UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

Form 10-Q

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

For the quarterly period ended June 30, 2023
OR

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

For the transition period from to

Commission File No. 001-07511

STATE STREET CORPORATION

(Exact name of registrant as specified in its charter)

MA	**04-2456637**
(State or other jurisdiction of incorporation)	(I.R.S. Employer Identification No.)
One Congress Street	
Boston, MA	**02114**
(Address of principal executive offices)	(Zip Code)

(617) 786-3000
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $1 par value per share	STT	New York Stock Exchange
Depositary Shares, each representing a 1/4,000th ownership interest in a share of Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred Stock, Series D, without par value per share	STT.PRD	New York Stock Exchange
Depositary Shares, each representing a 1/4,000th ownership interest in a share of Fixed-to-Floating Rate Non-Cumulative Perpetual Preferred Stock, Series G, without par value per share	STT.PRG	New York Stock Exchange

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

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

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

Large accelerated filer	☒	Accelerated filer	☐	Non-accelerated filer	☐	Smaller reporting company	☐
Emerging growth company	☐						

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

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

The number of shares of the registrant's common stock outstanding as of July 26, 2023 was 318,640,320.

STATE STREET CORPORATION
QUARTERLY REPORT ON FORM 10-Q FOR THE QUARTERLY PERIOD ENDED
June 30, 2023

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We use acronyms and other defined terms for certain business terms and abbreviations, as defined in the acronyms list and glossary following the consolidated financial statements in this Form 10-Q.

PART I. FINANCIAL INFORMATION

GENERAL

State Street Corporation is one of the world's largest providers of financial services to institutional investors. Our clients - asset managers and owners, insurance companies, official institutions, and central banks - rely on us to deliver solutions that support their goals across the investment life cycle.

State Street Corporation, referred to as the Parent Company, is a financial holding company organized in 1969 under the laws of the Commonwealth of Massachusetts. The Parent Company is a source of financial and managerial strength to our subsidiaries. Through our subsidiaries, including our principal banking subsidiary, State Street Bank and Trust Company, referred to as State Street Bank, we operate in more than 100 geographic markets worldwide, including in the U.S., Canada, Latin America, Europe, the Middle East and Asia. We provide a broad range of financial products and services to institutional investors worldwide, with $39.59 trillion of AUC/A and $3.80 trillion of AUM as of June 30, 2023.

As of June 30, 2023, we had consolidated total assets of $294.56 billion, consolidated total deposits of $222.32 billion, consolidated total shareholders' equity of $24.20 billion and approximately 43,000 employees.

Our operations are organized into two lines of business, Investment Servicing and Investment Management, which are defined based on products and services provided.

Additional information about our lines of business is provided in Line of Business Information in this Management's Discussion and Analysis and Note 17 to the consolidated financial statements in this Form 10-Q.

Our executive offices are located at One Congress Street, Boston, Massachusetts 02114 (telephone (617) 786-3000). For purposes of this Quarterly Report on Form 10-Q for the quarter ended June 30, 2023 (Form 10-Q), unless the context requires otherwise, references to "State Street," "we," "us," "our" or similar terms mean State Street Corporation and its subsidiaries on a consolidated basis.

This Management's Discussion and Analysis is part of this Form 10-Q and updates the Management's Discussion and Analysis in our 2022 Annual Report on Form 10-K for the year ended December 31, 2022 previously filed with the SEC (2022 Form 10-K). The financial information contained in this Management's Discussion and Analysis and elsewhere in this Form 10-Q should be read in conjunction with the financial and other information contained in our 2022 Form 10-K. Certain previously reported amounts presented in this Form 10-Q have been reclassified to conform to current-period presentation.

We prepare our consolidated financial statements in conformity with U.S. GAAP. The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions in its application of certain accounting policies that materially affect the reported amounts of assets, liabilities, equity, revenue and expenses.

The significant accounting policies that require us to make judgments, estimates and assumptions that are difficult, subjective or complex, about matters that are uncertain and may change in subsequent periods include:

- Recurring fair value measurements;
- Allowance for credit losses;
- Impairment of goodwill and other intangible assets; and
- Contingencies.

These significant accounting policies require the most subjective or complex judgments, and underlying estimates and assumptions could be subject to revision as new information becomes available. For additional information about these significant accounting policies refer to pages 120 to 122, "Significant Accounting Estimates" included under Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, in our 2022 Form 10-K. We did not change these significant accounting policies in the first six months of 2023.

Certain financial information provided in this Form 10-Q, including this Management's Discussion and Analysis, is presented using both a U.S. GAAP, or reported basis, and a non-GAAP basis, including certain non-GAAP measures used in the calculation of identified regulatory ratios. We measure and compare certain financial information on a non-GAAP basis, including information that management uses in evaluating our business and activities. Non-GAAP financial information should be considered in addition to, and not as a substitute for or as superior to, financial information prepared in conformity with U.S. GAAP. Any non-GAAP financial information presented in this Form 10-Q, including this Management's Discussion and Analysis, is reconciled to its most directly comparable currently applicable regulatory ratio or U.S. GAAP-basis measure. As part of our

non-GAAP-basis measures, we present a fully taxable-equivalent NII that reports non-taxable revenue, such as interest income associated with tax-exempt investment securities, on a fully taxable-equivalent basis, which we believe facilitates an investor's understanding and analysis of our underlying financial performance and trends.

We provide additional disclosures required by applicable bank regulatory standards, including supplemental qualitative and quantitative information with respect to regulatory capital (including market risk associated with our trading activities) and the LCR, summary results of semi-annual State Street-run stress tests which we conduct under the Dodd-Frank Act, and resolution plan disclosures required under the Dodd-Frank Act. These additional disclosures are accessible on the "Filings & Reports" tab under the "Investors" section of our corporate website at *investors.statestreet.com*.

We have included our website address in this report as an inactive textual reference only. Information on our website is not incorporated by reference into this Form 10-Q.

We use acronyms and other defined terms for certain business terms and abbreviations, as defined in the acronyms list and glossary following the consolidated financial statements in this Form 10-Q.

Forward-Looking Statements

This Form 10-Q, as well as other reports and proxy materials submitted by us under the Securities Exchange Act of 1934, registration statements filed by us under the Securities Act of 1933, our annual report to shareholders and other public statements we may make, may contain statements (including statements in our Management's Discussion and Analysis included in such reports, as applicable) that are considered "forward-looking statements" within the meaning of U.S. securities laws, including statements about our goals and expectations regarding our business, financial and capital condition, results of operations, strategies, cost savings and transformation initiatives, investment portfolio performance, ESG, human capital, climate, dividend and stock purchase programs, acquisitions, outcomes of legal proceedings, market growth, joint ventures and divestitures, client growth and new technologies, services, asset installations and opportunities, as well as industry, governmental, regulatory, economic and market trends, initiatives and developments, the business environment and other matters that do not relate strictly to historical facts.

Terminology such as "plan," "expect," "intend," "objective," "outcome," "forecast," "future," "outlook," "believe," "priority," "anticipate," "estimate," "seek," "may," "will," "trend," "target," "strategy" and "goal," or similar statements or variations of such terms, are intended to identify forward-looking statements, although not all forward-looking statements contain such terms.

Forward-looking statements are subject to various risks and uncertainties, which change over time, are based on management's expectations and assumptions at the time the statements are made and are not guarantees of future results. Management's expectations and assumptions, and the continued validity of the forward-looking statements, are subject to change due to a broad range of factors affecting the U.S. and global economies, regulatory environment and the equity, debt, currency and other financial markets, as well as factors specific to State Street and its subsidiaries, including State Street Bank. Factors that could cause changes in the expectations or assumptions on which forward-looking statements are based cannot be foreseen with certainty and include, but are not limited to:

Strategic Risks

- We are subject to intense competition, which could negatively affect our profitability;
- We are subject to significant pricing pressure and variability in our financial results and our AUC/A and AUM;
- Our development and completion of new products and services, including State Street Alpha℠ or State Street Digital℠, and the enhancement of our infrastructure required to meet increased regulatory and client expectations for resiliency and the systems and process re-engineering necessary to achieve improved productivity and reduced operating risk, involve costs, risks and dependencies on third parties;
- Our business may be negatively affected by our failure to update and maintain our technology infrastructure or as a result of a cyber-attack or similar vulnerability in our or business partners' infrastructure;
- Acquisitions, strategic alliances, joint ventures and divestitures, and the integration, retention and development of the benefits of our acquisitions, pose risks for our business; and
- Competition for qualified members of our workforce is intense, and we may not be able to attract and retain the highly skilled people we need to support our business.

Financial Market Risks

- We could be adversely affected by geopolitical, economic and market conditions, including, for example, as a result of liquidity or capital deficiencies (actual or perceived)

by other financial institutions and related market and government actions, the ongoing war in Ukraine, actions taken by central banks to address inflationary pressures, challenging conditions in global equity markets, periods of significant volatility in valuations and liquidity or other disruptions in the markets for equity, fixed income and other asset classes globally or within specific markets such as those that impacted the UK gilts in the fourth quarter of 2022;

- We have significant international operations and clients that can be adversely impacted by developments in European and Asian economies, including local, regional and geopolitical developments affecting those economies;
- Our investment securities portfolio, consolidated financial condition and consolidated results of operations could be adversely affected by changes in the financial markets, governmental action or monetary policy. For example, among other risks, increases in prevailing interest rates could lead to reduced levels of client deposits and resulting decreases in our NII;
- Our business activities expose us to interest rate risk;
- We assume significant credit risk of counterparties, who may also have substantial financial dependencies on other financial institutions, and these credit exposures and concentrations could expose us to financial loss;
- Our fee revenue represents a significant portion of our revenue and is subject to decline based on, among other factors, market and currency declines, investment activities and preferences of our clients and their business mix;
- If we are unable to effectively manage our capital and liquidity, our financial condition, capital ratios, results of operations and business prospects could be adversely affected;
- We may need to raise additional capital or debt in the future, which may not be available to us or may only be available on unfavorable terms; and
- If we experience a downgrade in our credit ratings, or an actual or perceived reduction in our financial strength, our borrowing and capital costs, liquidity and reputation could be adversely affected.

Compliance and Regulatory Risks

- Our business and capital-related activities, including common share repurchases, may be adversely affected by regulatory capital, credit (counterparty and otherwise) and liquidity standards and considerations;
- We face extensive and changing governmental regulation in the jurisdictions in which we operate, which may increase our costs and compliance risks and may affect our business activities and strategies;
- We are subject to enhanced external oversight as a result of the resolution of prior regulatory or governmental matters;
- Our businesses may be adversely affected by government enforcement and litigation;
- Our businesses may be adversely affected by increased political and regulatory scrutiny of asset management stewardship and corporate ESG practices;
- Our efforts to improve our billing processes and practices are ongoing and may result in the identification of additional billing errors;
- Any misappropriation of the confidential information we possess could have an adverse impact on our business and could subject us to regulatory actions, litigation and other adverse effects;
- Our calculations of risk exposures, total RWA and capital ratios depend on data inputs, formulae, models, correlations and assumptions that are subject to change, which could materially impact our risk exposures, our total RWA and our capital ratios from period to period;
- Changes in accounting standards may adversely affect our consolidated results of operations and financial condition;
- Changes in tax laws, rules or regulations, challenges to our tax positions and changes in the composition of our pre-tax earnings may increase our effective tax rate;
- We could face liabilities for withholding and other non-income taxes, including in connection with our services to clients, as a result of tax authority examinations; and
- The transition away from LIBOR may result in additional costs and increased risk exposure.

Operational Risks

- Our internal control environment may be inadequate, fail or be circumvented, and operational risks could adversely affect our business and consolidated results of operations;
- Shifting operational activities to non-U.S. jurisdictions, changing our operating model and outsourcing to, or insourcing from, third parties portions of our operations may expose us to increased operational risk, geopolitical risk and reputational harm and may not result in expected cost savings or operational improvements;
- Attacks or unauthorized access to our or our business partners' information technology systems or facilities, or disruptions to our or their operations, could result in significant costs, reputational damage and impacts on our business activities;
- Long-term contracts and customizing service delivery for clients expose us to pricing and performance risk;
- Our businesses may be negatively affected by adverse publicity or other reputational harm;
- We may not be able to protect our intellectual property or may infringe upon the rights of third parties;
- The quantitative models we use to manage our business may contain errors that could adversely impact our business and regulatory compliance;
- Our reputation and business prospects may be damaged if our clients incur substantial losses or are restricted in redeeming their interests in investment pools that we sponsor or manage;
- The impacts of climate change, and regulatory responses to such risks, could adversely affect us; and
- We may incur losses as a result of unforeseen events including terrorist attacks, natural disasters, the emergence of a new pandemic or acts of embezzlement.

Actual outcomes and results may differ materially from what is expressed in our forward-looking statements and from our historical financial results due to the factors discussed in this section and elsewhere in this Form 10-Q or disclosed in our other SEC filings. Forward-looking statements in this Form 10-Q should not be relied on as representing our expectations or assumptions as of any time subsequent to the time this Form 10-Q is filed with the SEC. We undertake no obligation to revise our forward-looking statements after the time they are made. The factors discussed herein are not intended to be a complete statement of all risks and uncertainties that may affect our businesses. We cannot anticipate all developments that may adversely affect our business or operations or our consolidated results of operations, financial condition or cash flows.

Forward-looking statements should not be viewed as predictions and should not be the primary basis on which investors evaluate State Street. Any investor in State Street should consider all risks and uncertainties disclosed in our SEC filings, including our filings under the Securities Exchange Act of 1934, in particular our annual reports on Form 10-K, our quarterly reports on Form 10-Q and our current reports on Form 8-K, and our registration statements filed under the Securities Act of 1933, all of which are accessible on the SEC's website at *www.sec.gov* or on the "Filings & Reports" tab under the "Investors" section of our corporate website at *investors.statestreet.com.*

OVERVIEW OF FINANCIAL RESULTS

TABLE 1: OVERVIEW OF FINANCIAL RESULTS

	Three Months Ended June 30,		
(Dollars in millions, except per share amounts)	**2023**	**2022**	**% Change**
Total fee revenue	**$ 2,419**	$ 2,370	2 %
Net interest income	**691**	584	18
Total other income	**—**	(1)	nm
Total revenue	**3,110**	2,953	5
Provision for credit losses	**(18)**	10	nm
Total expenses	**2,212**	2,108	5
Income before income tax expense	**916**	835	10
Income tax expense	**153**	88	74
Net income	**$ 763**	$ 747	2
Adjustments to net income:			
Dividends on preferred stock[1]	**$ (37)**	$ (35)	6
Net income available to common shareholders	**$ 726**	$ 712	2
Earnings per common share:			
Basic	**$ 2.20**	$ 1.94	13
Diluted	**2.17**	1.91	14
Average common shares outstanding (in thousands):			
Basic	**329,383**	367,375	(10)
Diluted	**333,540**	372,123	(10)
Cash dividends declared per common share	**$ 0.63**	$ 0.57	11
Return on average common equity	**13.0 %**	12.1 %	90 bps
Pre-tax margin	**29.5**	28.3	120

	Six Months Ended June 30,		
(Dollars in millions, except per share amounts)	**2023**	**2022**	**% Change**
Total fee revenue	**$ 4,754**	$ 4,943	(4)%
Net interest income	**1,457**	1,093	33
Total other income	**—**	(2)	nm
Total revenue	**6,211**	6,034	3
Provision for credit losses	**26**	10	nm
Total expenses	**4,581**	4,435	3
Income before income tax expense	**1,604**	1,589	1
Income tax expense	**292**	238	23
Net income	**$ 1,312**	$ 1,351	(3)
Adjustments to net income:			
Dividends on preferred stock[1]	**$ (60)**	$ (55)	9
Earnings allocated to participating securities[2]	**(1)**	(1)	—
Net income available to common shareholders	**$ 1,251**	$ 1,295	(3)
Earnings per common share:			
Basic	**$ 3.73**	$ 3.53	6
Diluted	**3.68**	3.48	6
Average common shares outstanding (in thousands):			
Basic	**335,212**	366,961	(9)
Diluted	**339,473**	372,080	(9)
Cash dividends declared per common share	**$ 1.26**	$ 1.14	11
Return on average common equity	**11.1 %**	10.8 %	30 bps
Pre-tax margin	**25.8**	26.3	(50)

[1] Additional information about our preferred stock dividends is provided in Note 12 to the consolidated financial statements in this Form 10-Q.
[2] Represents the portion of net income available to common equity allocated to participating securities, composed of unvested and fully vested SERP (Supplemental executive retirement plans) shares and fully vested deferred director stock awards, which are equity-based awards that contain non-forfeitable rights to dividends, and are considered to participate with the common stock in undistributed earnings.
nm Not meaningful

The following "Financial Results and Highlights" section provides information related to significant events, as well as highlights of our consolidated financial results for the second quarter of 2023 presented in Table 1: Overview of Financial Results. More detailed information about our consolidated financial results, including the comparison of our financial results for the three and six months ended June 30, 2023 compared to the same periods of 2022, is provided under "Consolidated Results of Operations", "Line of Business Information" and "Capital" which follows these sections, as well as in our consolidated financial statements in this Form 10-Q. In this Management's Discussion and Analysis, where we describe the effects of changes in foreign currency translation, those effects are determined by applying applicable weighted average FX rates from the relevant 2022 period to the relevant 2023 period results.

Financial Results and Highlights

- Second quarter of 2023 financial performance:
  - Earnings per share (EPS) of $2.17, in the second quarter of 2023, increased 14% as compared to the same period of 2022.
  - Total revenue increased 5% in the second quarter of 2023, compared to the same period of 2022, due to higher NII and fee revenue.
  - Total expenses increased 5% in the second quarter of 2023, compared to the same period of 2022, primarily reflecting higher salaries, headcount and business investments, partially offset by ongoing productivity savings.
  - Return on equity was 13.0%, an increase from 12.1% in the same period of 2022, primarily due to an increase in net income available to common shareholders and lower average common shareholders' equity. Pre-tax margin of 29.5% in the second quarter of 2023, increased from 28.3% in the same period of 2022, primarily due to an increase in total revenue, partially offset by higher total expenses.
  - Operating leverage was positive 0.4% points in the second quarter of 2023. Operating leverage represents the difference between the percentage change in total revenue and the percentage change in total expenses, in each case relative to the same period of the prior year.
  - Fee operating leverage was negative 2.8% points in the second quarter of 2023. Fee operating leverage represents the difference between the percentage change in total fee

revenue and the percentage change in total expenses, in each case relative to the same period of the prior year.

- We returned approximately $1.3 billion to our shareholders in the form of common stock dividends and common share repurchases.

Revenue

- Total fee revenue increased 2% in the second quarter of 2023, compared to the same period of 2022, reflecting higher software and processing fees, securities finance and other fee revenue, partially offset by lower servicing fees, management fees, and FX trading services revenue.
- Servicing fee revenue decreased 3% in the second quarter of 2023, compared to the same period of 2022, primarily driven by lower client activity and adjustments and below average pricing headwinds, partially offset by net new business.
- Management fee revenue decreased 6% in the second quarter of 2023, compared to the same period of 2022, primarily due to net outflows in prior periods and a shift of certain management fees into NII associated with management fees related to certain U.S. ETFs with unique structures, partially offset by higher average market levels.
- Foreign exchange trading services revenue decreased 8% in the second quarter of 2023, compared to the same period of 2022, primarily reflecting lower client FX volumes and FX volatility.
- Securities finance revenue increased 9% in the second quarter of 2023, compared to the same period of 2022, primarily due to higher agency spreads.
- Software and processing fees revenue increased 18% in the second quarter of 2023, compared to the same period of 2022, primarily driven by higher front office software and data revenue associated with CRD.
- Other fee revenue increased $101 million in the second quarter of 2023, compared to the same period of 2022, primarily due to a tax credit investment accounting change and the absence of negative market-related adjustments.
- NII increased 18% in the second quarter of 2023, compared to the same period of 2022, primarily due to higher short-term market rates from global central bank rate hikes, an increase in long-term interest rates and balance sheet positioning. This was partially offset by lower average client deposits, which included a mix shift from non-interest bearing towards interest-bearing.

Provision for Credit Losses

- In the second quarter of 2023, we recorded an $18 million reserve release, driven by the release of the allowance for credit losses related to our support of a U.S. financial institution in the first quarter of 2023, partially offset by an increase in loan loss reserves associated with credit portfolio rating changes.

Expenses

- Total expenses increased 5% in the second quarter of 2023, compared to the same period of 2022, primarily reflecting higher salaries, headcount and business investments, partially offset by ongoing productivity savings.

Notable items

- There were no notable items in the second quarter of 2023.
- Notable items in the second quarter of 2022 comprised acquisition and restructuring costs of approximately $12 million related to the BBH Investor Services acquisition transaction that we are no longer pursuing.

AUC/A and AUM

- AUC/A of $39.6 trillion as of June 30, 2023, increased 4% compared to June 30, 2022, primarily due to higher quarter-end equity market levels and client flows. In the second quarter of 2023, newly announced asset servicing mandates totaled approximately $141 billion, primarily in the asset owners, official institutions and alternatives client segments. We onboarded $1.2 trillion of AUC/A during the second quarter of 2023. Servicing assets remaining to be installed in future periods totaled approximately $2.4 trillion as of June 30, 2023.
- AUM of $3.8 trillion as of June 30, 2023, increased 9.3% compared to June 30, 2022, primarily due to higher quarter-end market levels.

Capital

- In the second quarter of 2023, we returned a total of approximately $1.3 billion of capital to our shareholders in the form of common stock dividends and common share repurchases.
  - We declared aggregate common stock dividends of $0.63 per share, totaling $203 million in the second

quarter of 2023, compared to $0.57 per share, totaling $210 million in the same period of 2022.

- In July 2023, we declared third quarter common stock dividends of $0.69 per share, representing a 10% increase on a per share basis from dividends declared in both the third quarter of 2022 and the second quarter of 2023.
- In the second quarter of 2023, we acquired 14.8 million shares of common stock at an average per share cost of $71.08 and an aggregate cost of approximately $1.05 billion. These purchases were all conducted under the share repurchase program approved by our Board of Directors in January 2023, authorizing the purchase of up to $4.5 billion of our common stock through December 31, 2023.

- Our standardized CET1 capital ratio decreased to 11.8% as of June 30, 2023, compared to 13.6% as of December 31, 2022, primarily driven by the continuation of common share repurchases, partially offset by retained earnings. As we continue to deploy capital to our businesses, we may see modest RWA growth over the coming quarters, subject to market volatility. Our Tier 1 leverage ratio decreased to 5.8% as of June 30, 2023, compared to 6.0% as of December 31, 2022, primarily driven by the continuation of common share repurchases, partially offset by lower consolidated average assets reflecting lower client deposits. Given the current global economic environment, and our plans for share repurchases, we currently expect our CET1 and Tier 1 leverage capital ratios to move into our target ranges of 10-11% and 5.25-5.75%, respectively, in the second half of the year.

Debt Issuances

- On May 18, 2023, we issued $1 billion aggregate principal amount of 5.104% fixed-to-floating rate senior notes due 2026 and $1 billion aggregate principal amount of 5.159% fixed-to-floating rate senior notes due 2034.

CONSOLIDATED RESULTS OF OPERATIONS

This section discusses our consolidated results of operations for the three and six months ended June 30, 2023 compared to the same periods of 2022 and should be read in conjunction with the consolidated financial statements and accompanying notes to the consolidated financial statements in this Form 10-Q.

Total Revenue

TABLE 2: TOTAL REVENUE

	Three Months Ended June 30,		
(Dollars in millions)	**2023**	**2022**	**% Change**
Fee revenue:			
Back office services	**$ 1,164**	$ 1,205	(3)%
Middle office services	**95**	92	3
Servicing fees	**1,259**	1,297	(3)
Management fees	**461**	490	(6)
Foreign exchange trading services	**303**	331	(8)
Securities finance	**117**	107	9
Front office software and data	**162**	126	29
Lending related and other fees	**59**	62	(5)
Software and processing fees	**221**	188	18
Other fee revenue	**58**	(43)	nm
Total fee revenue	**2,419**	2,370	2
Net interest income:			
Interest income	**2,232**	704	nm
Interest expense	**1,541**	120	nm
Net interest income	**691**	584	18
Other income:			
Gains (losses) related to investment securities, net	**—**	(1)	nm
Total other income	**—**	(1)	nm
Total revenue	**$ 3,110**	$ 2,953	5

	Six Months Ended June 30,		
(Dollars in millions)	**2023**	**2022**	**% Change**
Fee revenue:			
Back office services	**$ 2,295**	$ 2,473	(7)%
Middle office services	**181**	192	(6)
Servicing fees	**2,476**	2,665	(7)
Management fees	**918**	1,010	(9)
Foreign exchange trading services	**645**	690	(7)
Securities finance	**226**	203	11
Front office software and data	**271**	264	3
Lending related and other fees	**115**	125	(8)
Software and processing fees	**386**	389	(1)
Other fee revenue	**103**	(14)	nm
Total fee revenue	**4,754**	4,943	(4)
Net interest income:			
Interest income	**4,259**	1,225	nm
Interest expense	**2,802**	132	nm
Net interest income	**1,457**	1,093	33
Other income:			
Gains (losses) related to investment securities, net	**—**	(2)	nm
Total other income	**—**	(2)	nm
Total revenue	**$ 6,211**	$ 6,034	3

[nm] Not meaningful

Fee Revenue

Table 2: Total Revenue, provides the breakout of fee revenue for the three and six months ended June 30, 2023 and 2022. Servicing and management fees collectively made up approximately 71% of the total fee revenue in both the three and six months ended June 30, 2023, and 75% and 74% for the same periods of 2022, respectively.

Servicing Fee Revenue

Servicing fees, as presented in Table 2: Total Revenue, decreased 3% in the three months ended June 30, 2023, compared to the same period of 2022, primarily driven by lower client activity and adjustments and below average pricing headwinds, partially offset by net new business. Servicing fees decreased 7% in the six months ended June 30, 2023, compared to the same period of 2022, primarily driven by lower average fixed income market levels, client activity and adjustments and below average pricing headwinds, partially offset by net new business.

Servicing fees generated outside the U.S. were approximately 47% and 46% of total servicing fees in the three and six months ended June 30, 2023, respectively, and 47% in both the three and six months ended June 30, 2022.

Servicing fee revenue comprises revenue from both back office and middle office services. Generally, our servicing fee revenues are affected by several factors, including changes in market valuations, client activity and asset flows, net new business and the manner in which we price our services. We provide a range of services to our clients, including core custody services, accounting, reporting and administration, which we refer to collectively as back office services and middle office services. The nature and mix of services provided and the asset classes for which the services are performed affect our servicing fees. The basis for fees will differ across regions and clients.

Changes in Market Valuations

Our servicing fee revenue is impacted by both our levels and the geographic and product mix of our AUC/A. Increases or decreases in market valuations have a corresponding impact on the level of our AUC/A and servicing fee revenues, though the degree of impact will vary depending on asset types and classes and geography of assets held within our clients' portfolios. For certain asset classes where the valuation process is more complex, including alternative investments, or where our valuation is dependent on third party information, AUC/A is reported on a time lag, typically one-month. For those asset classes, the impact of market levels on our reported AUC/A does not reflect current period-end market levels.

Over the five years ended December 31, 2022, we estimate that worldwide equity and fixed income market valuations impacted our servicing fees revenue by approximately 2% on average with a range of (4)% to 8% annually and approximately (4)% and 8% in 2022 and 2021, respectively. The impact of changes in worldwide fixed income markets on our servicing fees, which historically was included within client activity and asset flows, is now reflected within change in market valuations. See Table 3: Daily Averages, Month-End Averages and Quarter-End Equity Indices for selected indices. While the specific indices presented are indicative of general market trends, the asset types and classes relevant to individual client portfolios can and do differ, and the performance of associated relevant indices and of client portfolios can therefore differ from the performance of the indices presented. In addition, our asset classifications may differ from those industry classifications presented.

Assuming that all other factors remain constant, including client activity, asset flows and pricing, we estimate, using relevant information as of June 30, 2023 that a 10% increase or decrease in worldwide equity valuations, on a weighted average basis, over the relevant periods for which our servicing fees are calculated, would result in a corresponding change in our total servicing fee revenues, on average and over multiple quarters, of approximately 3%. We estimate, similarly assuming all other factors remain constant and using relevant information as of June 30, 2023, that changes in worldwide fixed income markets, which on a weighted average basis and over time are typically less volatile than worldwide equity markets, have a smaller corresponding impact on our servicing fee revenues on average and over time. In periods of higher fixed income market volatility such as we have been experiencing since the second quarter of 2022, the impact of fixed income markets on our servicing fee revenues may increase.

TABLE 3: DAILY AVERAGES, MONTH-END AVERAGES AND QUARTER-END EQUITY INDICES[1]

	Daily Averages of Indices			Month-End Averages of Indices			Quarter-End Indices		
	Three Months Ended June 30,			Three Months Ended June 30,			As of June 30,		
	2023	2022	% Change	2023	2022	% Change	2023	2022	% Change
S&P 500®	**4,206**	4,106	2 %	**4,267**	4,016	6 %	**4,450**	3,785	18 %
MSCI EAFE®	**2,122**	1,998	6	**2,106**	1,973	7	**2,132**	1,846	15
MSCI® Emerging Markets	**987**	1,055	(6)	**975**	1,052	(7)	**989**	1,001	(1)

	Daily Averages of Indices			Month-End Averages of Indices		
	Six Months Ended June 30,			Six Months Ended June 30,		
	2023	2022	% Change	2023	2022	% Change
S&P 500®	**4,103**	4,285	(4)%	**4,159**	4,245	(2)%
MSCI EAFE®	**2,091**	2,105	(1)	**2,094**	2,084	—
MSCI® Emerging Markets	**992**	1,120	(11)	**985**	1,113	(12)

[1] The index names listed in the table are service marks of their respective owners.

TABLE 4: QUARTER-END DEBT INDICES[1]

	As of June 30,		
	2023	2022	% Change
Bloomberg U.S. Aggregate Bond Index®	**2,092**	2,111	(1)%
Bloomberg Global Aggregate Bond Index®	**452**	458	(1)

[1] The index names listed in the table are service marks of their respective owners.

Client Activity and Asset Flows

Client activity and asset flows are impacted by the number of transactions we execute on behalf of our clients, including FX settlements, equity and derivative trades, and wire transfer activity, as well as actions by our clients to change the asset class in which their assets are invested. Our servicing fee revenues are impacted by a number of factors, including transaction volumes, asset levels and asset classes in which funds are invested, as well as industry trends associated with these client-related activities.

Our clients may change the asset classes in which their assets are invested, based on their market outlook, risk acceptance tolerance or other considerations. Over the five years ended December 31, 2022, we estimate that client activity and asset flows, together, impacted our servicing fees revenue by approximately 0% on average with a range of (2)% to 1% annually and approximately 0% and (1)% in 2022 and 2021, respectively. As noted under "Changes in Market Valuations" in this section, this analysis now excludes, but in prior reporting previously included, the impact of changes in worldwide fixed income markets on our servicing fees. See Table 5: Industry Asset Flows for selected asset flow information. While the asset flows presented are indicative of general market trends, the asset types and classes relevant to individual client portfolios can and do differ, and our flows may differ from those market trends. In addition, our asset classifications may differ from those industry classifications presented.

TABLE 5: INDUSTRY ASSET FLOWS

	Three Months Ended June 30,	
(In billions)	**2023**	**2022**
North America - (US Domiciled) - Morningstar Direct Market Data[1][2][3]		
Long-Term Funds[4]	**$ (113.3)**	$ (277.9)
Money Market	**160.6**	(35.1)
Exchange-Traded Fund	**136.2**	93.2
Total Flows	**$ 183.5**	$ (219.8)
Europe - Morningstar Direct Market Data[1][2][5]		
Long-Term Funds[4]	**$ (6.6)**	$ (79.5)
Money Market	**58.8**	(7.3)
Exchange-Traded Fund	**28.9**	16.0
Total Flows	**$ 81.1**	$ (70.8)

[1] Industry data is provided for illustrative purposes only. It is not intended to reflect our activity or our clients' activity and is indicative of only segments of the entire industry.

[2] Source: Morningstar. The data includes long-term mutual funds, ETFs and money market funds. Mutual fund data represents estimates of net new cash flow, which is new sales minus redemptions combined with net exchanges, while ETF data represents net issuance, which is gross issuance less gross redemptions. Data for Fund of Funds, Feeder funds and Obsolete funds were excluded from the series to prevent double counting. Data is from the Morningstar Direct Asset Flows database.

[3] The second quarter of 2023 data for North America (U.S. domiciled) includes Morningstar direct actuals for April 2023 and May 2023 and Morningstar direct estimates for June 2023.

[4] The long-term fund flows reported by Morningstar direct in North America are composed of U.S. domiciled market flows mainly in Equities, Allocation and Fixed-Income asset classes. The long-term fund flows reported by Morningstar direct in EMEA are composed of the European market flows mainly in Equities, Allocation and Fixed-Income asset classes.

[5] The second quarter of 2023 data for Europe is on a rolling three month basis for March 2023 through May 2023, sourced by Morningstar.

Net New Business

Over the five years ended December 31, 2022, net new business, which includes business both won and lost, has affected our servicing fee revenues by approximately 0% on average with a range of 0% to 1% annually and approximately 1% in both 2022 and 2021.

Gross investment servicing mandates were $141 billion in the second quarter of 2023 and $2.00 trillion per year on average over the past five years. Over the five years ended December 31, 2022, gross annual investment servicing mandates ranged from approximately $0.79 trillion to $3.52 trillion.

Servicing fee revenue associated with new servicing mandates may vary based on the breadth of services provided, the time required to install the assets, and the types of assets installed.

Revenues associated with new mandates are not reflected in our servicing fee revenue until the assets have been installed. Our installation timeline, in general, can range from 6 to 36 months, with the average installation timeline being approximately 9 to 12 months over the past 2 years. We expect that our more complex installations, including new State Street Alpha mandates, will generally be on the longer end of that range. With respect to the current asset mandates of approximately $2.36 trillion that are yet to be installed as of June 30, 2023, we expect the conversion will occur over the coming 24 months, with approximately 40% expected to be installed in the remainder of 2023 and approximately 60% in 2024. The expected timing of these installations is subject to change due to a variety of factors, including adjusted implementation schedules agreed with clients, scope adjustments, and product and functionality changes.

Pricing

The industry in which we operate has historically faced pricing pressure, and our servicing fee revenues are also affected by such pressures today. Consequently, no assumption should be drawn as to future revenue run rate from announced servicing wins, as the amount of revenue associated with AUC/A, once installed, can vary materially. On average, over the five years ended December 31, 2022, we estimate that pricing pressure with respect to existing clients has impacted our servicing fees by approximately (3)% annually, with the impact ranging from (2)% to (4)% in any given year and approximately (2)% in both 2022 and 2021. Pricing concessions can be a part of a contract renegotiation with a client including terms that may benefit us, such as extending the term of our relationship with the client, expanding the scope of services that we provide or reducing our dependency on manual processes through the standardization of the services we provide. The timing of the impact of additional revenue generated by anticipated additional services, and the amount of revenue generated, may differ from expectations due to the impact of pricing concessions on existing services due to the necessary time required to onboard those new services, the nature of those services and client investment practices and other factors. These same market pressures also impact the fees we negotiate when we win business from new clients.

In order to offset the typical client attrition and normal pricing headwinds, we estimate that we need at least $1.5 trillion of new AUC/A per year; although, notwithstanding increases in AUC/A, servicing fees remain subject to several factors, including changes in market valuations, client activity and asset flows, the manner in which we price our services, the nature of the assets being serviced and the type of services and the other factors described in this Form 10-Q.

Historically, and based on an indicative sample of revenue, we estimate that approximately 60%, on average, of our servicing fee revenues have been variable due to changes in asset valuations including changes in daily average valuations of AUC/A; another 15%, on average, of our servicing fees are impacted by the volume of activity in the funds we serve; and the remaining approximately 25% of our servicing fees tend not to be variable in nature nor impacted by market fluctuations or values.

Based on the impact of the above, client activity and asset flows, net new business and pricing, noted drivers of our servicing fee revenue will vary depending on the mix of products and services we provide to our clients. The full impact of changes in market valuations and the volume of activity in the funds may not be fully reflected in our servicing fee revenues in the periods in which the changes occur, particularly in periods of higher volatility.

TABLE 6: ASSETS UNDER CUSTODY AND/OR ADMINISTRATION BY PRODUCT[1][2]

(In billions)	June 30, 2023	December 31, 2022	June 30, 2022
Collective funds, including ETFs	**$ 13,210**	$ 12,261	$ 13,609
Mutual funds	**10,438**	9,610	9,642
Pension products	**8,037**	7,734	7,764
Insurance and other products	**7,904**	7,138	7,165
Total	**$ 39,589**	$ 36,743	$ 38,180

TABLE 7: ASSETS UNDER CUSTODY AND/OR ADMINISTRATION BY ASSET CLASS[2]

(In billions)	June 30, 2023	December 31, 2022	June 30, 2022
Equities	**$ 22,454**	$ 20,575	$ 21,953
Fixed-income	**10,812**	10,318	10,716
Short-term and other investments	**6,323**	5,850	5,511
Total	**$ 39,589**	$ 36,743	$ 38,180

TABLE 8: ASSETS UNDER CUSTODY AND/OR ADMINISTRATION BY GEOGRAPHY[2][3]

(In billions)	June 30, 2023	December 31, 2022	June 30, 2022
Americas	**$ 28,220**	$ 26,981	$ 28,207
Europe/Middle East/Africa	**8,658**	7,136	7,498
Asia/Pacific	**2,711**	2,626	2,475
Total	**$ 39,589**	$ 36,743	$ 38,180

[1] Certain previously reported amounts presented have been reclassified to conform to current-period presentation.

[2] Consistent with past practice, AUC/A values for certain asset classes are based on a lag, typically one-month.

[3] Geographic mix is generally based on the domicile of the entity servicing the funds and is not necessarily representative of the underlying asset mix.

Asset servicing mandates newly announced in the second quarter of 2023 totaled approximately $141 billion. Servicing assets remaining to be installed in future periods totaled approximately $2.36 trillion as of June 30, 2023, which will be reflected in AUC/A in future periods after installation and will generate servicing fee revenue in subsequent periods. The full revenue impact of such mandates will be realized as the assets are installed and additional services are added over that period.

New asset servicing mandates may be subject to completion of definitive agreements, approval of applicable boards and shareholders and customary regulatory approvals. New asset servicing mandates and servicing assets remaining to be installed in future periods exclude certain new business which has been contracted, but for which the client has not yet provided permission to publicly disclose and the expected installation date extends beyond one quarter. These excluded assets, which from time to time may be significant, will be included in new asset servicing mandates and reflected in servicing assets remaining to be installed in the period in which the client provides its permission. Servicing mandates and servicing assets remaining to be installed in future periods are presented on a gross basis based on factors present on or about the time the contract was signed and are not updated based on subsequent developments, including changes in assets, market valuations, scope and, potentially, termination. Such assets therefore do not include the impact of clients who have notified us during the period of their intent to terminate or reduce their relationship with us, which may from time to time be significant.

With respect to these new servicing mandates, once installed we may provide various services, including back office services such as custody and safekeeping, transaction processing and trade settlement, fund administration, reporting and record keeping, security servicing, fund accounting, middle office services such as investment book of records, transaction management, loans, cash derivatives and collateral services, recordkeeping, client reporting and investment analytics, markets services such as FX trading services, liquidity solutions, currency and collateral management and securities finance, and front office services such as portfolio management solutions, risk analytics, scenario analysis, performance and attribution, trade order and execution management, pre-trade compliance and ESG investment tools. Revenues associated with new servicing mandates may vary based on the breadth of services provided, the timing of installation, and the types of assets.

As previously disclosed, in early 2021, due to a decision to diversify providers, one of our large asset servicing clients has advised us it expects to move a significant portion of its ETF assets currently with State Street to one or more other providers, pending necessary approvals. We expect to continue as a significant service provider for this client after this transition and for the client to continue to be meaningful to our business. The transition began in 2022, but we expect it will principally occur in 2023 and 2024 and will impact our fee revenue and income growth trends most notably beginning in the third quarter of 2023 through 2025. For the year ended December 31, 2022, the fee revenue associated with the assets yet to transition represented approximately 1.7% of our total fee revenue. The actual total revenue and income impact of this transition will reflect a range of factors, including potential growth in our continuing business with the client and expense reductions associated with the transition.

Management Fee Revenue

Management fees decreased 6% in the three months ended June 30, 2023, compared to the same period of 2022, primarily due to net outflows in prior periods and a shift of certain management fees into NII associated with management fees related to certain U.S. ETFs with unique structures, partially offset by higher average market levels. Management fees decreased 9% in the six months ended June 30, 2023, compared to the same period of 2022, primarily due to lower average market levels, the aforementioned shift of certain management fees into NII and cumulative net outflows since June 30, 2022.

Management fees generated outside the U.S. were approximately 26% of total management fees in both the three and six months ended June 30, 2023, and 25% and 26% in the three and six months ended June 30, 2022, respectively.

Management fees generally are affected by our level of AUM, which we report based on month-end valuations. Management fees for certain components of managed assets, such as ETFs, mutual funds and Undertakings for Collective Investments in Transferable Securities, are affected by daily average valuations of AUM. Management fee revenue is more sensitive to market valuations than servicing fee revenue, as a higher proportion of the underlying services provided, and the associated management fees earned, are dependent on equity and fixed-income security valuations. Additional factors, such as the relative mix of assets managed, may have a significant effect on our management fee revenue. While certain management fees are directly determined by the values of AUM and the investment strategies employed, management fees may reflect other factors, including performance fee arrangements, as well as our relationship pricing for clients.

Asset-based management fees for passively managed products, to which our AUM is currently primarily weighted, are generally charged at a lower fee on AUM than for actively managed products. Actively managed products may also include performance fee arrangements which are recorded when the fee is earned, based on predetermined benchmarks associated with the applicable account's performance.

In light of the above, we estimate, using relevant information as of June 30, 2023, and assuming that all other factors remain constant, including the impact of business won and lost and client flows, that:

- A 10% increase or decrease in worldwide equity valuations, on a weighted average basis, over the relevant periods for which our management fees are calculated, would result in a corresponding change in our total management fee revenues, on average and over multiple quarters, of approximately 5%; and
- changes in worldwide fixed income markets, which on a weighted average basis and over time are typically less volatile than worldwide equity markets, will have a significantly smaller corresponding impact on our management fee revenues on average and over time.

Daily averages, month-end averages and quarter-end indices demonstrate worldwide changes in equity and debt markets that affect our management fee revenue. Quarter-end indices affect the values of AUM as of those dates. See Table 3: Daily Averages, Month-End Averages and Quarter-End Equity Indices for selected indices. While the specific indices presented are indicative of general market trends, the asset types and classes relevant to individual client portfolios can and do differ, and the performance of associated relevant indices and of client portfolios can therefore differ from the performance of the indices presented. In addition, our asset classifications may differ from those industry classifications presented.

TABLE 9: ASSETS UNDER MANAGEMENT BY ASSET CLASS AND INVESTMENT APPROACH

(In billions)	June 30, 2023	December 31, 2022	June 30, 2022
Equity:			
Active	$ 59	$ 54	$ 62
Passive	2,288	2,074	2,024
Total equity	2,347	2,128	2,086
Fixed-income:			
Active	84	83	89
Passive	505	471	461
Total fixed-income[1]	589	554	550
Cash[1]	390	376	403
Multi-asset-class solutions:			
Active	25	28	29
Passive	220	181	173
Total multi-asset-class solutions	245	209	202
Alternative investments[2]:			
Active	38	35	42
Passive	188	179	192
Total alternative investments	226	214	234
Total	$ 3,797	$ 3,481	$ 3,475

[1] Includes both floating- and constant-net-asset-value portfolios held in commingled structures or separate accounts.

[2] Includes real estate investment trusts, currency and commodities, including SPDR® Gold Shares and SPDR® Gold MiniSharesSM Trust. We are not the investment manager for the SPDR® Gold Shares and SPDR®Gold MiniSharesSM Trust, but act as the marketing agent.

TABLE 10: GEOGRAPHIC MIX OF ASSETS UNDER MANAGEMENT[1]

(In billions)	June 30, 2023	December 31, 2022	June 30, 2022
North America	**$ 2,785**	$ 2,544	$ 2,525
Europe/Middle East/Africa	**553**	511	521
Asia/Pacific	**459**	426	429
Total	**$ 3,797**	$ 3,481	$ 3,475

[1] Geographic mix is based on client location or fund management location.

TABLE 11: EXCHANGE-TRADED FUNDS BY ASSET CLASS[1]

(In billions)	June 30, 2023	December 31, 2022	June 30, 2022
Alternative Investments[2]	**$ 70**	$ 67	$ 77
Equity	**919**	817	791
Multi Asset	**1**	1	1
Fixed-Income	**142**	134	130
Total Exchange-Traded Funds	**$ 1,132**	$ 1,019	$ 999

[1] ETFs are a component of AUM presented in the preceding table.

[2] Includes real estate investment trusts, currency and commodities, including SPDR® Gold Shares and SPDR® Gold MiniShares℠ Trust. We are not the investment manager for the SPDR® Gold Shares and SPDR®Gold MiniShares℠ Trust, but act as the marketing agent.

TABLE 12: ACTIVITY IN ASSETS UNDER MANAGEMENT BY PRODUCT CATEGORY

(In billions)	Equity	Fixed-Income	Cash[1]	Multi-Asset-Class Solutions	Alternative Investments[2]	Total
Balance as of December 31, 2021	$ 2,674	$ 623	$ 368	$ 222	$ 251	$ 4,138
Long-term institutional flows, net[3]	(25)	11	4	11	13	14
Exchange-traded fund flows, net	4	5	—	—	8	17
Cash fund flows, net	—	—	20	—	—	20
Total flows, net	(21)	16	24	11	21	51
Market appreciation (depreciation)	(113)	(34)	1	(3)	(4)	(153)
Foreign exchange impact	(10)	(4)	—	(1)	1	(14)
Total market/foreign exchange impact	(123)	(38)	1	(4)	(3)	(167)
Balance as of March 31, 2022	2,530	601	393	229	269	4,022
Long-term institutional flows, net[3]	(52)	(10)	(3)	2	(6)	(69)
Exchange-traded fund flows, net	(12)	5	—	—	(1)	(8)
Cash fund flows, net	—	—	15	—	—	15
Total flows, net	(64)	(5)	12	2	(7)	(62)
Market appreciation (depreciation)	(337)	(33)	—	(26)	(21)	(417)
Foreign exchange impact	(43)	(13)	(2)	(3)	(7)	(68)
Total market/foreign exchange impact	(380)	(46)	(2)	(29)	(28)	(485)
Balance as of June 30, 2022	$ 2,086	$ 550	$ 403	$ 202	$ 234	$ 3,475
Balance as of December 31, 2022	$ 2,128	$ 554	$ 376	$ 209	$ 214	$ 3,481
Long-term institutional flows, net[3]	(25)	1	—	10	(2)	(16)
Exchange-traded fund flows, net	(12)	5	—	—	1	(6)
Cash fund flows, net	—	—	(4)	—	—	(4)
Total flows, net	(37)	6	(4)	10	(1)	(26)
Market appreciation (depreciation)	122	14	3	11	11	161
Foreign exchange impact	—	1	—	1	—	2
Total market/foreign exchange impact	122	15	3	12	11	163
Balance as of March 31, 2023	2,213	575	375	231	224	3,618
Long-term institutional flows, net[3]	**(23)**	**18**	**—**	**7**	**(1)**	**1**
Exchange-traded fund flows, net	**27**	**1**	**—**	**—**	**(1)**	**27**
Cash fund flows, net	**—**	**—**	**10**	**—**	**—**	**10**
Total flows, net	**4**	**19**	**10**	**7**	**(2)**	**38**
Market appreciation (depreciation)	**138**	**—**	**5**	**7**	**3**	**153**
Foreign exchange impact	**(8)**	**(5)**	**—**	**—**	**1**	**(12)**
Total market/foreign exchange impact	**130**	**(5)**	**5**	**7**	**4**	**141**
Balance as of June 30, 2023	**$ 2,347**	**$ 589**	**$ 390**	**$ 245**	**$ 226**	**$ 3,797**

[1] Includes both floating- and constant-net-asset-value portfolios held in commingled structures or separate accounts.

[2] Includes real estate investment trusts, currency and commodities, including SPDR® Gold Shares and SPDR® Gold MiniShares℠ Trust. We are not the investment manager for the SPDR® Gold Shares and SPDR®Gold MiniShares℠ Trust, but act as the marketing agent.

[3] Amounts represent long-term portfolios, excluding ETFs.

Foreign Exchange Trading Services

Foreign exchange trading services revenue, as presented in Table 2: Total Revenue, decreased 8% in the three months ended June 30, 2023, compared to the same period of 2022, primarily reflecting lower client FX volumes and FX volatility. Foreign exchange trading services revenue decreased 7% in the six months ended June 30, 2023, compared to the same period of 2022, primarily reflecting lower client FX volumes. Foreign exchange trading services revenue comprises revenue generated by FX trading and revenue generated by brokerage and other trading services, which made up 63% and 37%, respectively, of foreign exchange trading services revenue in the second quarter of 2023, compared to 67% and 33%, respectively, in the same period of 2022.

We primarily earn FX trading revenue by acting as a principal market-maker through both "direct sales and trading" and "indirect FX trading."

- Direct sales and trading: Represent FX transactions at negotiated rates with clients and investment managers that contact our trading desk directly. These principal market-making activities include transactions for funds serviced by third party custodians or prime brokers, as well as those funds under custody with us.
- Indirect FX trading: Represents FX transactions with clients, for which we are the funds' custodian, or their investment managers, routed to our FX desk through our asset-servicing operation. We execute indirect FX trades as a principal at rates disclosed to our clients.

Our FX trading revenue is influenced by multiple factors, including: the volume and type of client FX transactions and related spreads; currency volatility, reflecting market conditions; and our management of exchange rate, interest rate and other market risks associated with our FX activities. The relative impact of these factors on our total FX trading revenues often differs from period to period. For example, assuming all other factors remain constant, increases or decreases in volumes or bid-offer spreads across product mix tend to result in increases or decreases, as the case may be, in client-related FX revenue.

Our clients that utilize indirect FX trading can, in addition to executing their FX transactions through dealers not affiliated with us, transition from indirect FX trading to either direct sales and trading execution, including our "Street FX" service, or to one of our electronic trading platforms. Street FX, in which we continue to act as a principal market-maker, enables our clients to define their FX execution strategy and automate the FX trade execution process, both for funds under custody with us as well as those under custody at another bank.

We also earn foreign exchange trading services revenue through "electronic FX services" and "other trading, transition management and brokerage revenue."

- Electronic FX services: Our clients may choose to execute FX transactions through one of our electronic trading platforms. These transactions generate revenue through a "click" fee.
- Other trading, transition management and brokerage revenue: As our clients look to us to enhance and preserve portfolio values, they may choose to utilize our Transition or Currency Management capabilities or transact with our Equity Trade execution group. These transactions, which are not limited to foreign exchange, generate revenue via commissions charged for trades transacted during the management of these portfolios.

Fund Connect is another one of our electronic trading platforms: it is a global trading, analytics and cash management tool with access to more than 400 money market funds from leading providers.

Securities Finance

Securities finance revenue, as presented in Table 2: Total Revenue, increased 9% in the three months ended June 30, 2023, compared to the same period of 2022, primarily due to higher agency spreads. Securities finance revenue increased 11% in the six months ended June 30, 2023, compared to the same period of 2022, primarily due to higher agency spreads, partially offset by lower agency balances.

Our securities finance business consists of three components:

(1) an agency lending program for State Street Global Advisors managed investment funds with a broad range of investment objectives, which we refer to as the State Street Global Advisors lending funds;

(2) an agency lending program for third-party investment managers and asset owners, which we refer to as the agency lending funds; and

(3) security lending transactions which we enter into as principal, which we refer to as our prime services business (previously referred to as enhanced custody).

Securities finance revenue earned from our agency lending activities, which is composed of our split of both the spreads related to cash collateral and the fees related to non-cash collateral, is principally a function of the volume of securities on loan, the interest rate spreads and fees earned on the underlying collateral and our share of the fee split.

As principal, our prime services business borrows securities from the lending client or other market participants and then lends such securities to the subsequent borrower, either our client or a broker/dealer. We act as principal when the lending client is unable to, or elects not to, transact directly with the market and execute the transaction and furnish the securities. In our role as principal, we provide support to the transaction through our credit rating. While we source a significant proportion of the securities furnished by us in our role as principal from third parties, we have the ability to source securities through assets under custody from clients who have designated us as an eligible borrower.

Market influences may continue to affect client demand for securities finance, and as a result our revenue from, and the profitability of, our securities lending activities in future periods. In addition, the constantly evolving regulatory environment, including revised or proposed capital and liquidity standards, interpretations of those standards, and our own balance sheet management activities, may influence modifications to the way in which we deliver our agency lending or prime services businesses, the volume of our securities lending activity and related revenue and profitability in future periods.

Software and Processing Fees

Software and processing fees revenue, presented in Table 2: Total Revenue, increased 18% in the three months ended June 30, 2023, compared to the same period of 2022, primarily driven by higher front office software and data revenue associated with CRD. Software and processing fees revenue decreased 1% in the six months ended June 30, 2023, compared to the same period of 2022, primarily driven by lower lending related and other fees, partially offset by higher front office software and data revenue associated with CRD.

Software and processing fees revenue includes diverse types of fees and revenue, including fees from software licensing and maintenance and fees from our structured products business.

Front office software and data revenue, which primarily includes revenue from CRD, Alpha Data Platform and Alpha Data Services, increased 29% in the three months ended June 30, 2023, compared to the same period of 2022, primarily due to higher on-premises renewals and higher software-enabled and professional services revenue driven by continued SaaS implementations and conversions. Front office software and data revenue increased 3% in the six months ended June 30, 2023, compared to the same period of 2022, primarily due to higher software-enabled revenue driven by continued SaaS implementations and conversions, partially offset by lower on-premises renewals and professional services revenue.

Revenue related to the front office solutions provided by CRD is primarily driven by the sale of term software licenses and SaaS, including professional services such as consulting and implementation services, software support and maintenance. Approximately 50%-70% of revenue associated with a sale of software to be installed on-premises is recognized at a point in time when the customer benefits from obtaining access to and use of the software license, with the percentage varying based on the length of the contract and other contractual terms. The remainder of revenue for on-premise installations is recognized over the length of the contract as maintenance and other services are provided. Upon renewal of an on-premises software contract, the same pattern of revenue recognition is followed with 50%-70% recognized upon renewal and the remaining balance recognized over the term of the contract. Revenue for a SaaS related arrangement, where the customer does not take possession of the software, is recognized over the term of the contract as services are provided. Upon renewal of a SaaS arrangement, revenue continues to be recognized as services are provided under the new contract. As a result of these differences in how portions of CRD revenue are accounted for, CRD revenue may vary more than other business units quarter to quarter.

Lending related and other fees decreased 5% and 8% in the three and six months ended June 30, 2023, respectively, compared to the same periods of 2022, reflecting lower unfunded commitments relating to our municipal and fund finance products, driven by changes in product mix. Lending related and other fees primarily consists of fee revenue associated with our fund finance, leverage loans, municipal finance, insurance and stable value wrap businesses.

Other Fee Revenue

Other fee revenue includes market-related adjustments and income associated with other equity method investments.

Other fee revenue increased $101 million and $117 million in the three and six months ended June 30, 2023, respectively, compared to the same periods of 2022, primarily due to a tax credit investment accounting change and the absence of negative market-related adjustments. For the six month periods, the increases were partially offset by lower positive fair value adjustments on equity investments.

For further information on the tax credit investment accounting change, please refer to Note 1 to the consolidated financial statements in this Form 10-Q.

Additional information about fee revenue is provided under "Line of Business Information" included in this Management's Discussion and Analysis.

Net Interest Income

See Table 2: Total Revenue, for the breakout of interest income and interest expense for the three and six months ended June 30, 2023, compared to the same periods of 2022.

NII is defined as interest income earned on interest-earning assets less interest expense incurred on interest-bearing liabilities. Interest-earning assets, which principally consist of investment securities, interest-bearing deposits with banks, loans, resale agreements and other liquid assets, are financed primarily by client deposits, short-term borrowings and long-term debt.

NIM represents the relationship between annualized FTE NII and average total interest-earning assets for the period. It is calculated by dividing FTE NII by average interest-earning assets. Revenue that is exempt from income taxes, mainly earned from certain investment securities (state and political subdivisions), is adjusted to an FTE basis using the U.S. federal and state statutory income tax rates.

NII increased 18% and 33% in the three and six months ended June 30, 2023, respectively, compared to the same periods of 2022, primarily due to higher short-term market rates from global central bank rate hikes, an increase in long-term interest rates and balance sheet positioning. This was partially offset by lower average client deposits, which included a mix shift from non-interest bearing towards interest-bearing.

Investment securities' net purchase premium amortization, which is included in interest income, was $11 million and $25 million in the three and six months ended June 30, 2023, respectively, compared to $66 million and $153 million in the same periods of 2022. The decrease in MBS premium amortization is primarily due to lower prepayments from higher long-end interest rates.

Interest income related to debt securities is recognized in our consolidated statement of income using the effective interest method, or on a basis approximating a level rate of return over the contractual or estimated life of the security. The rate of return considers any non-refundable fees or costs, as well as purchase premiums or discounts, resulting in amortization or accretion, accordingly. The amortization of premiums and accretion of discounts are adjusted for prepayments when they occur, which primarily impact mortgage-backed securities.

The following table presents the investment securities net premium amortization (discount accretion) for the periods indicated:

TABLE 13: INVESTMENT SECURITIES NET PREMIUM AMORTIZATION

	Three Months Ended June 30,					
	2023			2022		
(Dollars in millions)	MBS	Non -MBS	Total[1]	MBS	Non- MBS	Total
Unamortized purchase premiums and (discounts) at period end	$ 464	$ (73)	$ 391	$ 586	$ 301	$ 887
Net premium amortization (discount accretion)	21	(10)	11	40	26	66

[1] Totals exclude premiums or discounts created from the transfer of securities from AFS to HTM.

See Table 14: Average Balances and Interest Rates - Fully Taxable-Equivalent Basis, for the breakout of NII for the three and six months ended June 30, 2023 and 2022, compared to the same periods of 2022.

TABLE 14: AVERAGE BALANCES AND INTEREST RATES - FULLY TAXABLE-EQUIVALENT BASIS[1]

	Three Months Ended June 30,					
	2023			2022		
(Dollars in millions; fully taxable-equivalent basis)	Average Balance	Interest Revenue/Expense	Rate	Average Balance	Interest Revenue/Expense	Rate
Interest-bearing deposits with banks	$ 69,079	$ 696	4.05 %	$ 76,531	$ 70	.36 %
Securities purchased under resale agreements[2]	1,634	81	19.82	2,022	38	7.47
Trading account assets	704	—	—	746	—	.01
Investment securities:						
Investment securities available-for-sale	43,409	408	3.76	54,767	124	.91
Investment securities held-to-maturity	64,141	320	1.99	59,162	230	1.55
Total Investment securities	107,550	728	2.71	113,929	354	1.24
Loans	34,235	442	5.18	35,826	200	2.23
Other interest-earning assets[3]	18,783	285	6.09	22,199	45	.83
Average total interest-earning assets	$ 231,985	$ 2,232	3.86	$ 251,253	$ 707	1.13
Interest-bearing deposits:						
U.S.	$ 109,015	$ 945	3.48 %	$ 97,273	$ 63	.26
Non-U.S.[4][5]	64,838	248	1.54	80,055	(40)	(.20)
Total interest-bearing deposits[5][6]	173,853	1,193	2.75	177,328	23	.05
Securities sold under repurchase agreements	4,266	13	1.25	4,486	3	.26
Short-term borrowings	1,965	20	4.11	680	1	.73
Long-term debt	16,735	209	5.00	13,702	72	2.12
Other interest-bearing liabilities[7]	3,595	106	11.74	2,518	21	3.31
Average total interest-bearing liabilities	$ 200,414	$ 1,541	3.09	$ 198,714	$ 120	.24
Interest rate spread			.77 %			.89 %
Net interest income, fully taxable-equivalent basis		$ 691			$ 587	
Net interest margin, fully taxable-equivalent basis			1.19 %			.94 %
Tax-equivalent adjustment		—			(3)	
Net interest income, GAAP basis		$ 691			$ 584	

	Six Months Ended June 30,					
	2023			2022		
(Dollars in millions; fully taxable-equivalent basis)	Average Balance	Interest Revenue/Expense	Rate	Average Balance	Interest Revenue/Expense	Rate
Interest-bearing deposits with banks	$ 73,127	$ 1,338	3.69 %	$ 76,635	$ 79	.21 %
Securities purchased under resale agreements[2]	1,638	157	19.38	2,583	48	3.74
Trading account assets	685	—	—	754	—	.01
Investment securities:						
Investment securities available-for-sale	42,759	758	3.54	64,940	281	.87
Investment securities held-to-maturity	64,562	640	1.98	51,653	401	1.55
Total investment securities	107,321	1,398	2.60	116,593	682	1.17
Loans	33,878	839	5.00	35,120	372	2.13
Other interest-earning assets[3]	18,092	530	5.91	22,979	50	.44
Average total interest-earning assets	$ 234,741	$ 4,262	3.66	$ 254,664	$ 1,231	.97
Interest-bearing deposits:						
U.S.	$ 107,148	$ 1,724	3.24 %	$ 98,665	$ 67	.14 %
Non-U.S.[4][5]	65,593	423	1.30	81,796	(107)	(.26)
Total interest-bearing deposits[4][5][6]	172,741	2,147	2.51	180,461	(40)	(.14)
Securities sold under repurchase agreements	4,337	22	1.04	3,389	3	.17
Federal funds purchased	59	1	4.70	—	—	—
Short-term borrowings	1,564	31	3.97	776	1	.32
Long-term debt	16,302	393	4.83	13,982	137	1.97
Other interest-bearing liabilities[7]	3,339	208	12.54	2,698	31	2.34
Average total interest-bearing liabilities	$ 198,342	$ 2,802	2.85	$ 201,306	$ 132	.13
Interest rate spread			.81 %			.84 %
Net interest income, fully taxable-equivalent basis		$ 1,460			$ 1,099	
Net interest margin, fully taxable-equivalent basis			1.25 %			.87 %
Tax-equivalent adjustment		(3)			(6)	
Net interest income, GAAP-basis		$ 1,457			$ 1,093	

[1] Rates earned/paid on interest-earning assets and interest-bearing liabilities include the impact of hedge activities associated with our asset and liability management activities where applicable.
[2] Reflects the impact of balance sheet netting under enforceable netting agreements of approximately $139.55 billion and $256.20 billion for the three and six months ended June 30, 2023, respectively, compared to $71.10 billion and $126.12 billion for the same periods of 2022, respectively. Excluding the impact of netting, the average interest rates would be approximately 0.23% and 0.12% in the three and six months ended June 30, 2023, respectively, compared to 0.21% and 0.07% in the same periods of 2022, respectively.
[3] Reflects the impact of balance sheet netting under enforceable netting agreements of approximately $4.93 billion and $4.96 billion for the three and six months ended June 30, 2023, respectively, compared to $5.75 billion and $4.51 billion in the same periods of 2022, respectively. Excluding the impact of netting, the average interest rates would be approximately 4.82% and 4.63% in the three and six months ended June 30, 2023, respectively, compared to 0.66% and 0.37% in the same periods of 2022, respectively.
[4] Negative values reflect the impact of interest rate environments outside of the U.S. where central bank rates were below zero for several major currencies.
[5] Average rate includes the impact of FX swap costs of approximately $22 million and $16 million for the three and six months ended June 30, 2023, respectively, compared to ($3) million and ($16) million for the same periods of 2022, respectively. Average rates for total interest-bearing deposits excluding the impact of FX swap costs were 2.70% and 2.49% in the three and six months ended June 30, 2023, respectively, compared to 0.06% and (0.03)% in the same periods of 2022, respectively.
[6] Total deposits averaged $205.83 billion and $208.06 billion for the three and six months ended June 30, 2023, respectively, compared to $228.42 billion and $230.83 billion in the same periods of 2022, respectively.
[7] Reflects the impact of balance sheet netting under enforceable netting agreements of approximately $4.42 billion and $4.91 billion for the three and six months ended June 30, 2023, respectively, compared to $4.44 billion and $3.73 billion in the same periods of 2022, respectively. Excluding the impact of netting, the average interest rates would be approximately 4.82% and 5.08% in the three and six months ended June 30, 2023, respectively, compared to 0.66% and 0.98% in the same periods of 2022, respectively.

Changes in the components of interest-earning assets and interest-bearing liabilities are discussed in more detail below. Additional information about the components of interest income and interest expense is provided in Note 14 to the consolidated financial statements in this Form 10-Q.

Average total interest-earning assets were $231.99 billion and $234.74 billion in the three and six months ended June 30, 2023, respectively, compared to $251.25 billion and $254.66 billion in the same periods of 2022, respectively. The decrease is primarily due to lower client deposit balances.

Interest-bearing deposits with banks averaged $69.08 billion and $73.13 billion in the three and six months ended June 30, 2023, respectively, compared to $76.53 billion and $76.64 billion in the same periods of 2022, respectively. These deposits primarily reflect our maintenance of cash balances at the Federal Reserve, the ECB and other non-U.S. central banks. The lower levels of average cash balances reflect lower levels of client deposits.

Securities purchased under resale agreements averaged $1.63 billion and $1.64 billion in the three and six months ended June 30, 2023, respectively, compared to $2.02 billion and $2.58 billion in the same periods of 2022, respectively. As a member of FICC, we may net securities sold under repurchase agreements against those purchased under resale agreements with counterparties that are also members of the clearing organization, when specific netting criteria are met. The impact of balance sheet netting was $139.55 billion and $256.20 billion on average in the three and six months ended June 30, 2023, respectively, compared to $71.10 billion and $126.12 billion in the same periods of 2022, respectively, primarily driven by an increase in FICC repo volumes.

We are a direct and sponsoring member of FICC. As a sponsoring member within FICC, we enter into repurchase and resale transactions in eligible securities with sponsored clients and with other FICC members and, pursuant to FICC Government Securities Division rules, submit, novate and net the transactions. We may sponsor clients to clear their eligible repurchase transactions with FICC, backed by our guarantee to FICC of the prompt and full payment and performance of our sponsored member clients' respective obligations. We generally obtain a security interest from our sponsored clients in the high quality securities collateral that they receive, which is designed to mitigate our potential exposure to FICC.

Additionally, as a member of FICC, we may be required to pay a pro rata share of the losses incurred by the organization and provide liquidity support in the event of the default of another member to the extent that the defaulting member's clearing fund obligation and the prescribed loss allocation to FICC is depleted. It is difficult to estimate our maximum possible exposure under the membership agreement, since this would require an assessment of future claims that may be made against us that have not yet occurred. We did not record any liabilities under these arrangements as of both June 30, 2023 and December 31, 2022.

Average investment securities decreased to $107.55 billion and $107.32 billion in the three and six months ended June 30, 2023, respectively, from $113.93 billion and $116.59 billion in the same periods of 2022, respectively. The portfolio declined across most major asset classes, which was primarily driven by a smaller balance sheet from lower client deposits amidst a higher level of market rates.

Average loans decreased to $34.24 billion and $33.88 billion in the three and six months ended June 30, 2023, respectively, compared to $35.83 billion and $35.12 billion in the same periods of 2022, respectively, due to lower average overdrafts. Average core loans, which exclude overdrafts, averaged $30.28 billion and $29.75 billion in the three and six months ended June 30, 2023, respectively, compared to $29.28 billion and $29.06 billion in the same periods of 2022, respectively. Additional information about these loans is provided in Note 4 to the consolidated financial statements in this Form 10-Q.

Average other interest-earning assets, largely associated with our prime services business, decreased to $18.78 billion and $18.09 billion in the three and six months ended June 30, 2023, respectively, from $22.20 billion and $22.98 billion in the same periods of 2022, respectively, primarily driven by a decrease in the level of cash collateral posted. Other interest-earning assets primarily reflects prime services assets where cash has been posted to borrow securities from lenders, which are then lent by us, as principal, to borrowers. This cash includes both cash from borrowers and cash utilized from our balance sheet, and is presented on a net basis on the balance sheet where we have enforceable netting agreements. Non-interest earning assets also includes a portion of our prime services assets where borrower-provided non-cash collateral has been utilized to borrow securities from lenders, which are then lent by us, as principal, to borrowers. In addition, we also use securities within our investment portfolio to borrow securities from lenders, which we subsequently loan, as principal, to our borrowers; in this structure our investment portfolio securities are encumbered, but this is not reflected on the balance sheet. Combined with our prime services liabilities, revenue from these activities generates securities finance fee revenue as well as net interest income.

Average total interest-bearing deposits decreased to $173.85 billion and $172.74 billion in the three and six months ended June 30, 2023, respectively, from $177.33 billion and $180.46 billion in the same periods of 2022, respectively. The decrease was driven by the higher market interest rate environment across most major currencies, the impact of quantitative tightening and currency translation. Future deposit levels will be influenced by the underlying asset servicing business, client behavior, the mix of interest-bearing and non-interest bearing deposits and market conditions, including the general levels of U.S. and non-U.S. interest rates.

Average short-term borrowings increased to $1.97 billion and $1.56 billion in the three and six months ended June 30, 2023, respectively, from $0.68 billion and $0.78 billion in the same periods of 2022, respectively.

Average long-term debt was $16.74 billion and $16.30 billion in the three and six months ended June 30, 2023, respectively, compared to $13.70 billion and $13.98 billion in the same periods of 2022, respectively. These amounts reflect issuances, redemptions and maturities of senior debt during the respective periods.

Average other interest-bearing liabilities, largely associated with our prime services business, were $3.60 billion and $3.34 billion in the three and six months ended June 30, 2023, respectively, compared to $2.52 billion and $2.70 billion in the same periods of 2022, respectively. Other interest-bearing liabilities is primarily driven by cash received from our custody clients, which is presented on a net basis where we have enforceable netting agreements. Non-interest bearing liabilities also include a portion of our prime services liabilities where client provided non-cash collateral has been received and we have rehypothecation rights. Securities received as collateral from our custody clients where we have no rehypothecation rights are used as a credit mitigant only and remain off balance sheet.

Several factors could affect future levels of NII and NIM, including the volume and mix of client deposits and funding sources; central bank actions; balance sheet management activities; changes in the level and slope of U.S. and non-U.S. interest rates; revised or proposed regulatory capital or liquidity standards, or interpretations of those standards; the yields earned on securities purchased compared to the yields earned on securities sold or matured; and changes in the type and amount of credit or other loans we extend.

Based on market conditions and other factors, including regulatory standards, we continue to reinvest the majority of the proceeds from pay-downs and maturities of investment securities in highly-rated U.S. and non-U.S. securities, such as federal agency MBS, sovereign debt securities and U.S. Treasury and agency securities. The pace at which we reinvest, and the types of investment securities purchased, will depend on the impact of market conditions, the implementation of regulatory standards, including interpretation of those standards and other factors over time. We expect these factors and the levels of global interest rates to impact our reinvestment program and future levels of NII and NIM.

Provision for Credit Losses

We recorded an $18 million reserve release in the second quarter of 2023, driven by the release of the allowance for credit losses related to our support of a U.S. financial institution in the first quarter of 2023, partially offset by an increase in loan loss reserves associated with credit portfolio rating changes. The provision for credit losses recorded in the second quarter of 2022 was $10 million.

Additional information is provided under “Loans” in "Financial Condition" in this Management's Discussion and Analysis and in Note 4 to the consolidated financial statements in this Form 10-Q.

Expenses

Table 15: Expenses, provides the breakout of expenses for the three and six months ended June 30, 2023 compared to the same periods of 2022. Total expenses increased 5% and 3% in the three and six months ended June 30, 2023, respectively, compared to the same periods of 2022, primarily reflecting higher salaries, headcount and business investments, partially offset by ongoing productivity savings.

TABLE 15: EXPENSES

	Three Months Ended June 30,		
(Dollars in millions)	2023	2022	% Change
Compensation and employee benefits	$ 1,123	$ 1,046	7 %
Information systems and communications	405	392	3
Transaction processing services	235	240	(2)
Occupancy	103	96	7
Amortization of other intangible assets	60	60	—
Acquisition and restructuring costs	—	12	nm
Other:			
Professional services	110	84	31
Other	176	178	(1)
Total other	286	262	9
Total expenses	$ 2,212	$ 2,108	5
Number of employees at quarter-end	42,688	40,354	6

	Six Months Ended June 30,		
(Dollars in millions)	2023	2022	% Change
Compensation and employee benefits	$ 2,415	$ 2,278	6 %
Information systems and communications	819	815	—
Transaction processing services	474	504	(6)
Occupancy	197	191	3
Amortization of other intangible assets	120	121	(1)
Acquisition and restructuring costs	—	21	nm
Other:			
Professional services	216	181	19
Other	340	324	5
Total other	556	505	10
Total expenses	$ 4,581	$ 4,435	3

Compensation and employee benefits expenses increased 7% and 6% in the three and six months ended June 30, 2023, respectively, compared to the same periods of 2022, primarily due to higher salaries and headcount.

Total headcount increased 6% as of June 30, 2023 compared to June 30, 2022, primarily driven by operational support for new business growth segments, as well as technology investments and in-sourcing.

Information systems and communications expenses increased 3% and was flat in the three and six months ended June 30, 2023, respectively, compared to the same periods of 2022. The increase in the three month period relative to the prior year is primarily due to higher technology infrastructure investments, partially offset by optimization savings, insourcing and vendor savings initiatives.

Transaction processing services expenses decreased 2% and 6% in the three and six months ended June 30, 2023, respectively, compared to the same periods of 2022, primarily due to lower sub-custody costs.

Occupancy expenses increased 7% and 3% in the three and six months ended June 30, 2023, respectively, compared to the same periods of 2022, primarily due to relocation of our headquarters, temporarily resulting in overlapping cost.

Amortization of other intangible assets was flat and decreased 1% in the three and six months ended June 30, 2023, respectively, compared to the same periods of 2022.

Other expenses increased 9% and 10% in the three and six months ended June 30, 2023, respectively, compared to the same periods of 2022, primarily due to higher professional services, travel costs and marketing expenses.

Acquisition and Restructuring Costs

We had no acquisition and restructuring costs in both the three and six months ended June 30, 2023, compared to $12 million and $21 million in the same periods of 2022, respectively, related to the BBH Investor Services acquisition transaction that we are no longer pursuing.

Repositioning Charges

The following table presents aggregate activity for repositioning charges for the periods indicated:

TABLE 16: RESTRUCTURING AND REPOSITIONING CHARGES

(In millions)	Employee Related Costs	Real Estate Actions	Total
Accrual Balance at December 31, 2021	$ 68	$ 6	$ 74
Payments and other Adjustments	(17)	(1)	(18)
Accrual Balance at March 31, 2022	51	5	56
Payments and Other Adjustments	(11)	—	(11)
Accrual Balance at June 30, 2022	$ 40	$ 5	$ 45
Accrual Balance at December 31, 2022	$ 83	$ 5	$ 88
Payments and other adjustments	(14)	(1)	(15)
Accrual Balance at March 31, 2023	69	4	73
Payments and other adjustments	**(16)**	**(1)**	**(17)**
Accrual Balance at June 30, 2023	**$ 53**	**$ 3**	**$ 56**

Income Tax Expense

Income tax expense was $153 million and $292 million in the three and six months ended June 30, 2023, respectively, compared to $88 million and $238 million in the same periods of 2022, respectively. Our effective tax rate was 16.7% and 18.2% in the three and six months ended June 30, 2023, respectively, compared to 10.5% and 15.0% in the same periods of 2022, respectively, primarily due to higher discrete benefits in the prior year from the reassessment of a deferred tax asset valuation allowance. Income tax expense for 2023 also included the impact of the tax credit investment accounting change. For further information on the tax credit investment accounting change, please refer to Note 1 to the consolidated financial statements in this Form 10-Q.

LINE OF BUSINESS INFORMATION

Our operations are organized into two lines of business: Investment Servicing and Investment Management, which are defined based on products and services provided. The results of operations for these lines of business are not necessarily comparable with those of other companies, including companies in the financial services industry.

Our Investment Servicing line of business provides a range of services to our clients. Through State Street Investment Services, State Street Global Markets and State Street Alpha, we provide investment services for institutional clients, including mutual funds, collective investment funds and other investment pools, corporate and public retirement plans, insurance companies, investment managers, foundations and endowments worldwide.

Products under the Investment Servicing line of business include: back office products such as custody, accounting, regulatory reporting, investor services, performance and analytics; middle office products such as investment book of record, transaction management, loans, cash, derivatives and collateral services, record keeping, client reporting and investment analytics; investment manager and alternative investment manager operations outsourcing; performance, risk and compliance analytics; financial data management to support institutional investors; foreign exchange, brokerage and other trading services; securities finance, including prime services products; and deposit and short-term investment facilities.

Our Investment Management line of business provides a broad range of investment management strategies and products for our clients through State Street Global Advisors. Our investment management strategies and products for equity, fixed income and cash assets, including core and enhanced indexing, multi-asset strategies, active quantitative and fundamental active capabilities and alternative investment strategies span the risk/reward spectrum of these investment products. Our AUM is primarily weighted to indexed strategies. In addition, we provide a breadth of services and solutions, including ESG investing, defined benefit and defined contribution products, and Global Fiduciary Solutions. State Street Global Advisors is also a provider of ETFs, including the SPDR® ETF brand.

For additional information about our two lines of business, as well as the revenues, expenses and capital allocation methodologies associated with them, refer to "Lines of Business Information" included under Item1, Business, in our 2022 Form 10-K and Note 17 to the consolidated financial statements in this Form 10-Q.

Investment Servicing

TABLE 17: INVESTMENT SERVICING LINE OF BUSINESS RESULTS

	Three Months Ended June 30,		
(Dollars in millions, except where otherwise noted)	**2023**	**2022**	**% Change**
Servicing fees	**$ 1,259**	$ 1,297	(3)%
Foreign exchange trading services	**276**	313	(12)
Securities finance	**109**	102	7
Software and processing fees	**221**	188	18
Other fee revenue	**55**	(12)	nm
Total fee revenue	**1,920**	1,888	2
Net interest income	**687**	588	17
Total other income	**—**	(1)	nm
Total revenue	**2,607**	2,475	5
Provision for credit losses	**(18)**	10	nm
Total expenses	**1,850**	1,767	5
Income before income tax expense	**$ 775**	$ 698	11
Pre-tax margin	**29.7 %**	28.2 %	150 bps

	Six Months Ended June 30,		
(Dollars in millions, except where otherwise noted)	**2023**	**2022**	**% Change**
Servicing fees	**$ 2,476**	$ 2,665	(7)%
Foreign exchange trading services	**597**	655	(9)
Securities finance	**212**	195	9
Software and processing fees	**386**	389	(1)
Other fee revenue	**83**	34	nm
Total fee revenue	**3,754**	3,938	(5)
Net interest income	**1,449**	1,097	32
Total other income	**—**	(2)	nm
Total revenue	**5,203**	5,033	3
Provision for credit losses	**26**	10	nm
Total expenses	**3,828**	3,692	4
Income before income tax expense	**$ 1,349**	$ 1,331	1
Pre-tax margin	**25.9 %**	26.4 %	(50) bps

[nm] Not meaningful

Servicing Fees

Servicing fees, as presented in Table 17: Investment Servicing Line of Business Results, decreased 3% in the three months ended June 30, 2023 compared to the same period of 2022, primarily driven by lower client activity and adjustments and below average pricing headwinds, partially offset by net new business. Servicing fees decreased 7% in the six months ended June 30, 2023 compared to the same period of 2022, primarily driven by lower average fixed income market levels, client activity and adjustments and below average pricing headwinds, partially offset by net new business.

For additional information about servicing fees and the impact of worldwide equity and fixed-income valuations on our fee revenue, as well as other key drivers of our servicing fee revenue, refer to "Fee Revenue" in "Consolidated Results of Operations" included in this Management's Discussion and Analysis.

Expenses

Total expenses for Investment Servicing increased 5% and 4% in the three and six months ended June 30, 2023, respectively, compared to the same periods of 2022, as higher salaries, headcount and ongoing investments in our business were partially offset by continued productivity and optimization savings. Seasonal deferred incentive compensation expense and payroll taxes were $132 million in the six months ended June 30, 2023, compared to $161 million in the same period of 2022. Additional information about expenses is provided under "Expenses" in "Consolidated Results of Operations" included in this Management's Discussion and Analysis.

Investment Management

TABLE 18: INVESTMENT MANAGEMENT LINE OF BUSINESS RESULTS

	Three Months Ended June 30,		
(Dollars in millions, except where otherwise noted)	**2023**	**2022**	**% Change**
Management fees[1]	**$ 461**	$ 490	(6)%
Foreign exchange trading services[2]	**27**	18	50
Securities finance	**8**	5	60
Other fee revenue[3]	**3**	(31)	nm
Total fee revenue	**499**	482	4
Net interest income	**4**	(4)	nm
Total revenue	**503**	478	5
Provision for credit losses	**—**	—	nm
Total expenses	**361**	327	10
Income before income tax expense	**$ 142**	$ 151	(6)
Pre-tax margin	**28.2 %**	31.6 %	(340) bps

	Six Months Ended June 30,		
(Dollars in millions, except where otherwise noted)	**2023**	**2022**	**% Change**
Management fees[1]	**$ 918**	$ 1,010	(9)%
Foreign exchange trading services[2]	**48**	35	37
Securities finance	**14**	8	75
Other fee revenue[3]	**20**	(48)	nm
Total fee revenue	**1,000**	1,005	—
Net interest income	**8**	(4)	nm
Total revenue	**1,008**	1,001	1
Total expenses	**747**	716	4
Income before income tax expense	**$ 261**	$ 285	(8)
Pre-tax margin	**25.9 %**	28.5 %	(260) bps

[1] Includes revenues from SPDR® Gold Shares and SPDR® Gold MiniSharesSM Trust AUM where we are not the investment manager but act as the marketing agent.
[2] Includes revenue for reimbursements received for certain ETFs associated with State Street Global Advisors where we act as the distribution and marketing agent.
[3] Includes other revenue items that are primarily driven by equity market movements.
nm Not meaningful

Investment Management total revenue increased 5% and 1% in the three and six months ended June 30, 2023, respectively, compared to the same periods of 2022.

Management Fees

Management fees decreased 6% in the three months ended June 30, 2023, compared to the same period of 2022, primarily due to net outflows in prior periods and a shift of certain management fees into NII associated with management fees related to certain U.S. ETFs with unique structures, partially offset by higher average market levels. Management fees decreased 9% in the six months ended June 30, 2023 compared to the same period of 2022, primarily due to lower average market levels, the aforementioned shift of certain management fees into NII and cumulative net outflows since June 30, 2022.

For additional information about the impact of worldwide equity and fixed-income valuations, as well as other key drivers of our management fees revenue, refer to "Fee Revenue" in "Consolidated Results of Operations" included in this Management's Discussion and Analysis.

Expenses

Total expenses for Investment Management increased 10% and 4% in the three and six months ended June 30, 2023, respectively, compared to the same periods of 2022, reflecting higher salaries, headcount and ongoing investments in our business. Seasonal deferred incentive compensation expense and payroll taxes were $49 million in the six months ended June 30, 2023, compared to $47 million in the same period of 2022.

Additional information about expenses is provided under "Expenses" in "Consolidated Results of Operations" included in this Management's Discussion and Analysis.

For additional information about our two lines of business, as well as the revenues, expenses and capital allocation methodologies associated with them, refer to Note 18 to the consolidated financial statements in this Form 10-Q.

FINANCIAL CONDITION

The structure of our consolidated statement of condition is primarily driven by the liabilities generated by our Investment Servicing and Investment Management lines of business. Our clients' needs and our operating objectives determine balance sheet volume, mix and currency denomination. As our clients execute their worldwide cash management and investment activities, they utilize deposits and short-term investments that constitute the majority of our liabilities. These liabilities are generally in the form of interest-bearing transaction account deposits, which are denominated in a variety of currencies; non-interest-bearing demand deposits; and repurchase agreements, which generally serve as short-term investment alternatives for our clients.

Deposits and other liabilities resulting from client initiated transactions are invested in assets that generally have contractual maturities significantly longer than our liabilities; however, we evaluate the operational nature of our deposits and seek to maintain appropriate short-term liquidity of those liabilities that are not operational in nature and maintain longer-termed assets for our operational deposits. Our assets consist primarily of securities held in our AFS or HTM portfolios and short-duration financial instruments, such as interest-bearing deposits with banks and securities purchased under resale agreements. The actual mix of assets is determined by the characteristics of the client liabilities and our desire to maintain a well-diversified portfolio of high-quality assets.

Investment Securities

TABLE 19: CARRYING VALUES OF INVESTMENT SECURITIES

(In millions)	June 30, 2023	December 31, 2022
Available-for-sale:		
U.S. Treasury and federal agencies:		
Direct obligations	**$ 7,096**	$ 7,981
Mortgage-backed securities[1]	**9,103**	8,509
Total U.S. Treasury and federal agencies	**16,199**	16,490
Non-U.S. debt securities:		
Mortgage-backed securities	**1,524**	1,623
Asset-backed securities[2]	**1,577**	1,669
Non-U.S. sovereign, supranational and non-U.S. agency	**16,921**	14,089
Other[3]	**2,257**	2,091
Total non-U.S. debt securities	**22,279**	19,472
Asset-backed securities:		
Student loans[4]	**105**	115
Collateralized loan obligations[5]	**2,428**	2,355
Non-agency CMBS and RMBS[6]	**270**	231
Other	**90**	88
Total asset-backed securities	**2,893**	2,789
State and political subdivisions	**711**	823
Other U.S. debt securities[7]	**964**	1,005
Total available-for-sale securities[8][9]	**$ 43,046**	$ 40,579
Held-to-maturity:		
U.S. Treasury and federal agencies:		
Direct obligations	**$ 11,802**	$ 11,693
Mortgage-backed securities[10]	**41,314**	42,307
Total U.S. Treasury and federal agencies	**53,116**	54,000
Non-U.S. debt securities:		
Non-U.S. sovereign, supranational and non-U.S. agency	**6,802**	6,603
Total non-U.S. debt securities	**6,802**	6,603
Asset-backed securities:		
Student loans[4]	**3,584**	3,955
Non-agency CMBS and RMBS[11]	**8**	142
Total asset-backed securities	**3,592**	4,097
Total held-to-maturity securities[8]	**$ 63,510**	$ 64,700

[1] As of June 30, 2023 and December 31, 2022, the total fair value included $5.97 billion and $6.78 billion, respectively, of agency CMBS and $3.13 billion and $1.73 billion, respectively, of agency MBS.

[2] As of June 30, 2023 and December 31, 2022, the fair value includes non-U.S. collateralized loan obligations of $0.88 billion and $0.86 billion, respectively.

[3] As of June 30, 2023 and December 31, 2022, the fair value includes non-U.S. corporate bonds of $1.33 billion and $1.14 billion, respectively.

[4] Primarily comprised of securities guaranteed by the federal government with respect to at least 97% of defaulted principal and accrued interest on the underlying loans.

[5] Excludes collateralized loan obligations in loan form. Refer to Note 4 to the consolidated financial statements in this Form 10-Q for additional information.

[6] Consists entirely of non-agency CMBS as of both June 30, 2023 and December 31, 2022.

[7] As of June 30, 2023 and December 31, 2022, the fair value of U.S. corporate bonds was $0.96 billion and $1.01 billion, respectively.

[8] An immaterial amount of accrued interest related to HTM and AFS investment securities was excluded from the amortized cost basis for the period ended June 30, 2023.

[9] As of June 30, 2023, the total amortized cost had no allowance for credit losses on AFS investment securities. As of December 31, 2022, the total amortized cost included an allowance for credit losses on AFS investment securities of $2 million.

[10] As of June 30, 2023 and December 31, 2022, the total amortized cost included $5.28 billion and $4.99 billion of agency CMBS, respectively.

[11] As of June 30, 2023, the total amortized cost included $8 million of non-agency RMBS. As of December 31, 2022, the total amortized cost included $133 million of non-agency CMBS and $9 million of non-agency RMBS.

Additional information about our investment securities portfolio is provided in Note 3 to the consolidated financial statements in this Form 10-Q.

We manage our investment securities portfolio taking into consideration the interest rate and duration characteristics of our client liabilities and in the context of the overall structure of our consolidated statement of condition, in consideration of the global interest rate environment. We consider a well-diversified, high-credit quality investment securities portfolio to be an important element in the management of our consolidated statement of condition.

Average duration of our investment securities portfolio, including the impact of hedges, was 2.7 years and 2.6 years as of June 30, 2023 and December 31, 2022, respectively.

Approximately 96% and 95% of the carrying value of the portfolio was rated "AA" or higher as of June 30, 2023 and December 31, 2022, as follows:

TABLE 20: INVESTMENT PORTFOLIO BY EXTERNAL CREDIT RATING

	June 30, 2023	December 31, 2022
AAA[1]	83 %	84 %
AA	13	11
A	2	3
BBB	2	2
	100 %	100 %

[1] Includes U.S. Treasury and federal agency securities that are split-rated, "AAA" by Moody's Investors Service and "AA+" by Standard & Poor's and also includes Agency MBS securities which are not explicitly rated but which have an explicit or assumed guarantee from the U.S. government.

As of both June 30, 2023 and December 31, 2022, the investment portfolio was diversified with respect to asset class composition. The following table presents the composition of these asset classes.

TABLE 21: INVESTMENT PORTFOLIO BY ASSET CLASS

	June 30, 2023	December 31, 2022
U.S. Agency Mortgage-backed securities	37 %	37 %
Non-U.S. sovereign, supranational and non-U.S. agency	21	19
U.S. Treasuries	18	19
Asset-backed securities	9	9
Other credit	15	16
	100 %	100 %

Non-U.S. Debt Securities

Approximately 27% and 25% of the aggregate carrying value of our investment securities portfolio was non-U.S. debt securities as of June 30, 2023 and December 31, 2022, respectively.

TABLE 22: NON-U.S. DEBT SECURITIES[1]

(In millions)	June 30, 2023	December 31, 2022
Available-for-sale:		
Canada	$ 4,163	$ 3,685
United Kingdom	1,968	1,449
Australia	1,967	2,159
Germany	1,471	1,147
France	1,122	1,059
Austria	989	769
Japan	726	768
Netherlands	602	542
Hong Kong	391	701
Italy	295	290
Singapore	280	—
Brazil	221	202
Republic of Korea	219	230
Spain	216	250
Other[2]	7,649	6,221
Total	$ 22,279	$ 19,472
Held-to-maturity:		
Spain	$ 809	$ 804
Belgium	717	703
France	649	638
Ireland	444	442
Austria	368	362
Germany	333	123
Finland	218	213
Netherlands	175	172
Canada	111	—
Singapore	19	269
Other[2]	2,959	2,877
Total	$ 6,802	$ 6,603

[1] Geography is determined primarily based on the domicile of collateral or issuer.
[2] As of June 30, 2023, other non-U.S. investments include $7.20 billion of supranational bonds in AFS securities and $2.96 billion of supranational bonds in HTM securities.

Approximately 88% and 86% of the aggregate carrying value of these non-U.S. debt securities was rated "AAA" or "AA" as of June 30, 2023 and December 31, 2022, respectively. The majority of these securities comprised senior positions within the security structures; these positions have a level of protection provided through subordination and other forms of credit protection. As of June 30, 2023 and December 31, 2022, approximately 22% and 26%, respectively, of the aggregate carrying value of these non-U.S. debt securities was floating-rate.

As of June 30, 2023, our non-U.S. debt securities had an average market-to-book ratio of 96.8%, and an aggregate pre-tax net unrealized loss of $944 million, composed of gross unrealized gains of $4 million and gross unrealized losses of $948 million. These unrealized amounts included:

- a pre-tax net unrealized loss of $664 million, composed of gross unrealized gains of $4 million and gross unrealized losses of $668 million, associated with non-U.S. AFS debt securities; and
- a pre-tax net unrealized loss of $280 million, composed of gross unrealized losses of $280

million, associated with non-U.S. HTM debt securities.

As of June 30, 2023, the underlying collateral for non-U.S. MBS and ABS primarily included mortgages in Australia, the U.K., the Netherlands and Italy. The securities listed under "Canada" were composed of Canadian government securities and provincial bonds, corporate debt and non-U.S. agency securities. The securities listed under "France" were composed of sovereign bonds, corporate debt, covered bonds, ABS and Non-U.S. agency securities. The securities listed under "Japan" were substantially composed of Japanese government securities.

Municipal Obligations

We carried approximately $0.71 billion of municipal securities classified as state and political subdivisions in our investment securities portfolio as of June 30, 2023, as shown in Table 19: Carrying Values of Investment Securities, all of which were classified as AFS. As of June 30, 2023, we also provided approximately $6.97 billion of credit and liquidity facilities to municipal issuers.

TABLE 23: STATE AND MUNICIPAL OBLIGORS[1]

(Dollars in millions)	Total Municipal Securities	Credit and Liquidity Facilities[2]	Total	% of Total Municipal Exposure
June 30, 2023				
State of Issuer:				
Texas	**$ 161**	**$ 2,618**	**$ 2,779**	**36 %**
New York	**150**	**1,687**	**1,837**	**24**
California	**33**	**1,201**	**1,234**	**16**
Total	**$ 344**	**$ 5,506**	**$ 5,850**	
December 31, 2022				
State of Issuer:				
Texas	$ 178	$ 2,395	$ 2,573	33 %
New York	154	1,607	1,761	23
California	84	1,299	1,383	18
Total	$ 416	$ 5,301	$ 5,717	

[1] Represented 5% or more of our aggregate municipal credit exposure of approximately $7.68 billion and $7.81 billion across our businesses as of June 30, 2023 and December 31, 2022, respectively.

[2] Includes municipal loans which are also presented within Table 24: U.S. and Non-U.S. Loans.

Our aggregate municipal securities exposure presented in Table 23: State and Municipal Obligors, was concentrated primarily with highly-rated counterparties, with approximately 92% of the obligors rated "AA" or higher as of June 30, 2023. As of that date, approximately 33% and 67% of our aggregate municipal securities exposure was associated with general obligation and revenue bonds, respectively. The portfolios are also diversified geographically, with the states that represent our largest exposures widely dispersed across the U.S.

Additional information with respect to our assessment of the allowance for credit losses on debt securities and impairment of AFS securities is provided in Note 3 to the consolidated financial statements in this Form 10-Q.

Loans

TABLE 24: U.S. AND NON-U.S. LOANS

(In millions)	June 30, 2023	December 31, 2022
Domestic[1]:		
Commercial and financial:		
Fund Finance[2]	**$ 12,239**	$ 12,154
Leveraged Loans	**2,317**	2,431
Overdrafts	**1,429**	1,707
Collateralized loan obligations in loan form	**100**	100
Other[3]	**2,146**	1,871
Commercial real estate	**2,983**	2,985
Total domestic	**$ 21,214**	$ 21,248
Foreign[1]:		
Commercial and financial:		
Fund Finance[2]	**$ 4,936**	$ 3,949
Leveraged Loans	**1,145**	1,118
Overdrafts	**1,653**	1,094
Collateralized loan obligations in loan form	**5,175**	4,741
Total foreign	**12,909**	10,902
Total loans[4]	**34,123**	32,150
Allowance for loan losses	**(120)**	(97)
Loans, net of allowance	**$ 34,003**	$ 32,053

[1] Domestic and foreign categorization is based on the borrower's country of domicile.

[2] Fund finance loans include primarily $9.33 billion private equity capital call finance loans, $5.88 billion loans to real money funds and $1.11 billion loans to business development companies as of June 30, 2023, compared to $7.57 billion private equity capital call finance loans, $6.61 billion loans to real money funds and $1.11 billion loans to business development companies as of December 31, 2022.

[3] Includes $1.85 billion securities finance loans, $289 million loans to municipalities and $6 million other loans as of June 30, 2023 and $1.51 billion securities finance loans, $321 million loans to municipalities and $42 million other loans as of December 31, 2022.

[4] As of June 30, 2023, excluding overdrafts, floating rate loans totaled $28.17 billion and fixed rate loans totaled $2.87 billion. We have entered into interest rate swap agreements to hedge the forecasted cash flows associated with EURIBOR indexed floating-rate loans. See Note 10 to the consolidated financial statements in our 2022 Form 10-K for additional details.

The decrease in domestic loans was primarily driven by lower overdrafts, offset by an increase in other loans, and the increase in foreign loans was primarily driven by fund finance loans, overdrafts and collateralized loan obligations in loan form as of June 30, 2023 compared to December 31, 2022.

As of June 30, 2023 and December 31, 2022, our leveraged loans totaled approximately $3.46 billion and $3.55 billion, respectively. We sold $125 million of leveraged loans in the second quarter of 2023.

In addition, we had binding unfunded commitments as of June 30, 2023 and December 31, 2022 of $111 million and $98 million, respectively, to participate in syndications of leveraged loans. Additional information about these unfunded commitments is provided in Note 9 to the consolidated financial statements in this Form 10-Q.

These leveraged loans, which are primarily rated "speculative" under our internal risk-rating framework (refer to Note 4 to the consolidated financial

statements in this Form 10-Q), are externally rated "BBB," "BB" or "B," with approximately 91% and 96% of the loans rated "BB" or "B" as of June 30, 2023 and December 31, 2022, respectively. Our investment strategy involves generally limiting our investment to larger, more liquid credits underwritten by major global financial institutions, applying our internal credit analysis process to each potential investment and diversifying our exposure by counterparty and industry segment. However, these loans have significant exposure to credit losses relative to higher-rated loans in our portfolio.

Additional information about all of our loan segments, as well as underlying classes, is provided in Note 4 to the consolidated financial statements in this Form 10-Q.

Allowance for credit losses

TABLE 25: ALLOWANCE FOR CREDIT LOSSES

	Six Months Ended June 30,	
(In millions)	**2023**	**2022**
Allowance for credit losses:		
Beginning balance	**$ 121**	$ 108
Provision for credit losses (funded commitments)[1]	**34**	12
Provisions for credit losses (unfunded commitments)	**(8)**	(2)
Charge-offs[2]	**(11)**	(4)
Ending balance	**$ 136**	$ 114

[1] The provision for credit losses is primarily related to commercial and financial loans.

[2] The charge-offs are related to commercial and financial loans.

We recorded a provision for credit losses of $26 million in the six months ended June 30, 2023, primarily driven by an increase in loan loss reserves associated with credit portfolio rating changes, compared to a $10 million provision for credit losses recorded in the same period of 2022.

As of June 30, 2023, approximately $80 million of our allowance for credit losses was related to leveraged loans included in the commercial and financial segment compared to $69 million as of June 30, 2022. The remaining $56 million and $45 million as of June 30, 2023 and June 30, 2022, respectively, was related to commercial real estate loans, other loans, off-balance sheet commitments, interest-bearing deposits with banks and other financial assets held at amortized cost, including investment securities. As of June 30, 2023, the allowance for credit losses represented 0.4% of total loans.

Additional information with respect to the allowance for credit losses is provided in Note 4 to the consolidated financial statements in this Form 10-Q.

Risk Management

In the normal course of our business activities, we are exposed to a variety of risks, some that are inherent in the financial services industry, and others that are more specific to our business activities. Our risk management framework focuses on material risks, which include the following:

- credit and counterparty risk;
- liquidity risks, including funding and management;
- operational risk;
- information technology risk;
- operational resiliency risk;
- market risk associated with our trading activities;
- market risk associated with our non-trading activities, referred to as asset and liability management, consisting primarily of interest rate risk;
- model risk;
- strategic risk; and
- reputational, compliance, fiduciary and business conduct risk.

Many of these risks, as well as certain factors underlying each of them, could affect our businesses and our consolidated financial statements, and are discussed in detail on pages 23 to 52 included under Item 1A, Risk Factors, in our 2022 Form 10-K.

For additional information about our risk management, including our risk appetite framework and risk governance committee structure, refer to pages 81 to 86 included under Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, Risk Management, in our 2022 Form 10-K.

Credit Risk Management

We define credit risk as the risk of financial loss if a counterparty, borrower or obligor, collectively referred to as a counterparty, is either unable or unwilling to repay borrowings or settle a transaction in accordance with underlying contractual terms. We assume credit risk in our traditional non-trading lending activities, such as overdrafts, loans and contingent commitments, in our investment securities portfolio, where recourse to a counterparty exists, and in our direct and indirect trading activities, such as securities purchased under a resale agreement, principal securities lending and FX and indemnified agency securities lending. We also assume credit risk in our day-to-day treasury and securities and other settlement operations, in the form of deposit placements and other cash balances, with central banks or private sector institutions and fees receivables.

Allowance for Credit Losses

We record an allowance for credit losses related to certain on-balance sheet credit exposures, including our financial assets held at amortized cost, as well as certain off-balance sheet credit exposures, including unfunded commitments and letters of credit. Review and evaluation of the adequacy of the allowance for credit losses is ongoing throughout the year, but occurs at least quarterly, and is based, among other factors, on our evaluation of the level of risk in the portfolio and the estimated effects of our forecasts on our counterparties. We utilize multiple economic scenarios, consisting of a baseline, upside and downside scenarios, to develop our forecast of expected losses.

In the second quarter of 2023, the allowance estimate reflected a decrease in reserves, driven by the release of the allowance for credit losses related to our support of a U.S. financial institution in the first quarter of 2023, partially offset by an increase in loan loss reserves associated with credit portfolio rating changes. Allowance estimates are subject to uncertainties, including those inherent in our model and economic assumptions, and management may use qualitative adjustments. If future data and forecasts deviate relative to the forecasts utilized to determine our allowance for credit losses as of June 30, 2023 or if credit risk migration is higher or lower than forecasted for reasons independent of the economic forecast, our allowance for credit losses will also change.

Additional information about the allowance for credit losses is provided in Notes 3 and 4 to the consolidated financial statements in this Form 10-Q.

For additional information about our credit risk management framework, including our core policies and principles, structure and organization, credit ratings, risk parameter estimates, credit risk mitigation, credit limits, reporting, monitoring and controls, refer to pages 86 to 91 included under Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, Credit Risk Management, in our 2022 Form 10-K.

Liquidity Risk Management

Our liquidity framework contemplates areas of potential risk to our liquidity based on our activities, size and other appropriate risk-related factors. In managing liquidity risk, we employ limits, maintain established metrics and early warning indicators and perform routine stress testing to identify potential liquidity needs. This process involves the evaluation of a combination of internal and external scenarios which assist us in measuring our liquidity position and in identifying potential increases in cash needs or decreases in available sources of cash, as well as the potential impairment of our ability to access the global capital markets.

We manage our liquidity on a global, consolidated basis as well as on a stand-alone basis at our Parent Company and at certain branches and subsidiaries of State Street Bank. State Street Bank generally has access to markets and funding sources limited to banks, such as the federal funds market, the Federal Reserve's discount window and the Bank Term Funding Program. The Parent Company is managed to a more conservative liquidity profile, reflecting narrower market access. Additionally, the Parent Company typically holds, or has direct access to, primarily through SSIF, a direct subsidiary of the Parent Company, and the support agreement, as discussed in the "Uses of Liquidity" section of this Management's Discussion and Analysis, enough cash and equivalents intended to meet its current debt maturities and other cash needs, as well as those projected over the next twelve-month period. Reference our SPOE Strategy as discussed in the "Uses of Liquidity" section of this Management's Discussion and Analysis. Absent financial distress at the Parent Company, the liquid assets available at SSIF continue to be available to the Parent Company. As of June 30, 2023, our Parent Company and State Street Bank had approximately $0.99 billion of senior notes or subordinated debentures outstanding that will mature in the next twelve months.

As a systemically important financial institution, our liquidity risk management activities are subject to heightened and evolving regulatory requirements, including interpretations of those requirements, under specific U.S. and international regulations and also resulting from published and unpublished guidance, supervisory activities, such as stress tests, resolution planning, examinations and other regulatory interactions. Satisfaction of these requirements could, in some cases, result in changes in the composition of our investment portfolio, reduced NII or NIM, a reduction in the level of certain business activities or modifications to the way in which we deliver our products and services. If we fail to meet regulatory requirements to the satisfaction of our regulators, we could receive negative regulatory stress test results, incur a resolution plan deficiency or determination of a non-credible resolution plan or otherwise receive an adverse regulatory finding. Our efforts to satisfy, or our failure to satisfy, these regulatory requirements could materially adversely affect our business, financial condition or results of operations.

For additional information on our liquidity risk management, as well as liquidity metrics, refer to pages 91 to 96 included under Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, Liquidity Risk Management, in

our 2022 Form 10-K. For additional information on our liquidity ratios, including LCR and the net stable funding ratio, refer to page 15 included under Item 1, Business, in our 2022 Form 10-K.

Asset Liquidity

Central to the management of our liquidity is asset liquidity, which consists primarily of HQLA. HQLA is the amount of liquid assets that qualify for inclusion in the LCR. As a banking organization, we are subject to a minimum LCR under the LCR rule approved by U.S. banking regulators. The LCR is intended to promote the short-term resilience of internationally active banking organizations, like us, to improve the banking industry's ability to absorb shocks arising from market stress over a 30 calendar day period and improve the measurement and management of liquidity risk. The LCR measures an institution's HQLA against its net cash outflows. HQLA primarily consists of unencumbered cash and certain high quality liquid securities that qualify for inclusion under the LCR rule. Net cash outflows are measured as prescribed under the LCR rule which provides a significant benefit for deposits classified as operational. We report the LCR to the Federal Reserve daily. For the quarters ended June 30, 2023 and December 31, 2022, daily average LCR for the Parent Company was 108% and 106%, respectively. The impact of higher deposits on the Parent Company's LCR is limited by a cap, known as the transferability restriction, on the HQLA from State Street Bank and Trust that can be recognized at the Parent Company as defined in the U.S. LCR Final Rule. This restriction limits the HQLA used in the calculation of the Parent Company's LCR to the amount of net cash outflows of its principal banking subsidiary (State Street Bank and Trust). The average HQLA, post-prescribed haircuts for the Parent Company under the LCR final rule definition was $125.84 billion for the quarter ended June 30, 2023 compared to $139.88 billion for the quarter ended December 31, 2022, primarily due to a decrease in client deposits relative to the prior period. For the quarter ended June 30, 2023, the LCR for State Street Bank and Trust was approximately 120%.

We maintained average cash balances in excess of regulatory requirements governing deposits with the Federal Reserve, the ECB and other non-U.S. central banks of approximately $65.42 billion for the quarter ended June 30, 2023, compared to $79.52 billion for the quarter ended December 31, 2022. The lower levels of average cash balances with central banks reflect lower levels of client deposits.

Liquid securities carried in our asset liquidity include securities pledged without corresponding advances from the Federal Reserve Bank of Boston (FRBB), the FHLB, and other non-U.S. central banks. State Street Bank is a member of the FHLB. This membership allows for advances of liquidity in varying terms against high-quality collateral, which helps facilitate asset-and-liability management. We had no outstanding borrowings from the FHLB as of June 30, 2023 and had $2.0 billion outstanding as of December 31, 2022.

Access to primary, intraday and contingent liquidity provided by these utilities is an important source of contingent liquidity with utilization subject to underlying conditions. As of both June 30, 2023 and December 31, 2022, we had no outstanding primary credit borrowings from the FRBB discount window or any other central bank facility.

In addition to the investment securities included in our asset liquidity, we have other unencumbered investment securities and certain loans that we can pledge as collateral to access these various facilities. These additional assets are available sources of liquidity and not included in our LCR asset liquidity.

The average fair value of total unencumbered securities was $77.53 billion for the quarter ended June 30, 2023, compared to $78.25 billion for the quarter ended December 31, 2022.

Uses of Liquidity

Significant uses of our liquidity could result from the following: withdrawals of client deposits; draw-downs by our custody clients of lines of credit; advances to clients to settle securities transactions; increases in our investment and loan portfolios; or other permitted purposes. Such circumstances would generally arise under stress conditions including deterioration in credit ratings. A recurring use of our liquidity involves our deployment of HQLA from our investment portfolio to post collateral to financial institutions serving as sources of securities under our prime services program.

We had unfunded commitments to extend credit with gross contractual amounts totaling $34.47 billion and $31.20 billion and standby letters of credit totaling $1.59 billion and $2.13 billion as of June 30, 2023 and December 31, 2022, respectively. These amounts do not reflect the value of any collateral. As of June 30, 2023, approximately 75% of our unfunded commitments to extend credit and 35% of our standby letters of credit expire within one year. Since many of our commitments are expected to expire or renew without being drawn upon, the gross contractual amounts do not necessarily represent our future cash requirements.

Resolution Planning

Under Section 165(d) of the Dodd-Frank Act, we are required to submit a resolution plan on a biennial basis jointly to the Federal Reserve and the FDIC (the

Agencies). The purpose of our resolution plan is to describe our preferred resolution strategy and to demonstrate that we have the resources and capabilities to execute on that strategy in the event of major financial distress. Through resolution planning, we seek to maintain our role as a key infrastructure provider within the financial system, while minimizing risk to the financial system.

The final rule published in the Federal Register on November 1, 2019 requires a full resolution plan and a targeted resolution plan on an alternating basis in the relevant submission years. We submitted our updated 2023 165(d) resolution plan by July 1, 2023. Under the 165(d) rule, results are due from the Agencies by July 1, 2024, unless the deadline is extended due to extenuating circumstances. Our next 165(d) resolution plan submission to the Agencies is due by July 1, 2025.

In the event of material financial distress, our preferred resolution strategy is the SPOE Strategy. The SPOE Strategy provides that prior to the bankruptcy of the Parent Company and pursuant to a support agreement among the Parent Company, SSIF (a direct subsidiary of the Parent Company), our Beneficiary Entities (as defined below) and certain of our other entities, SSIF is obligated, up to its available resources, to recapitalize and/or provide liquidity to State Street Bank and the other entities benefiting from such capital and/or liquidity support (collectively with State Street Bank, "Beneficiary Entities"), in amounts designed to prevent the Beneficiary Entities from themselves entering into resolution proceedings. Following the recapitalization of, or provision of liquidity to the Beneficiary Entities, the Parent Company would enter into a bankruptcy proceeding under the U.S. Bankruptcy Code. The Beneficiary Entities and our other subsidiaries would be transferred to a newly organized holding company held by a reorganization trust for the benefit of the Parent Company's claimants.

Under the support agreement, the Parent Company has pre-funded SSIF by contributing certain of its assets (primarily its liquid assets, cash deposits, investments in intercompany debt, investments in marketable securities and other cash and non-cash equivalent investments) to SSIF at the time it entered into the support agreement and will continue to contribute such assets, to the extent available, on an on-going basis. In consideration for these contributions, SSIF has agreed in the support agreement to provide capital and liquidity support to the Parent Company and all of the Beneficiary Entities in accordance with the Parent Company's capital and liquidity policies. Under the support agreement, the Parent Company is only permitted to retain cash needed to meet its upcoming obligations and to fund expected expenses during a potential bankruptcy proceeding. SSIF has provided the Parent Company with a committed credit line and issued (and may issue) one or more promissory notes to the Parent Company (the Parent Company Funding Notes) that together are intended to allow the Parent Company to continue to meet its obligations throughout the period prior to the occurrence of a "Recapitalization Event", which is defined under the support agreement as the earlier occurrence of: (1) one or more capital and liquidity thresholds being breached or (2) the authorization by the Parent Company's Board of Directors for the Parent Company to commence bankruptcy proceedings. The support agreement does not obligate SSIF to maintain any specific level of resources and SSIF may not have sufficient resources to implement the SPOE Strategy.

In the event a Recapitalization Event occurs, the obligations outstanding under the Parent Company Funding Notes would automatically convert into or be exchanged for capital contributed to SSIF. The obligations of the Parent Company and SSIF under the support agreement are secured through a security agreement that grants a lien on the assets that the Parent Company and SSIF would use to fulfill their obligations under the support agreement to the Beneficiary Entities. SSIF is a distinct legal entity separate from the Parent Company and the Parent Company's other affiliates.

In accordance with our policies, we are required to monitor, on an ongoing basis, the capital and liquidity needs of State Street Bank and our other Beneficiary Entities. To support this process, we have established a trigger framework that identifies key actions that would need to be taken or decisions that would need to be made if certain events tied to our financial condition occur. The trigger thresholds are set at levels intended to provide for the availability of sufficient capital and liquidity to enable an orderly resolution without extraordinary government support that results in us emerging from resolution as a stabilized institution with market confidence restored.

Upon the occurrence of a Recapitalization Event: (1) SSIF would not be authorized to provide any further liquidity to the Parent Company; (2) the Parent Company would be required to contribute to SSIF any remaining assets it is required to contribute to SSIF under the support agreement, (which specifically exclude amounts designated to fund expected expenses during a potential bankruptcy proceeding); (3) SSIF would be required to provide capital and liquidity support to the Beneficiary Entities to support such entities' continued operation to the extent of its available resources and consistent with the support agreement; and (4) the Parent Company would be expected to commence Chapter 11 proceedings under the U.S. Bankruptcy Code. No

person or entity, other than a party to the support agreement, should rely on any of our affiliates being or remaining a Beneficiary Entity or receiving capital or liquidity support pursuant to the support agreement, including in evaluating any of our entities from a creditor's perspective or determining whether to enter into a contractual relationship with any of our entities.

State Street Bank is also required to submit periodically to the FDIC a plan for resolution in the event of its failure, referred to as an IDI plan. We submitted our last IDI plan before July 1, 2018. In November 2018, the FDIC had announced that until the FDIC completed revisions to its IDI plan requirements, no IDI plans would be required to be filed. On June 25, 2021, the FDIC issued a policy statement on resolution plans for IDIs that allows for content streamlining and adjusts the frequency of submissions to a three-year cycle. State Street Bank's next IDI plan submission deadline is December 1, 2023.

Additionally, we are required to submit a recovery plan to the Federal Reserve. This plan includes detailed governance triggers and contingency actions that can be implemented in a timely manner in the event of extreme financial distress. We also have recovery planning requirements in certain international jurisdictions where we operate.

Funding

Deposits

We provide products and services including custody, accounting, administration, daily pricing, FX services, cash management, financial asset management, securities finance and investment advisory services. As a provider of these products and services, we generate client deposits, which have generally provided a stable, low-cost source of funds. As a global custodian, clients place deposits with our entities in various currencies. As of June 30, 2023, approximately 67% of our average total deposit balances were denominated in U.S. dollars, 16% in EUR, 6% in GBP and 11% in all other currencies. As of December 31, 2022, approximately 67% of our average total deposit balances were denominated in U.S. dollars, 16% in EUR, 7% in GBP and 10% in all other currencies.

Short-Term Funding

Our on-balance sheet liquid assets are also an integral component of our liquidity management strategy. These assets provide liquidity through maturities of the assets, but more importantly, they provide us with the ability to raise funds by pledging the securities as collateral for borrowings or through outright sales. In addition, our access to the global capital markets gives us the ability to source incremental funding from wholesale investors. As discussed earlier under "Asset Liquidity," State Street Bank's membership in the FHLB allows for advances of liquidity with varying terms against high-quality collateral.

Short-term secured funding also comes in the form of securities lent or sold under agreements to repurchase. These transactions are short-term in nature, generally overnight and are collateralized by high-quality investment securities. These balances were $4.29 billion and $1.18 billion as of June 30, 2023 and December 31, 2022, respectively.

State Street Bank continues to maintain a line of credit with a financial institution of CAD $1.40 billion, or approximately $1.06 billion as of June 30, 2023, to support its Canadian securities processing operations. The line of credit has no stated termination date and is cancellable by either party with prior notice. As of both June 30, 2023 and December 31, 2022, there was no balance outstanding on this line of credit.

Long-Term Funding

We have the ability to issue debt and equity securities under our current universal shelf registration statement to meet current commitments and business needs.

On May 18, 2023, we issued $1 billion aggregate principal amount of 5.104% fixed-to-floating rate senior notes due 2026 and $1 billion aggregate principal amount of 5.159% fixed-to-floating rate senior notes due 2034.

Agency Credit Ratings

Our ability to maintain consistent access to liquidity is fostered by the maintenance of high investment grade ratings as measured by major credit rating agencies. Factors essential to maintaining high credit ratings include:

- diverse and stable core earnings;
- relative market position;
- strong risk management;
- strong capital ratios;
- diverse liquidity sources, including the global capital markets and client deposits;
- strong liquidity monitoring procedures; and
- preparedness for current or future regulatory developments.

High ratings limit borrowing costs and enhance our liquidity by:

- providing confidence for unsecured funding and depositors;
- increasing the potential market for our debt and improving our ability to offer products;

- facilitating reduced collateral haircuts in secured lending transactions; and
- engaging in transactions in which clients value high credit ratings.

A downgrade or reduction in our credit ratings could have a material adverse effect on our liquidity by restricting our ability to access the capital markets, which could increase the related cost of funds. In turn, this could cause the sudden and large-scale withdrawal of unsecured deposits by our clients, which could lead to drawdowns of unfunded commitments to extend credit or trigger requirements under securities purchase commitments; or require additional collateral or force terminations of certain trading derivative contracts.

A majority of our derivative contracts have been entered into under bilateral agreements with counterparties who may require us to post collateral or terminate the transactions based on changes in our credit ratings. We assess the impact of these arrangements by determining the collateral that would be required assuming a downgrade by major rating agencies. The additional collateral or termination payments related to our net derivative liabilities under these arrangements that could have been called by counterparties in the event of a downgrade in our credit ratings below levels specified in the agreements is provided in Note 7 to the consolidated financial statements in this Form 10-Q. Other funding sources, such as secured financing transactions and other margin requirements, for which there are no explicit triggers, could also be adversely affected.

Operational Risk Management

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events.

Tight labor markets, challenging conditions in the global equity and fixed income markets, and heightened geopolitical tensions, including the ongoing war in Ukraine, are resulting in stress on the operating environment and have increased, and may continue to increase, operational risk. The war in Ukraine may also heighten information technology risk exposures, including cyber-threats. See also "Information Technology Risk Management" below.

For additional information about our operational risk framework, refer to pages 97 to 100 included under Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, "Operational Risk Management", in our 2022 Form 10-K.

Information Technology Risk Management

We define information technology risk as the risk associated with the use, ownership, operation, involvement, influence and adoption of information technology. Information technology risk includes risks triggered by technology non-compliance with regulatory obligations, information security and privacy incidents, business disruption, technology internal control and process gaps, technology operational events and adoption of new business technologies.

For additional information about our information technology risk framework and associated risks, refer to pages 100 to 101 included under Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, "Information Technology Risk Management" in our 2022 Form 10-K, and pages 47 to 48 included under Item 1A, Risk Factors, in our 2022 Form 10-K - "Any failures of or damage to, attack on or unauthorized access to our information technology systems or facilities or disruptions to our continuous operations, including the systems, facilities or operations of third parties with which we do business, such as resulting from cyber-attacks, could result in significant costs, reputational damage and limits on our ability to conduct our business activities".

Market Risk Management

Market risk is defined by U.S. banking regulators as the risk of loss that could result from broad market movements, such as changes in the general level of interest rates, credit spreads, foreign exchange rates or commodity prices. We are exposed to market risk in both our trading and certain of our non-trading, or asset-and-liability management, activities.

Information about the market risk associated with our trading activities is provided below under "Trading Activities." Information about the market risk associated with our non-trading activities, which consists primarily of interest rate risk, is provided below under "Asset-and-Liability Management Activities."

Trading Activities

In the conduct of our trading activities, we assume market risk, the level of which is a function of our overall risk appetite, business objectives and liquidity needs, our clients' requirements and market volatility and our execution against those factors.

As part of our trading activities, we assume positions in the foreign exchange and interest rate markets by buying and selling cash instruments and entering into derivative instruments, including foreign exchange forward contracts, foreign exchange and interest rate options and interest rate swaps, interest rate forward contracts and interest rate futures. As of June 30, 2023, the notional amount of these derivative contracts was $2.50 trillion, of which $2.47 trillion was composed of foreign exchange forward, swap and spot contracts. We seek to match positions closely with the objective of mitigating related

currency and interest rate risk. All foreign exchange contracts are valued daily at current market rates.

For additional information about the market risk associated with our trading activities, refer to pages 101 to 103 included under Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, "Market Risk Management" in our 2022 Form 10-K.

Value-at-Risk and Stressed VaR

We use a variety of risk measurement tools and methodologies, including VaR, which is an estimate of potential loss for a given period within a stated statistical confidence interval. We use a risk measurement methodology to measure trading-related VaR daily. We have adopted standards for measuring trading-related VaR, and we maintain regulatory capital for market risk associated with our trading activities in conformity with currently applicable bank regulatory market risk requirements. Our regulatory VaR-based measure is calculated based on historical volatilities of market risk factors during a two-year observation period calibrated to a one-tail, 99% confidence interval and a ten-business-day holding period.

We calculate a stressed VaR-based measure using the same model we use to calculate VaR, but with model inputs calibrated to historical data from a range of continuous twelve-month periods that reflect significant financial stress. The stressed VaR model is designed to identify the second-worst outcome occurring in the worst continuous one-year rolling period since July 2007. This stressed VaR meets the regulatory requirement as the rolling ten-day period with an outcome that is worse than 99% of other outcomes during that twelve-month period of financial stress. For each portfolio, the stress period is determined algorithmically by seeking the one-year time horizon that produces the largest ten-business-day VaR from within the available historical data. This historical data set includes the financial crisis of 2008, the highly volatile period surrounding the Eurozone sovereign debt crisis and the Standard & Poor's downgrade of U.S. Treasury debt in August 2011. As the historical data set used to determine the stress period expands over time, future market stress events will be incorporated.

For additional information about our VaR measurement tools and methodologies, refer to pages 103 to 108 included under Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, "Value-at-Risk and Stressed VaR" in our 2022 Form 10-K.

Stress Testing

We have a corporate-wide stress testing program in place that incorporates techniques to measure the potential loss we could suffer in a hypothetical scenario of adverse economic and financial conditions. We also monitor concentrations of risk such as concentration by branch, risk component, and currency pairs. We conduct stress testing on a daily basis based on selected historical stress events that are relevant to our positions in order to estimate the potential impact to our current portfolio should similar market conditions recur, and we also perform stress testing as part of the Federal Reserve's CCAR process. Stress testing is conducted, analyzed and reported at the corporate, trading desk, division and risk-factor level (for example, exchange risk, interest rate risk and volatility risk).

Stress testing results and limits are actively monitored on a daily basis by Enterprise Risk Management (ERM) and reported to the Credit and Market Risk Committee (CMRC). Limit breaches are addressed by ERM risk managers in conjunction with the business units, escalated as appropriate, and reviewed by the CMRC if material. In addition, we have established several action triggers that prompt review by management and the implementation of a remediation plan.

Validation and Back-Testing

We perform frequent back-testing to assess the accuracy of our VaR-based model in estimating loss at the stated confidence level. This back-testing involves the comparison of estimated VaR model outputs to daily, actual profit-and-loss (P&L) outcomes observed from daily market movements. We back-test our VaR model using “clean” P&L, which excludes non-trading revenue such as fees, commissions and NII, as well as estimated revenue from intraday trading.

Our VaR definition of trading losses excludes items that are not specific to the price movement of the trading assets and liabilities themselves, such as fees, commissions, changes to reserves and gains or losses from intraday activity.

We had no back-testing exceptions in the quarters ended June 30, 2023, March 31, 2023 and June 30, 2022. At a 99% confidence interval, the statistical expectation for a VaR model is to witness one exception every hundred trading days (or two to three exceptions per year).

The following tables present VaR and stressed VaR associated with our trading activities for covered positions held during the quarters ended June 30, 2023, March 31, 2023 and June 30, 2022, respectively, as measured by our VaR methodology. Diversification effect in the tables below represents the difference between total VaR and the sum of the VaRs for each trading activity. This effect arises because the risks present in our trading activities are not perfectly correlated.

TABLE 26: TEN-DAY VALUE-AT-RISK ASSOCIATED WITH TRADING ACTIVITIES FOR COVERED POSITIONS

	Three Months Ended									As of June 30, 2023	As of March 31, 2023	As of June 30, 2022
	June 30, 2023			March 31, 2023			June 30, 2022					
(In thousands)	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	VaR	VaR	VaR
Global Markets	**$ 10,019**	**$ 15,718**	**$ 5,106**	$ 9,658	$ 14,089	$ 5,626	$ 8,248	$ 16,319	$ 3,830	**$ 9,112**	$ 11,456	$ 9,152
Global Treasury	**4,079**	**7,311**	**1,795**	4,723	6,034	2,557	971	1,522	788	**2,539**	4,989	1,522
Diversification	**(4,323)**	**(8,210)**	**(2,409)**	(4,864)	(5,849)	(2,736)	(1,055)	(1,602)	(925)	**(2,174)**	(6,520)	(2,366)
Total VaR	**$ 9,775**	**$ 14,819**	**$ 4,492**	$ 9,517	$ 14,274	$ 5,447	$ 8,164	$ 16,239	$ 3,693	**$ 9,477**	$ 9,925	$ 8,308

TABLE 27: TEN-DAY STRESSED VALUE-AT-RISK ASSOCIATED WITH TRADING ACTIVITIES FOR COVERED POSITIONS

	Three Months Ended									As of June 30, 2023	As of March 31, 2023	As of June 30, 2022
	June 30, 2023			March 31, 2023			June 30, 2022					
(In thousands)	Avg.	Max.	Min.	Avg.	Max.	Min.	Avg.	Max.	Min.	VaR	VaR	VaR
Global Markets	**$ 39,412**	**$ 78,058**	**$ 23,402**	$ 37,580	$ 68,336	$ 19,606	$ 42,486	$ 97,420	$ 20,553	**$ 54,891**	$ 46,155	$ 43,306
Global Treasury	**7,156**	**12,993**	**4,860**	6,812	10,024	3,944	3,125	7,903	1,057	**12,629**	10,024	5,642
Diversification	**(9,304)**	**(21,242)**	**(3,747)**	(9,424)	(15,803)	(4,178)	(4,491)	(9,384)	(2,690)	**(21,037)**	(16,075)	(5,396)
Total Stressed VaR	**$ 37,264**	**$ 69,809**	**$ 24,515**	$ 34,968	$ 62,557	$ 19,372	$ 41,120	$ 95,939	$ 18,920	**$ 46,483**	$ 40,104	$ 43,552

The three month average of our total stressed VaR-based measure was approximately $37 million for the quarter ended June 30, 2023, compared to an average of approximately $35 million for the quarter ended March 31, 2023 and $41 million for the quarter ended June 30, 2022. The slight increase in the average total stressed VaR for the quarter ended June 30, 2023, compared to the quarter ended March 31, 2023, is primarily attributed to higher foreign exchange and interest rate risk positions.

The VaR-based measures as presented in the preceding tables are primarily a reflection of the overall level of market volatility and our appetite for taking market risk in our trading activities. While overall levels of volatility have varied over the historical observation periods, smaller residual market risk positions during the quarter have led to a reduction in VaR measures presented.

We have in the past and may in the future modify and adjust our models and methodologies used to calculate VaR and stressed VaR, subject to regulatory review and approval, and any future modifications and adjustments may result in changes in our VaR-based and stressed VaR-based measures.

The following tables present the VaR and stressed-VaR associated with our trading activities attributable to foreign exchange risk, interest rate risk and volatility risk as of June 30, 2023, March 31, 2023 and June 30, 2022, respectively. Diversification effect in the tables below represents the difference between total VaR and the sum of the VaRs for each trading activity. This effect arises because the risks present in our trading activities are not perfectly correlated.

TABLE 28: TEN-DAY VaR ASSOCIATED WITH TRADING ACTIVITIES BY RISK FACTOR[1]

	June 30, 2023			March 31, 2023			June 30, 2022		
(In thousands)	Foreign Exchange Risk	Interest Rate Risk	Volatility Risk	Foreign Exchange Risk	Interest Rate Risk	Volatility Risk	Foreign Exchange Risk	Interest Rate Risk	Volatility Risk
By component:									
Global Markets	**$ 9,396**	**$ 7,848**	**$ 428**	$ 5,483	$ 8,567	$ 372	$ 6,109	$ 6,010	$ 127
Global Treasury	**1,837**	**2,426**	**—**	4,871	1,697	—	750	1,538	—
Diversification	**(6,404)**	**(2,330)**	**—**	(3,922)	(1,813)	—	(529)	(2,469)	—
Total VaR	**$ 4,829**	**$ 7,944**	**$ 428**	$ 6,432	$ 8,451	$ 372	$ 6,330	$ 5,079	$ 127

TABLE 29: TEN-DAY STRESSED VaR ASSOCIATED WITH TRADING ACTIVITIES BY RISK FACTOR[1]

	June 30, 2023			March 31, 2023			June 30, 2022		
(In thousands)	Foreign Exchange Risk	Interest Rate Risk	Volatility Risk	Foreign Exchange Risk	Interest Rate Risk	Volatility Risk	Foreign Exchange Risk	Interest Rate Risk	Volatility Risk
By component:									
Global Markets	**$ 13,870**	**$ 53,018**	**$ 714**	$ 14,769	$ 42,722	$ 699	$ 7,440	$ 39,764	$ 200
Global Treasury	**12,041**	**13,387**	**—**	6,194	9,709	—	1,375	5,766	—
Diversification	**(16,941)**	**(15,850)**	**—**	(9,359)	(14,738)	—	(709)	(6,631)	—
Total Stressed VaR	**$ 8,970**	**$ 50,555**	**$ 714**	$ 11,604	$ 37,693	$ 699	$ 8,106	$ 38,899	$ 200

[1] For purposes of risk attribution by component, foreign exchange refers only to the risk from market movements in period-end rates. Forwards, futures, options and swaps with maturities greater than period-end have embedded interest rate risk that is captured by the measures used for interest rate risk. Accordingly, the interest rate risk embedded in these foreign exchange instruments is included in the interest rate risk component.

Asset and Liability Management Activities

The primary objective of asset and liability management is to provide sustainable NII under varying economic conditions, while protecting the economic value of the assets and liabilities carried on our consolidated statement of condition from the adverse effects of changes in interest rates. While many market factors affect the level of NII and the economic value of our assets and liabilities, one of the most significant factors is our exposure to movements in interest rates. Most of our NII is earned from the investment of client deposits generated by our businesses. We invest these client deposits in assets that conform generally to the liquidity characteristics of our balance sheet liabilities, as well as the currency composition of our significant non-U.S. dollar denominated client deposits.

We quantify NII sensitivity using an earnings simulation model that includes our expectations for new business growth, changes in balance sheet mix and investment portfolio positioning. This measure compares our baseline view of NII over a twelve-month horizon, based on our internal forecast of interest rates, to a wide range of rate shocks. Our baseline view of NII is updated on a regular basis. Table 30, Key Interest Rates for Baseline Forecasts, presents the spot and 12-month forward rates used in our baseline forecasts at June 30, 2023 and 2022. Our baseline rate forecast as of June 30, 2023 was generally consistent with common market expectations for global central bank actions at that point in time, which implied that rates may reach peak levels toward the end of 2023 and rate cuts may begin in 2024.

TABLE 30: KEY INTEREST RATES FOR BASELINE FORECASTS

	June 30, 2023			June 30, 2022		
	Fed Funds Target	ECB Target[1]	10-Year Treasury	Fed Funds Target	ECB Target[1]	10-Year Treasury
Spot rates	**5.25 %**	**3.50 %**	**3.84 %**	1.75 %	(0.50)%	3.01 %
12-month forward rates	**4.75**	**3.50**	**3.56**	3.75	1.25	3.40

[1] European Central Bank deposit facility rate.

In Table 31: Net Interest Income Sensitivity, we report the expected change in NII over the next twelve months from instantaneous 100 basis point shocks to various tenors on the yield curve relative to our baseline rate forecast, including the impacts from U.S. and non-U.S. rates. Each scenario assumes no management action is taken to mitigate the adverse effects of changes in interest rates on our financial performance. While investment securities balances and composition can fluctuate with the level of rates as prepayment assumptions change, for purposes of this analysis our deposit balances and mix are assumed to remain consistent with the baseline forecast which assumes client deposit balance rotation, including reductions in non-interest-bearing deposit balances. The results of these scenarios should not be extrapolated for other (e.g., more severe) shocks as the impact of interest rate shocks may not be linear. In lower rate scenarios, the full impact of the shock is realized for all currencies even if the result is negative interest rates.

TABLE 31: NET INTEREST INCOME SENSITIVITY

	June 30, 2023			June 30, 2022		
(In millions)	**U.S. Dollar**	**All Other Currencies**	**Total**	**U.S. Dollar**	**All Other Currencies**	**Total**
Rate change:	**Benefit (Exposure)**			**Benefit (Exposure)**		
Parallel shifts:						
+100 bps shock	**$ (129)**	**$ 254**	**$ 125**	$ (28)	$ 471	$ 443
–100 bps shock	**92**	**(217)**	**(125)**	13	(356)	(343)
Steeper yield curve:						
'+100 bps shift in long-end rates[(1)]	**8**	**17**	**25**	22	6	28
'-100 bps shift in short-end rates[(1)]	**101**	**(200)**	**(99)**	38	(350)	(312)
Flatter yield curve:						
'+100 bps shift in short-end rates[(1)]	**(137)**	**237**	**100**	(50)	465	415
'-100 bps shift in long-end rates[(1)]	**(9)**	**(17)**	**(26)**	(24)	(6)	(30)

[(1)] The short-end is 0-3 months. The long-end is 5 years and above. Interim term points are interpolated.

Our overall balance sheet, including all currencies, continues to be asset sensitive with an NII benefit in higher rate scenarios. Our USD balance sheet has become liability sensitive driven by higher deposit betas resulting in an NII exposure to higher rate scenarios.

As of June 30, 2023, USD NII benefits from lower rate scenarios and is exposed to higher rates primarily driven by our sensitivities on the short-end of the yield curve. Compared to June 30, 2022, our short-end USD NII exposure to higher interest rates increased due to the higher level of baseline market interest rates and the Federal Reserve's quantitative tightening program, resulting in higher deposit betas and deposit balance rotation and reductions. Long-end USD sensitivities have decreased since June 30, 2022 as the implementation of investment portfolio risk reduction strategies lowered our forecasted long-end reinvestment.

As of June 30, 2023, non-USD NII benefits in higher rate scenarios and is exposed to lower rates primarily driven by our sensitivities on the short-end of the yield curve. Compared to June 30, 2022, our short-end non-USD sensitivity to both higher and lower rates decreased due to rising deposit betas and deposit balance rotation and reduction.

USD and non-USD NII sensitivities are also impacted by routine currency-level baseline forecasting updates and refinements, including deposit betas.

NII sensitivity is routinely monitored as market conditions change. For additional information about our Asset and Liability Management Activities, refer to Management's Discussion and Analysis of Financial Condition and Results of Operations, "Risk Management".

Model Risk Management

The use of models is widespread throughout the financial services industry, with large and complex organizations relying on sophisticated models to support numerous aspects of their financial decision making. The models contemporaneously represent both a significant advancement in financial management and a source of risk. In large banking organizations like us, model results influence business decisions, and model failure could have a harmful effect on our financial performance. As a result, the Model Risk Management Framework seeks to mitigate our model risk.

For additional information about our model risk management framework, including our governance and model validation, refer to pages 109 to 110 included under Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, "Model Risk Management", in our 2022 Form 10-K.

Strategic Risk Management

We define strategic risk as the current or prospective impact on earnings or capital arising from adverse business decisions, improper implementation of strategic initiatives, or lack of responsiveness to industry-wide changes. Strategic risks are influenced by changes in the competitive environment; decline in market performance or changes in our business activities; and the potential secondary impacts of reputational risks, not already captured as market, interest rate, credit, operational, model or liquidity risks. We incorporate strategic risk into our assessment of our business plans and risk and capital management processes. Management of strategic risk is an integral component of all aspects of our business.

Separating the effects of a potential material adverse event into operational and strategic risk is sometimes difficult. For instance, the direct financial impact of an unfavorable event in the form of fines or penalties would be classified as an operational risk loss, while the impact on our reputation and consequently the potential loss of clients and corresponding decline in revenue would be classified as a strategic risk loss. An additional example of strategic risk is the integration of a major acquisition. Failure to successfully integrate the operations of an acquired business, and the resultant inability to retain clients and the associated revenue, would be classified as a loss due to strategic risk.

Strategic risk is managed with a long-term focus. Techniques for its assessment and management include the development of business plans, which are subject to review and challenge from senior management and the Board of Directors, as well as a formal review and approval process for all new business and product proposals. The potential impact of the various elements of strategic risk is difficult to quantify with any degree of precision. We use a combination of historical earnings volatility, scenario analysis, stress-testing and management judgment to help assess the potential effect on us attributable to strategic risk. Management and control of strategic risks are generally the responsibility of the business units, with oversight from the control functions, as part of their overall strategic planning and internal risk management processes.

Capital

Managing our capital involves evaluating whether our actual and projected levels of capital are commensurate with our risk profile, are in compliance with all applicable regulatory requirements and are sufficient to provide us with the financial flexibility to undertake future strategic business initiatives. We assess capital adequacy based on relevant regulatory capital requirements, as well as our own internal capital goals, targets and other relevant metrics.

Our designation as a G-SIB is based on a number of factors, as evaluated by banking regulators, and requires us to maintain an additional capital surcharge above the minimum capital ratios set forth in the Basel III final rule. Further, like all other U.S. G-SIBs, we are also currently subject to a 2.0% SLR buffer in addition to the required minimum of 3.0% under the Basel III final rule. If we fail to exceed any regulatory buffer or surcharge, we will be subject to increased restrictions (depending upon the extent of the shortfall) regarding capital distributions and discretionary executive bonus payments.

Not all of our competitors have similarly been designated as systemically important nor are all of them subject to the same degree of regulation as a bank or financial holding company, and therefore some of our competitors may not be subject to the same capital, liquidity and other regulatory requirements.

For additional information about our capital, refer to pages 110 to 117 included under Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, in our 2022 Form 10-K.

Regulatory Capital

We and State Street Bank, as advanced approaches banking organizations, are subject to the U.S. Basel III framework. We are also subject to the final market risk capital rule issued by U.S. banking regulators.

The Basel III final rule provides for two frameworks for monitoring capital adequacy: the “standardized approach" and the “advanced

approaches", applicable to advanced approaches banking organizations, like us. The standardized approach prescribes standardized calculations for credit risk RWA, including specified risk weights for certain on and off-balance sheet exposures. The advanced approaches consist of the Advanced Internal Ratings-Based Approach used for the calculation of RWA related to credit risk, and the Advanced Measurement Approach used for the calculation of RWA related to operational risk.

As required by the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) enacted in 2010, we and State Street Bank, as advanced approaches banking organizations, are subject to a "capital floor," also referred to as the Collins Amendment, in the assessment of our regulatory capital adequacy, such that our risk-based capital ratios for regulatory assessment purposes are the lower of each ratio calculated under the advanced approaches and the standardized approach. Under the advanced approaches, State Street and State Street Bank are subject to a 2.5% CCB requirement, plus any applicable countercyclical capital buffer requirement, which is currently set at 0%. Under the standardized approach, State Street Bank is subject to the same CCB and countercyclical capital buffer requirements, but for State Street, the 2.5% CCB requirement is replaced by the SCB requirement according to the SCB rule issued in 2020. In addition, State Street is subject to a G-SIB surcharge.

The SCB replaced, under the standardized approach, the CCB with a buffer calculated as the difference between the institution's starting and lowest projected CET1 ratio under the CCAR severely adverse scenario plus planned common stock dividend payments (as a percentage of RWA) from the fourth through seventh quarter of the CCAR planning horizon. The SCB requirement can be no less than 2.5% of RWA. Breaching the SCB or other regulatory buffer or surcharge will limit a banking organization's ability to make capital distributions and discretionary bonus payments to executive officers. The countercyclical capital buffer is currently set at zero by U.S. banking regulators.

Our current SCB requirement is 2.5% for the period from October 1, 2022 through September 30, 2023. On June 28, 2023, we were notified by the Federal Reserve of the results from the 2023 supervisory stress test. Our preliminary SCB calculated under the 2023 supervisory stress test was well below the 2.5% minimum, resulting in an SCB at that floor, which will go into effect starting October 1, 2023 and will run through September 30, 2024.

Our minimum risk-based capital ratios as of January 1, 2023, include a CCB of 2.5% and a SCB of 2.5% for the advanced approaches and standardized approach, respectively, a G-SIB surcharge of 1.0%, and a countercyclical buffer of 0.0%. This results in minimum risk-based ratios of 8.0% for the Common Equity Tier 1 (CET1) capital ratio, 9.5% for the tier 1 capital ratio, and 11.5% for the total capital ratio.

Our current G-SIB surcharge, through December 31, 2023, is 1.0%. Based on a calculation date of December 31, 2022, our G-SIB surcharge will be 1.0% through December 31, 2024.

To maintain the status of the Parent Company as a financial holding company, we and our insured depository institution subsidiaries are required, among other requirements, to be "well capitalized" as defined by Regulation Y and Regulation H.

The market risk capital rule requires us to use internal models to calculate daily measures of VaR, which reflect general market risk for certain of our trading positions defined by the rule as "covered positions," as well as stressed-VaR measures to supplement the VaR measures. The rule also requires a public disclosure composed of qualitative and quantitative information about the market risk associated with our trading activities and our related VaR and stressed-VaR measures. The qualitative and quantitative information required by the rule is provided under "Market Risk Management" included in this Management's Discussion and Analysis.

On July 27, 2023, U.S. banking agencies issued their proposed rule to implement the Basel III endgame agreement for large banks and adjustments to the surcharge for U.S. global systemically important banks. The deadline for comments on the proposed rule is November 30, 2023.

For additional information about our capital, refer to pages 110 to 117 included under Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, in our 2022 Form 10-K.

The following table presents the regulatory capital structure and related regulatory capital ratios for us and State Street Bank as of the dates indicated. We are subject to the more stringent of the risk-based capital ratios calculated under the standardized approach and those calculated under the advanced approaches in the assessment of our capital adequacy under applicable bank regulatory standards.

TABLE 32: REGULATORY CAPITAL STRUCTURE AND RELATED REGULATORY CAPITAL RATIOS

	State Street Corporation				State Street Bank			
(Dollars in millions)	**Basel III Advanced Approaches June 30, 2023**	**Basel III Standardized Approach June 30, 2023**	**Basel III Advanced Approaches December 31, 2022**	**Basel III Standardized Approach December 31, 2022**	**Basel III Advanced Approaches June 30, 2023**	**Basel III Standardized Approach June 30, 2023**	**Basel III Advanced Approaches December 31, 2022**	**Basel III Standardized Approach December 31, 2022**
Common shareholders' equity:								
Common stock and related surplus	**$ 11,233**	**$ 11,233**	$ 11,234	$ 11,234	**$ 13,033**	**$ 13,033**	$ 13,033	$ 13,033
Retained earnings	**27,808**	**27,808**	27,028	27,028	**15,976**	**15,976**	16,975	16,975
Accumulated other comprehensive income (loss)	**(3,258)**	**(3,258)**	(3,711)	(3,711)	**(2,992)**	**(2,992)**	(3,428)	(3,428)
Treasury stock, at cost	**(13,555)**	**(13,555)**	(11,336)	(11,336)	**—**	**—**	—	—
Total	**22,228**	**22,228**	23,215	23,215	**26,017**	**26,017**	26,580	26,580
Regulatory capital adjustments:								
Goodwill and other intangible assets, net of associated deferred tax liabilities	**(8,480)**	**(8,480)**	(8,545)	(8,545)	**(8,219)**	**(8,219)**	(8,288)	(8,288)
Other adjustments[1]	**(252)**	**(252)**	(123)	(123)	**(154)**	**(154)**	(19)	(19)
Common equity tier 1 capital	**13,496**	**13,496**	14,547	14,547	**17,644**	**17,644**	18,273	18,273
Preferred stock	**1,976**	**1,976**	1,976	1,976	**—**	**—**	—	—
Tier 1 capital	**15,472**	**15,472**	16,523	16,523	**17,644**	**17,644**	18,273	18,273
Qualifying subordinated long-term debt	**1,375**	**1,375**	1,376	1,376	**539**	**539**	542	542
Adjusted allowance for credit losses	**—**	**135**	—	120	**—**	**135**	—	120
Other adjustments	**7**	**—**	—	—	**7**	**—**	—	—
Total capital	**$ 16,854**	**$ 16,982**	$ 17,899	$ 18,019	**$ 18,190**	**$ 18,318**	$ 18,815	$ 18,935
Risk-weighted assets:								
Credit risk[2]	**$ 62,196**	**$ 112,259**	$ 61,108	$ 105,739	**$ 56,456**	**$ 110,887**	$ 54,675	$ 104,184
Operational risk[3]	**42,562**	**N/A**	42,763	NA	**42,202**	**NA**	42,325	NA
Market risk	**1,763**	**1,763**	1,488	1,488	**1,763**	**1,763**	1,488	1,488
Total risk-weighted assets	**$106,521**	**$ 114,022**	$105,359	$ 107,227	**$100,421**	**$ 112,650**	$ 98,488	$ 105,672

Capital Ratios:	2023 Minimum Requirements Including Capital Conservation Buffer and G-SIB Surcharge[4]	2022 Minimum Requirements Including Capital Conservation Buffer and G-SIB Surcharge[4]								
Common equity tier 1 capital	**8.0 %**	8.0 %	**12.7 %**	**11.8 %**	13.8 %	13.6 %	**17.6 %**	**15.7 %**	18.6 %	17.3 %
Tier 1 capital	**9.5**	9.5	**14.5**	**13.6**	15.7	15.4	**17.6**	**15.7**	18.6	17.3
Total capital	**11.5**	11.5	**15.8**	**14.9**	17.0	16.8	**18.1**	**16.3**	19.1	17.9

[1] Other adjustments within CET1 capital primarily include AOCI hedges that are not recognized at fair value on the balance sheet, the overfunded portion of our defined benefit pension plan obligation net of associated deferred tax liabilities, disallowed deferred tax assets, and other required credit risk-based deductions.

[2] Under the advanced approaches, credit risk RWA includes a CVA which reflects the risk of potential fair value adjustments for credit risk reflected in our valuation of OTC derivative contracts. We used a simple CVA approach in conformity with the Basel III advanced approaches.

[3] Under the current advanced approaches rules and regulatory guidance concerning operational risk models, RWA attributable to operational risk can vary substantially from period-to-period, without direct correlation to the effects of a particular loss event on our results of operations and financial condition and impacting dates and periods that may differ from the dates and periods as of and during which the loss event is reflected in our financial statements, with the timing and categorization dependent on the processes for model updates and, if applicable, model revalidation and regulatory review and related supervisory processes. An individual loss event can have a significant effect on the output of our operational RWA under the advanced approaches depending on the severity of the loss event and its categorization among the seven Basel-defined UOMs.

[4] Minimum requirements include a CCB of 2.5% and a SCB of 2.5% for the advanced approaches and the standardized approach, respectively, a G-SIB surcharge of 1.0% and a countercyclical buffer of 0%. On June 28, 2023, we were notified by the Federal Reserve of the results from the 2023 supervisory stress test. Our preliminary SCB calculated under the 2023 supervisory stress test was well below the 2.5% minimum, resulting in an SCB at that floor, which will be in effect from October 1, 2023 through September 30, 2024.

NA Not applicable

Our CET1 capital decreased $1.05 billion as of June 30, 2023, compared to December 31, 2022, primarily due to common share repurchases and dividends declared in the first half of 2023, partially offset by net income. Our Tier 1 capital decreased $1.05 billion as of June 30, 2023, compared to December 31, 2022, under both the advanced approaches and standardized approach, due to the decrease in CET1 capital.

Our Tier 2 capital remained flat as of June 30, 2023, compared to December 31, 2022, under both the advanced approaches and standardized approach.

Our total capital decreased by $1.05 billion and $1.04 billion as of June 30, 2023, compared to December 31, 2022, under the advanced approaches and standardized approach, respectively, primarily due to the decrease in CET1 capital.

The table below presents a roll-forward of CET1 capital, Tier 1 capital and total capital for the six months ended June 30, 2023 and for the year ended December 31, 2022.

TABLE 33: CAPITAL ROLL-FORWARD

(In millions)	Basel III Advanced Approaches June 30, 2023	Basel III Standardized Approach June 30, 2023	Basel III Advanced Approaches December 31, 2022	Basel III Standardized Approach December 31, 2022
Common equity tier 1 capital:				
Common equity tier 1 capital balance, beginning of period	**$ 14,547**	**$ 14,547**	$ 15,947	$ 15,947
Net income	**1,312**	**1,312**	2,774	2,774
Changes in treasury stock, at cost	**(2,219)**	**(2,219)**	(1,327)	(1,327)
Dividends declared	**(476)**	**(476)**	(984)	(984)
Goodwill and other intangible assets, net of associated deferred tax liabilities	**65**	**65**	390	390
Accumulated other comprehensive income (loss)[1]	**453**	**453**	(2,578)	(2,578)
Other adjustments[1]	**(186)**	**(186)**	325	325
Changes in common equity tier 1 capital	**(1,051)**	**(1,051)**	(1,400)	(1,400)
Common equity tier 1 capital balance, end of period	**13,496**	**13,496**	14,547	14,547
Additional tier 1 capital:				
Tier 1 capital balance, beginning of period	**16,523**	**16,523**	17,923	17,923
Changes in common equity tier 1 capital	**(1,051)**	**(1,051)**	(1,400)	(1,400)
Net issuance (redemption) of preferred stock	**—**	**—**	—	—
Changes in tier 1 capital	**(1,051)**	**(1,051)**	(1,400)	(1,400)
Tier 1 capital balance, end of period	**15,472**	**15,472**	16,523	16,523
Tier 2 capital:				
Tier 2 capital balance, beginning of period	**1,376**	**1,496**	1,588	1,696
Net issuance and changes in long-term debt qualifying as tier 2	**(1)**	**(1)**	(212)	(212)
Changes in adjusted allowance for credit losses	**—**	**15**	—	12
Change in other adjustments	**7**	**—**	—	—
Changes in tier 2 capital	**6**	**14**	(212)	(200)
Tier 2 capital balance, end of period	**1,382**	**1,510**	1,376	1,496
Total capital:				
Total capital balance, beginning of period	**17,899**	**18,019**	19,511	19,619
Changes in tier 1 capital	**(1,051)**	**(1,051)**	(1,400)	(1,400)
Changes in tier 2 capital	**6**	**14**	(212)	(200)
Total capital balance, end of period	**$ 16,854**	**$ 16,982**	$ 17,899	$ 18,019

[1] Accumulated other comprehensive income (loss) includes losses on cash flow hedges where the hedged exposures are not recognized at fair value on the balance sheet, which, under the Capital Rule, must be excluded from CET1 capital. This adjustment is captured in the Other Adjustments line.

The following table presents a roll-forward of the Basel III advanced and standardized approaches RWA for the six months ended June 30, 2023 and for the year ended December 31, 2022.

TABLE 34: ADVANCED & STANDARDIZED APPROACHES RISK-WEIGHTED ASSETS ROLL-FORWARD

(In millions)	Basel III Advanced Approaches June 30, 2023	Basel III Standardized Approach June 30, 2023	Basel III Advanced Approaches December 31, 2022	Basel III Standardized Approach December 31, 2022
Total risk-weighted assets, beginning of period	**$ 105,359**	**$ 107,227**	$ 111,398	$ 111,667
Changes in credit risk-weighted assets:				
Net increase (decrease) in investment securities-wholesale	**(1,408)**	**(400)**	(4,850)	(3,591)
Net increase (decrease) in loans	**478**	**1,494**	(3,054)	(5,387)
Net increase (decrease) in securitization exposures	**(20)**	**(18)**	(5)	(5)
Net increase (decrease) in repo-style transaction exposures	**1,795**	**3,897**	(1,420)	(5,157)
Net increase (decrease) in over-the-counter derivatives exposures[1]	**484**	**1,098**	2,161	6,295
Net increase (decrease) in all other[2]	**(241)**	**449**	4,541	4,030
Net increase (decrease) in credit risk-weighted assets	**1,088**	**6,520**	(2,627)	(3,815)
Net increase (decrease) in market risk-weighted assets	**275**	**275**	(625)	(625)
Net increase (decrease) in operational risk-weighted assets	**(201)**	**N/A**	(2,787)	N/A
Total risk-weighted assets, end of period	**$ 106,521**	**$ 114,022**	$ 105,359	$ 107,227

[1] Under the advanced approaches, includes CVA RWA.
[2] Includes assets not in a definable category, non-material portfolio, cleared transactions, other wholesale, cash and due from banks, interest-bearing deposits with banks, and equity exposures.
NA Not applicable

As of June 30, 2023, total advanced approaches RWA increased $1.16 billion compared to December 31, 2022, mainly due to an increase in credit risk RWA. The increase in credit risk RWA primarily reflects higher repo-style transactions, driven by increased volume and higher equity markets, which was partially offset by a decrease in investment securities RWA, related to agency securities.

As of June 30, 2023, total standardized approach RWA increased $6.80 billion compared to December 31, 2022, mainly due to an increase in credit risk RWA. The increase in credit risk RWA primarily reflects higher repo-style transactions, driven by increased volume and higher equity markets, higher loans RWA, related to new capital call commitments, and higher derivatives RWA, driven by market volatility.

The regulatory capital ratios as of June 30, 2023, presented in Table 32: Regulatory Capital Structure and Related Regulatory Capital Ratios, are calculated under the advanced approaches and standardized approach in conformity with the Basel III final rule. The advanced approaches-based ratios reflect calculations and determinations with respect to our capital and related matters as of June 30, 2023, based on our and external data, quantitative formulae, statistical models, historical correlations and assumptions, collectively referred to as "advanced systems," in effect and used by us for those purposes as of the time we first reported such ratios in a quarterly report on Form 10-Q or an annual report on Form 10-K. Significant components of these advanced systems involve the exercise of judgment by us and our regulators, and our advanced systems may not, individually or collectively, precisely represent or calculate the scenarios, circumstances, outputs or other results for which they are designed or intended.

Our advanced systems are subject to update and periodic revalidation in response to changes in our business activities and our historical experiences, forces and events experienced by the market broadly or by individual financial institutions, changes in regulations and regulatory interpretations and other factors, and are also subject to continuing regulatory review and approval. For example, a significant operational loss experienced by another financial institution, even if we do not experience a related loss, could result in a material change in the output of our advanced systems and a corresponding material change in our risk exposures, our total RWA and our capital ratios compared to prior periods. An operational loss that we experience could also result in a material change in our capital requirements for operational risk under the advanced approaches, depending on the severity of the loss event, its characterization among the seven Basel-defined UOM, and the stability of the distributional approach for a particular UOM, and without direct correlation to the effects of the loss event, or the timing of such effects, on our results of operations.

Due to the influence of changes in these advanced systems, whether resulting from changes in data inputs, regulation or regulatory supervision or interpretation, specific to us or market activities or experiences or other updates or factors, we expect that our advanced systems and our capital ratios calculated in conformity with the Basel III final rule will change and may be volatile over time, and that those latter changes or volatility could be material as calculated and measured from period to period. The full effects of the Basel III final rule on us and State Street Bank are therefore subject to further evaluation and also to further regulatory guidance, action or rule-making.

Tier 1 and Supplementary Leverage Ratios

We are subject to a minimum Tier 1 leverage ratio and SLR. The Tier 1 leverage ratio is based on Tier 1 capital and adjusted quarterly average on-balance sheet assets. The Tier 1 leverage ratio differs from the SLR primarily in that the denominator of the Tier 1 leverage ratio is a quarterly average of on-balance sheet assets, while the SLR additionally includes off-balance sheet exposures. We must maintain a minimum Tier 1 leverage ratio of 4%.

We are also subject to a minimum SLR of 3%, and as a U.S. G-SIB, we must maintain a 2% SLR buffer in order to avoid any limitations on distributions to shareholders and discretionary bonus payments to certain executives. If we do not maintain this buffer, limitations on these distributions and discretionary bonus payments would be increasingly stringent based upon the extent of the shortfall.

TABLE 35: TIER 1 AND SUPPLEMENTARY LEVERAGE RATIOS

(Dollars in millions)	June 30, 2023	December 31, 2022
State Street:		
Tier 1 capital	**$ 15,472**	$ 16,523
Average assets	**274,972**	284,346
Less: adjustments for deductions from tier 1 capital and other	**(8,732)**	(8,668)
Adjusted average assets for tier 1 leverage ratio	**266,240**	275,678
Additional SLR exposure	**40,203**	40,126
Adjustments for deductions of qualifying central bank deposits	**(65,822)**	(78,455)
Total assets for SLR	**$ 240,621**	$ 237,349
Tier 1 leverage ratio[1]	**5.8 %**	6.0 %
Supplementary leverage ratio	**6.4**	7.0
State Street Bank[2]:		
Tier 1 capital	**$ 17,644**	$ 18,273
Average assets	**271,821**	281,527
Less: adjustments for deductions from tier 1 capital and other	**(8,373)**	(8,307)
Adjusted average assets for tier 1 leverage ratio	**263,448**	273,220
Additional SLR exposure	**40,211**	42,043
Adjustments for deductions of qualifying central bank deposits	**(65,822)**	(78,455)
Total assets for SLR	**$ 237,837**	$ 236,808
Tier 1 leverage ratio[1]	**6.7 %**	6.7 %
Supplementary leverage ratio	**7.4**	7.7

[1] Tier 1 leverage ratios were calculated in conformity with the Basel III final rule.

[2] The SLR rule requires that, as of January 1, 2018, (i) State Street Bank maintains an SLR of at least 6.0% to be well capitalized under the U.S. banking regulators' Prompt Corrective Action Framework and (ii) we maintain an SLR of at least 5.0% to avoid limitations on capital distributions and discretionary bonus payments. In addition to the SLR, State Street Bank is subject to a well capitalized Tier 1 leverage ratio requirement of 5.0%.

Total Loss-Absorbing Capacity (TLAC)

The Federal Reserve's final rule on TLAC, LTD and clean holding company requirements for U.S. domiciled G-SIBs, such as us, is intended to improve the resiliency and resolvability of certain U.S. banking organizations through enhanced prudential standards, and requires us, among other things, to comply with minimum requirements for external TLAC (combined eligible tier 1 regulatory capital and LTD) and LTD. Specifically, we must hold:

	Amount equal to:
External TLAC	Greater of: • 21.5% of total RWA (18.0% minimum plus 2.5% plus a G-SIB surcharge calculated for these purposes under Method 1 of 1.0% plus any applicable countercyclical buffer, which is currently 0%); and • 9.5% of total leverage exposure (7.5% minimum plus the SLR buffer of 2.0%), as defined by the SLR final rule.
Qualifying external LTD	Greater of: • 7.0% of RWA (6.0% minimum plus a G-SIB surcharge calculated for these purposes under method 2 of 1.0%); and • 4.5% of total leverage exposure, as defined by the SLR final rule.

The following table presents external TLAC and external LTD as of June 30, 2023:

TABLE 36: EXTERNAL TOTAL LOSS-ABSORBING CAPACITY

	As of June 30, 2023			
(Dollars in millions)	Actual		Requirement	
Total loss-absorbing capacity:				
Risk-weighted assets	**$ 31,875**	**28.0 %**	**$ 24,515**	**21.5 %**
Total leverage exposure	**31,875**	**13.2**	**22,859**	**9.5**
Long-term debt:				
Risk-weighted assets	**15,653**	**13.7**	**7,982**	**7.0**
Total leverage exposure	**15,653**	**6.5**	**10,828**	**4.5**

Capital Actions

Preferred Stock

The following table summarizes selected terms of each of the series of the preferred stock issued and outstanding as of June 30, 2023:

TABLE 37: PREFERRED STOCK ISSUED AND OUTSTANDING

Preferred Stock[1]:	Issuance Date	Depositary Shares Issued	Amount outstanding (In millions)	Ownership Interest Per Depositary Share	Liquidation Preference Per Share	Liquidation Preference Per Depositary Share	Per Annum Dividend Rate	Dividend Payment Frequency	Carrying Value as of June 30, 2023 (In millions)	Redemption Date[2]
Series D	February 2014	30,000,000	$ 750	1/4,000th	$ 100,000	$ 25	5.90% to but excluding March 15, 2024, then a floating rate equal to the three-month LIBOR plus 3.108%[3]	Quarterly: March, June, September and December	$ 742	March 15, 2024
Series F[4]	May 2015	250,000	250	1/100th	100,000	1,000	Floating rate equal to the three-month LIBOR plus 3.597%, or 9.149% effective June 15, 2023[5]	Quarterly: March, June, September and December	247	September 15, 2020
Series G	April 2016	20,000,000	500	1/4,000th	100,000	25	5.35% to but excluding March 15, 2026, then a floating rate equal to the three-month LIBOR plus 3.709%[6]	Quarterly: March, June, September and December	493	March 15, 2026
Series H	September 2018	500,000	500	1/100th	100,000	1,000	5.625% to but excluding December 15, 2023, then a floating rate equal to the three-month LIBOR plus 2.539%[7]	Semi-annually: June and December	494	December 15, 2023

[1] The preferred stock and corresponding depositary shares may be redeemed at our option in whole, but not in part, prior to the redemption date upon the occurrence of a regulatory capital treatment event, as defined in the certificate of designation, at a redemption price equal to the liquidation price per share and liquidation price per depositary share plus any declared and unpaid dividends, without accumulation of any undeclared dividends.

[2] On the redemption date, or any dividend payment date thereafter, the preferred stock and corresponding depositary shares may be redeemed by us, in whole or in part, at the liquidation price per share and liquidation price per depositary share plus any declared and unpaid dividends, without accumulation of any undeclared dividends.

[3] The dividend rate for the floating rate period of the Series D preferred stock that begins on March 15, 2024 and all subsequent floating rate periods will transition to a new, fixed rate in accordance with the LIBOR Act and the contractual terms of the Series D preferred stock.

[4] Series F preferred stock is redeemable on September 15, 2020 and on each succeeding dividend payment date.

[5] In accordance with the LIBOR Act, the benchmark interest rate used to calculate the dividend rate of the Series F preferred stock issued and outstanding will transition from USD LIBOR to CME Term SOFR, plus 0.26161%, beginning with the September 15, 2023 dividend period.

[6] The dividend rate for the floating rate period of the Series G preferred stock that begins on March 15, 2026 and all subsequent floating rate periods will remain at the current fixed rate in accordance with the LIBOR Act and the contractual terms of the Series G preferred stock.

[7] In accordance with the LIBOR Act, the benchmark interest rate to be used to calculate the dividend rate during the floating rate period of the Series H preferred stock that begins on December 15, 2023 will transition from USD LIBOR to CME Term SOFR, plus 0.26161%.

The following table presents the dividends declared for each of the series of preferred stock issued and outstanding for the periods indicated:

TABLE 38: PREFERRED STOCK DIVIDENDS

	Three Months Ended June 30,					
	2023			2022		
(Dollars in millions, except per share amounts)	Dividends Declared per Share	Dividends Declared per Depositary Share	Total	Dividends Declared per Share	Dividends Declared per Depositary Share	Total
Preferred Stock:						
Series D	**$ 1,475**	**$ 0.37**	**$ 11**	$ 1,475	$ 0.37	$ 11
Series F	**2,163**	**21.63**	**5**	1,130	11.30	3
Series G	**1,338**	**0.33**	**7**	1,338	0.33	7
Series H	**2,813**	**28.13**	**14**	2,813	28.13	14
Total			**$ 37**			$ 35

	Six Months Ended June 30,					
	2023			2022		
(Dollars in millions, except per share amounts)	Dividends Declared per Share	Dividends Declared per Depositary Share	Total	Dividends Declared per Share	Dividends Declared per Depositary Share	Total
Preferred Stock:						
Series D	**$ 2,950**	**$ 0.74**	**$ 22**	$ 2,950	$ 0.74	$ 22
Series F	**4,254**	**42.54**	**11**	2,080	20.80	5
Series G	**2,675**	**0.66**	**13**	2,676	0.66	14
Series H	**2,813**	**28.13**	**14**	2,813	28.13	14
Total			**$ 60**			$ 55

Common Stock

In January 2023, our Board approved a share repurchase program authorizing the purchase of up to $4.5 billion of our common stock through December 31, 2023. We repurchased $1.05 billion of our common stock in the second quarter of 2023 under our 2023 share repurchase authorization.

The table below presents the activity under our common share repurchase program for the periods indicated:

TABLE 39: SHARES REPURCHASED

	Three Months Ended June 30, 2023			Six Months Ended June 30, 2023		
	Shares Acquired (In millions)	Average Cost per Share	Total Acquired (In millions)	Shares Acquired (In millions)	Average Cost per Share	Total Acquired (In millions)
2023 Program	14.8	$ 71.08	$ 1,050	28.4	$ 80.93	$ 2,300

The table below presents the dividends declared on common stock for the periods indicated:

TABLE 40: COMMON STOCK DIVIDENDS

	Three Months Ended June 30,			
	2023		2022	
	Dividends Declared per Share	Total (In millions)	Dividends Declared per Share	Total (In millions)
Common Stock	$ 0.63	$ 203	$ 0.57	$ 210

	Six Months Ended June 30,			
	2023		2022	
	Dividends Declared per Share	Total (In millions)	Dividends Declared per Share	Total (In millions)
Common Stock	$ 1.26	$ 415	$ 1.14	$ 419

Federal and state banking regulations place certain restrictions on dividends paid by subsidiary banks to the parent holding company. In addition, banking regulators have the authority to prohibit bank holding companies from paying dividends. For information concerning limitations on dividends from our subsidiary banks, refer to pages 56 to 58 in "Related Stockholder Matters" included under Item 5, Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities, and pages 165 to 167 in Note 15 to the consolidated financial statements in the 2022 Form 10-K. Our common stock and preferred stock dividends, including the declaration, timing and amount thereof, are subject to consideration and approval by the Board at the relevant times.

Stock purchases under our common share repurchase program may be made using various types of transactions, including open market purchases, accelerated share repurchases or other transactions off the market, and may be made under Rule 10b5-1 trading programs. The timing and amount of any stock purchases and the type of transaction may not be ratable over the duration of the program, may vary from reporting period to reporting period and will depend on several factors, including our capital position and our financial performance, investment opportunities, market conditions, the nature and timing of implementation of revisions to the Basel III framework and the amount of common stock issued as part of employee compensation programs. The common share repurchase program does not have specific price targets and may be suspended at any time.

OFF-BALANCE SHEET ARRANGEMENTS

On behalf of clients enrolled in our securities lending program, we lend securities to banks, broker/dealers and other institutions. In most circumstances, we indemnify our clients for the fair market value of those securities against a failure of the borrower to return such securities. Though these transactions are collateralized, the substantial volume of these activities necessitates detailed credit-based underwriting and monitoring processes. The aggregate amount of indemnified securities on loan totaled $279.32 billion and $348.92 billion as of June 30, 2023 and December 31, 2022, respectively. We require the borrower to provide collateral in an amount in excess of 100% of the fair market value of the securities borrowed. We hold the collateral received in connection with these securities lending services as agent, and the collateral is not recorded in our consolidated statement of condition. We revalue the securities on loan and the collateral daily to determine if additional collateral is necessary or if excess collateral is required to be returned to the borrower. We held, as agent, cash and securities totaling $290.61 billion and $366.90 billion as collateral for indemnified securities on loan as of June 30, 2023 and December 31, 2022, respectively.

The cash collateral held by us as agent is invested on behalf of our clients. In certain cases, the cash collateral is invested in third-party repurchase agreements, for which we indemnify the client against loss of the principal invested. We require the counterparty to the indemnified repurchase agreement to provide collateral in an amount in excess of 100% of the amount of the repurchase agreement. In our role as agent, the indemnified repurchase agreements and the related collateral held by us are not recorded in our consolidated statement of condition. Of the collateral of $290.61 billion and $366.90 billion, referenced above, $58.44 billion and $54.11 billion was invested in indemnified repurchase agreements as of June 30, 2023 and December 31, 2022, respectively. We or our agents held $62.94 billion and $57.90 billion as collateral for indemnified investments in repurchase agreements as of June 30, 2023 and December 31, 2022, respectively.

Additional information about our securities finance activities and other off-balance sheet arrangements is provided in Notes 7, 9 and 11 to the consolidated financial statements in this Form 10-Q.

OTHER MATTERS

Closures of Silicon Valley Bank and Signature Bank and Related FDIC Matters

On March 12 and 13, 2023, following the closures of Silicon Valley Bank ("SVB") and Signature Bank and the appointment of the FDIC as the receiver for those banks, the FDIC announced that, under the systemic risk exception set forth in the Federal Deposit Insurance Act ("FDIA"), all insured and uninsured deposits of those banks were transferred to the respective bridge banks for SVB and Signature Bank.

The FDIC also announced that, as required by the FDIA, any losses to the Deposit Insurance Fund ("DIF") to support uninsured depositors would be recovered by a special assessment. On May 22, 2023, the FDIC published in the Federal Register a proposed rule that would impose special assessments to recover the loss to the DIF arising from the protection of uninsured depositors in connection with the systemic risk determination announced on March 12, 2023, following the closures of SVB and Signature Bank, as required by the FDIA. The assessment base for the special assessments would be equal to an insured depository institution's (IDI) estimated uninsured deposits, reported as of December 31, 2022, adjusted to exclude the first $5 billion in estimated uninsured deposits from the IDI, or for IDIs that are part of a holding company with one or more subsidiary IDIs, at the banking organization level. The FDIC is proposing to collect special assessments at an annual rate of approximately 12.5 basis points, over eight quarterly assessment periods, which it estimates will result in total revenue of $15.8 billion. Because the estimated loss pursuant to the systemic risk determination will be periodically adjusted, the FDIC would retain the ability to cease collection early, extend the special assessment collection period one or more quarters beyond the initial eight-quarter collection period to collect the difference between actual or estimated losses and the amounts collected, or impose a final shortfall special assessment on a one-time basis after the receiverships for SVB and Signature Bank terminate. The FDIC is proposing an effective date of January 1, 2024, with special assessments collected beginning with the first quarterly assessment period of 2024 (i.e., January 1 through March 31, 2024, with an invoice payment date of June 28, 2024).

We presently estimate, based on the FDIC's May 2023 proposed rule, that the total pre-tax amount of State Street Bank's special assessment will be approximately $360 million, although the timing, amount and allocation of that special assessment remains subject to the provisions of the FDIC's final rule, when effective, as well as any actions by the FDIC, as described above, to cease collection early, extend the collection period, or impose a final shortfall special assessment. The special assessment is expected to be recognized, in full, in the reporting period in which the final rule is published.

RECENT ACCOUNTING DEVELOPMENTS

Information with respect to recent accounting developments is provided in Note 1 to the consolidated financial statements in this Form 10-Q.

QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The information provided under “Market Risk Management” in "Financial Condition" in our Management's Discussion and Analysis in this Form 10-Q, is incorporated by reference herein.

For more information on our market risk refer to pages 101 to 108 included under Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, in our 2022 Form 10-K.

CONTROLS AND PROCEDURES

We have established and maintain disclosure controls and procedures that are designed to ensure that information related to us and our subsidiaries on a consolidated basis required to be disclosed in our reports filed or submitted under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. For the quarter ended June 30, 2023, our management carried out an evaluation, with the participation of the Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures. Based on the evaluation of these disclosure controls and procedures, the Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of June 30, 2023.

We have established and maintain internal control over financial reporting as a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in conformity with U.S. GAAP. In the ordinary course of business, we routinely enhance our internal controls and procedures for financial reporting by either upgrading our current systems or implementing new systems. Changes have been made and may be made to our internal controls and procedures for financial reporting as a result of these efforts. During the quarter ended June 30, 2023, no change occurred in our internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

STATE STREET CORPORATION
CONSOLIDATED STATEMENT OF INCOME
(UNAUDITED)

(Dollars in millions, except per share amounts)	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Fee revenue:				
Servicing fees	**$ 1,259**	$ 1,297	**$ 2,476**	$ 2,665
Management fees	**461**	490	**918**	1,010
Foreign exchange trading services	**303**	331	**645**	690
Securities finance	**117**	107	**226**	203
Software and processing fees	**221**	188	**386**	389
Other fee revenue	**58**	(43)	**103**	(14)
Total fee revenue	**2,419**	2,370	**4,754**	4,943
Net interest income:				
Interest income	**2,232**	704	**4,259**	1,225
Interest expense	**1,541**	120	**2,802**	132
Net interest income	**691**	584	**1,457**	1,093
Other income:				
Gains (losses) from sales of available-for-sale securities, net	**—**	(1)	**—**	(2)
Total other income (loss)	**—**	(1)	**—**	(2)
Total revenue	**3,110**	2,953	**6,211**	6,034
Provision for credit losses	**(18)**	10	**26**	10
Expenses:				
Compensation and employee benefits	**1,123**	1,046	**2,415**	2,278
Information systems and communications	**405**	392	**819**	815
Transaction processing services	**235**	240	**474**	504
Occupancy	**103**	96	**197**	191
Acquisition and restructuring costs	**—**	12	**—**	21
Amortization of other intangible assets	**60**	60	**120**	121
Other	**286**	262	**556**	505
Total expenses	**2,212**	2,108	**4,581**	4,435
Income before income tax expense	**916**	835	**1,604**	1,589
Income tax expense	**153**	88	**292**	238
Net income	**$ 763**	$ 747	**$ 1,312**	$ 1,351
Net income available to common shareholders	**$ 726**	$ 712	**$ 1,251**	$ 1,295
Earnings per common share:				
Basic	**$ 2.20**	$ 1.94	**$ 3.73**	$ 3.53
Diluted	**2.17**	1.91	**3.68**	3.48
Average common shares outstanding (in thousands):				
Basic	**329,383**	367,375	**335,212**	366,961
Diluted	**333,540**	372,123	**339,473**	372,080
Cash dividends declared per common share	**$ 0.63**	$ 0.57	**$ 1.26**	$ 1.14

The accompanying condensed notes are an integral part of these consolidated financial statements.

STATE STREET CORPORATION
CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
(UNAUDITED)

(In millions)	Three Months Ended June 30, 2023	2022
Net income	**$ 763**	$ 747
Other comprehensive income (loss), net of related taxes:		
Foreign currency translation, net of related taxes of $3 and $53, respectively	**28**	(446)
Net unrealized losses on available-for-sale securities, net of reclassification adjustment and net of related taxes of ($38) and ($191), respectively	**(96)**	(505)
Net unrealized gains (losses) on cash flow hedges, net of related taxes of $29 and ($17), respectively	**82**	(40)
Net unrealized gains on retirement plans, net of related taxes of $0 and $1, respectively	**—**	2
Other comprehensive income (loss)	**14**	(989)
Total comprehensive income (loss)	**$ 777**	$ (242)

(In millions)	Six Months Ended June 30, 2023	2022
Net income	**$ 1,312**	$ 1,351
Other comprehensive income (loss), net of related taxes:		
Foreign currency translation, net of related taxes of ($9) and $63, respectively	**158**	(544)
Net unrealized gains (losses) on investment securities, net of reclassification adjustment and net of related taxes of $54 and ($665), respectively	**150**	(1,793)
Net unrealized gains (losses) on cash flow hedges, net of related taxes of $48 and ($89), respectively	**133**	(234)
Net unrealized gains on retirement plans, net of related taxes of $5, and $7, respectively	**12**	17
Other comprehensive income (loss)	**453**	(2,554)
Total comprehensive income (loss)	**$ 1,765**	$ (1,203)

The accompanying condensed notes are an integral part of these consolidated financial statements.

STATE STREET CORPORATION
CONSOLIDATED STATEMENT OF CONDITION

(Dollars in millions, except per share amounts)	June 30, 2023 (UNAUDITED)	December 31, 2022
Assets:		
Cash and due from banks	**$ 3,930**	$ 3,970
Interest-bearing deposits with banks	**86,048**	101,593
Securities purchased under resale agreements	**1,668**	5,215
Trading account assets	**715**	650
Investment securities available-for-sale (less allowance for credit losses of $0 and $2)	**43,046**	40,579
Investment securities held-to-maturity (less allowance for credit losses of $0 and $0) (fair value of $56,863 and $57,913)	**63,510**	64,700
Loans (less allowance for credit losses on loans of $120 and $97)	**34,003**	32,053
Premises and equipment (net of accumulated depreciation of $6,035 and $5,745)	**2,349**	2,315
Accrued interest and fees receivable	**3,732**	3,434
Goodwill	**7,544**	7,495
Other intangible assets	**1,435**	1,544
Other assets	**46,581**	37,902
Total assets	**$ 294,561**	$ 301,450
Liabilities:		
Deposits:		
Non-interest-bearing	**$ 36,455**	$ 46,755
Interest-bearing - U.S.	**122,676**	111,384
Interest-bearing - non-U.S.	**63,185**	77,325
Total deposits	**222,316**	235,464
Securities sold under repurchase agreements	**4,294**	1,177
Short-term borrowings	**53**	2,097
Accrued expenses and other liabilities	**26,516**	22,525
Long-term debt	**17,178**	14,996
Total liabilities	**270,357**	276,259
Commitments, guarantees and contingencies (Notes 9 and 10)		
Shareholders' equity:		
Preferred stock, no par, 3,500,000 shares authorized:		
Series D, 7,500 shares issued and outstanding	**742**	742
Series F, 2,500 shares issued and outstanding	**247**	247
Series G, 5,000 shares issued and outstanding	**493**	493
Series H, 5,000 shares issued and outstanding	**494**	494
Common stock, $1 par, 750,000,000 shares authorized:		
503,879,642 and 503,879,642 shares issued, and 322,101,110 and 349,024,167 shares outstanding	**504**	504
Surplus	**10,729**	10,730
Retained earnings	**27,808**	27,028
Accumulated other comprehensive income (loss)	**(3,258)**	(3,711)
Treasury stock, at cost (181,778,532 and 154,855,475 shares)	**(13,555)**	(11,336)
Total shareholders' equity	**24,204**	25,191
Total liabilities and shareholders' equity	**$ 294,561**	$ 301,450

The accompanying condensed notes are an integral part of these consolidated financial statements.

STATE STREET CORPORATION
CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY (UNAUDITED)

(Dollars in millions, except per share amounts, shares in thousands)	Preferred Stock	Common Stock Shares	Common Stock Amount	Surplus	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Stock Shares	Treasury Stock Amount	Total
Balance at December 31, 2021	$ 1,976	503,880	$ 504	$ 10,787	$ 25,238	$ (1,133)	137,897	$ (10,009)	$ 27,363
Net income					604				604
Other comprehensive income (loss)						(1,565)			(1,565)
Cash dividends declared:									
Common stock - $0.57 per share					(209)				(209)
Preferred stock					(20)				(20)
Common stock awards exercised				(11)			(1,132)	77	66
Other				(14)	(1)				(15)
Balance at March 31, 2022	$ 1,976	503,880	$ 504	$ 10,762	$ 25,612	$ (2,698)	136,765	$ (9,932)	$ 26,224
Net income					747				747
Other comprehensive income (loss)						(989)			(989)
Preferred stock redeemed									—
Cash dividends declared:									
Common stock - $0.57 per share					(210)				(210)
Preferred stock					(35)				(35)
Common stock acquired									—
Common stock awards exercised				(5)			(505)	34	29
Other					1				1
Balance at June 30, 2022	$ 1,976	503,880	$ 504	$ 10,757	$ 26,115	$ (3,687)	136,260	$ (9,898)	$ 25,767
Balance at December 31, 2022	$ 1,976	503,880	$ 504	$ 10,730	$ 27,028	$ (3,711)	154,855	$ (11,336)	$ 25,191
Net income					549				549
Other comprehensive income						439			439
Cash dividends declared:									
Common stock - $0.63 per share					(212)				(212)
Preferred stock					(23)				(23)
Common stock acquired							13,647	(1,262)	(1,262)
Common stock awards exercised				(6)			(1,085)	75	69
Other							1	(1)	(1)
Balance at March 31, 2023	$ 1,976	503,880	$ 504	$ 10,724	$ 27,342	$ (3,272)	167,418	$ (12,524)	$ 24,750
Net income					**763**				**763**
Other comprehensive income						**14**			**14**
Cash dividends declared:									
Common stock - $0.63 per share					**(203)**				**(203)**
Preferred stock					**(37)**				**(37)**
Common stock acquired							**14,773**	**$ (1,060)**	**(1,060)**
Common stock awards exercised				**5**			**(415)**	**29**	**34**
Other					**(57)**		**2**		**(57)**
Balance at June 30, 2023	**$ 1,976**	**503,880**	**$ 504**	**$ 10,729**	**$ 27,808**	**$ (3,258)**	**181,778**	**$ (13,555)**	**$ 24,204**

The accompanying condensed notes are an integral part of these consolidated financial statements.

STATE STREET CORPORATION
CONSOLIDATED STATEMENT OF CASH FLOWS
(UNAUDITED)

(In millions)	Six Months Ended June 30, 2023	2022
Operating Activities:		
Net income	**$ 1,312**	$ 1,351
Adjustments to reconcile net income to net cash provided by operating activities:		
Deferred income tax	**16**	57
Amortization of other intangible assets	**120**	121
Other non-cash adjustments for depreciation, amortization and accretion, net	**348**	420
Losses related to investment securities, net	**—**	2
Provision for credit losses	**26**	10
Change in trading account assets, net	**(65)**	30
Change in accrued interest and fees receivable, net	**(298)**	(125)
Change in collateral deposits, net	**(3,257)**	1,859
Change in unrealized (gains) losses on foreign exchange derivatives, net	**(991)**	(5,277)
Change in other assets, net	**(691)**	(435)
Change in accrued expenses and other liabilities, net	**(360)**	2,177
Other, net	**126**	261
Net cash (used in) provided by operating activities	**(3,714)**	451
Investing Activities:		
Net decrease in interest-bearing deposits with banks	**15,545**	14,999
Net decrease (increase) in securities purchased under resale agreements	**3,547**	(2,192)
Proceeds from sales of available-for-sale securities	**694**	4,492
Proceeds from maturities of available-for-sale securities	**7,494**	10,177
Purchases of available-for-sale securities	**(10,208)**	(13,899)
Proceeds from maturities of held-to-maturity securities	**2,957**	5,921
Purchases of held-to-maturity securities	**(1,577)**	(4,402)
Sale of loans	**390**	1,565
Net (increase) in loans	**(2,210)**	(2,985)
Purchases of equity investments and other long-term assets	**—**	(167)
Purchases of premises and equipment, net	**(352)**	(320)
Other, net	**118**	57
Net cash provided by (used in) investing activities	**16,398**	13,246
Financing Activities:		
Net increase (decrease) in time deposits	**1,243**	(1,238)
Net decrease in all other deposits	**(14,388)**	(11,884)
Net increase (decrease) in securities sold under repurchase agreements	**3,117**	(624)
Net decrease in short-term borrowings	**(2,044)**	(55)
Proceeds from issuance of long-term debt, net of issuance costs	**3,235**	1,989
Payments for long-term debt and obligations under finance leases	**(1,024)**	(1,527)
Repurchases of common stock	**(2,300)**	—
Repurchases of common stock for employee tax withholding	**(71)**	—
Payments for cash dividends	**(492)**	(474)
Net cash (used in) provided by financing activities	**(12,724)**	(13,813)
Net decrease in cash and due from banks	**(40)**	(116)
Cash and due from banks at beginning of period	**3,970**	3,631
Cash and due from banks at end of period	**$ 3,930**	$ 3,515
Supplemental disclosure:		
Interest paid	**$ 2,742**	$ 103
Income taxes paid, net	**215**	344

The accompanying condensed notes are an integral part of these consolidated financial statements.

Note 1. Summary of Significant Accounting Policies

Basis of Presentation

The accounting and financial reporting policies of State Street Corporation conform to U.S. GAAP. State Street Corporation, the Parent Company, is a financial holding company headquartered in Boston, Massachusetts. Unless otherwise indicated or unless the context requires otherwise, all references in these notes to consolidated financial statements to “State Street,” “we,” “us,” “our” or similar references mean State Street Corporation and its subsidiaries on a consolidated basis, including our principal banking subsidiary, State Street Bank.

The accompanying consolidated financial statements should be read in conjunction with the financial and risk factor information included in our 2022 Form 10-K, which we previously filed with the SEC.

The consolidated financial statements accompanying these condensed notes are unaudited. In the opinion of management, all adjustments, consisting only of normal recurring adjustments, which are necessary for a fair statement of the consolidated results of operations in these financial statements, have been made. Certain previously reported amounts presented in this Form 10-Q have been reclassified to conform to current-period presentation. Events occurring subsequent to the date of our consolidated statement of condition were evaluated for potential recognition or disclosure in our consolidated financial statements through the date we filed this Form 10-Q with the SEC.

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions in the application of certain of our significant accounting policies that may materially affect the reported amounts of assets, liabilities, equity, revenue and expenses. As a result of unanticipated events or circumstances, actual results could differ from those estimates. These accounting estimates reflect the best judgment of management, but actual results could differ.

Our consolidated statement of condition as of June 30, 2023 included in the accompanying consolidated financial statements was derived from the audited financial statements as of that date, but does not include all notes required by U.S. GAAP for a complete set of consolidated financial statements.

Cash and Cash Equivalents

Sanctions programs or government intervention may inhibit our ability to access cash and due from banks in certain accounts. For example, as of June 30, 2023 and December 31, 2022, we held such accounts in Russia, inclusive of $1.1 billion and $767 million, respectively, with our subcustodian, which is an affiliate of a large multinational bank, and with western European-based clearing agencies, for a total of approximately $1.6 billion and $1.3 billion, respectively. Cash and due from banks is evaluated as part of our allowance for credit losses.

Recent Accounting Developments

Relevant standards that were adopted in the second quarter of 2023:

In March 2023, the Financial Accounting Standards Board (FASB) issued ASU 2023-02, Investments - Equity Method and Joint Ventures (Topic 323): Accounting for Investments in Tax Credit Structures Using the Proportional Amortization Method, which expands the use of the proportional amortization method to other types of tax credit investments, regardless of the tax credit program from which the income tax credits are received. We adopted the new standard in the second quarter of 2023, effective January 1, 2023, for renewable energy production tax credit investments under the modified retrospective approach. The proportional amortization method better reflects the economics of the investments by amortizing the cost of the investments in proportion to the tax benefits received, and simplifies the presentation of the amortization by recognizing it through Income tax expense. The impact of adoption resulted in a decrease in accrued expenses and other liabilities, a decrease in other assets and was not material to retained earnings.

Additionally, we continue to evaluate other accounting standards that were recently issued, but not yet adopted as of June 30, 2023; none are expected to have a material impact to our financial statements.

Note 2. Fair Value

Fair Value Measurements

We carry trading account assets and liabilities, AFS debt securities, certain equity securities and various types of derivative financial instruments, at fair value in our consolidated statement of condition on a recurring basis. Changes in the fair values of these financial assets and liabilities are recorded either as components of our consolidated statement of income or as components of AOCI within shareholders' equity in our consolidated statement of condition.

We measure fair value for the above-described financial assets and liabilities in conformity with U.S. GAAP that governs the measurement of the fair value of financial instruments. Management believes that its valuation

techniques and underlying assumptions used to measure fair value conform to the provisions of U.S. GAAP. We categorize the financial assets and liabilities that we carry at fair value based on a prescribed three-level valuation hierarchy. For information about our valuation techniques for financial assets and financial liabilities measured at fair value and the fair value hierarchy, refer to pages 133 to 139 in Note 2 to the consolidated financial statements included under Item 8, Financial Statements and Supplementary Data, in our 2022 Form 10-K.

The following tables present information with respect to our financial assets and liabilities carried at fair value in our consolidated statement of condition on a recurring basis as of the dates indicated:

	Fair Value Measurements on a Recurring Basis As of June 30, 2023				
(In millions)	Quoted Market Prices in Active Markets (Level 1)	Pricing Methods with Significant Observable Market Inputs (Level 2)	Pricing Methods with Significant Unobservable Market Inputs (Level 3)	Impact of Netting[1]	Total Net Carrying Value in Consolidated Statement of Condition
Assets:					
Trading account assets:					
U.S. government securities	$ 35	$ —	$ —		$ 35
Non-U.S. government securities	—	136	—		136
Other	—	544	—		544
Total trading account assets	35	680	—		715
Available-for-sale investment securities:					
U.S. Treasury and federal agencies:					
Direct obligations	7,096	—	—		7,096
Mortgage-backed securities	—	9,103	—		9,103
Total U.S. Treasury and federal agencies	7,096	9,103	—		16,199
Non-U.S. debt securities:					
Mortgage-backed securities	—	1,524	—		1,524
Asset-backed securities	—	1,577	—		1,577
Non-U.S. sovereign, supranational and non-U.S. agency	—	16,921	—		16,921
Other	—	2,257	—		2,257
Total non-U.S. debt securities	—	22,279	—		22,279
Asset-backed securities:					
Student loans	—	105	—		105
Collateralized loan obligations	—	2,428	—		2,428
Non-agency CMBS and RMBS[2]	—	270	—		270
Other	—	90	—		90
Total asset-backed securities	—	2,893	—		2,893
State and political subdivisions	—	711	—		711
Other U.S. debt securities	—	964	—		964
Total available-for-sale investment securities	7,096	35,950	—		43,046
Other assets:					
Derivative instruments:					
Foreign exchange contracts	1	21,003	7	$ (14,586)	6,425
Interest rate contracts	3	—	—	—	3
Total derivative instruments	4	21,003	7	(14,586)	6,428
Other	8	663	—	—	671
Total assets carried at fair value	$ 7,143	$ 58,296	$ 7	$ (14,586)	$ 50,860
Liabilities:					
Accrued expenses and other liabilities:					
Derivative instruments:					
Foreign exchange contracts	$ 1	$ 20,458	$ 4	$ (14,968)	$ 5,495
Interest rate contracts	—	6	—	(6)	—
Other derivative contracts	1	212	—	—	213
Total derivative instruments	2	20,676	4	(14,974)	5,708
Total liabilities carried at fair value	$ 2	$ 20,676	$ 4	$ (14,974)	$ 5,708

[1] Represents counterparty netting against level 2 financial assets and liabilities where a legally enforceable master netting agreement exists between us and the counterparty. Netting also reflects asset and liability reductions of $1.75 billion and $2.13 billion, respectively, for cash collateral received from and provided to derivative counterparties.

[2] Consists entirely of non-agency CMBS.

(In millions)	Fair Value Measurements on a Recurring Basis As of December 31, 2022				
	Quoted Market Prices in Active Markets (Level 1)	Pricing Methods with Significant Observable Market Inputs (Level 2)	Pricing Methods with Significant Unobservable Market Inputs (Level 3)	Impact of Netting[1]	Total Net Carrying Value in Consolidated Statement of Condition
Assets:					
Trading account assets:					
U.S. government securities	$ 40	$ —	$ —		$ 40
Non-U.S. government securities	—	142	—		142
Other	—	468	—		468
Total trading account assets	40	610	—		650
Available-for-sale investment securities:					
U.S. Treasury and federal agencies:					
Direct obligations	7,981	—	—		7,981
Mortgage-backed securities	—	8,509	—		8,509
Total U.S. Treasury and federal agencies	7,981	8,509	—		16,490
Non-U.S. debt securities:					
Mortgage-backed securities	—	1,623	—		1,623
Asset-backed securities	—	1,669	—		1,669
Non-U.S. sovereign, supranational and non-U.S. agency	—	14,089	—		14,089
Other	—	2,091	—		2,091
Total non-U.S. debt securities	—	19,472	—		19,472
Asset-backed securities:					
Student loans	—	115	—		115
Collateralized loan obligations	—	2,355	—		2,355
Non-agency CMBS and RMBS[2]	—	231	—		231
Other	—	88	—		88
Total asset-backed securities	—	2,789	—		2,789
State and political subdivisions	—	823	—		823
Other U.S. debt securities	—	1,005	—		1,005
Total available-for-sale investment securities	7,981	32,598	—		40,579
Other assets:					
Derivative instruments:					
Foreign exchange contracts	9	26,173	4	$ (18,522)	7,664
Interest rate contracts	—	—	—	—	—
Total derivative instruments	9	26,173	4	(18,522)	7,664
Other	6	600	—	—	606
Total assets carried at fair value	$ 8,036	$ 59,981	$ 4	$ (18,522)	$ 49,499
Liabilities:					
Accrued expenses and other liabilities:					
Trading account liabilities:					
Derivative instruments:					
Foreign exchange contracts	2	25,745	2	(17,951)	7,798
Interest rate contracts	1	—	—	—	1
Other derivative contracts	—	216	—	—	216
Total derivative instruments	3	25,961	2	(17,951)	8,015
Total liabilities carried at fair value	$ 3	$ 25,961	$ 2	$ (17,951)	$ 8,015

[1] Represents counterparty netting against level 2 financial assets and liabilities where a legally enforceable master netting agreement exists between us and the counterparty. Netting also reflects asset and liability reductions of $3.30 billion and $2.73 billion, respectively, for cash collateral received from and provided to derivative counterparties.

[2] Consists entirely of non-agency CMBS.

The following tables present activity related to our level 3 financial assets during the three and six months ended June 30, 2023 and 2022, respectively. Transfers into and out of level 3 are reported as of the beginning of the period presented. During both the three and six months ended June 30, 2023 and 2022, there were no transfers into and out of level 3.

	Fair Value Measurements Using Significant Unobservable Inputs Three Months Ended June 30, 2023									
		Total Realized and Unrealized Gains (Losses)[1]								
(In millions)	Fair Value as of March 31, 2023	Recorded in Revenue[1]	Recorded in Other Comprehensive Income[1]	Purchases	Sales	Settlements	Transfers into Level 3	Transfers out of Level 3	Fair Value as of June 30, 2023[1]	Change in Unrealized Gains (Losses) Related to Financial Instruments Held as of June 30, 2023
Assets:										
Other assets:										
Derivative instruments:										
Foreign exchange contracts	$ 4	$ 1	$ —	$ 2	$ —	$ —	$ —	$ —	$ 7	$ 2
Total derivative instruments	4	1	—	2	—	—	—	—	7	2
Total assets carried at fair value	$ 4	$ 1	$ —	$ 2	$ —	$ —	$ —	$ —	$ 7	$ 2

[1] Total realized and unrealized gains (losses) on derivative instruments are included within foreign exchange trading services.

	Fair Value Measurements Using Significant Unobservable Inputs Six Months Ended June 30, 2023									
		Total Realized and Unrealized Gains (Losses)[1]								
(In millions)	Fair Value as of December 31, 2022	Recorded in Revenue[1]	Recorded in Other Comprehensive Income[1]	Purchases	Sales	Settlements	Transfers into Level 3	Transfers out of Level 3	Fair Value as of June 30, 2023[1]	Change in Unrealized Gains (Losses) Related to Financial Instruments Held as of June 30, 2023
Assets:										
Other assets:										
Derivative instruments:										
Foreign exchange contracts	$ 4	$ 1	$ —	$ 5	$ —	$ (3)	$ —	$ —	$ 7	$ 2
Total derivative instruments	4	1	—	5	—	(3)	—	—	7	2
Total assets carried at fair value	$ 4	$ 1	$ —	$ 5	$ —	$ (3)	$ —	$ —	$ 7	$ 2

[1] Total realized and unrealized gains (losses) on derivative instruments are included within foreign exchange trading services.

	Fair Value Measurements Using Significant Unobservable Inputs Three Months Ended June 30, 2022									
		Total Realized and Unrealized Gains (Losses)[1]								
(In millions)	Fair Value as of March 31, 2022	Recorded in Revenue[1]	Recorded in Other Comprehensive Income[1]	Purchases	Sales	Settlements	Transfers into Level 3	Transfers out of Level 3	Fair Value as of June 30, 2022[1]	Change in Unrealized Gains (Losses) Related to Financial Instruments Held as of June 30, 2022
Assets:										
Other assets:										
Derivative instruments:										
Foreign exchange contracts	$ 6	$ —	$ —	$ 9	$ —	$ —	$ —	$ —	$ 15	$ 2
Total derivative instruments	6	—	—	9	—	—	—	—	15	2
Total assets carried at fair value	$ 6	$ —	$ —	$ 9	$ —	$ —	$ —	$ —	$ 15	$ 2

[1] Total realized and unrealized gains (losses) on AFS investment securities are included within gains (losses) related to investment securities, net. Total realized and unrealized gains (losses) on derivative instruments are included within foreign exchange trading services.

	Fair Value Measurements Using Significant Unobservable Inputs Six Months Ended June 30, 2022									
		Total Realized and Unrealized Gains (Losses)[1]								
(In millions)	Fair Value as of December 31, 2021	Recorded in Revenue[1]	Recorded in Other Comprehensive Income[1]	Purchases	Sales	Settlements	Transfers into Level 3	Transfers out of Level 3	Fair Value as of June 30, 2022[1]	Change in Unrealized Gains (Losses) Related to Financial Instruments Held as of June 30, 2022
Assets:										
Other assets:										
Derivative instruments:										
Foreign exchange contracts	$ —	$ 3	$ —	$ 12	$ —	$ —	$ —	$ —	$ 15	$ 4
Total derivative instruments	—	3	—	12	—	—	—	—	15	4
Total assets carried at fair value	$ —	$ 3	$ —	$ 12	$ —	$ —	$ —	$ —	$ 15	$ 4

[1] Total realized and unrealized gains (losses) on AFS investment securities are included within gains (losses) related to investment securities, net. Total realized and unrealized gains (losses) on derivative instruments are included within foreign exchange trading services.

The following table presents quantitative information, as of the dates indicated, about the valuation techniques and significant unobservable inputs used in the valuation of our level 3 financial assets and liabilities measured at fair value on a recurring basis for which we use internally-developed pricing models. The significant unobservable inputs for our level 3 financial assets and liabilities whose fair value is measured using pricing information from non-binding broker/dealer quotes are not included in the table, as the specific inputs applied are not provided by the broker/dealer.

	Quantitative Information about Level 3 Fair Value Measurements						
	Fair Value				Range	Weighted-Average	
(Dollars in millions)	As of June 30, 2023	As of December 31, 2022	Valuation Technique	Significant Unobservable Input[1]	As of June 30, 2023	As of June 30, 2023	As of December 31, 2022
Significant unobservable inputs readily available to State Street:							
Assets:							
Derivative Instruments, foreign exchange contracts	**$ 7**	$ 4	Option model	Volatility	**5.6 % - 18.4%**	**9.1 %**	11.4 %
Total	**$ 7**	$ 4					
Liabilities:							
Derivative instruments, foreign exchange contracts	**$ 4**	$ 2	Option model	Volatility	**6.0 % - 15.3%**	**7.5 %**	9.8 %
Total	**$ 4**	$ 2					

[1] Significant changes in these unobservable inputs may result in significant changes in fair value measurement of the derivative instrument.

Fair Value Estimates

Estimates of fair value for financial instruments not carried at fair value in our consolidated statement of condition are generally subjective in nature, and are determined as of a specific point in time based on the characteristics of the financial instruments and relevant market information.

The following tables present the reported amounts and estimated fair values of the financial assets and liabilities not carried at fair value, as they would be categorized within the fair value hierarchy, as of the dates indicated:

			Fair Value Hierarchy		
(In millions)	Reported Amount	Estimated Fair Value	Quoted Market Prices in Active Markets (Level 1)	Pricing Methods with Significant Observable Market Inputs (Level 2)	Pricing Methods with Significant Unobservable Market Inputs (Level 3)
June 30, 2023					
Financial Assets:					
Cash and due from banks	**$ 3,930**	**3,930**	**$ 3,930**	**$ —**	**$ —**
Interest-bearing deposits with banks	**86,048**	**86,048**	**—**	**86,048**	**—**
Securities purchased under resale agreements	**1,668**	**1,668**	**—**	**1,668**	**—**
Investment securities held-to-maturity	**63,510**	**56,863**	**11,461**	**45,402**	**—**
Net loans[1]	**34,003**	**33,820**	**—**	**31,764**	**2,056**
Other[2]	**6,326**	**6,326**	**—**	**6,326**	**—**
Financial Liabilities:					
Deposits:					
Non-interest-bearing	**$ 36,455**	**$ 36,455**	**$ —**	**$ 36,455**	**$ —**
Interest-bearing - U.S.	**122,676**	**122,676**	**—**	**122,676**	**—**
Interest-bearing - non-U.S.	**63,185**	**63,185**	**—**	**63,185**	**—**
Securities sold under repurchase agreements	**4,294**	**4,294**	**—**	**4,294**	**—**
Other short-term borrowings	**53**	**53**	**—**	**53**	**—**
Long-term debt	**17,178**	**16,495**	**—**	**16,332**	**163**
Other[2]	**6,326**	**6,326**	**—**	**6,326**	**—**

[1] Includes $9 million of loans classified as held-for-sale that were measured at fair value in level 2 as of June 30, 2023.

[2] Represents a portion of underlying client assets related to our prime services business, which clients have allowed us to transfer and re-pledge.

			Fair Value Hierarchy		
(In millions)	Reported Amount	Estimated Fair Value	Quoted Market Prices in Active Markets (Level 1)	Pricing Methods with Significant Observable Market Inputs (Level 2)	Pricing Methods with Significant Unobservable Market Inputs (Level 3)
December 31, 2022					
Financial Assets:					
Cash and due from banks	$ 3,970	$ 3,970	$ 3,970	$ —	$ —
Interest-bearing deposits with banks	101,593	101,593	—	101,593	—
Securities purchased under resale agreements	5,215	5,215	—	5,215	—
Investment securities held-to-maturity	64,700	57,913	11,336	46,577	—
Net loans[1]	32,053	31,794	—	29,679	2,115
Other[2]	3,626	3,626	—	3,626	—
Financial Liabilities:					
Deposits:					
Non-interest-bearing	$ 46,755	$ 46,755	$ —	$ 46,755	$ —
Interest-bearing - U.S.	111,384	111,384	—	111,384	—
Interest-bearing - non-U.S.	77,325	77,325	—	77,325	—
Securities sold under repurchase agreements	1,177	1,177	—	1,177	—
Other short-term borrowings	2,097	2,097	—	2,097	—
Long-term debt	14,996	14,273	—	14,102	171
Other[2]	3,626	3,626	—	3,626	—

[1] Includes $5 million of loans classified as held-for-sale that were measured at fair value in level 2 as of December 31, 2022.

[2] Represents a portion of underlying client assets related to our prime services business, which clients have allowed us to transfer and re-pledge.

Note 3. Investment Securities

Investment securities held by us are classified as either trading account assets, AFS, HTM or equity securities held at fair value at the time of purchase and reassessed periodically, based on management's intent. For additional information on our accounting for investment securities, refer to page 140 in Note 3 to the consolidated financial statements included under Item 8, Financial Statements and Supplementary Data, in our 2022 Form 10-K.

Trading assets are carried at fair value. Both realized and unrealized gains and losses on trading assets are recorded in other fee revenue in our consolidated statement of income. AFS securities are carried at fair value, with any allowance for credit losses recorded through the consolidated statement of income and after-tax net unrealized gains and losses are recorded in AOCI. Gains or losses realized on sales of AFS investment securities are computed using the specific identification method and are recorded in gains (losses) related to investment securities, net, in our consolidated statement of income. HTM investment securities are carried at cost, adjusted for amortization of premiums and accretion of discounts, with any allowance for credit losses recorded through the consolidated statement of income.

The following table presents the amortized cost, fair value and associated unrealized gains and losses of AFS and HTM investment securities as of the dates indicated:

	June 30, 2023				December 31, 2022			
		Gross Unrealized				Gross Unrealized		
(In millions)	Amortized Cost	Gains	Losses	Fair Value	Amortized Cost	Gains	Losses	Fair Value
Available-for-sale:								
U.S. Treasury and federal agencies:								
Direct obligations	**$ 7,272**	**$ 11**	**$ 187**	**$ 7,096**	$ 8,232	$ 10	$ 261	$ 7,981
Mortgage-backed securities[1]	**9,328**	**2**	**227**	**9,103**	8,767	2	260	8,509
Total U.S. Treasury and federal agencies	**16,600**	**13**	**414**	**16,199**	16,999	12	521	16,490
Non-U.S. debt securities:								
Mortgage-backed securities	**1,535**	**1**	**12**	**1,524**	1,642	—	19	1,623
Asset-backed securities[2]	**1,597**	**—**	**20**	**1,577**	1,696	—	27	1,669
Non-U.S. sovereign, supranational and non-U.S. agency	**17,391**	**2**	**472**	**16,921**	14,512	1	424	14,089
Other[3]	**2,420**	**1**	**164**	**2,257**	2,255	—	164	2,091
Total non-U.S. debt securities	**22,943**	**4**	**668**	**22,279**	20,105	1	634	19,472
Asset-backed securities:								
Student loans[4]	**106**	**—**	**1**	**105**	116	—	1	115
Collateralized loan obligations[5]	**2,452**	**1**	**25**	**2,428**	2,394	—	39	2,355
Non-agency CMBS and RMBS[6]	**275**	**—**	**5**	**270**	237	—	6	231
Other	**90**	**—**	**—**	**90**	90	—	2	88
Total asset-backed securities	**2,923**	**1**	**31**	**2,893**	2,837	—	48	2,789
State and political subdivisions	**722**	**—**	**11**	**711**	839	1	17	823
Other U.S. debt securities[7]	**1,025**	**—**	**61**	**964**	1,078	—	73	1,005
Total available-for-sale securities[8][9]	**$ 44,213**	**$ 18**	**$ 1,185**	**$ 43,046**	$ 41,858	$ 14	$ 1,293	$ 40,579
Held-to-maturity:								
U.S. Treasury and federal agencies:								
Direct obligations	**$ 11,802**	**$ —**	**$ 328**	**$ 11,474**	$ 11,693	$ —	$ 341	$ 11,352
Mortgage-backed securities[10]	**41,314**	**1**	**5,963**	**35,352**	42,307	3	6,030	36,280
Total U.S. Treasury and federal agencies	**53,116**	**1**	**6,291**	**46,826**	54,000	3	6,371	47,632
Non-U.S. debt securities:								
Non-U.S. sovereign, supranational and non-U.S. agency	**6,802**	**—**	**280**	**6,522**	6,603	—	304	6,299
Total non-U.S. debt securities	**6,802**	**—**	**280**	**6,522**	6,603	—	304	6,299
Asset-backed securities:								
Student loans[4]	**3,584**	**1**	**96**	**3,489**	3,955	1	134	3,822
Non-agency CMBS and RMBS[11]	**8**	**18**	**—**	**26**	142	18	—	160
Total asset-backed securities	**3,592**	**19**	**96**	**3,515**	4,097	19	134	3,982
Total held-to-maturity securities[8]	**$ 63,510**	**$ 20**	**$ 6,667**	**$ 56,863**	$ 64,700	$ 22	$ 6,809	$ 57,913

[1] As of June 30, 2023 and December 31, 2022, the total fair value included $5.97 billion and $6.78 billion, respectively, of agency CMBS and $3.13 billion and $1.73 billion, respectively, of agency MBS.

[2] As of June 30, 2023 and December 31, 2022, the fair value includes non-U.S. collateralized loan obligations of $0.88 billion and $0.86 billion, respectively.

[3] As of June 30, 2023 and December 31, 2022, the fair value includes non-U.S. corporate bonds of $1.33 billion and $1.14 billion, respectively.

[4] Primarily comprised of securities guaranteed by the federal government with respect to at least 97% of defaulted principal and accrued interest on the underlying loans.

[5] Excludes collateralized loan obligations in loan form. Refer to Note 4 for additional information.

[6] Consists entirely of non-agency CMBS as of both June 30, 2023 and December 31, 2022.

[7] As of June 30, 2023 and December 31, 2022, the fair value of U.S. corporate bonds was $0.96 billion and $1.01 billion, respectively.

[8] An immaterial amount of accrued interest related to HTM and AFS investment securities was excluded from the amortized cost basis for the period ended June 30, 2023.

[9] As of June 30, 2023, the total amortized cost had no allowance for credit losses on AFS investment securities. As of December 31, 2022, the total amortized cost included an allowance for credit losses on AFS investment securities of $2 million.

[10] As of June 30, 2023 and December 31, 2022, the total amortized cost included $5.28 billion and $4.99 billion of agency CMBS, respectively.

[11] As of June 30, 2023, the total amortized cost included $8 million of non-agency RMBS. As of December 31, 2022, the total amortized cost included $133 million of non-agency CMBS and $9 million of non-agency RMBS.

Aggregate investment securities with carrying values of approximately $80.10 billion and $70.52 billion as of June 30, 2023 and December 31, 2022, respectively, were designated as pledged for public and trust deposits, short-term borrowings and for other purposes as provided by law.

The following tables present the aggregate fair values of AFS investment securities that have been in a continuous unrealized loss position for less than 12 months, and those that have been in a continuous unrealized loss position for 12 months or longer, as of the dates indicated:

	June 30, 2023					
	Less than 12 months		12 months or longer		Total	
(In millions)	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Available-for-sale:						
U.S. Treasury and federal agencies:						
Direct obligations	$ 590	$ 4	$ 5,777	$ 183	$ 6,367	$ 187
Mortgage-backed securities	1,655	22	7,128	205	8,783	227
Total U.S. Treasury and federal agencies	2,245	26	12,905	388	15,150	414
Non-U.S. debt securities:						
Mortgage-backed securities	150	1	1,076	11	1,226	12
Asset-backed securities	49	—	1,308	20	1,357	20
Non-U.S. sovereign, supranational and non-U.S. agency	5,567	84	10,251	388	15,818	472
Other	366	11	1,711	153	2,077	164
Total non-U.S. debt securities	6,132	96	14,346	572	20,478	668
Asset-backed securities:						
Student loans	82	1	—	—	82	1
Collateralized loan obligations	260	1	2,059	24	2,319	25
Non-agency CMBS and RMBS	39	1	209	4	248	5
Total asset-backed securities	381	3	2,268	28	2,649	31
State and political subdivisions	404	4	270	7	674	11
Other U.S. debt securities	29	3	928	58	957	61
Total	$ 9,191	$ 132	$ 30,717	$ 1,053	$ 39,908	$ 1,185

	December 31, 2022					
	Less than 12 months		12 months or longer		Total	
(In millions)	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
Available-for-sale:						
U.S. Treasury and federal agencies:						
Direct obligations	$ 1,337	$ 15	$ 5,745	$ 246	$ 7,082	$ 261
Mortgage-backed securities	5,524	130	2,815	130	8,339	260
Total U.S. Treasury and federal agencies	6,861	145	8,560	376	15,421	521
Non-U.S. debt securities:						
Mortgage-backed securities	1,278	15	272	4	1,550	19
Asset-backed securities	859	11	765	16	1,624	27
Non-U.S. sovereign, supranational and non-U.S. agency	6,750	108	5,800	316	12,550	424
Other	771	27	1,233	137	2,004	164
Total non-U.S. debt securities	9,658	161	8,070	473	17,728	634
Asset-backed securities:						
Student loans	89	1	—	—	89	1
Collateralized loan obligations	1,577	27	710	12	2,287	39
Non-agency CMBS and RMBS	193	6	3	—	196	6
Other	88	2	—	—	88	2
Total asset-backed securities	1,947	36	713	12	2,660	48
State and political subdivisions	669	12	42	5	711	17
Other U.S. debt securities	294	15	708	58	1,002	73
Total	$ 19,429	$ 369	$ 18,093	$ 924	$ 37,522	$ 1,293

The following table presents the amortized cost and the fair value of contractual maturities of debt investment securities as of June 30, 2023. The maturities of certain ABS, MBS and collateralized mortgage obligations are based on expected principal payments. Actual maturities may differ from these expected maturities since certain borrowers have the right to prepay obligations with or without prepayment penalties.

(In millions)	June 30, 2023									
	Under 1 Year		1 to 5 Years		6 to 10 Years		Over 10 Years		Total	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value	Amortized Cost	Fair Value	Amortized Cost	Fair Value	Amortized Cost	Fair Value
Available-for-sale:										
U.S. Treasury and federal agencies:										
Direct obligations	$ 789	$ 787	$ 5,850	$ 5,667	$ 633	$ 642	$ —	$ —	$ 7,272	$ 7,096
Mortgage-backed securities	56	55	804	793	5,287	5,180	3,181	3,075	9,328	9,103
Total U.S. Treasury and federal agencies	845	842	6,654	6,460	5,920	5,822	3,181	3,075	16,600	16,199
Non-U.S. debt securities:										
Mortgage-backed securities	156	156	261	261	—	—	1,118	1,107	1,535	1,524
Asset-backed securities	328	323	491	485	479	473	299	296	1,597	1,577
Non-U.S. sovereign, supranational and non-U.S. agency	6,024	5,971	8,554	8,172	2,813	2,778	—	—	17,391	16,921
Other	274	269	1,931	1,798	205	183	10	7	2,420	2,257
Total non-U.S. debt securities	6,782	6,719	11,237	10,716	3,497	3,434	1,427	1,410	22,943	22,279
Asset-backed securities:										
Student loans	35	35	—	—	—	—	71	70	106	105
Collateralized loan obligations	121	120	358	353	1,458	1,442	515	513	2,452	2,428
Non-agency CMBS and RMBS	—	—	20	20	—	—	255	250	275	270
Other	—	—	90	90	—	—	—	—	90	90
Total asset-backed securities	156	155	468	463	1,458	1,442	841	833	2,923	2,893
State and political subdivisions	125	124	260	253	337	334	—	—	722	711
Other U.S. debt securities	255	249	742	689	28	26	—	—	1,025	964
Total	$ 8,163	$ 8,089	$ 19,361	$ 18,581	$ 11,240	$ 11,058	$ 5,449	$ 5,318	$ 44,213	$ 43,046
Held-to-maturity:										
U.S. Treasury and federal agencies:										
Direct obligations	$ 5,797	$ 5,718	$ 5,969	$ 5,722	$ 24	$ 22	$ 12	$ 12	$ 11,802	$ 11,474
Mortgage-backed securities	136	121	570	530	4,611	3,853	35,997	30,848	41,314	35,352
Total U.S. Treasury and federal agencies	5,933	5,839	6,539	6,252	4,635	3,875	36,009	30,860	53,116	46,826
Non-U.S. debt securities:										
Non-U.S. sovereign, supranational and non-U.S. agency	2,495	2,441	3,663	3,481	644	600	—	—	6,802	6,522
Total non-U.S. debt securities	2,495	2,441	3,663	3,481	644	600	—	—	6,802	6,522
Asset-backed securities:										
Student loans	251	243	37	36	851	834	2,445	2,376	3,584	3,489
Non-agency CMBS and RMBS	2	8	—	—	—	—	6	18	8	26
Total asset-backed securities	253	251	37	36	851	834	2,451	2,394	3,592	3,515
Total	$ 8,681	$ 8,531	$ 10,239	$ 9,769	$ 6,130	$ 5,309	$ 38,460	$ 33,254	$ 63,510	$ 56,863

Interest income related to debt securities is recognized in our consolidated statement of income using the effective interest method, or on a basis approximating a level rate of return over the contractual or estimated life of the security. The level rate of return considers any non-refundable fees or costs, as well as purchase premiums or discounts, adjusted as prepayments occur, resulting in amortization or accretion, accordingly.

Allowance for Credit Losses on Debt Securities and Impairment of AFS Securities

We conduct quarterly reviews of HTM and AFS securities on a collective (pool) basis when similar risk characteristics exist to determine whether an allowance for credit losses should be recognized. We review individual AFS securities periodically to assess if additional impairment is required. For additional information about the Current Expected Credit Loss methodology and the review of investment securities for expected credit losses or impairment, refer to pages 144 to 145 in Note 3 to the consolidated financial statements included under Item 8, Financial Statements and Supplementary Data, in our 2022 Form 10-K.

We monitor the credit quality of the HTM and AFS investment securities using a variety of methods, including both external and internal credit ratings. As of June 30, 2023, over 99% of our HTM and AFS investment portfolio is publicly rated investment grade.

We had no allowance for credit losses on our HTM securities as of both June 30, 2023 and December 31, 2022.

As of June 30, 2023, we had no allowance for credit losses on AFS investment securities. As of December 31, 2022, the total amortized cost included an allowance for credit losses on AFS investment securities of $2 million. In the second quarter of 2023, we recorded a $2 million reserve release and no charge-offs on AFS securities.

We have elected to not record an allowance on accrued interest for HTM and AFS securities. Accrued interest on these securities is reversed against interest income when payment on a security is delinquent for greater than 90 days from the date of payment.

After a review of the investment portfolio, taking into consideration then-current economic conditions, adverse situations that might affect our ability to fully collect principal and interest, the timing of future payments, the credit quality and performance of the collateral underlying MBS and ABS and other relevant factors, management considered the resulting gross pre-tax unrealized losses of $7.85 billion related to 2,188 securities as of June 30, 2023 to be primarily related to changes in interest rates, and not the result of any material changes in the credit characteristics of the securities.

Note 4. Loans and Allowance for Credit Losses

We segregate our loans into two segments: commercial and financial loans and commercial real estate loans. We further classify commercial and financial loans as fund finance loans, leveraged loans, collateralized loan obligations in loan form, overdrafts and other. These classifications reflect their risk characteristics, their initial measurement attributes and the methods we use to monitor and assess credit risk. For additional information on our loans, including our internal risk-rating system used to assess our risk of credit loss for each loan, refer to pages 145 to 150 in Note 4 to the consolidated financial statements included under Item 8, Financial Statements and Supplementary Data, in our 2022 Form 10-K.

The following table presents our recorded investment in loans, by segment, as of the dates indicated:

(In millions)	June 30, 2023	December 31, 2022
Domestic[1]:		
Commercial and financial:		
Fund Finance[2]	**$ 12,239**	$ 12,154
Leveraged loans	**2,317**	2,431
Overdrafts	**1,429**	1,707
Collateralized loan obligations in loan form	**100**	100
Other[3]	**2,146**	1,871
Commercial real estate	**2,983**	2,985
Total domestic	**$ 21,214**	$ 21,248
Foreign[1]:		
Commercial and financial:		
Fund Finance[2]	**$ 4,936**	$ 3,949
Leveraged loans	**1,145**	1,118
Overdrafts	**1,653**	1,094
Collateralized loan obligations in loan form	**5,175**	4,741
Total foreign	**12,909**	10,902
Total loans[4]	**34,123**	32,150
Allowance for credit losses	**(120)**	(97)
Loans, net of allowance	**$ 34,003**	$ 32,053

[1] Domestic and foreign categorization is based on the borrower's country of domicile.

[2] Fund finance loans include primarily $9.33 billion private equity capital call finance loans, $5.88 billion loans to real money funds and $1.11 billion loans to business development companies as of June 30, 2023, compared to $7.57 billion private equity capital call finance loans, $6.61 billion loans to real money funds and $1.11 billion loans to business development companies as of December 31, 2022.

[3] Includes $1.85 billion securities finance loans, $289 million loans to municipalities and $6 million other loans as of June 30, 2023 and $1.51 billion securities finance loans, $321 million loans to municipalities and $42 million other loans as of December 31, 2022.

[4] As of June 30, 2023, excluding overdrafts, floating rate loans totaled $28.17 billion and fixed rate loans totaled $2.87 billion. We have entered into interest rate swap agreements to hedge the forecasted cash flows associated with EURIBOR indexed floating-rate loans. See Note 10 to the consolidated financial statements in our 2022 Form 10-K for additional details.

The commercial and financial segment is composed of primarily fund finance loans, purchased leveraged loans, purchased collateralized loan obligations in loan form, overdrafts and other loans. Fund finance loans are composed of revolving credit lines providing liquidity and leverage to mutual fund and private equity fund clients. These classifications reflect their risk characteristics, their initial measurement attributes and the methods we use to monitor and assess credit risk.

Certain loans are pledged as collateral for access to the Federal Reserve's discount window. As of June 30, 2023 and December 31, 2022, the loans pledged as collateral totaled $11.29 billion and $10.17 billion, respectively.

As of June 30, 2023, we had three loans totaling $76 million on non-accrual status and as of December 31, 2022, we had no loans on non-accrual status.

We sold $125 million of loans in the second quarter of 2023, of which none remained unsettled and was held-for-sale as of June 30, 2023. We recorded a charge-off against the allowance for these loans of $8 million in the second quarter of 2023.

Allowance for Credit Losses

We recognize an allowance for credit losses in accordance with ASC 326 for financial assets held at amortized cost and off-balance sheet commitments. The allowance for credit losses is reviewed on a regular basis, and any provision for credit losses is recorded to reflect the amount necessary to maintain the allowance for expected credit losses at a level which represents what management does not expect to recover due to expected credit losses. For additional discussion on the allowance for credit losses for investment securities, please refer to Note 3 to the consolidated financial statements in this Form 10-Q.

When the allowance is recorded, a provision for credit loss expense is recognized in net income. The allowance for credit losses for financial assets (excluding investment securities, as discussed in Note 3) represents the portion of the amortized cost basis, including accrued interest for financial assets held at amortized cost, which management does not expect to recover due to expected credit losses and is presented on the statement of condition as an offset to the amortized cost basis. The accrued interest balance is presented separately on the statement of condition within accrued interest and fees receivable. The allowance for off-balance sheet commitments is presented within other liabilities. Loans are charged off to the allowance for credit losses in the reporting period in which either an event occurs that confirms the existence of a loss on a loan, including a sale of a loan below its carrying value, or a portion of a loan is determined to be uncollectible.

The allowance for credit losses may be determined using various methods, including discounted cash flow methods, loss-rate methods, probability-of-default methods, and other quantitative or qualitative methods as determined by us. The method used to estimate expected credit losses may vary depending on the type of financial asset, our ability to predict the timing of cash flows, and the information available to us.

The allowance for credit losses as reported in our consolidated statement of condition is adjusted by provision for credit losses, which is reported in earnings, and reduced by the charge-off of principal amounts, net of recoveries.

We measure expected credit losses of financial assets on a collective (pool) basis when similar risk characteristics exist. Each reporting period, we assess whether the assets in the pool continue to display similar risk characteristics.

For a financial asset that does not share risk characteristics with other assets, expected credit losses are measured separately using one or more of the methods noted above. As of June 30, 2023, we had 5 loans for $101 million in the commercial and financial segment that no longer met the similar risk characteristics of their collective pool. We recorded an allowance for credit losses of $25 million as of June 30, 2023 on these loans.

When the asset is collateral dependent, which means when the borrower is experiencing financial difficulty and repayment is expected to be provided substantially through the operation or sale of the collateral, expected credit losses are measured as the difference between the amortized cost basis of the asset and the fair value of the collateral, adjusted for the estimated costs to sell.

Determining the appropriateness of the allowance is complex and requires judgment by management about the effect of matters that are inherently uncertain. In future periods, factors and forecasts then prevailing may result in significant changes in the allowance for credit losses in those future periods.

We estimate credit losses over the contractual life of the financial asset, while factoring in prepayment activity, where supported by data, over a three year reasonable and supportable forecast period. We utilize a baseline, upside and downside scenario which are applied based on a probability weighting, in order to better reflect management’s expectation of expected credit losses given existing market conditions and the changes in the economic environment. The multiple scenarios are based on a three year horizon (or less depending on contractual

maturity) and then revert linearly over a two-year period to a ten-year historical average thereafter. The contractual term excludes expected extensions, renewals and modifications, but includes prepayment assumptions where applicable.

As part of our allowance methodology, we establish qualitative reserves to address any risks inherent in our portfolio that are not addressed through our quantitative reserve assessment. These factors may relate to, among other things, legislation changes or new regulation, credit concentration, loan markets, scenario weighting and overall model limitations. The qualitative adjustments are applied to our portfolio of financial instruments under the existing governance structure and are inherently judgmental.

For additional information on the allowance for credit losses, refer to pages 145 to 150 in Note 4 to the consolidated financial statements included under item 8, Financial Statements and Supplementary Data, in our 2022 Form 10-K.

Credit Quality

Credit quality for financial assets held at amortized cost is continuously monitored by management and is reflected within the allowance for credit losses.

We use an internal risk-rating system to assess our risk of credit loss for each loan. This risk-rating process incorporates the use of risk-rating tools in conjunction with management judgment. Qualitative and quantitative inputs are captured in a systematic manner, and following a formal review and approval process, an internal credit rating based on our credit scale is assigned.

When computing allowance levels, credit loss assumptions are estimated using models that categorize asset pools based on loss history, delinquency status and other credit trends and risk characteristics, including current conditions and reasonable and supportable forecasts about the future. Determining the appropriateness of the allowance is complex and requires judgment by management about the effect of matters that are inherently uncertain. In future periods evaluations of the overall asset portfolio, in light of the factors and forecasts then prevailing, may result in significant changes in the allowance and credit loss expense in those future periods.

Credit quality is assessed and monitored by evaluating various attributes in order to enable timely detection of any concerns with the customer’s credit rating. The results of those evaluations are utilized in underwriting new loans and transactions with counterparties and in our process for estimation of expected credit losses.

In assessing the risk rating assigned to each individual loan, among the factors considered are the borrower's debt capacity, collateral coverage, payment history and delinquency experience, financial flexibility and earnings strength, the expected amounts and source of repayment, the level and nature of contingencies, if any, and the industry and geography in which the borrower operates. These factors are based on an evaluation of historical and current information, and involve subjective assessment and interpretation. Credit counterparties are evaluated and risk-rated on an individual basis at least annually. Management considers the ratings to be current as of June 30, 2023.

Our internal risk rating methodology assigns risk ratings to counterparties ranging from Investment Grade, Speculative, Special Mention, Substandard, Doubtful and Loss.

- Investment Grade: Counterparties with strong credit quality and low expected credit risk and probability of default. Approximately 86% of our loans were rated as investment grade as of June 30, 2023 with external credit ratings, or equivalent, of "BBB-" or better.
- Speculative: Counterparties that have the ability to repay but face significant uncertainties, such as adverse business or financial circumstances that could affect credit risk or economic downturns. Loans to counterparties rated as speculative account for approximately 13% of our loans as of June 30, 2023, and are concentrated in leveraged loans. Approximately 91% of those leveraged loans have an external credit rating, or equivalent, of "BB" or "B" as of June 30, 2023.
- Special Mention: Counterparties with potential weaknesses that, if uncorrected, may result in deterioration of repayment prospects.
- Substandard: Counterparties with well-defined weakness that jeopardizes repayment with the possibility we will sustain some loss.
- Doubtful: Counterparties with well-defined weakness which make collection or liquidation in full highly questionable and improbable.
- Loss: Counterparties which are uncollectible or have little value.

The following tables present our recorded loans to counterparties by risk rating, as noted above, as of the dates indicated:

June 30, 2023 (In millions)	Commercial and Financial	Commercial Real Estate	Total Loans
Investment grade	$ 27,116	$ 2,288	$ 29,404
Speculative	3,636	550	4,186
Special mention	324	99	423
Substandard	25	—	25
Doubtful	30	46	76
Total[1][2]	$ 31,131	$ 2,983	$ 34,114

December 31, 2022 (In millions)	Commercial and Financial	Commercial Real Estate	Total Loans
Investment grade	$ 24,667	$ 2,509	$ 27,176
Speculative	4,103	388	4,491
Special mention	291	88	379
Substandard	99	—	99
Total[1][2]	$ 29,160	$ 2,985	$ 32,145

[1] Loans include $3.08 billion and $2.80 billion of overdrafts as of June 30, 2023 and December 31, 2022, respectively. Overdrafts are short-term in nature and do not present a significant credit risk to us. As of June 30, 2023, $2.78 billion overdrafts were investment grade and $0.30 billion overdrafts were speculative.

[2] Total does not include $9 million and $5 million of loans classified as held-for-sale as of June 30, 2023 and December 31, 2022, respectively.

For additional information about credit quality, refer to pages 146 to 150 in Note 4 to the consolidated financial statements included under Item 8, Financial Statements and Supplementary Data, in our 2022 Form 10-K.

The following table presents the amortized cost basis, by year of origination and credit quality indicator, as of June 30, 2023. For origination years before the fifth annual period, we present the aggregate amortized cost basis of loans. For purchased loans, the date of issuance is used to determine the year of origination, not the date of acquisition. For modified, extended or renewed lending arrangements, we evaluate whether a credit event has occurred which would consider the loan to be a new arrangement.

(In millions)	2023	2022	2021	2020	2019	Prior	Revolving Loans	Total[1]
Domestic loans:								
Commercial and financial:								
Risk Rating:								
Investment grade	$ 1,408	$ 120	$ 171	$ 61	$ 285	$ 6	$ 13,516	$ 15,567
Speculative	319	280	719	137	407	247	253	2,362
Special mention	5	—	167	—	75	—	—	247
Substandard	20	—	—	5	—	—	—	25
Doubtful	6	— 0	24	— 0	—	—	—	30
Total commercial and financing	$ 1,758	$ 400	$ 1,081	$ 203	$ 767	$ 253	$ 13,769	$ 18,231
Commercial real estate:								
Risk Rating:								
Investment grade	$ 83	$ 500	$ 528	$ 100	$ 330	$ 747	$ —	$ 2,288
Speculative	—	20	—	49	189	292	—	550
Special mention	—	—	—	—	22	77	—	99
Doubtful	—	—	—	—	—	46	—	46
Total commercial real estate	$ 83	$ 520	$ 528	$ 149	$ 541	$ 1,162	$ —	$ 2,983
Non-U.S. loans:								
Commercial and financial:								
Risk Rating:								
Investment grade	$ 1,848	$ 1,994	$ 2,819	$ —	$ —	$ —	$ 4,888	$ 11,549
Speculative	261	157	512	78	190	71	5	1,274
Special mention	—	—	29	29	5	14	—	77
Total commercial and financing	$ 2,109	$ 2,151	$ 3,360	$ 107	$ 195	$ 85	$ 4,893	$ 12,900
Total loans[2]	$ 3,950	$ 3,071	$ 4,969	$ 459	$ 1,503	$ 1,500	$ 18,662	$ 34,114

[1] Any reserve associated with accrued interest is not material. As of June 30, 2023, accrued interest receivable of $333 million included in the amortized cost basis of loans has been excluded from the amortized cost basis within this table.

[2] Total does not include $9 million of loans classified as held-for-sale as of June 30, 2023.

The following table presents the amortized cost basis, by year of origination and credit quality indicator as of December 31, 2022:

(In millions)	2022	2021	2020	2019	2018	Prior	Revolving Loans	Total[1]
Domestic loans:								
Commercial and financial:								
Risk Rating:								
Investment grade	$ 1,577	$ 185	$ 72	$ 300	$ —	$ 9	$ 12,843	$ 14,986
Speculative	523	859	168	461	236	151	545	2,943
Special mention	—	120	—	105	19	—	—	244
Substandard	—	—	5	42	31	7	—	85
Total commercial and financing	$ 2,100	$ 1,164	$ 245	$ 908	$ 286	$ 167	$ 13,388	$ 18,258
Commercial real estate:								
Risk Rating:								
Investment grade	$ 519	$ 612	$ 100	$ 330	$ 511	$ 436	$ —	$ 2,508
Speculative	—	—	49	163	111	65	—	388
Special mention	—	—	—	49	40	—	—	89
Total commercial real estate	$ 519	$ 612	$ 149	$ 542	$ 662	$ 501	$ —	$ 2,985
Non-U.S. loans:								
Commercial and financial:								
Risk Rating:								
Investment grade	$ 2,986	$ 2,799	$ —	$ —	$ —	$ —	$ 3,897	$ 9,682
Speculative	234	529	100	181	107	—	9	1,160
Special mention	—	—	18	5	23	—	—	46
Substandard	—	—	—	—	14	—	—	14
Total commercial and financing	$ 3,220	$ 3,328	$ 118	$ 186	$ 144	$ —	$ 3,906	$ 10,902
Total loans[2]	$ 5,839	$ 5,104	$ 512	$ 1,636	$ 1,092	$ 668	$ 17,294	$ 32,145

[1] Any reserve associated with accrued interest is not material. As of December 31, 2022, accrued interest receivable of $200 million included in the amortized cost basis of loans has been excluded from the amortized cost basis within this table.
[2] Total does not include $5 million of loans classified as held-for-sale as of December 31, 2022.

The following tables present the activity in the allowance for credit losses by portfolio and class for the periods indicated:

	Three Months Ended June 30, 2023						
	Commercial and Financial						
(In millions)	Leveraged Loans	Other Loans[1]	Commercial Real Estate	Available-for-sale Securities	Off-Balance Sheet Commitments	All Other	Total
Allowance for credit losses:							
Beginning balance	$ 82	$ 4	$ 29	$ 2	$ 16	$ 29	$ 162
Charge-offs	(8)	—	—	—	—	—	(8)
Provision	6	(1)	8	(2)	(1)	(28)	(18)
Ending balance	$ 80	$ 3	$ 37	$ —	$ 15	$ 1	$ 136

[1] Includes $2 million allowance for credit losses on Fund Finance loans and $1 million on other loans.

	Six Months Ended June 30, 2023						
	Commercial and Financial						
(In millions)	Leveraged Loans	Other Loans[1]	Commercial Real Estate	Available-for-sale Securities	Off-Balance Sheet Commitments	All Other	Total
Allowance for credit losses:							
Beginning balance	$ 73	$ 5	$ 19	$ 2	$ 23	$ (1)	$ 121
Charge-offs	(11)	—	—	—	—	—	(11)
Provision	18	(2)	18	(2)	(8)	2	26
Ending balance	$ 80	$ 3	$ 37	$ —	$ 15	$ 1	$ 136

[1] Includes $2 million allowance for credit losses on Fund Finance loans and $1 million on other loans.

	Three Months Ended June 30, 2022						
	Commercial and Financial						
(In millions)	Leveraged Loans	Other Loans[1]	Commercial Real Estate	Available-for-sale Securities	Off-Balance Sheet Commitments	All Other	Total
Allowance for credit losses:							
Beginning balance	$ 61	$ 11	$ 14	$ 2	$ 19	$ —	$ 107
Charge-offs	(3)	—	—	—	—	—	(3)
Provision	11	(1)	2	—	(2)	—	10
Ending balance	$ 69	$ 10	$ 16	$ 2	$ 17	$ —	$ 114

[1] Includes $9 million allowance for credit losses on Fund Finance loans and $1 million on other loans.

	Six Months Ended June 30, 2022						
	Commercial and Financial						
(In millions)	Leveraged Loans	Other Loans[1]	Commercial Real Estate	Available-for-sale Securities	Off-Balance Sheet Commitments	All Other	Total
Allowance for credit losses:							
Beginning balance	**$ 61**	**$ 12**	**$ 14**	**$ 2**	**$ 19**	**$ —**	**$ 108**
Charge-offs	**(4)**	**—**	**—**	**—**	**—**	**—**	**(4)**
Provision	**12**	**(2)**	**2**	**—**	**(2)**	**—**	**10**
Ending balance	**$ 69**	**$ 10**	**$ 16**	**$ 2**	**$ 17**	**$ —**	**$ 114**

[1] Includes $9 million allowance for credit losses on Fund Finance loans and $1 million on other loans.

Loans are reviewed on a regular basis, and any provisions for credit losses that are recorded reflect management's estimate of the amount necessary to maintain the allowance for loan losses at a level considered appropriate to absorb expected credit losses in the loan portfolio. In the second quarter of 2023, we recorded an $18 million reserve release, driven by the release of the allowance for credit losses related to our support of a U.S. financial institution in the first quarter of 2023, partially offset by an increase in loan loss reserves associated with credit portfolio rating changes. The provision for credit losses recorded in the second quarter of 2022 was $10 million.

Allowance estimates remain subject to continued model and economic uncertainty and management may use qualitative adjustments in the allowance estimates. If future data and forecasts deviate relative to the forecasts utilized to determine our allowance for credit losses as of June 30, 2023, or if credit risk migration is higher or lower than forecasted for reasons independent of the economic forecast, our allowance for credit losses will also change.

Note 5. Goodwill and Other Intangible Assets

The following table presents changes in the carrying amount of goodwill during the periods indicated:

(In millions)	Investment Servicing	Investment Management	Total
Goodwill:			
Ending balance December 31, 2021	$ 7,354	$ 267	$ 7,621
Acquisitions	3	—	3
Foreign currency translation	(125)	(4)	(129)
Ending balance December 31, 2022	$ 7,232	$ 263	$ 7,495
Foreign currency translation	**47**	**2**	**49**
Ending balance June 30, 2023	**$ 7,279**	**$ 265**	**$ 7,544**

The following table presents changes in the net carrying amount of other intangible assets during the periods indicated:

(In millions)	Investment Servicing	Investment Management	Total
Other intangible assets:			
Ending balance December 31, 2021	$ 1,746	$ 70	$ 1,816
Amortization	(217)	(21)	(238)
Foreign currency translation	(34)	—	(34)
Ending balance December 31, 2022	1,495	49	1,544
Amortization	**(109)**	**(11)**	**(120)**
Foreign currency translation	**11**	**—**	**11**
Ending balance June 30, 2023	**$ 1,397**	**$ 38**	**$ 1,435**

The following table presents the gross carrying amount, accumulated amortization and net carrying amount of other intangible assets by type as of the dates indicated:

June 30, 2023 (In millions)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Other intangible assets:			
Client relationships	**$ 2,749**	**$ (1,720)**	**$ 1,029**
Technology	**402**	**(197)**	**205**
Core deposits	**687**	**(496)**	**191**
Other	**84**	**(74)**	**10**
Total	**$ 3,922**	**$ (2,487)**	**$ 1,435**

December 31, 2022 (In millions)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Other intangible assets:			
Client relationships	$ 2,728	$ (1,626)	$ 1,102
Technology	402	(178)	224
Core deposits	683	(477)	206
Other	84	(72)	12
Total	$ 3,897	$ (2,353)	$ 1,544

Note 6. Other Assets

The following table presents the components of other assets as of the dates indicated:

(In millions)	June 30, 2023	December 31, 2022
Securities borrowed[1]	**$ 25,322**	$ 16,489
Derivative instruments, net	**6,428**	7,664
Bank-owned life insurance	**3,701**	3,649
Investments in joint ventures and other unconsolidated entities[2]	**2,905**	3,245
Collateral, net	**2,495**	1,833
Deferred tax assets, net of valuation allowance[3]	**1,139**	1,127
Prepaid expenses	**671**	558
Receivable for securities settlement	**663**	383
Right-of-use assets	**579**	500
Accounts receivable	**399**	404
Income taxes receivable	**243**	235
Deposits with clearing organizations	**58**	62
Other[4]	**1,978**	1,753
Total	**$ 46,581**	$ 37,902

[1] Refer to Note 8, for further information on the impact of collateral on our financial statement presentation of securities borrowing and securities lending transactions.

[2] Includes equity securities without readily determinable fair values that are accounted for under the ASC 321 measurement alternative of $186 million and $179 million as of June 30, 2023 and December 31, 2022, respectively. For the three months ended June 30, 2023, there were no upward adjustments resulting from observable pricing changes that were recognized in other fee revenue related to such equity securities.

[3] Deferred tax assets and liabilities recorded in our consolidated statement of condition are netted within the same tax jurisdiction.

[4] Includes advances of $1,122 million and $1,201 million as of June 30, 2023 and December 31, 2022, respectively.

Note 7. Derivative Financial Instruments

We use derivative financial instruments to support our clients' needs and to manage our interest rate and currency risks. These financial instruments consist of FX contracts such as forwards, futures and options contracts; interest rate contracts such as interest rate swaps (cross currency and single currency) and futures; and other derivative contracts. Derivative instruments used for risk management purposes that are highly effective in offsetting the risk being hedged are generally designated as hedging instruments in hedge accounting relationships, while others are economic hedges and not designated in hedge accounting relationships. For additional information on our use and accounting policies on derivative financial instruments, including derivatives not designated as hedging instruments, refer to pages 154 in Note 10 to the consolidated financial statements included under Item 8, Financial Statements and Supplementary Data, in our 2022 Form 10-K.

Derivatives Designated as Hedging Instruments

For additional information on our derivatives designated as hedging instruments, including our risk management objectives and hedging documentation methodologies, refer to page 154 to 155 in Note 10 to the consolidated financial statements included under Item 8, Financial Statements and Supplementary Data, in our 2022 Form 10-K.

Fair Value Hedges

Derivatives designated as fair value hedges are utilized to mitigate the risk of changes in the fair values of recognized assets and liabilities, including long-term debt and AFS securities. We use interest rate contracts in this manner to manage our exposure to changes in the fair value of hedged items caused by changes in interest rates.

Changes in the fair value of the derivative and changes in fair value of the hedged item due to changes in the hedged risk are recognized in earnings in the same line item. If a hedge is terminated, but the hedged item was not derecognized, all remaining adjustments to the carrying amount of the hedged item are amortized over a period that is consistent with the amortization of other discounts or premiums associated with the hedged item.

Cash Flow Hedges

Derivatives designated as cash flow hedges are utilized to offset the variability of cash flows of recognized assets, liabilities or forecasted transactions. We have entered into FX contracts to hedge the change in cash flows attributable to FX movements in foreign currency denominated investment securities. Additionally, we have entered into interest rate swap agreements to hedge the forecasted cash flows associated with EURIBOR indexed floating-rate loans. The interest rate swaps synthetically convert the loan interest receipts from a variable-rate to a fixed-rate, thereby mitigating the risk attributable to changes in the EURIBOR benchmark rate.

Changes in fair value of the derivatives designated as cash flow hedges are initially recorded in AOCI and then reclassified into earnings in the same period or periods during which the hedged forecasted transaction affects earnings and are presented in the same income statement line item as the earnings effect of the hedged item. If the hedge relationship is terminated, the change in fair value on the derivative recorded in AOCI is reclassified into earnings consistent with the timing of the hedged item. For hedge relationships that are discontinued because a forecasted transaction is not expected to occur according to the original hedge terms, any related derivative values recorded in AOCI are immediately recognized in earnings. The net loss associated with cash flow hedges expected to be reclassified from AOCI within 12 months of June 30, 2023, is approximately $5 million. The maximum length of time over which forecasted cash flows are hedged is 5 years.

Net Investment Hedges

Derivatives categorized as net investment hedges are entered into to protect the net investment in our foreign operations against adverse changes in exchange rates. We use FX forward contracts to convert the foreign currency risk to U.S. dollars to mitigate our exposure to fluctuations in FX rates. The changes in fair value of the FX forward contracts are recorded, net of taxes, in the foreign currency translation component of other comprehensive income (OCI).

The following table presents the aggregate contractual, or notional, amounts of derivative financial instruments, including those entered into for trading and asset-and-liability management activities as of the dates indicated:

(In millions)	June 30, 2023	December 31, 2022
Derivatives not designated as hedging instruments:		
Interest rate contracts:		
Futures	**$ 12,839**	$ 8,683
Foreign exchange contracts:		
Forward, swap and spot	**2,457,508**	2,267,221
Options purchased	**736**	607
Options written	**272**	445
Futures	**1,240**	1,550
Other:		
Futures	**143**	—
Stable value contracts[1]	**30,348**	31,391
Deferred value awards[2]	**353**	300
Derivatives designated as hedging instruments:		
Interest rate contracts:		
Swap agreements	**19,531**	22,566
Foreign exchange contracts:		
Forward and swap	**9,492**	8,213

[1] The notional value of the stable value contracts represents our maximum exposure. However, exposure to various stable value contracts is generally contractually limited to substantially lower amounts than the notional values.

[2] Represents grants of deferred value awards to employees; refer to page 158 in Note 10 to the consolidated financial statements included under Item 8, Financial Statements and Supplementary Data, in our 2022 Form 10-K.

Notional amounts are provided here as an indication of the volume of our derivative activity and serve as a reference to calculate the fair values of the derivative.

The following table presents the fair value of derivative financial instruments, excluding the impact of master netting agreements, recorded in our consolidated statement of condition as of the dates indicated. The impact of master netting agreements is provided in Note 8.

	Derivative Assets[1]		Derivative Liabilities[2]	
(In millions)	June 30, 2023	December 31, 2022	June 30, 2023	December 31, 2022
Derivatives not designated as hedging instruments:				
Foreign exchange contracts	**$ 20,769**	$ 26,081	**$ 20,433**	$ 25,407
Other derivative contracts	**—**	—	**213**	216
Total	**$ 20,769**	$ 26,081	**$ 20,646**	$ 25,623
Derivatives designated as hedging instruments:				
Foreign exchange contracts	**$ 242**	$ 105	**$ 30**	$ 342
Interest rate contracts	**3**	—	**6**	1
Total	**$ 245**	$ 105	**$ 36**	$ 343

[1] Derivative assets are included within other assets in our consolidated statement of condition.

[2] Derivative liabilities are included within other liabilities in our consolidated statement of condition.

The following table presents the impact of our use of derivative financial instruments on our consolidated statement of income for the periods indicated:

		Three Months Ended June 30,		Six Months Ended June 30,	
		2023	2022	2023	2022
(In millions)	Location of Gain (Loss) on Derivative in Consolidated Statement of Income	Amount of Gain (Loss) on Derivative Recognized in Consolidated Statement of Income			
Derivatives not designated as hedging instruments:					
Foreign exchange contracts	Foreign exchange trading services revenue	**$ 191**	$ 230	**$ 423**	$ 469
Foreign exchange contracts	Interest expense	**(22)**	3	**(16)**	16
Interest rate contracts	Foreign exchange trading services revenue	**—**	(6)	**1**	—
Other derivative contracts	Compensation and employee benefits	**(24)**	(10)	**(78)**	(64)
Total		**$ 145**	$ 217	**$ 330**	$ 421

The following table shows the carrying amount and associated cumulative basis adjustments related to the application of hedge accounting that is included in the carrying amount of hedged assets and liabilities in fair value hedging relationships:

	June 30, 2023		
		Cumulative Fair Value Hedging Adjustment Increasing (Decreasing) the Carrying Amount	
(In millions)	Carrying Amount of Hedged Assets/Liabilities	Active	De-designated[1]
Long-term debt	**$ 12,762**	**$ (518)**	**$ 200**
Available-for-sale securities[2][3]	**10,326**	**(719)**	**5**

	December 31, 2022		
		Cumulative Fair Value Hedging Adjustment Increasing (Decreasing) the Carrying Amount	
(In millions)	Carrying Amount of Hedged Assets/Liabilities	Active	De-designated[1]
Long-term debt	$ 12,513	$ (644)	$ 362
Available-for-sale securities[2][3]	9,801	(675)	8

[1] Represents hedged items no longer designated in qualifying fair value hedging relationships for which an associated basis adjustment exists at the balance sheet date.

[2] Included in these amounts is the amortized cost of the financial assets designated under the portfolio layer hedging relationships (hedged item is the hedged layer of a closed portfolio of financial assets expected to remain outstanding at the end of the hedging relationship). At June 30, 2023 and December 31, 2022, the amortized cost of the closed portfolios used in these hedging relationships was $713 million and $207 million, respectively, of which $400 million and $64 million, respectively, was designated under the portfolio layer hedging relationship. At June 30, 2023 and December 31, 2022, the cumulative adjustment associated with these hedging relationships was ($13) million and ($4) million, respectively.

[3] Carrying amount represents amortized cost.

As of June 30, 2023 and December 31, 2022, the total notional amount of the interest rate swaps of fair value hedges was $18.65 billion and $20.32 billion, respectively.

The following tables present the impact of our use of derivative financial instruments on our consolidated statement of income for the periods indicated:

		Three Months Ended June 30,				Three Months Ended June 30,	
		2023	2022			2023	2022
(In millions)	Location of Gain (Loss) on Derivative in Consolidated Statement of Income	Amount of Gain (Loss) on Derivative Recognized in Consolidated Statement of Income		Hedged Item in Fair Value Hedging Relationship	Location of Gain (Loss) on Hedged Item in Consolidated Statement of Income	Amount of Gain (Loss) on Hedged Item Recognized in Consolidated Statement of Income	
Derivatives designated as fair value hedges:							
Interest rate contracts	Net interest income	**$ 156**	$ 148	Available-for-sale securities[1]	Net interest income	**$ (156)**	$ (149)
Interest rate contracts	Net interest income	**(84)**	(96)	Long-term debt	Net interest income	**84**	96
Total		**$ 72**	$ 52			**$ (72)**	$ (53)

		Six Months Ended June 30,				Six Months Ended June 30,	
		2023	2022			2023	2022
(In millions)	Location of Gain (Loss) on Derivative in Consolidated Statement of Income	Amount of Gain (Loss) on Derivative Recognized in Consolidated Statement of Income		Hedged Item in Fair Value Hedging Relationship	Location of Gain (Loss) on Hedged Item in Consolidated Statement of Income	Amount of Gain (Loss) on Hedged Item Recognized in Consolidated Statement of Income	
Derivatives designated as fair value hedges:							
Interest rate contracts	Net interest income	**$ 43**	358	Available-for-sale securities[2]	Net interest income	**$ (43)**	$ (360)
Interest rate contracts	Net interest income	**25**	(339)	Long-term debt	Net interest income	**(25)**	339
Total		**$ 68**	$ 19			**$ (68)**	$ (21)

[1] In the three months ended June 30, 2023, approximately $115 million of net unrealized gains on AFS investment securities designated in fair value hedges were recognized in OCI compared to $113 million of net unrealized gains in the same period of 2022.

[2] In the six months ended June 30, 2023, approximately $34 million of net unrealized gains on AFS investment securities designated in fair value hedges were recognized in OCI compared to $270 million of net unrealized gains in the same period of 2022.

(In millions)	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Location of Gain or (Loss) Reclassified from Accumulated Other Comprehensive Income into Income	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022
	Amount of Gain or (Loss) Recognized in Other Comprehensive Income on Derivative			Amount of Gain or (Loss) Reclassified from Accumulated Other Comprehensive Income into Income	
Derivatives designated as cash flow hedges:					
Interest rate contracts[1]	**$ (6)**	$ (92)	Net interest income	**$ (52)**	$ 6
Foreign exchange contracts	**65**	129	Net interest income	**—**	3
Total derivatives designated as cash flow hedges	**$ 59**	$ 37		**$ (52)**	$ 9
Derivatives designated as net investment hedges:					
Foreign exchange contracts	**$ (8)**	$ 264	Gains (Losses) related to investment securities, net	**$ —**	$ —
Total derivatives designated as net investment hedges	**(8)**	264		**—**	—
Total	**$ 51**	$ 301		**$ (52)**	$ 9

(In millions)	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022	Location of Gain or (Loss) Reclassified from Accumulated Other Comprehensive Income into Income	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
	Amount of Gain or (Loss) Recognized in Other Comprehensive Income on Derivative			Amount of Gain or (Loss) Reclassified from Accumulated Other Comprehensive Income into Income	
Derivatives designated as cash flow hedges:					
Interest rate contracts	**$ (3)**	$ (383)	Net interest income	**$ (103)**	$ 25
Foreign exchange contracts	**82**	$ 176	Net interest income	**1**	6
Total derivatives designated as cash flow hedges	**$ 79**	$ (207)		**$ (102)**	$ 31
Derivatives designated as net investment hedges:					
Foreign exchange contracts	**$ (49)**	$ 328	Gains (losses) related to investment securities, net	**$ —**	$ —
Total derivatives designated as net investment hedges	**(49)**	328		**—**	—
Total	**$ 30**	$ 121		**$ (102)**	$ 31

[1] As of June 30, 2023, the maximum maturity date of the underlying hedged items is approximately 5.0 years.

Derivatives Netting and Credit Contingencies

Netting

Derivatives receivable and payable as well as cash collateral from the same counterparty are netted in the consolidated statement of condition for those counterparties with whom we have legally binding master netting agreements in place. In addition to cash collateral received and transferred presented on a net basis, we also receive and transfer collateral in the form of securities, which mitigate credit risk but are not eligible for netting. Additional information on netting is provided in Note 8.

Credit Contingencies

Certain of our derivatives are subject to master netting agreements with our derivative counterparties containing credit risk-related contingent features, which requires us to maintain an investment grade credit rating with the various credit rating agencies. If our rating falls below investment grade, we would be in violation of the provisions, and counterparties to the derivatives could request immediate payment or demand full overnight collateralization on derivatives instruments in liability positions. The aggregate fair value of all derivatives with credit contingent features and in a net liability position as of June 30, 2023 totaled approximately $4.14 billion, against which we provided $2.35 billion of collateral in the normal course of business. If our credit related contingent features underlying these agreements were triggered as of June 30, 2023, the maximum additional collateral we would be required to post to our counterparties is approximately $1.79 billion.

Note 8. Offsetting Arrangements

For additional information on our offsetting arrangements, refer to page 158 in Note 11 to the consolidated financial statements included under Item 8, Financial Statements and Supplementary Data, in our 2022 Form 10-K.

As of June 30, 2023 and December 31, 2022, the value of securities received as collateral from third parties where we are permitted to transfer or re-pledge the securities totaled $8.63 billion and $8.14 billion, respectively, and the fair value of the portion that had been transferred or re-pledged as of the same dates was $5.73 billion and $3.63 billion, respectively.

The following tables present information about the offsetting of assets related to derivative contracts and secured financing transactions, as of the dates indicated:

Assets:	June 30, 2023				
				Gross Amounts Not Offset in Statement of Condition	
(In millions)	Gross Amounts of Recognized Assets[1][2]	Gross Amounts Offset in Statement of Condition[3]	Net Amounts of Assets Presented in Statement of Condition	Cash and Securities Received[4]	Net Amount[5]
Derivatives:					
Foreign exchange contracts	$ 21,011	$ (12,840)	$ 8,171	$ —	$ 8,171
Interest rate contracts[6]	3	—	3	—	3
Cash collateral and securities netting	NA	(1,746)	(1,746)	(1,391)	(3,137)
Total derivatives	21,014	(14,586)	6,428	(1,391)	5,037
Other financial instruments:					
Resale agreements and securities borrowing[7][8]	206,770	(179,779)	26,990	(25,668)	1,322
Total derivatives and other financial instruments	$ 227,784	$ (194,365)	$ 33,418	$ (27,059)	$ 6,359

Assets:	December 31, 2022				
				Gross Amounts Not Offset in Statement of Condition	
(In millions)	Gross Amounts of Recognized Assets[1][2]	Gross Amounts Offset in Statement of Condition[3]	Net Amounts of Assets Presented in Statement of Condition	Cash and Securities Received[4]	Net Amount[5]
Derivatives:					
Foreign exchange contracts	$ 26,186	$ (15,224)	$ 10,962	$ —	$ 10,962
Interest rate contracts[6]	—	—	—	—	—
Cash collateral and securities netting	NA	(3,298)	(3,298)	(1,717)	(5,015)
Total derivatives	26,186	(18,522)	7,664	(1,717)	5,947
Other financial instruments:					
Resale agreements and securities borrowing[7][8]	125,797	(104,093)	21,704	(20,960)	744
Total derivatives and other financial instruments	$ 151,983	$ (122,615)	$ 29,368	$ (22,677)	$ 6,691

[1] Amounts include all transactions regardless of whether or not they are subject to an enforceable netting arrangement.

[2] Refer to Note 1 and Note 2 for additional information about the measurement basis of derivative instruments.

[3] Amounts subject to netting arrangements which have been determined to be legally enforceable and eligible for netting in the consolidated statement of condition.

[4] Includes securities in connection with our securities borrowing transactions.

[5] Includes amounts secured by collateral not determined to be subject to enforceable netting arrangements.

[6] Variation margin payments presented as settlements rather than collateral.

[7] Included in the $26.99 billion as of June 30, 2023 were $1.67 billion of resale agreements and $25.32 billion of collateral provided related to securities borrowing. Included in the $21.70 billion as of December 31, 2022 were $5.21 billion of resale agreements and $16.49 billion of collateral provided related to securities borrowing. Resale agreements and collateral provided related to securities borrowing were recorded in securities purchased under resale agreements and other assets, respectively, in our consolidated statement of condition. Refer to Note 9 for additional information with respect to principal securities finance transactions.

[8] Offsetting of resale agreements primarily relates to our involvement in FICC, where we settle transactions on a net basis for payment and delivery through the Fedwire system.

NA Not applicable

The following tables present information about the offsetting of liabilities related to derivative contracts and secured financing transactions, as of the dates indicated:

Liabilities:	June 30, 2023				
				Gross Amounts Not Offset in Statement of Condition	
(In millions)	Gross Amounts of Recognized Liabilities[1][2]	Gross Amounts Offset in Statement of Condition[3]	Net Amounts of Liabilities Presented in Statement of Condition	Cash and Securities Received[4]	Net Amount[5]
Derivatives:					
Foreign exchange contracts	$ 20,463	$ (12,840)	$ 7,623	$ —	$ 7,623
Interest rate contracts[6]	6	—	6	—	6
Other derivative contracts	213	—	213	—	213
Cash collateral and securities netting	NA	(2,134)	(2,134)	(1,002)	(3,136)
Total derivatives	20,682	(14,974)	5,708	(1,002)	4,706
Other financial instruments:					
Repurchase agreements and securities lending[7][8]	197,207	(179,779)	17,428	(16,710)	718
Total derivatives and other financial instruments	$ 217,889	$ (194,753)	$ 23,136	$ (17,712)	$ 5,424

Liabilities:	December 31, 2022				
				Gross Amounts Not Offset in Statement of Condition	
(In millions)	Gross Amounts of Recognized Liabilities[1][2]	Gross Amounts Offset in Statement of Condition[3]	Net Amounts of Liabilities Presented in Statement of Condition	Cash and Securities Received[4]	Net Amount[5]
Derivatives:					
Foreign exchange contracts	$ 25,749	$ (15,224)	$ 10,525	$ —	$ 10,525
Interest rate contracts[6]	1	—	1	—	1
Other derivative contracts	216	—	216	—	216
Cash collateral and securities netting	NA	(2,727)	(2,727)	(908)	(3,635)
Total derivatives	25,966	(17,951)	8,015	(908)	7,107
Other financial instruments:					
Repurchase agreements and securities lending[7][8]	111,653	(104,093)	7,560	(6,433)	1,127
Total derivatives and other financial instruments	$ 137,619	$ (122,044)	$ 15,575	$ (7,341)	$ 8,234

[1] Amounts include all transactions regardless of whether or not they are subject to an enforceable netting arrangement.

[2] Refer to Note 1 and Note 2 for additional information about the measurement basis of derivative instruments.

[3] Amounts subject to netting arrangements which have been determined to be legally enforceable and eligible for netting in the consolidated statement of condition.

[4] Includes securities provided in connection with our securities lending transactions.

[5] Includes amounts secured by collateral not determined to be subject to enforceable netting arrangements.

[6] Variation margin payments presented as settlements rather than collateral.

[7] Included in the $17.43 billion as of June 30, 2023 were $4.29 billion of repurchase agreements and $13.14 billion of collateral received related to securities lending transactions. Included in the $7.56 billion as of December 31, 2022 were $1.18 billion of repurchase agreements and $6.38 billion of collateral received related to securities lending transactions. Repurchase agreements and collateral received related to securities lending were recorded in securities sold under repurchase agreements and accrued expenses and other liabilities, respectively, in our consolidated statement of condition. Refer to Note 9 for additional information with respect to principal securities finance transactions.

[8] Offsetting of repurchase agreements primarily relates to our involvement in FICC, where we settle transactions on a net basis for payment and delivery through the Fedwire system.

NA Not applicable

The securities transferred under resale and repurchase agreements typically are U.S. Treasury, agency and agency MBS. In our principal securities borrowing and lending arrangements, the securities transferred are predominantly equity securities and some corporate debt securities. The fair value of the securities transferred may increase in value to an amount greater than the amount received under our repurchase and securities lending arrangements, which exposes us to counterparty risk. We require the review of the price of the underlying securities in relation to the carrying value of the repurchase agreements and securities lending arrangements on a daily basis and when appropriate, adjust the cash or security to be obtained or returned to counterparties that is reflective of the required collateral levels.

The following table summarizes our repurchase agreements and securities lending transactions by category of collateral pledged and remaining maturity of these agreements, as of the periods indicated:

	As of June 30, 2023					As of December 31, 2022				
(In millions)	**Overnight and Continuous**	**Up to 30 Days**	**30-90 days**	**Greater than 90 Days**	**Total**	**Overnight and Continuous**	**Up to 30 Days**	**30-90 days**	**Greater than 90 Days**	**Total**
Repurchase agreements:										
U.S. Treasury and agency securities	**$ 180,178**	**$ 193**	**$ —**	**$ —**	**$ 180,371**	$ 100,899	$ —	$ 200	$ —	$ 101,099
Non-U.S. sovereign debt	**383**	**—**	**—**	**—**	**383**	702	—	—	—	702
Total	**180,561**	**193**	**—**	**—**	**180,754**	101,601	—	200	—	101,801
Securities lending transactions:										
US Treasury and agency securities	**3**	**—**	**—**	**—**	**3**	44	—	—	—	44
Corporate debt securities	**85**	**—**	**7**	**—**	**92**	67	—	—	—	67
Equity securities	**7,081**	**15**	**27**	**2,909**	**10,032**	4,509	—	—	1,606	6,115
Other[1]	**6,326**	**—**	**—**	**—**	**6,326**	3,626	—	—	—	3,626
Total	**13,495**	**15**	**34**	**2,909**	**16,453**	8,246	—	—	1,606	9,852
Gross amount of recognized liabilities for repurchase agreements and securities lending	**$ 194,056**	**$ 208**	**$ 34**	**$ 2,909**	**$ 197,207**	$ 109,847	$ —	$ 200	$ 1,606	$ 111,653

[1] Represents a security interest in underlying client assets related to our prime services business, which clients have allowed us to transfer and re-pledge.

Note 9. Commitments and Guarantees

For additional information on the nature of the obligations and related business activities for our commitments and guarantees, refer to page 161 in Note 12 to the consolidated financial statements included under Item 8, Financial Statements and Supplementary Data, in our 2022 Form 10-K.

The following table presents the aggregate gross contractual amounts of our off-balance sheet commitments and guarantees, as of the dates indicated:

(In millions)	**June 30, 2023**	**December 31, 2022**
Commitments:		
Unfunded credit facilities	**$ 34,469**	$ 31,208
Guarantees[1]:		
Indemnified securities financing	**$ 279,321**	$ 348,924
Standby letters of credit	**1,591**	2,125

[1] The potential losses associated with these guarantees equal the gross contractual amounts and do not consider the value of any collateral or reflect any participations to independent third parties.

Approximately 75% of our unfunded commitments to extend credit expire within one year as of June 30, 2023, compared to approximately 77% as of December 31, 2022.

Indemnified Securities Financing

For additional information on our indemnified securities financing, refer to page 161 in Note 12 to the consolidated financial statements included under Item 8, Financial Statements and Supplementary Data, in our 2022 Form 10-K.

The following table summarizes the aggregate fair values of indemnified securities financing and related collateral, as well as collateral invested in indemnified repurchase agreements, as of the dates indicated:

(In millions)	**June 30, 2023**	**December 31, 2022**
Fair value of indemnified securities financing	**$ 279,321**	$ 348,924
Fair value of cash and securities held by us, as agent, as collateral for indemnified securities financing	**290,607**	366,895
Fair value of collateral for indemnified securities financing invested in indemnified repurchase agreements	**58,444**	54,114
Fair value of cash and securities held by us or our agents as collateral for investments in indemnified repurchase agreements	**62,944**	57,903

In certain cases, we participate in securities finance transactions as a principal. As a principal, we borrow securities from the lending client and then lend such securities to the subsequent borrower, either our client or a broker/dealer. Our right to receive and obligation to return collateral in connection with our securities lending transactions are recorded in other assets and other liabilities, respectively, in our consolidated statement of condition. As of June 30, 2023 and December 31, 2022, we had approximately $25.32 billion and $16.49 billion, respectively, of collateral provided and approximately $13.14 billion and $6.38 billion, respectively, of collateral received from clients in connection with our participation in principal securities finance transactions.

FICC Guarantee

As a sponsoring member in the FICC member program, we provide a guarantee to FICC in the event a customer fails to perform its obligations under a transaction. In order to minimize the risk associated with this guarantee, sponsored members acting as buyers generally grant a security interest in the subject securities received under and held on their behalf by State Street.

Additionally, as a member of FICC, we may be required to pay a pro rata share of the losses incurred by the organization and provide liquidity support in the event of the default of another member to the extent that the defaulting member's clearing fund obligation and the prescribed loss allocation to FICC is depleted. It is difficult to estimate our maximum possible exposure under the membership agreement, since this would require an assessment of future claims that may be made against us that have not yet occurred. At both June 30, 2023 and December 31, 2022, we did not record any liabilities under these arrangements.

For additional information on our repurchase and reverse repurchase agreements, please refer to Note 8 to the consolidated financial statements in this Form 10-Q.

Note 10. Contingencies

Legal and Regulatory Matters

In the ordinary course of business, we and our subsidiaries are involved in disputes, litigation, and governmental or regulatory inquiries and investigations, both pending and threatened. These matters, if resolved adversely against us or settled, may result in monetary awards or payments, fines and penalties or require changes in our business practices. The resolution or settlement of these matters is inherently difficult to predict. Based on our assessment of these pending matters, we do not believe that the amount of any judgment, settlement or other action arising from any pending matter is likely to have a material adverse effect on our consolidated financial condition. However, an adverse outcome or development in certain of the matters described below could have a material adverse effect on our consolidated results of operations for the period in which such matter is resolved, or an accrual is determined to be required, on our consolidated financial condition, or on our reputation.

We evaluate our needs for accruals of loss contingencies related to legal and regulatory proceedings on a case-by-case basis. When we have a liability that we deem probable, and we deem the amount of such liability can be reasonably estimated as of the date of our consolidated financial statements, we accrue our estimate of the amount of loss. We also consider a loss probable and establish an accrual when we make, or intend to make, an offer of settlement. Once established, an accrual is subject to subsequent adjustment as a result of additional information. The resolution of legal and regulatory proceedings and the amount of reasonably estimable loss (or range thereof) are inherently difficult to predict, especially in the early stages of proceedings. Even if a loss is probable, an amount (or range) of loss might not be reasonably estimated until the later stages of the proceeding due to many factors such as the presence of complex or novel legal theories, the discretion of governmental authorities in seeking sanctions or negotiating resolutions in civil and criminal matters, the pace and timing of discovery and other assessments of facts and the procedural posture of the matter (collectively, "factors influencing reasonable estimates").

As of June 30, 2023, our aggregate accruals for loss contingencies for legal, regulatory and related matters totaled approximately $16 million, including potential fines by government agencies and civil litigation with respect to the matters specifically discussed below. To the extent that we have established accruals in our consolidated statement of condition for probable loss contingencies, such accruals may not be sufficient to cover our ultimate financial exposure associated with any settlements or judgments. Any such ultimate financial exposure, or proceedings to which we may become subject in the future, could have a material adverse effect on our businesses, on our future consolidated financial statements or on our reputation.

As of June 30, 2023, for those matters for which we have accrued probable loss contingencies (including the Invoicing Matter described below) and for other matters for which loss is reasonably possible (but not probable) in future periods, and for which we are able to estimate a range of reasonably possible loss, our estimate of the aggregate reasonably possible loss (in excess of any accrued amounts)

ranges up to approximately $70 million. Our estimate with respect to the aggregate reasonably possible loss is based upon currently available information and is subject to significant judgment and a variety of assumptions and known and unknown uncertainties, which may change quickly and significantly from time to time, particularly if and as we engage with applicable governmental agencies or plaintiffs in connection with a proceeding. Also, the matters underlying the reasonably possible loss will change from time to time. As a result, actual results may vary significantly from the current estimate.

In certain pending matters, it is not currently feasible to reasonably estimate the amount or a range of reasonably possible loss, and such losses, which may be significant, are not included in the estimate of reasonably possible loss discussed above. This is due to, among other factors, the factors influencing reasonable estimates described above. An adverse outcome in one or more of the matters for which we have not estimated the amount or a range of reasonably possible loss, individually or in the aggregate, could have a material adverse effect on our businesses, on our future consolidated financial statements or on our reputation. Given that our actual losses from any legal or regulatory proceeding for which we have provided an estimate of the reasonably possible loss could significantly exceed such estimate, and given that we cannot estimate reasonably possible loss for all legal and regulatory proceedings as to which we may be subject now or in the future, no conclusion as to our ultimate exposure from current pending or potential legal or regulatory proceedings should be drawn from the current estimate of reasonably possible loss.

The following discussion provides information with respect to significant legal, governmental and regulatory matters.

Invoicing Matter

In 2015, we determined that we had incorrectly invoiced clients for certain expenses. We have reimbursed most of our affected customers for those expenses, and we have implemented enhancements to our billing processes. In connection with our enhancements to our billing processes, we continue to review historical billing practices and may from time to time identify additional remediation. In 2017, we identified an additional area of incorrect expense billing associated with mailing services in our retirement services business. We currently expect the cumulative total of our payments to customers for these invoicing errors, including the error in the retirement services business, to be at least $350 million, all of which has been paid or is accrued. However, we may identify additional remediation costs.

In March 2017, a purported class action was commenced against us alleging that our invoicing practices violated duties owed to retirement plan customers under the Employee Retirement Income Security Act. We have agreed, subject to court approval, to resolve this matter and pay a cost that is within our established accruals for loss contingencies. In addition, we have received a purported class action demand letter alleging that our invoicing practices were unfair and deceptive under Massachusetts law. A class of customers, or particular customers, may assert that we have not paid to them all amounts incorrectly invoiced, and may seek double or treble damages under Massachusetts law.

We resolved potential criminal claims that arose from these matters by entering into a deferred prosecution agreement with the office of the United States Attorney for the District of Massachusetts and paying a $115 million penalty in May 2021. In June 2019, we reached an agreement with the SEC to settle its claims that we violated the recordkeeping provisions of Section 34(b) of the Investment Company Act of 1940 and caused violations of Section 31(a) of the Investment Company Act and Rules 31a-1(a) and 31a-1(b) thereunder in connection with our overcharges of customers which are registered investment companies. In reaching this settlement, we neither admitted nor denied the claims contained in the SEC's order, and agreed to pay a civil monetary penalty of $40 million. Also in June 2019, we reached an agreement with the Massachusetts Attorney General's office to resolve its claims related to this matter. In reaching this settlement, we neither admitted nor denied the claims in the order, and agreed to pay a civil monetary penalty of $5.5 million. The SEC and Massachusetts Attorney General's office settlements both recognize that the payment of $48.8 million in disgorgement and interest is satisfied by our direct reimbursements of our customers. We paid fines to resolve claims of the Securities Divisions of the Secretaries of the State of Massachusetts and New Hampshire. The costs associated with the settlements discussed above were within our related and previously established accruals for loss contingencies.

We have not resolved certain claims that may be made by the U.S. Department of Labor. We do not know whether any such claims will be brought, and there can be no assurance that any settlement of any such claims will be reached on financial terms acceptable to us or at all. The aggregate amount of penalties that may potentially be imposed upon us in connection with the resolution of any such matters is not currently known.

Gomes, et al. v. State Street Corp.

Eight participants in our Salary Savings Program filed a purported class action complaint in May 2021 on behalf of participants and beneficiaries who participated in the Program and invested in our proprietary investment fund options between May 2015 and the present. The complaint names the Plan Sponsor as well as the committees overseeing the Plan and their respective members as defendants, and alleges breach of fiduciary duty and violations of other duties owed to retirement plan participants under the Employee Retirement Income and Security Act. We and the other named defendants deny the alleged claims and are proceeding with a defense of the matter.

Edmar Financial Company, LLC et al v. Currenex, Inc. et al

In August 2021, two former Currenex clients filed a putative civil class action lawsuit in the Southern District of New York alleging antitrust violations, fraud and a civil Racketeer Influenced and Corrupt Organization Act violation against Currenex, State Street and others.

Income Taxes

In determining our provision for income taxes, we make certain judgments and interpretations with respect to tax laws in jurisdictions in which we have business operations. Because of the complex nature of these laws, in the normal course of our business, we are subject to challenges from U.S. and non-U.S. income tax authorities regarding the amount of income taxes due. These challenges may result in adjustments to the timing or amount of taxable income or deductions or the allocation of taxable income among tax jurisdictions. We recognize a tax benefit when it is more likely than not that our position will result in a tax deduction or credit. Unrecognized tax benefits totaled approximately $211 million and $285 million as of June 30, 2023 and December 31, 2022, respectively.

We are presently under audit by a number of tax authorities. The earliest tax year open to examination in jurisdictions where we have material operations is 2013. Management believes that we have sufficiently accrued liabilities as of June 30, 2023 for potential tax exposures.

Note 11. Variable Interest Entities

For additional information on our accounting policy and our use of variable interest entities (VIEs), refer to pages 164 to 165 in Note 14 to the consolidated financial statements included under Item 8, Financial Statements and Supplementary Data, "Variable Interest Entities", in our 2022 Form 10-K.

Interests in Investment Funds

As of both June 30, 2023 and December 31, 2022, we had no consolidated funds. As of both June 30, 2023 and December 31, 2022, we managed certain funds, considered VIEs, in which we held a variable interest, but for which we were not deemed to be the primary beneficiary. Our potential maximum loss exposure related to these unconsolidated funds totaled $17 million and $15 million as of June 30, 2023 and December 31, 2022, respectively, and represented the carrying value of our investments, which are recorded in other assets in our consolidated statement of condition. The amount of loss we may recognize during any period is limited to the carrying amount of our investments in the unconsolidated funds.

We also held investments in low-income housing, production and investment tax credit entities, considered VIEs for which we were not deemed to be the primary beneficiary. As of June 30, 2023 and December 31, 2022, our potential maximum loss exposure related to these unconsolidated entities totaled $1.35 billion and $1.60 billion, respectively, most of which represented the carrying value of our investments which are recorded in other assets in our consolidated statement of condition.

State Street accounts for our low-income housing tax credit investments (LIHTC) under the proportional amortization method. Effective January 1, 2023, State Street has also elected to account for our investments in production tax credit investments under the proportional amortization method of accounting. Under the proportional amortization method, the initial cost of the investment is amortized based on a percentage of the actual income tax credits and other income tax benefits allocated in the current period versus the total estimated income tax credits and other income tax benefits expected to be received over the life of the investment. The net benefit, representing the difference between amortization of the investment balance, recognition of the income tax credits and recognition of other income tax benefits from the investment is recognized as a component of income tax expense.

As of June 30, 2023, we had investments in LIHTC and production tax credit investments of $869 million and $317 million, respectively, which are included in other assets in our consolidated statement of condition. Contingent contributions related to the renewable energy production tax credit investments were $48 million at June 30, 2023. These contributions are contingent on production and expected to be paid through 2029. Deferred contributions related to LIHTC investments were $235 million at June 30, 2023. These deferred contributions are payable in accordance with the respective agreements and are expected to be paid through 2038.

The following table presents the impact of our tax credit programs for which we have elected to apply proportional amortization accounting on our consolidated statement of income for the periods indicated:

(In millions)	Six Months Ended June 30, 2023
Income (loss) recorded on investments within other fee revenue	$ 15
Income recorded in total revenue	15
Tax credits and benefits recognized in income tax expense	134
Proportional amortization recognized in income tax expense	(104)
Net benefits included in income tax expense	30
Net benefit attributable to tax-advantaged investments included in the consolidated statement of income	$ 45

Note 12. Shareholders' Equity

Preferred Stock

The following table summarizes selected terms of each of the series of the preferred stock issued and outstanding as of June 30, 2023:

Preferred Stock[1]:	Issuance Date	Depositary Shares Issued	Amount outstanding (in millions)	Ownership Interest Per Depositary Share	Liquidation Preference Per Share	Liquidation Preference Per Depositary Share	Per Annum Dividend Rate	Dividend Payment Frequency	Carrying Value as of June 30, 2023 (In millions)	Redemption Date[2]
Series D	February 2014	30,000,000	$ 750	1/4,000th	$ 100,000	$ 25	5.9% to but excluding March 15, 2024, then a floating rate equal to the three-month LIBOR plus 3.108%[3]	Quarterly	$ 742	March 15, 2024
Series F[4]	May 2015	250,000	250	1/100th	100,000	1,000	Floating rate equal to the three-month LIBOR plus 3.597%, or 9.149% effective June 15, 2023[5]	Quarterly	247	September 15, 2020
Series G	April 2016	20,000,000	500	1/4,000th	100,000	25	5.35% to but excluding March 15, 2026, then a floating rate equal to the three-month LIBOR plus 3.709%[6]	Quarterly	493	March 15, 2026
Series H	September 2018	500,000	500	1/100th	100,000	1,000	5.625% to but excluding December 15, 2023, then a floating rate equal to the three-month LIBOR plus 2.539%[7]	Semi-annually	494	December 15, 2023

[1] The preferred stock and corresponding depositary shares may be redeemed at our option in whole, but not in part, prior to the redemption date upon the occurrence of a regulatory capital treatment event, as defined in the certificate of designation, at a redemption price equal to the liquidation price per share and liquidation price per depositary share plus any declared and unpaid dividends, without accumulation of any undeclared dividends.

[2] On the redemption date, or any dividend payment date thereafter, the preferred stock and corresponding depositary shares may be redeemed by us, in whole or in part, at the liquidation price per share and liquidation price per depositary share plus any declared and unpaid dividends, without accumulation of any undeclared dividends.

[3] The dividend rate for the floating rate period of the Series D preferred stock that begins on March 15, 2024 and all subsequent floating rate periods will transition to a new, fixed rate in accordance with the LIBOR Act and the contractual terms of the Series D preferred stock.

[4] Series F preferred stock is redeemable on September 15, 2020 and on each succeeding dividend payment date.

[5] In accordance with the LIBOR Act, the benchmark interest rate used to calculate the dividend rate of the Series F preferred stock issued and outstanding will transition from USD LIBOR to CME Term SOFR, plus 0.26161%, beginning with the September 15, 2023 dividend period.

[6] The dividend rate for the floating rate period of the Series G preferred stock that begins on March 15, 2026 and all subsequent floating rate periods will remain at the current fixed rate in accordance with the LIBOR Act and the contractual terms of the Series G preferred stock.

[7] In accordance with the LIBOR Act, the benchmark interest rate to be used to calculate the dividend rate during the floating rate period of the Series H preferred stock that begins on December 15, 2023 will transition from USD LIBOR to CME Term SOFR, plus 0.26161%.

The following tables present the dividends declared for each of the series of preferred stock issued and outstanding for the periods indicated:

	Three Months Ended June 30,					
	2023			2022		
(Dollars in millions, except per share amounts)	Dividends Declared per Share	Dividends Declared per Depositary Share	Total	Dividends Declared per Share	Dividends Declared per Depositary Share	Total
Preferred Stock:						
Series D	**$ 1,475**	**$ 0.37**	**$ 11**	$ 1,475	$ 0.37	$ 11
Series F	**2,163**	**21.63**	**5**	1,130	11.30	3
Series G	**1,338**	**0.33**	**7**	1,338	0.33	7
Series H	**2,813**	**28.13**	**14**	2,813	28.13	14
Total			**$ 37**			$ 35

	Six Months Ended June 30,					
	2023			2022		
(Dollars in millions, except per share amounts)	Dividends Declared per Share	Dividends Declared per Depositary Share	Total	Dividends Declared per Share	Dividends Declared per Depositary Share	Total
Preferred Stock:						
Series D	**$ 2,950**	**$ 0.74**	**$ 22**	$ 2,950	$ 0.74	$ 22
Series F	**4,254**	**42.54**	**11**	2,080	20.80	5
Series G	**2,675**	**0.66**	**13**	2,676	0.66	14
Series H	**2,813**	**28.13**	**14**	2,813	28.13	14
Total			**$ 60**			$ 55

In July 2023, we declared dividends on our series D, F, and G preferred stock of approximately $1,475, $2,338, and $1,338, respectively, per share, or approximately $0.37, $23.38, and $0.33, respectively, per depositary share. These dividends total approximately $11 million, $6 million, and $7 million on our series D, F, and G preferred stock, respectively, which will be paid in September 2023.

Common Stock

In January 2023, our Board approved a share repurchase program authorizing the purchase of up to $4.5 billion of our common stock through December 31, 2023. We repurchased $1.05 billion of our common stock in the second quarter of 2023 under our 2023 share repurchase authorization.

The table below presents the activity under our common share repurchase program for the period indicated:

	Three Months Ended June 30, 2023			Six Months Ended June 30, 2023		
	Shares Acquired (In millions)	Average Cost per Share	Total Acquired (In millions)	Shares Acquired (In millions)	Average Cost per Share	Total Acquired (In millions)
2023 Program	**14.8**	**$ 71.08**	**$ 1,050**	**28.4**	**$ 80.93**	**$ 2,300**

The tables below present the dividends declared on common stock for the periods indicated:

	Three Months Ended June 30,			
	2023		2022	
	Dividends Declared per Share	Total (In millions)	Dividends Declared per Share	Total (In millions)
Common Stock	**$ 0.63**	**$ 203**	$ 0.57	$ 210

	Six Months Ended June 30,			
	2023		2022	
	Dividends Declared per Share	Total (In millions)	Dividends Declared per Share	Total (In millions)
Common Stock	**$ 1.26**	**$ 415**	$ 1.14	$ 419

Accumulated Other Comprehensive Income (Loss)

The following table presents the after-tax components of AOCI and changes for the periods indicated, net of related taxes:

(In millions)	Net Unrealized Gains (Losses) on Cash Flow Hedges	Net Unrealized Gains (Losses) on Investment Securities[1]	Net Unrealized Losses on Retirement Plans	Foreign Currency Translation	Net Unrealized Gains (Losses) on Hedges of Net Investments in Non-U.S. Subsidiaries	Total
Balance as of December 31, 2022	$ (359)	$ (1,817)	$ (143)	$ (1,751)	$ 359	$ (3,711)
Other comprehensive income (loss) before reclassifications	**58**	**44**	**—**	**207**	**(49)**	**260**
Increase (decrease) due to amounts reclassified from accumulated other comprehensive income	**75**	**106**	**12**	**—**	**—**	**193**
Other comprehensive income (loss)	**133**	**150**	**12**	**207**	**(49)**	**453**
Balance as of June 30, 2023	**$ (226)**	**$ (1,667)**	**$ (131)**	**$ (1,544)**	**$ 310**	**$ (3,258)**

	Net Unrealized Gains (Losses) on Cash Flow Hedges	Net Unrealized Gains (Losses) on Investment Securities[1]	Net Unrealized Losses on Retirement Plans	Foreign Currency Translation	Net Unrealized Gains (Losses) on Hedges of Net Investments in Non-U.S. Subsidiaries	Total
Balance as of December 31, 2021	$ (2)	$ (50)	$ (130)	$ (1,019)	$ 68	$ (1,133)
Other comprehensive income (loss) before reclassifications	(211)	(1,816)	(2)	(872)	328	(2,573)
Increase (decrease) due to amounts reclassified from accumulated other comprehensive income	(22)	24	17	—	—	19
Other comprehensive income (loss)	(233)	(1,792)	15	(872)	328	(2,554)
Balance as of June 30, 2022	$ (235)	$ (1,842)	$ (115)	$ (1,891)	$ 396	$ (3,687)

[1] Includes after-tax net unamortized unrealized gains (losses) related to AFS investment securities that have been transferred to HTM of ($643) million and ($749) million as of June 30, 2023 and December 31, 2022, respectively.

The following tables present after-tax reclassifications into earnings for the periods indicated:

	Three Months Ended June 30,		
	2023	2022	
(In millions)	Amounts Reclassified into Earnings		Affected Line Item in Consolidated Statement of Income
Investment securities:			
Net realized (gains) losses from sales of available-for-sale securities, net of related taxes of $0, and $0, respectively	**$ —**	$ 1	Net gains (losses) from sales of available-for-sale securities
Losses reclassified from accumulated other comprehensive income into income, net of related taxes of $20 and $13, respectively	**54**	34	Net interest income
Cash flow hedges:			
Losses (gains) reclassified from accumulated other comprehensive income into income, net of related taxes of $14 and $3, respectively	**38**	(6)	Net interest income
Retirement plans:			
Amortization of actuarial losses, net of related taxes of $0 and $1, respectively	**—**	2	Compensation and employee benefits expenses
Total amounts reclassified from accumulated other comprehensive income	**$ 92**	$ 31	

	Six Months Ended June 30,		
	2023	2022	
(In millions)	Amounts Reclassified into Earnings		Affected Line Item in Consolidated Statement of Income
Investment securities:			
Net realized (gains) losses from sales of available-for-sale securities, net of related taxes of $0, and $1, respectively	**$ —**	$ 1	Net gains (losses) from sales of available-for-sale securities
Losses reclassified from accumulated other comprehensive income into income, net of related taxes of $39 and $9, respectively	**106**	23	Net interest income
Cash flow hedges:			
Losses (gains) reclassified from accumulated other comprehensive income into income, net of related taxes of $27 and $9, respectively	**75**	(22)	Net interest income
Retirement plans:			
Amortization of actuarial losses, net of related taxes of $5 and $7, respectively	**12**	17	Compensation and employee benefits expenses
Total amounts reclassified from accumulated other comprehensive income	**$ 193**	$ 19	

Note 13. Regulatory Capital

For additional information on our regulatory capital, including the regulatory capital requirements administered by federal banking agencies, which we are subject to, refer to pages 167 to 168 in Note 16 to the consolidated financial statements included under Item 8, Financial Statements and Supplementary Data, in our 2022 Form 10-K.

As of June 30, 2023, we and State Street Bank exceeded all regulatory capital adequacy requirements to which we were subject to. As of June 30, 2023, State Street Bank was categorized as "well capitalized" under the applicable regulatory capital adequacy framework, and exceeded all "well capitalized" ratio guidelines to which it was subject. Management believes that no conditions or events have occurred since June 30, 2023 that have changed the capital categorization of State Street Bank.

The following table presents the regulatory capital structure, total RWA, related regulatory capital ratios and the minimum required regulatory capital ratios for us and State Street Bank as of the dates indicated.

	State Street Corporation				State Street Bank			
(Dollars in millions)	Basel III Advanced Approaches June 30, 2023	Basel III Standardized Approach June 30, 2023	Basel III Advanced Approaches December 31, 2022	Basel III Standardized Approach December 31, 2022	Basel III Advanced Approaches June 30, 2023	Basel III Standardized Approach June 30, 2023	Basel III Advanced Approaches December 31, 2022	Basel III Standardized Approach December 31, 2022
Common shareholders' equity:								
Common stock and related surplus	**$ 11,233**	**$ 11,233**	$ 11,234	$ 11,234	**$ 13,033**	**$ 13,033**	$ 13,033	$ 13,033
Retained earnings	**27,808**	**27,808**	27,028	27,028	**15,976**	**15,976**	16,975	16,975
Accumulated other comprehensive income (loss)	**(3,258)**	**(3,258)**	(3,711)	(3,711)	**(2,992)**	**(2,992)**	(3,428)	(3,428)
Treasury stock, at cost	**(13,555)**	**(13,555)**	(11,336)	(11,336)	**—**	**—**	—	—
Total	**22,228**	**22,228**	23,215	23,215	**26,017**	**26,017**	26,580	26,580
Regulatory capital adjustments:								
Goodwill and other intangible assets, net of associated deferred tax liabilities	**(8,480)**	**(8,480)**	(8,545)	(8,545)	**(8,219)**	**(8,219)**	(8,288)	(8,288)
Other adjustments[1]	**(252)**	**(252)**	(123)	(123)	**(154)**	**(154)**	(19)	(19)
Common equity tier 1 capital	**13,496**	**13,496**	14,547	14,547	**17,644**	**17,644**	18,273	18,273
Preferred stock	**1,976**	**1,976**	1,976	1,976	**—**	**—**	—	—
Tier 1 capital	**15,472**	**15,472**	16,523	16,523	**17,644**	**17,644**	18,273	18,273
Qualifying subordinated long-term debt	**1,375**	**1,375**	1,376	1,376	**539**	**539**	542	542
Allowance for credit losses	**—**	**135**	—	120	**—**	**135**	—	120
Other adjustments	**7**	**—**	—	—	**7**	**—**	—	—
Total capital	**$ 16,854**	**$ 16,982**	$ 17,899	$ 18,019	**$ 18,190**	**$ 18,318**	$ 18,815	$ 18,935
Risk-weighted assets:								
Credit risk[2]	**$ 62,196**	**$ 112,259**	$ 61,108	$ 105,739	**$ 56,456**	**$ 110,887**	$ 54,675	$ 104,184
Operational risk[3]	**42,562**	**N/A**	42,763	NA	**42,202**	**NA**	42,325	NA
Market risk	**1,763**	**1,763**	1,488	1,488	**1,763**	**1,763**	1,488	1,488
Total risk-weighted assets	**$ 106,521**	**$ 114,022**	$ 105,359	$ 107,227	**$ 100,421**	**$ 112,650**	$ 98,488	$ 105,672
Adjusted quarterly average assets	**$ 266,240**	**$ 266,240**	$ 275,678	$ 275,678	**$ 263,448**	**$ 263,448**	$ 273,220	$ 273,220

Capital Ratios:	2023 Minimum Requirements[4]	2022 Minimum Requirements[4]							
Common equity tier 1 capital	**8.0 %**	8.0 %	**12.7 %**	**11.8 %**	13.8 %	13.6 %	**17.6 %**	**15.7 %**	18.6 %	17.3 %
Tier 1 capital	**9.5**	9.5	**14.5**	**13.6**	15.7	15.4	**17.6**	**15.7**	18.6	17.3
Total capital	**11.5**	11.5	**15.8**	**14.9**	17.0	16.8	**18.1**	**16.3**	19.1	17.9
Tier 1 leverage[5]	**4.0**	4.0	**5.8**	**5.8**	6.0	6.0	**6.7**	**6.7**	6.7	6.7

[1] Other adjustments within CET1 capital primarily include AOCI hedges that are not recognized at fair value on the balance sheet, the overfunded portion of our defined benefit pension plan obligation net of associated deferred tax liabilities, disallowed deferred tax assets, and other required credit risk-based deductions.

[2] Under the advanced approaches, credit risk RWA includes a CVA which reflects the risk of potential fair value adjustments for credit risk reflected in our valuation of OTC derivative contracts. We used a simple CVA approach in conformity with the Basel III advanced approaches.

[3] Under the current advanced approaches rules and regulatory guidance concerning operational risk models, RWA attributable to operational risk can vary substantially from period-to-period, without direct correlation to the effects of a particular loss event on our results of operations and financial condition and impacting dates and periods that may differ from the dates and periods as of and during which the loss event is reflected in our financial statements, with the timing and categorization dependent on the processes for model updates and, if applicable, model revalidation and regulatory review and related supervisory processes. An individual loss event can have a significant effect on the output of our operational RWA under the advanced approaches depending on the severity of the loss event and its categorization among the seven Basel-defined UOMs.

[4] Minimum requirements include a CCB of 2.5% and a SCB of 2.5% for the advanced approaches and the standardized approach, respectively, a G-SIB surcharge of 1.0% and a countercyclical buffer of 0%.

[5] State Street Bank is required to maintain a minimum Tier 1 leverage ratio of 5% as it is the insured depository institution subsidiary of State Street Corporation, a U.S. G-SIB.

NA Not applicable

Note 14. Net Interest Income

The following table presents the components of interest income and interest expense, and related NII, for the periods indicated:

	Three Months Ended June 30,		Six Months Ended June 30,	
(In millions)	**2023**	**2022**	**2023**	**2022**
Interest income:				
Interest-bearing deposits with banks	**$ 696**	$ 70	**$ 1,338**	$ 79
Investment securities:				
Investment securities available-for-sale	**408**	122	**755**	276
Investment securities held-to-maturity	**320**	230	**640**	401
Total investment securities	**728**	352	**1,395**	677
Securities purchased under resale agreements	**81**	38	**157**	48
Loans	**442**	199	**839**	371
Other interest-earning assets	**285**	45	**530**	50
Total interest income	**2,232**	704	**4,259**	1,225
Interest expense:				
Interest-bearing deposits	**1,193**	23	**2,147**	(40)
Securities sold under repurchase agreements	**13**	3	**22**	3
Short-term borrowings	**20**	1	**32**	1
Long-term debt	**209**	72	**393**	137
Other interest-bearing liabilities	**106**	21	**208**	31
Total interest expense	**1,541**	120	**2,802**	132
Net interest income	**$ 691**	$ 584	**$ 1,457**	$ 1,093

Note 15. Expenses

The following table presents the components of other expenses for the periods indicated:

	Three Months Ended June 30,		Six Months Ended June 30,	
(In millions)	**2023**	**2022**	**2023**	**2022**
Professional services	**$ 110**	$ 84	**$ 216**	$ 181
Sales advertising and public relations	**30**	22	**53**	41
Regulatory fees and assessments	**18**	20	**44**	40
Securities processing	**15**	12	**25**	20
Bank operations	**13**	9	**24**	13
Donations	**7**	7	**14**	13
Other	**93**	108	**180**	197
Total other expenses	**$ 286**	$ 262	**$ 556**	$ 505

Acquisition and Restructuring Costs

We had no acquisition and restructuring costs in both the three and six months ended June 30, 2023, compared to $12 million and $21 million in the same periods of 2022, respectively, related to the BBH Investor Services acquisition transaction that we are no longer pursuing.

Repositioning Charges

The following table presents aggregate activity for repositioning charges for the periods indicated:

(In millions)	**Employee Related Costs**	**Real Estate Actions**	**Total**
Accrual Balance at December 31, 2021	$ 68	$ 6	$ 74
Payments and Other Adjustments	(17)	(1)	(18)
Accrual Balance at March 31, 2022	51	5	56
Payments and Other Adjustments	(11)	—	(11)
Accrual Balance at June 30, 2022	$ 40	$ 5	$ 45
Accrual Balance at December 31, 2022	$ 83	$ 5	$ 88
Payments and other adjustments	(14)	(1)	(15)
Accrual Balance at March 31, 2023	69	4	73
Payments and Other Adjustments	**(16)**	**(1)**	**(17)**
Accrual Balance at June 30, 2023	**$ 53**	$ 3	**$ 56**

Note 16. Earnings Per Common Share

For additional information on our EPS calculation methodologies, refer to page 175 in Note 23 to the consolidated financial statements included under Item 8, Financial Statements and Supplementary Data, in our 2022 Form 10-K.

The following table presents the computation of basic and diluted earnings per common share for the periods indicated:

	Three Months Ended June 30,		Six Months Ended June 30,	
(Dollars in millions, except per share amounts)	**2023**	**2022**	**2023**	**2022**
Net income	**$ 763**	$ 747	**$ 1,312**	$ 1,351
Less:				
Preferred stock dividends	**(37)**	(35)	**(60)**	(55)
Dividends and undistributed earnings allocated to participating securities[1]	**—**	—	**(1)**	(1)
Net income available to common shareholders	**$ 726**	$ 712	**$ 1,251**	$ 1,295
Average common shares outstanding (In thousands):				
Basic average common shares	**329,383**	367,375	**335,212**	366,961
Effect of dilutive securities: equity-based awards	**4,157**	4,748	**4,261**	5,119
Diluted average common shares	**333,540**	372,123	**339,473**	372,080
Anti-dilutive securities[2]	**2,282**	1,990	**1,380**	741
Earnings per common share:				
Basic	**$ 2.20**	$ 1.94	**$ 3.73**	$ 3.53
Diluted[3]	**2.17**	1.91	**3.68**	3.48

[1] Represents the portion of net income available to common equity allocated to participating securities, composed of unvested and fully vested SERP (Supplemental executive retirement plans) shares and fully vested deferred director stock awards, which are equity-based awards that contain non-forfeitable rights to dividends, and are considered to participate with the common stock in undistributed earnings.

[2] Represents equity-based awards outstanding but not included in the computation of diluted average common shares, because their effect was anti-dilutive. Additional information about equity-based awards is provided on pages 169 to 171 in Note 18 to the consolidated financial statements included under Item 8, Financial Statements and Supplementary Data, in our 2022 Form 10-K.

[3] Calculations reflect allocation of earnings to participating securities using the two-class method, as this computation is more dilutive than the treasury stock method.

Note 17. Line of Business Information

Our operations are organized into two lines of business: Investment Servicing and Investment Management, which are defined based on products and services provided. The results of operations for these lines of business are not necessarily comparable with those of other companies, including companies in the financial services industry. For information about our two lines of business, as well as revenues, expenses and capital allocation methodologies associated with them, refer to pages 175 to 177 in Note 24 to the consolidated financial statements included under Item 8, Financial Statements and Supplementary Data, in our 2022 Form 10-K.

The following tables summarize our line of business results for the periods indicated. The "Other" columns represent amounts that are not allocated to our two lines of business, including repositioning charges, employee costs, acquisition costs, revenue-related recoveries and certain legal accruals.

	Three Months Ended June 30,							
	Investment Servicing		Investment Management		Other		Total	
(Dollars in millions)	2023	2022	2023	2022	2023	2022	2023	2022
Servicing fees	$ 1,259	$ 1,297	$ —	$ —	$ —	$ —	$ 1,259	$ 1,297
Management fees	—	—	461	490	—	—	461	490
Foreign exchange trading services	276	313	27	18	—	—	303	331
Securities finance	109	102	8	5	—	—	117	107
Software and processing fees	221	188	—	—	—	—	221	188
Other fee revenue	55	(12)	3	(31)	—	—	58	(43)
Total fee revenue	1,920	1,888	499	482	—	—	2,419	2,370
Net interest income	687	588	4	(4)	—	—	691	584
Total other income	—	(1)	—	—	—	—	—	(1)
Total revenue	2,607	2,475	503	478	—	—	3,110	2,953
Provision for credit losses	(18)	10	—	—	—	—	(18)	10
Total expenses	1,850	1,767	361	327	1	14	2,212	2,108
Income before income tax expense	$ 775	$ 698	$ 142	$ 151	$ (1)	$ (14)	$ 916	$ 835
Pre-tax margin	30 %	28 %	28 %	32 %			29 %	28 %

	Six Months Ended June 30,							
	Investment Servicing		Investment Management		Other		Total	
(Dollars in millions)	2023	2022	2023	2022	2023	2022	2023	2022
Servicing fees	$ 2,476	$ 2,665	$ —	$ —	$ —	$ —	$ 2,476	$ 2,665
Management fees	—	—	918	1,010	—	—	918	1,010
Foreign exchange trading services	597	655	48	35	—	—	645	690
Securities finance	212	195	14	8	—	—	226	203
Software and processing fees [1]	386	389	—	—	—	—	386	389
Other fee revenue	83	34	20	(48)		—	103	(14)
Total fee revenue	3,754	3,938	1,000	1,005	—	—	4,754	4,943
Net interest income	1,449	1,097	8	(4)	—	—	1,457	1,093
Total other income	—	(2)	—	—	—	—	—	(2)
Total revenue	5,203	5,033	1,008	1,001	—	—	6,211	6,034
Provision for credit losses	26	10	—	—	—	—	26	10
Total expenses	3,828	3,692	747	716	6	27	4,581	4,435
Income before income tax expense	$ 1,349	$ 1,331	$ 261	$ 285	$ (6)	$ (27)	$ 1,604	$ 1,589
Pre-tax margin	26 %	26 %	26 %	28 %			26 %	26 %

Note 18. Revenue from Contracts with Customers

For additional information on the nature of services and our revenue from contracts with customers, including revenues associated with both our Investment Servicing and Investment Management lines of business, refer to pages 177 to 180 in Note 25 to the consolidated financial statements included under Item 8, Financial Statements and Supplementary Data, in our 2022 Form 10-K.

Revenue by category

In the following tables, revenue is disaggregated by our two lines of business and by revenue stream for which the nature, amount, timing and uncertainty of revenue and cash flows are affected by economic factors.

	Three Months Ended June 30, 2023						
	Investment Servicing			Investment Management			Total
(Dollars in millions)	Topic 606 revenue	All other revenue	Total	Topic 606 revenue	All other revenue	Total	2023
Servicing fees	$ 1,259	$ —	$ 1,259	$ —	$ —	$ —	$ 1,259
Management fees	—	—	—	461	—	461	461
Foreign exchange trading services	86	190	276	27	—	27	303
Securities finance	61	48	109	—	8	8	117
Software and processing fees	174	47	221	—	—	—	221
Other fee revenue	—	55	55	—	3	3	58
Total fee revenue	1,580	340	1,920	488	11	499	2,419
Net interest income	—	687	687	—	4	4	691
Total other income	—	—	—	—	—	—	—
Total revenue	$ 1,580	$ 1,027	$ 2,607	$ 488	$ 15	$ 503	$ 3,110

	Six Months Ended June 30, 2023						
	Investment Servicing			Investment Management			Total
(Dollars in millions)	Topic 606 revenue	All other revenue	Total	Topic 606 revenue	All other revenue	Total	2023
Servicing fees	$ 2,476	$ —	$ 2,476	$ —	$ —	$ —	$ 2,476
Management fees	—	—	—	918	—	918	918
Foreign exchange trading services	176	421	597	48	—	48	645
Securities finance	124	88	212	—	14	14	226
Software and processing fees	294	92	386	—	—	—	386
Other fee revenue	—	83	83	—	20	20	103
Total fee revenue	3,070	684	3,754	966	34	1,000	4,754
Net interest income	—	1,449	1,449	—	8	8	1,457
Total other income	—	—	—	—	—	—	—
Total revenue	$ 3,070	$ 2,133	$ 5,203	$ 966	$ 42	$ 1,008	$ 6,211

	Three Months Ended June 30, 2022						
	Investment Servicing			Investment Management			Total
(Dollars in millions)	Topic 606 revenue	All other revenue	Total	Topic 606 revenue	All other revenue	Total	2022
Servicing fees	$ 1,297	$ —	$ 1,297	$ —	$ —	$ —	$ 1,297
Management fees	—	—	—	490	—	490	490
Foreign exchange trading services	90	223	313	18	—	18	331
Securities finance	61	41	102	—	5	5	107
Software and processing fees	138	50	188	—	—	—	188
Other fee revenue	—	(12)	(12)	—	(31)	(31)	(43)
Total fee revenue	1,586	302	1,888	508	(26)	482	2,370
Net interest income	—	588	588	—	(4)	(4)	584
Total other income	—	(1)	(1)	—	—	—	(1)
Total revenue	$ 1,586	$ 889	$ 2,475	$ 508	$ (30)	$ 478	$ 2,953

	Six Months Ended June 30, 2022						
	Investment Servicing			Investment Management			Total
(Dollars in millions)	Topic 606 revenue	All other revenue	Total	Topic 606 revenue	All other revenue	Total	2022
Servicing fees	$ 2,665	$ —	$ 2,665	$ —	$ —	$ —	$ 2,665
Management fees	—	—	—	1,010	—	1,010	1,010
Foreign exchange trading services	191	464	655	35	—	35	690
Securities finance	115	80	195	—	8	8	203
Software and processing fees	289	100	389	—	—	—	389
Other fee revenue	—	34	34	—	(48)	(48)	(14)
Total fee revenue	3,260	678	3,938	1,045	(40)	1,005	4,943
Net interest income	—	1,097	1,097	—	(4)	(4)	1,093
Total other income	—	(2)	(2)	—	—	—	(2)
Total revenue	$ 3,260	$ 1,773	$ 5,033	$ 1,045	$ (44)	$ 1,001	$ 6,034

Contract balances and contract costs

As of June 30, 2023 and December 31, 2022, net receivables of $2.75 billion and $2.63 billion, respectively, are included in accrued interest and fees receivable, representing amounts billed or currently billable related to revenue from contracts with customers. As performance obligations are satisfied, we have an unconditional right to payment and billing is generally performed monthly or quarterly; therefore, we do not have significant contract assets.

We had $150 million and $138 million of deferred revenue as of June 30, 2023 and December 31, 2022, respectively. Deferred revenue is a contract liability which represents payments received and accounts receivable recorded in advance of providing services and is included in accrued expenses and other liabilities in the consolidated statement of condition. In the three months ended June 30, 2023, we recognized revenue of $27 million relating to deferred revenue of $138 million as of March 31, 2023. In the six months ended June 30, 2023, we recognized revenue of $78 million relating to deferred revenue of $138 million as of December 31, 2022.

Transaction price allocated to the remaining performance obligations represents future, non-cancelable contracted revenue that has not yet been recognized, inclusive of deferred revenue that has been invoiced and non-cancelable amounts that will be invoiced and recognized as revenue in future periods. As of June 30, 2023, total remaining non-cancelable performance obligations for services and products not yet delivered, primarily comprised of software license sales and SaaS, were approximately $1.5 billion. We expect to recognize approximately half of this amount in revenue over the next three years, with the remainder to be recognized thereafter.

No adjustments are made to the promised amount of consideration for the effects of a significant financing component as the period between when we transfer a promised service to a customer and when the customer pays for that service is expected to be one year or less.

Note 19. Non-U.S. Activities

We define our non-U.S. activities as those revenue-producing business activities that arise from clients which are generally serviced or managed outside the U.S. Due to the integrated nature of our business, precise segregation of our U.S. and non-U.S. activities is not possible.

Subjective estimates, assumptions and other judgments are applied to quantify the financial results and assets related to our non-U.S. activities, including our application of funds transfer pricing, our asset and liability management policies and our allocation of certain indirect corporate expenses. Management periodically reviews and updates its processes for quantifying the financial results and assets related to our non-U.S. activities.

The following table presents our U.S. and non-U.S. financial results for the periods indicated:

	Three Months Ended June 30,					
	2023			2022		
(In millions)	**Non-U.S.[1]**	**U.S.**	**Total**	**Non-U.S.[1]**	**U.S.**	**Total**
Total revenue	**$ 1,400**	**$ 1,710**	**$ 3,110**	$ 1,312	$ 1,641	$ 2,953
Income before income tax expense	**433**	**483**	**916**	396	439	835

	Six Months Ended June 30,					
	2023			2022		
(In millions)	**Non-U.S.[1]**	**U.S.**	**Total**	**Non-U.S.[1]**	**U.S.**	**Total**
Total revenue	**$ 2,696**	**$ 3,515**	**$ 6,211**	$ 2,680	$ 3,354	$ 6,034
Income before income tax expense	**692**	**912**	**1,604**	756	833	1,589

[1] Geographic mix is generally based on the domicile of the entity servicing the funds and is not necessarily representative of the underlying asset mix.

Management fees generated outside the U.S. were approximately 26% of total management fees in both the three and six months ended June 30, 2023, compared to approximately 25% and 26% in the three and six months ended June 30, 2022, respectively.

Servicing fees generated outside the U.S. were approximately 47% and 46% of total servicing fees in the three and six months ended June 30, 2023, respectively, compared to approximately 47% in both the three and six months ended June 30, 2022.

Non-U.S. assets were $76.49 billion and $93.35 billion as of June 30, 2023 and 2022, respectively.

Report of Independent Registered Public Accounting Firm

The Shareholders and Board of Directors of State Street Corporation

Results of Review of Interim Financial Statements

We have reviewed the accompanying consolidated statement of condition of State Street Corporation (the “Corporation”) as of June 30, 2023, the related consolidated statements of income, comprehensive income and changes in shareholders' equity for the three- and six-month periods ended June 30, 2023 and 2022, cash flows for the six-month periods ended June 30, 2023 and 2022, and the related condensed notes (collectively referred to as the “condensed consolidated interim financial statements”). Based on our reviews, we are not aware of any material modifications that should be made to the condensed consolidated interim financial statements for them to be in conformity with U.S. generally accepted accounting principles.

We have previously audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated statement of condition of the Corporation as of December 31, 2022, the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows for the year then ended, and the related notes (not presented herein); and in our report dated February 16, 2023, we expressed an unqualified audit opinion on those consolidated financial statements. In our opinion, the information set forth in the accompanying consolidated statement of condition as of December 31, 2022, is fairly stated, in all material respects, in relation to the consolidated statement of condition from which it has been derived.

Basis for Review Results

These financial statements are the responsibility of the Corporation’s management. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Corporation in accordance with the U.S. federal securities laws and the applicable rules and regulations of the SEC and the PCAOB. We conducted our review in accordance with the standards of the PCAOB. A review of interim financial statements consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with the standards of the PCAOB, the objective of which is the expression of an opinion regarding the financial statements taken as a whole. Accordingly, we do not express such an opinion.

/s/ Ernst & Young LLP

Boston, Massachusetts
July 28, 2023

ACRONYMS

ABS	Asset-backed securities
AFS	Available-for-sale
AOCI	Accumulated other comprehensive income (loss)
AUC/A	Assets under custody and/or administration
AUM	Assets under management
BBH	Brown Brothers Harriman & Co
bps	Basis points
CAD	Canadian Dollar
CCAR	Comprehensive Capital Analysis and Review
CCB	Capital Conservation Buffer
CMBS	Commercial Mortgage backed Security
CRD	Charles River Development
CET1[1]	Common equity tier 1
CLO	Collateralized Loan Obligation
CVA	Credit valuation adjustment
ECB	European Central Bank
ESG	Environmental, Social and Governance
ETF	Exchange-Traded Fund
EUR	Euro
EURIBOR	Euro Interbank Offered Rate
FCA	Financial Conduct Authority (UK)
FDIC	Federal Deposit Insurance Corporation
FHLB	Federal Home Loan Bank of Boston
FICC	Fixed Income Clearing Corporation
FTE	Fully taxable-equivalent
FX	Foreign exchange
GAAP	Generally accepted accounting principles
GBP	British Pound Sterling
G-SIB	Global systemically important bank
HQLA[1]	High-quality liquid assets
HTM	Held-to-maturity
IDI	Insured Depository Institution
LCR[1]	Liquidity coverage ratio
LIBOR	London Interbank Offered Rate
LTD	Long-term debt
MBS	Mortgage-backed securities
MMLF	Money Market Mutual Fund Liquidity Facility
NII	Net interest income
NIM	Net interest margin
OTC	Over-the-counter
PCAOB	Public Company Accounting Oversight Board
RMBS	Residential mortgage-backed securities
RWA[1]	Risk-weighted assets
SaaS	Software as a service
SA-CCR	Standardized Approach for Counterparty Credit Risk
SCB	Stress Capital Buffer
SEC	Securities and Exchange Commission
SLR[1]	Supplementary leverage ratio
SPDR	Spider; Standard and Poor's depository receipt
SPOE Strategy	Single Point of Entry Strategy
SSIF	State Street Intermediate Funding, LLC
TLAC[1]	Total loss-absorbing capacity
UOM	Unit of measure
USD	U.S. Dollar
VaR	Value-at-Risk

[1] As defined by the applicable U.S. regulations.

GLOSSARY

Asset-backed securities: A financial security backed by collateralized assets, other than real estate or mortgage backed securities.

Assets under custody and/or administration: Assets that we hold directly or indirectly on behalf of clients under a safekeeping or custody arrangement or for which we provide administrative services for clients. To the extent that we provide more than one AUC/A service (including back and middle office services) for a client's assets, the value of the asset is only counted once in the total amount of AUC/A.

Assets under management: The total market value of client assets for which we provide investment management strategy services, advisory services and/or distribution services generating management fees based on a percentage of the assets' market values. These client assets are not included on our balance sheet. Assets under management include managed assets lost but not liquidated. Lost business occurs from time to time and it is difficult to predict the timing of client behavior in transitioning these assets as the timing can vary significantly.

Certificates of deposit: A savings certificate with a fixed maturity date, specified fixed interest rate and can be issued in any denomination aside from minimum investment requirements. A CD restricts access to the funds until the maturity date of the investment.

Collateralized loan obligations: A loan or security backed by a pool of debt, primarily senior secured leveraged loans. CLOs are similar to collateralized mortgage obligations, except for the different type of underlying loan. With a CLO, the investor receives scheduled loan or debt payments from the underlying loans, assuming most of the risk in the event borrowers default, but is offered greater diversity and the potential for higher-than-average returns.

Commercial real estate: Property intended to generate profit from capital gains or rental income. CRE loans are term loans secured by commercial and multifamily properties. We seek CRE loans with strong competitive positions in major domestic markets, stable cash flows, modest leverage and experienced institutional ownership.

Deposit beta: A measure of how much of an interest rate increase is expected to be passed on to client interest-bearing accounts, on average.

Depot bank: A German term, specified by the country's law on investment companies, which essentially corresponds to 'custodian'.

Doubtful: Doubtful loans and leases meet the same definition of substandard loans and leases (i.e., well-defined weaknesses that jeopardize repayment with the possibility that we will sustain some loss) with the added characteristic that the weaknesses make collection or liquidation in full highly questionable and improbable.

Economic value of equity: A measure designed to estimate the fair value of assets, liabilities and off-balance sheet instruments based on a discounted cash flow model.

Exchange-Traded Fund: A type of exchange-traded investment product that offer investors a way to pool their money in a fund that makes investments in stocks, bonds, or other assets and, in return, to receive an interest in that investment pool. ETF shares are traded on a national stock exchange and at market prices that may or may not be the same as the net asset value.

Exposure-at-default: A measure used in the calculation of regulatory capital under Basel III final rule. It can be defined as the expected amount of loss a bank may be exposed to upon default of an obligor.

Global systemically important bank: A financial institution whose distress or disorderly failure, because of its size, complexity and systemic interconnectedness, would cause significant disruption to the wider financial system and economic activity, which will be subject to additional capital requirements.

Held-to-maturity investment securities: We classify investments in debt securities as held-to-maturity only if we have the positive intent and ability to hold those securities to maturity. Investments in debt securities classified as held-to-maturity are measured subsequently at amortized cost in the statement of financial position.

High-quality liquid assets: Cash or assets that can be converted into cash at little or no loss of value in private markets and are considered unencumbered.

Investment grade: A rating of loans and leases to counterparties with strong credit quality and low expected credit risk and probability of default. It applies to counterparties with a strong capacity to support the timely repayment of any financial commitment.

Liquidity coverage ratio: The ratio of encumbered high-quality liquid assets divided by expected total net cash outflows over a 30-day stress period. A Basel III framework requirement for banks and bank holding companies to measure liquidity, it is designed to ensure that certain banking institutions, including us, maintain a minimum amount of unencumbered HQLA sufficient to withstand the net cash outflow under a hypothetical standardized acute liquidity stress scenario for a 30-day stress period.

Net asset value: The amount of net assets attributable to each share/unit of the fund at a specific date or time.

Net stable funding ratio: The ratio of the amount of available stable funding relative to the amount of required stable funding. This ratio should be equal to at least 100% on an ongoing basis.

Prime services: The securities lending business previously referred to as enhanced custody.

Probability of default: A measure of the likelihood that a credit obligor will enter into default status.

Qualified financial contracts: Securities contracts, commodity contracts, forward contracts, repurchase agreements, swap agreements and any other contract determined by the FDIC to be a qualified financial contract.

Risk-weighted assets: A measurement used to quantify risk inherent in our on and off-balance sheet assets by adjusting the asset value for risk. RWA is used in the calculation of our risk-based capital ratios.

Software-enabled revenue: Includes SaaS, maintenance and support revenue, FIX, brokerage, and value-add services.

Special mention: Loans and leases that consist of counterparties with potential weaknesses that, if uncorrected, may result in deterioration of repayment prospects.

Speculative: Loans and leases that consist of counterparties that face ongoing uncertainties or exposure to business, financial, or economic downturns. However, these counterparties may have financial flexibility or access to financial alternatives, which allow for financial commitments to be met.

Substandard: Loans and leases that consist of counterparties with well-defined weakness that jeopardizes repayment with the possibility we will sustain some loss.

Supplementary leverage ratio: The ratio of our tier 1 capital to our total leverage exposure, which measures our capital adequacy relative to our on and off-balance sheet assets.

Total loss-absorbing capacity: The sum of our tier 1 regulatory capital plus eligible external long-term debt issued by us.

Value-at-Risk: Statistical model used to measure the potential loss in value of a portfolio that could occur in normal markets condition, over a defined holding period, within a certain confidence level.

Variable interest entity: An entity that: (1) lacks enough equity investment at risk to permit the entity to finance its activities without additional financial support from other parties; (2) has equity owners that lack the right to make significant decisions affecting the entity's operations; and/or (3) has equity owners that do not have an obligation to absorb or the right to receive the entity's losses or return.

PART 2. OTHER INFORMATION

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

In January 2023, our Board approved a share repurchase program authorizing the purchase of up to $4.5 billion of our common stock through December 31, 2023. We repurchased $1.05 billion of our common stock in the second quarter of 2023 under our 2023 share repurchase authorization.

The following table presents the activity under our common share repurchase program for each of the months in the quarter ended June 30, 2023.

(Dollars in millions except per share amounts; shares in thousands)	Total number of shares purchased	Average price paid per share	Total number of shares purchased as part of publicly announced program	Approximate dollar value of shares that may yet be purchased under publicly announced program
Period:				
April 1 - April 30, 2023	3,388	$ 73.05	3,388	$ 3,003
May 1 - May 31, 2023	6,603	68.62	6,603	2,550
June 1 - June 30, 2023	4,782	73.08	4,782	2,200
Total	14,773	$ 71.08	14,773	$ 2,200

Stock purchases under our common share repurchase program may be made using various types of transactions, including open market purchases, accelerated share repurchases or other transactions off the market, and may be made under Rule 10b5-1 trading programs. The timing and amount of any stock purchases and the type of transaction may not be ratable over the duration of the program, may vary from reporting period to reporting period and will depend on several factors, including our capital position and our financial performance, investment opportunities, market conditions, the nature and timing of implementation of revisions to the Basel III framework and the amount of common stock issued as part of employee compensation programs. The common share repurchase program does not have specific price targets and may be suspended at any time.

ITEM 5. OTHER INFORMATION

Securities Trading Plans of Directors and Executive Officers

A significant portion of the compensation of our executive officers is delivered in the form of deferred equity awards, including deferred stock and performance-based restricted stock unit awards. This compensation design is intended to align executive compensation with the performance experienced by our shareholders. Following the delivery of shares of our common stock under those equity awards, once any applicable service-, time- or performance-based vesting standards have been satisfied, our executive officers from time to time engage in the open-market sale of some of those shares. Our executive officers may also engage from time to time in other transactions involving our securities.

Transactions in our securities by our executive officers are required to be made in accordance with our Securities Trading Policy, which, among other things, requires that the transactions be in accordance with applicable U.S. federal securities laws that prohibit trading while in possession of material nonpublic information. Rule 10b5-1 under the Exchange Act provides an affirmative defense that enables prearranged transactions in securities in a manner that avoids concerns about initiating transactions at a future date while possibly in possession of material nonpublic information. Our Securities Trading Policy permits our executive officers to enter into trading plans designed to comply with Rule 10b5-1.

The following table describes a contract, instruction or written plan for the sale or purchase of our securities adopted by an executive officer during the second quarter of 2023, which is intended to satisfy the affirmative defense conditions of Rule 10b5-1(c), referred to as a Rule 10b5-1 trading plan.

Name and Title	Date of Adoption of Rule 10b5-1 Trading Plan	Scheduled Expiration Date of Rule 10b5-1 Trading Plan[1]	Aggregate Number of Securities to Be Purchased or Sold
Kathryn M. Horgan *Executive Vice President, Chief Human Resources and Corporate Citizenship Officer*	5/22/2023	8/30/2024	Sale of up to 12,006 shares of common stock in several transactions during 2023 and 2024

[1] A trading plan may also expire on such earlier date as all transactions under the trading plan are completed.

During the second quarter of 2023, none of our other executive officers or directors adopted Rule 10b5-1 trading plans and none of our directors or executive officers terminated a Rule 10b5-1 trading plan or adopted or terminated a non-Rule 10b5-1 trading arrangement (as defined in Item 408(c) of Regulation S-K).

Executive Transition

In our continuing efforts to streamline our management structure, we have identified opportunities to integrate the leadership of our transformation efforts and international businesses. As a result, on July 25, 2023, the Human Resources Committee of the Board of Directors approved the elimination of the role of Chief Productivity Officer and Head of International, held by Andrew J. Erickson. Mr. Erickson's responsibilities will be transitioned to our Chief Administrative Officer and the appropriate Global business heads. To promote an effective transition, Mr. Erickson has agreed to continue in his role through October 31, 2023, during which time he will receive his current base salary. In accordance with existing plans and agreements, Mr. Erickson's outstanding deferred compensation awards will remain outstanding after his departure. Further, he will be eligible for cash severance equal to 12 months' base salary and outplacement services, but no additional cash severance in lieu of incentive compensation, under the Hong Kong severance program.

ITEM 6. EXHIBITS

	Exhibit No.	Exhibit Description
Note: None of the instruments defining the rights of holders of State Street's outstanding long-term debt are in respect of indebtedness in excess of 10% of the total assets of State Street and its subsidiaries on a consolidated basis. State Street hereby agrees to furnish to the SEC upon request a copy of any other instrument with respect to long-term debt of State Street and its subsidiaries.		
	10.1†	Amended and Restated 2017 Stock Incentive Plan (filed as Exhibit 99.1 to State Street's Current Report on Form 8-K (File No. 001-07511) filed with the SEC on May 19, 2023 and incorporated herein by reference)
	15	Acknowledgment Letter of Ernst & Young LLP, Independent Registered Public Accounting Firm
	31.1	Rule 13a-14(a)/15d-14(a) Certification of Chairman and Chief Executive Officer
	31.2	Rule 13a-14(a)/15d-14(a) Certification of Vice Chairman and Chief Financial Officer
	32	Section 1350 Certifications
	101.INS	The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document
*	101.SCH	Inline XBRL Taxonomy Extension Schema Document
*	101.CAL	Inline XBRL Taxonomy Calculation Linkbase Document
*	101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
*	101.LAB	Inline XBRL Taxonomy Label Linkbase Document
*	101.PRE	Inline XBRL Taxonomy Presentation Linkbase Document
*	104	Cover Page Interactive Data File (formatted as Inline XBRL and included within the Exhibit 101 attachments)

† Denotes management contract or compensatory plan or arrangement

* Submitted electronically herewith

Attached as Exhibit 101 to this report are the following formatted in Inline XBRL (Extensible Business Reporting Language): (i) consolidated statement of income for the three and six months ended June 30, 2023 and 2022, (ii) consolidated statement of comprehensive income for the three and six months ended June 30, 2023 and 2022, (iii) consolidated statement of condition as of June 30, 2023 and December 31, 2022, (iv) consolidated statement of changes in shareholders' equity for the three and six months ended June 30, 2023 and 2022, (v) consolidated statement of cash flows for the six months ended June 30, 2023 and 2022, and (vi) notes to consolidated financial statements.

SIGNATURES

Pursuant to the requirement of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

STATE STREET CORPORATION
(Registrant)

Date: July 28, 2023

By: /s/ ERIC W. ABOAF
Eric W. Aboaf,
Vice Chairman and Chief Financial Officer (Principal Financial Officer)

Date: July 28, 2023

By: /s/ IAN W. APPLEYARD
Ian W. Appleyard,
Executive Vice President, Global Controller and Chief Accounting Officer (Principal Accounting Officer)

Exhibit 15

Acknowledgment Letter of Independent Registered Public Accounting Firm

July 28, 2023

The Shareholders and Board of Directors of State Street Corporation

We are aware of the incorporation by reference in the Registration Statements, as listed below, of State Street Corporation of our report dated July 28, 2023 relating to the unaudited condensed consolidated interim financial statements of State Street Corporation that are included in its Form 10-Q for the quarter ended June 30, 2023.

Form	Registration Statement No.	Description
Form S-3	333-265877	Debt Securities, Preferred Stock, Depositary Shares, Common Stock, Purchase Contracts, Units and Warrants
Form S-4	333-248707	Fixed-to-Floating Rate Senior Note Exchanges
Form S-8	333-100001	2002 Savings-Related Stock Plan
Form S-8	333-99989	1997 Equity Incentive Plan
Form S-8	333-46678	1997 Equity Incentive Plan
Form S-8	333-36793	1997 Equity Incentive Plan
Form S-8	333-36409	1997 Equity Incentive Plan
Form S-8	333-135696	2006 Equity Incentive Plan
Form S-8	333-160171	2006 Equity Incentive Plan
Form S-8	333-183656	2006 Equity Incentive Plan
Form S-8	333-218048	2017 Stock Incentive Plan
Form S-8	333-233874	2017 Stock Incentive Plan
Form S-8	333-272090	2017 Stock Incentive Plan

/s/ Ernst & Young LLP

Boston, Massachusetts

EXHIBIT 31.1

RULE 13a-14(a)/15d-14(a) CERTIFICATION

I, Ronald P. O'Hanley, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of State Street Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present, in all material respects, the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 28, 2023

By: /s/ RONALD P. O'HANLEY

Ronald P. O'Hanley,

Chairman and Chief Executive Officer

EXHIBIT 31.2

RULE 13a-14(a)/15d-14(a) CERTIFICATION

I, Eric W. Aboaf, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of State Street Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present, in all material respects, the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 28, 2023

By: /s/ ERIC W. ABOAF

Eric W. Aboaf,

Vice Chairman and Chief Financial Officer

EXHIBIT 32

SECTION 1350 CERTIFICATIONS

To my knowledge, this Quarterly Report on Form 10-Q for the period ended June 30, 2023 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and the information contained in this Report fairly presents, in all material respects, the financial condition and results of operations of State Street Corporation.

Date: July 28, 2023 By: /s/ RONALD P. O'HANLEY

Ronald P. O'Hanley,
Chairman and Chief Executive Officer

Date: July 28, 2023 By: /s/ ERIC W. ABOAF

Eric W. Aboaf,
Vice Chairman and Chief Financial Officer