ (10,875)	$ 2,799
Add: Other comprehensive income attributable to noncontrolling interests	$ —	$ —	$ (126)	$ —	$ (126)
Add: Net income attributable to noncontrolling interests	—	—	68	—	68
Total comprehensive income (loss)	$ 2,799	$ 947	$ 9,870	$ (10,875)	$ 2,741

Condensed Consolidating Statements of Income and Comprehensive Income

In millions of dollars	Three Months Ended September 30, 2021 Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$ 2,592	$ —	$ —	$ (2,592)	$ —
Interest revenue	—	844	11,806	—	12,650
Interest revenue—intercompany	935	129	(1,064)	—	—
Interest expense	1,190	201	568	—	1,959
Interest expense—intercompany	56	323	(379)	—	—
Net interest income	$ (311)	$ 449	$ 10,553	$ —	$ 10,691
Commissions and fees	$ —	$ 1,893	$ 1,506	$ —	$ 3,399
Commissions and fees—intercompany	—	85	(85)	—	—
Principal transactions	130	(1,468)	3,571	—	2,233
Principal transactions—intercompany	(305)	2,220	(1,915)	—	—
Other revenue	(138)	159	1,103	—	1,124
Other revenue—intercompany	(44)	(13)	57	—	—
Total non-interest revenues	$ (357)	$ 2,876	$ 4,237	$ —	$ 6,756
Total revenues, net of interest expense	$ 1,924	$ 3,325	$ 14,790	$ (2,592)	$ 17,447
Provisions for credit losses and for benefits and claims	$ (2)	$ 2	$ (192)	$ —	$ (192)
Operating expenses					
Compensation and benefits	$ 3	$ 1,347	$ 4,708	$ —	$ 6,058
Compensation and benefits—intercompany	21	—	(21)	—	—
Other operating	35	728	4,956	—	5,719
Other operating—intercompany	2	781	(783)	—	—
Total operating expenses	$ 61	$ 2,856	$ 8,860	$ —	$ 11,777
Equity in undistributed income of subsidiaries	$ 2,530	$ —	$ —	$ (2,530)	$ —
Income (loss) from continuing operations before income taxes	$ 4,395	$ 467	$ 6,122	$ (5,122)	$ 5,862
Provision (benefit) for income taxes	(249)	183	1,259	—	1,193
Income (loss) from continuing operations	$ 4,644	$ 284	$ 4,863	$ (5,122)	$ 4,669
Income (loss) from discontinued operations, net of taxes	—	—	(1)	—	(1)
Net income (loss) before attribution of noncontrolling interests	$ 4,644	$ 284	$ 4,862	$ (5,122)	$ 4,668
Noncontrolling interests	—	—	24	—	24
Net income (loss)	$ 4,644	$ 284	$ 4,838	$ (5,122)	$ 4,644
Comprehensive income					
Add: Other comprehensive income (loss)	$ (1,731)	$ (195)	$ 2,007	$ (1,812)	$ (1,731)
Total Citigroup comprehensive income (loss)	$ 2,913	$ 89	$ 6,845	$ (6,934)	$ 2,913
Add: Other comprehensive income attributable to noncontrolling interests	$ —	$ —	$ (31)	$ —	$ (31)
Add: Net income attributable to noncontrolling interests	—	—	24	—	24
Total comprehensive income (loss)	$ 2,913	$ 89	$ 6,838	$ (6,934)	$ 2,906

Condensed Consolidating Statements of Income and Comprehensive Income

	Nine Months Ended September 30, 2021				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$ 6,392	$ —	$ —	$ (6,392)	$ —
Interest revenue	—	2,829	34,818	—	37,647
Interest revenue—intercompany	2,847	410	(3,257)	—	—
Interest expense	3,611	645	1,716	—	5,972
Interest expense—intercompany	234	982	(1,216)	—	—
Net interest income	$ (998)	$ 1,612	$ 31,061	$ —	$ 31,675
Commissions and fees	$ —	$ 5,890	$ 4,553	$ —	$ 10,443
Commissions and fees—intercompany	(27)	220	(193)	—	—
Principal transactions	1,007	5,109	2,334	—	8,450
Principal transactions—intercompany	(1,273)	(2,128)	3,401	—	—
Other revenue	(87)	401	3,985	—	4,299
Other revenue—intercompany	(105)	(41)	146	—	—
Total non-interest revenues	$ (485)	$ 9,451	$ 14,226	$ —	$ 23,192
Total revenues, net of interest expense	$ 4,909	$ 11,063	$ 45,287	$ (6,392)	$ 54,867
Provisions for credit losses and for benefits and claims	$ —	$ 9	$ (3,322)	$ —	$ (3,313)
Operating expenses					
Compensation and benefits	$ 31	$ 3,984	$ 14,026	$ —	$ 18,041
Compensation and benefits—intercompany	69	—	(69)	—	—
Other operating	60	2,050	14,510	—	16,620
Other operating—intercompany	8	2,269	(2,277)	—	—
Total operating expenses	$ 168	$ 8,303	$ 26,190	$ —	$ 34,661
Equity in undistributed income of subsidiaries	$ 13,270	$ —	$ —	$ (13,270)	$ —
Income (loss) from continuing operations before income taxes	$ 18,011	$ 2,751	$ 22,419	$ (19,662)	$ 23,519
Provision (benefit) for income taxes	(768)	516	4,932	—	4,680
Income (loss) from continuing operations	$ 18,779	$ 2,235	$ 17,487	$ (19,662)	$ 18,839
Income (loss) from discontinued operations, net of taxes	—	—	7	—	7
Net income (loss) before attribution of noncontrolling interests	$ 18,779	$ 2,235	$ 17,494	$ (19,662)	$ 18,846
Noncontrolling interests	—	—	67	—	67
Net income (loss)	$ 18,779	$ 2,235	$ 17,427	$ (19,662)	$ 18,779
Comprehensive income					
Add: Other comprehensive income (loss)	$ (4,793)	$ (238)	$ 578	$ (340)	$ (4,793)
Total Citigroup comprehensive income (loss)	$ 13,986	$ 1,997	$ 18,005	$ (20,002)	$ 13,986
Add: Other comprehensive income attributable to noncontrolling interests	$ —	$ —	$ (71)	$ —	$ (71)
Add: Net income attributable to noncontrolling interests	—	—	67	—	67
Total comprehensive income (loss)	$ 13,986	$ 1,997	$ 18,001	$ (20,002)	$ 13,982

Condensed Consolidating Balance Sheet

In millions of dollars	September 30, 2022				
	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Assets					
Cash and due from banks	$ —	$ 1,405	$ 25,097	$ —	$ 26,502
Cash and due from banks—intercompany	25	5,903	(5,928)	—	—
Deposits with banks, net of allowance	—	8,582	264,523	—	273,105
Deposits with banks—intercompany	3,000	11,110	(14,110)	—	—
Securities borrowed and purchased under resale agreements	—	284,357	64,857	—	349,214
Securities borrowed and purchased under resale agreements—intercompany	—	20,830	(20,830)	—	—
Trading account assets	150	203,977	154,133	—	358,260
Trading account assets—intercompany	155	3,188	(3,343)	—	—
Investments, net of allowance	1	230	507,785	—	508,016
Loans, net of unearned income	—	1,633	644,327	—	645,960
Loans, net of unearned income—intercompany	—	—	—	—	—
Allowance for credit losses on loans (ACLL)	—	—	(16,309)	—	(16,309)
Total loans, net	$ —	$ 1,633	$ 628,018	$ —	$ 629,651
Advances to subsidiaries	$ 138,514	$ —	$ (138,514)	$ —	$ —
Investments in subsidiaries	219,162	—	—	(219,162)	—
Other assets, net of allowance[(1)]	10,066	90,233	136,017	—	236,316
Other assets—intercompany	3,647	84,026	(87,673)	—	—
Total assets	**$ 374,720**	**$ 715,474**	**$ 1,510,032**	**$ (219,162)**	**$ 2,381,064**
Liabilities and equity					
Deposits	$ —	$ —	$ 1,306,486	$ —	$ 1,306,486
Deposits—intercompany	—	—	—	—	—
Securities loaned and sold under repurchase agreements	—	183,473	19,956	—	203,429
Securities loaned and sold under repurchase agreements—intercompany	—	65,458	(65,458)	—	—
Trading account liabilities	44	116,473	79,962	—	196,479
Trading account liabilities—intercompany	660	3,475	(4,135)	—	—
Short-term borrowings	—	20,483	26,885	—	47,368
Short-term borrowings—intercompany	—	25,335	(25,335)	—	—
Long-term debt	159,251	75,887	17,930	—	253,068
Long-term debt—intercompany	—	81,276	(81,276)	—	—
Advances from subsidiaries	13,714	—	(13,714)	—	—
Other liabilities	2,405	92,435	80,277	—	175,117
Other liabilities—intercompany	86	12,092	(12,178)	—	—
Stockholders' equity	198,560	39,087	180,632	(219,162)	199,117
Total liabilities and equity	**$ 374,720**	**$ 715,474**	**$ 1,510,032**	**$ (219,162)**	**$ 2,381,064**

(1) *Other assets* for Citigroup parent company at September 30, 2022 included $35.8 billion of placements to Citibank and its branches, of which $26.0 billion had a remaining term of less than 30 days.

Condensed Consolidating Balance Sheet

	December 31, 2021				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Assets					
Cash and due from banks	$ —	$ 834	$ 26,681	$ —	$ 27,515
Cash and due from banks—intercompany	17	6,890	(6,907)	—	—
Deposits with banks, net of allowance	—	7,936	226,582	—	234,518
Deposits with banks—intercompany	3,500	11,005	(14,505)	—	—
Securities borrowed and purchased under resale agreements	—	269,608	57,680	—	327,288
Securities borrowed and purchased under resale agreements—intercompany	—	23,362	(23,362)	—	—
Trading account assets	248	189,841	141,856	—	331,945
Trading account assets—intercompany	1,215	1,438	(2,653)	—	—
Investments, net of allowance	1	224	512,597	—	512,822
Loans, net of unearned income	—	2,293	665,474	—	667,767
Loans, net of unearned income—intercompany	—	—	—	—	—
Allowance for credit losses on loans (ACLL)	—	—	(16,455)	—	(16,455)
Total loans, net	$ —	$ 2,293	$ 649,019	$ —	$ 651,312
Advances to subsidiaries	$ 142,144	$ —	$ (142,144)	$ —	$ —
Investments in subsidiaries	223,303	—	—	(223,303)	—
Other assets, net of allowance[1]	10,589	69,312	126,112	—	206,013
Other assets—intercompany	2,737	60,567	(63,304)	—	—
Total assets	$ 383,754	$ 643,310	$ 1,487,652	$ (223,303)	$ 2,291,413
Liabilities and equity					
Deposits	$ —	$ —	$ 1,317,230	$ —	$ 1,317,230
Deposits—intercompany	—	—	—	—	—
Securities loaned and sold under repurchase agreements	—	171,818	19,467	—	191,285
Securities loaned and sold under repurchase agreements—intercompany	—	62,197	(62,197)	—	—
Trading account liabilities	17	122,383	39,129	—	161,529
Trading account liabilities—intercompany	777	500	(1,277)	—	—
Short-term borrowings	—	13,425	14,548	—	27,973
Short-term borrowings—intercompany	—	17,230	(17,230)	—	—
Long-term debt	164,945	61,416	28,013	—	254,374
Long-term debt—intercompany	—	76,335	(76,335)	—	—
Advances from subsidiaries	13,469	—	(13,469)	—	—
Other liabilities	2,574	68,206	65,570	—	136,350
Other liabilities—intercompany	—	11,774	(11,774)	—	—
Stockholders' equity	201,972	38,026	185,977	(223,303)	202,672
Total liabilities and equity	$ 383,754	$ 643,310	$ 1,487,652	$ (223,303)	$ 2,291,413

(1) *Other assets* for Citigroup parent company at December 31, 2021 included $30.5 billion of placements to Citibank and its branches, of which $19.5 billion had a remaining term of less than 30 days.

Condensed Consolidating Statement of Cash Flows

	Nine Months Ended September 30, 2022				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Net cash provided by (used in) operating activities of continuing operations	**$ (3,688)**	**$ (29,719)**	**$ 29,237**	**$ —**	**$ (4,170)**
Cash flows from investing activities of continuing operations					
Change in securities borrowed and purchased under agreements to resell	**$ —**	**$ (11,947)**	**$ (9,979)**	**$ —**	**$ (21,926)**
Change in loans	**—**	**—**	**(5,788)**	**—**	**(5,788)**
Proceeds from sales and securitizations of loans	**—**	**—**	**3,077**	**—**	**3,077**
Proceeds from divestitures	**—**	**—**	**3,242**		**3,242**
Available-for-sale debt securities:					
Purchases of investments	**—**	**—**	**(177,306)**	**—**	**(177,306)**
Proceeds from sales of investments	**—**	**—**	**86,454**	**—**	**86,454**
Proceeds from maturities of investments	**—**	**—**	**118,951**	**—**	**118,951**
Held-to-maturity debt securities:					
Purchases of investments	**—**	**—**	**(39,288)**	**—**	**(39,288)**
Proceeds from maturities of investments	**—**	**—**	**9,913**	**—**	**9,913**
Changes in investments and advances—intercompany	**(1,070)**	**(23,189)**	**24,259**	**—**	**—**
Other investing activities	**—**	**(45)**	**(4,106)**	**—**	**(4,151)**
Net cash provided by (used in) investing activities of continuing operations	**$ (1,070)**	**$ (35,181)**	**$ 9,429**	**$ —**	**$ (26,822)**
Cash flows from financing activities of continuing operations					
Dividends paid	**$ (3,777)**	**$ (271)**	**$ 271**	**$ —**	**$ (3,777)**
Treasury stock acquired	**(3,250)**	**—**	**—**	**—**	**(3,250)**
Proceeds (repayments) from issuance of long-term debt, net	**11,386**	**30,094**	**(3,032)**	**—**	**38,448**
Proceeds (repayments) from issuance of long-term debt—intercompany, net	**—**	**12,847**	**(12,847)**	**—**	**—**
Change in deposits	**—**		**8,947**	**—**	**8,947**
Change in securities loaned and sold under agreements to repurchase	**—**	**14,916**	**(2,772)**	**—**	**12,144**
Change in short-term borrowings	**—**	**7,058**	**12,337**	**—**	**19,395**
Net change in short-term borrowings and other advances—intercompany	**246**	**207**	**(453)**	**—**	**—**
Capital contributions from (to) parent	**—**	**380**	**(380)**	**—**	**—**
Other financing activities	**(339)**	**4**	**(4)**	**—**	**(339)**
Net cash provided by financing activities of continuing operations	**$ 4,266**	**$ 65,235**	**$ 2,067**	**$ —**	**$ 71,568**
Effect of exchange rate changes on cash and due from banks	**$ —**	**$ —**	**$ (3,002)**	**$ —**	**$ (3,002)**
Change in cash and due from banks and deposits with banks	**$ (492)**	**$ 335**	**$ 37,731**	**$ —**	**$ 37,574**
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	**$ 3,025**	**$ 27,000**	**$ 269,582**	**$ —**	**$ 299,607**
Cash and due from banks	**$ 25**	**$ 7,308**	**$ 19,169**	**$ —**	**$ 26,502**
Deposits with banks, net of allowance	**3,000**	**19,692**	**250,413**	**—**	**273,105**
Cash and due from banks and deposits with banks at end of period	**$ 3,025**	**$ 27,000**	**$ 269,582**	**$ —**	**$ 299,607**
Supplemental disclosure of cash flow information for continuing operations					
Cash paid (received) during the period for income taxes	**$ (1,030)**	**$ 228**	**$ 3,486**	**$ —**	**$ 2,684**
Cash paid during the period for interest	**1,308**	**4,785**	**6,464**	**—**	**12,557**
Non-cash investing activities					
Transfer of investment securities from AFS to HTM	**$ —**	**$ —**	**$ 21,688**	**$ —**	**$ 21,688**
Decrease in net loans associated with divestitures reclassified to HFS	**—**	**—**	**16,956**	**—**	**16,956**
Decrease in goodwill associated with divestitures reclassified to HFS	**—**	**—**	**876**	**—**	**876**
Transfers to loans HFS (*Other assets*) from loans	**—**	**—**	**4,037**	**—**	**4,037**
Non-cash financing activities					
Decrease in deposits associated with divestitures reclassified to HFS	**$ —**	**$ —**	**$ 19,691**	**$ —**	**$ 19,691**

Condensed Consolidating Statement of Cash Flows

	Nine Months Ended September 30, 2021				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Net cash provided by (used in) operating activities of continuing operations	$ 3,604	$ 30,413	$ 25,168	$ —	$ 59,185
Cash flows from investing activities of continuing operations					
Change in securities borrowed and purchased under agreements to resell	$ —	$ (40,065)	$ (2,919)	$ —	$ (42,984)
Change in loans	—	—	6,613	—	6,613
Proceeds from sales and securitizations of loans	—	—	1,134	—	1,134
Available-for-sale debt securities:					
Purchases of investments	—	—	(164,613)	—	(164,613)
Proceeds from sales of investments	—	—	96,022	—	96,022
Proceeds from maturities of investments	—	—	90,415	—	90,415
Held-to-maturity debt securities:					
Purchases of investments	—	—	(112,883)	—	(112,883)
Proceeds from maturities of investments	—	—	16,946	—	16,946
Changes in investments and advances—intercompany	3,374	(9,743)	6,369	—	—
Other investing activities	—	(42)	(2,677)	—	(2,719)
Net cash provided by (used in) investing activities of continuing operations	$ 3,374	$ (49,850)	$ (65,593)	$ —	$ (112,069)
Cash flows from financing activities of continuing operations					
Dividends paid	$ (3,959)	$ (195)	$ 195	$ —	$ (3,959)
Issuance of preferred stock	2,300	—	—	—	2,300
Redemption of preferred stock	(3,785)	—	—	—	(3,785)
Treasury stock acquired	(7,448)	—	—	—	(7,448)
Proceeds (repayments) from issuance of long-term debt, net	4,660	11,336	(18,507)	—	(2,511)
Proceeds (repayments) from issuance of long-term debt—intercompany, net	—	9,084	(9,084)	—	—
Change in deposits	—	—	73,769	—	73,769
Change in securities loaned and sold under agreements to repurchase	—	(2,397)	12,056	—	9,659
Change in short-term borrowings	—	2,224	(2,055)	—	169
Net change in short-term borrowings and other advances—intercompany	1,074	1,253	(2,327)	—	—
Capital contributions from (to) parent	—	(19)	19	—	—
Other financing activities	(328)	—	—	—	(328)
Net cash provided by (used in) financing activities of continuing operations	$ (7,486)	$ 21,286	$ 54,066	$ —	$ 67,866
Effect of exchange rate changes on cash and due from banks	$ —	$ —	$ (789)	$ —	$ (789)
Change in cash and due from banks and deposits with banks	$ (508)	$ 1,849	$ 12,852	$ —	$ 14,193
Cash and due from banks and deposits with banks at beginning of period	4,516	20,112	284,987	—	309,615
Cash and due from banks and deposits with banks at end of period	$ 4,008	$ 21,961	$ 297,839	$ —	$ 323,808
Cash and due from banks	$ 8	$ 6,998	$ 21,900	$ —	$ 28,906
Deposits with banks, net of allowance	4,000	14,963	275,939	—	294,902
Cash and due from banks and deposits with banks at end of period	$ 4,008	$ 21,961	$ 297,839	$ —	$ 323,808
Supplemental disclosure of cash flow information for continuing operations					
Cash paid (received) during the period for income taxes	$ (1,757)	$ 809	$ 4,011	$ —	$ 3,063
Cash paid during the period for interest	2,307	1,687	1,989	—	5,983
Non-cash investing activities					
Decrease in net loans associated with divestitures reclassified to HFS	$ —	$ —	$ 8,291	$ —	$ 8,291

Transfers to loans HFS from loans	—	—	5,329	—	5,329
Non-cash financing activities					
Decrease in deposits associated with divestitures reclassified to HFS	$ —	$ —	$ 6,912	$ —	$ 6,912
Decrease in long-term debt associated with divestitures reclassified to HFS	—	—	521	—	521

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 2021 Form 10-K.

For information on Citi's pause of common share repurchases, see "Executive Summary" above.

During the third quarter of 2022, 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 during the first, second and third quarters of 2022, and on October 20, 2022, declared common dividends of $0.51 per share for the fourth quarter of 2022. As previously announced, Citi intends to maintain its current quarterly common dividend of $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 2021 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 October 20, 2022, Citi declared preferred dividends of approximately $238 million for the fourth quarter of 2022.

For information on the ability of Citigroup's subsidiary depository institutions to pay dividends, see Note 18 to the Consolidated Financial Statements in Citi's 2021 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 4th day of November, 2022.

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

2021 Annual Report on Form 10-K: Annual report on Form 10-K for year ended December 31, 2021, filed with the SEC.

2021 Form 10-K: Current Report on Form 8-K dated May 10, 2022 (see "Overview" above) together with the 2021 Annual Report on Form 10-K.

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

ACLL: Allowance for credit losses on loans

ACLUC: Allowance for credit losses on unfunded lending commitments

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

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

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: Currency translation adjustment, or cumulative 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: Debit 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

ETR: Effective tax rate

EU: European Union

Fannie Mae: Federal National Mortgage Association

FASB: Financial Accounting Standards Board

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.

FRBNY: Federal Reserve Bank of New York

Freddie Mac: Federal Home Loan Mortgage Corporation

Free standing derivatives: A derivative contract entered into either separate and apart from any of the Company's other financial instruments or equity transactions, or in conjunction with some other transaction and legally detachable and separately exercisable.

FTCs: Foreign tax credit carry-forwards

FTE: Full-time employee

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 an entity switches its functional currency to the U.S. dollar, 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

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 Investor Services

MSRs: Mortgage servicing rights

MTM: Mark-to-market

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 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.

Provisions: Provisions for credit losses and for benefits and claims.

PSUs: Performance share units

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).

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).

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 in the case of Basel III Advanced, also operational risk. Key differences in the calculation of credit risk RWA between the Standardized and Advanced approaches are that for Basel III Advanced, credit risk RWA is based on risk-sensitive approaches that largely rely on the use of internal credit models and parameters, whereas for Basel III Standardized, credit risk RWA is generally based on supervisory risk-weightings, which vary primarily by counterparty type and asset class. Market risk RWA is 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

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.

TDR: Troubled debt restructuring. TDR is deemed to occur when the Company modifies the original terms of a loan agreement by granting a concession to a borrower that is experiencing financial difficulty. Loans with short-term and other insignificant modifications that are not considered concessions are not TDRs.

TLAC: Total loss-absorbing capacity

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, incorporated by reference to Exhibit 3.01 to Citigroup's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2021 filed November 8, 2021 (File No. 001-09924).
18.01+		Preferability Letter of KPMG LLP, Independent Registered Public Accounting Firm.
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 September 30, 2022, filed on November 4, 2022, 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.