

# **STATE STREET CORPORATION**

## **SUPPLEMENTAL PUBLIC DISCLOSURE BASEL III REGULATORY CAPITAL**

**AS OF DECEMBER 31, 2021**

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BASEL III REGULATORY CAPITAL  
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## GLOSSARY

|                                                               |                                                                                                                                                                                                                                                      |                           |                                                                       |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------------------------------------------------|
| <b>Advanced approaches<sup>(1)</sup></b>                      | The advanced internal ratings-based approach to calculating risk-based capital requirements for credit risk and the advanced measurement approach to calculating risk-based capital requirements for operational risk under the Basel III final rule | <b>HRC</b>                | Human Resources Committee                                             |
| <b>Advanced approaches banking organization<sup>(1)</sup></b> | A banking organization subject to the advanced approaches requirements of the Basel III final rule                                                                                                                                                   | <b>HTM</b>                | Held-to-maturity                                                      |
| <b>AFS</b>                                                    | Available-for-Sale                                                                                                                                                                                                                                   | <b>ICAMS</b>              | Incident Capture and Management System                                |
| <b>AIRB<sup>(1)</sup></b>                                     | Advanced Internal Ratings-Based Approach                                                                                                                                                                                                             | <b>IMM</b>                | Internal Model Methodology                                            |
| <b>AMA<sup>(1)</sup></b>                                      | Advanced Measurement Approach                                                                                                                                                                                                                        | <b>INFRA</b>              | Integrated Non-Financial Risk Assessment                              |
| <b>AOCI</b>                                                   | Accumulated Other Comprehensive Income                                                                                                                                                                                                               | <b>LCR</b>                | Liquidity Coverage Ratio                                              |
| <b>BBH</b>                                                    | Brown Brothers Harriman                                                                                                                                                                                                                              | <b>LDA</b>                | Loss Distribution Approach                                            |
| <b>BCBS</b>                                                   | Basel Committee on Banking Supervision                                                                                                                                                                                                               | <b>LGD<sup>(1)</sup></b>  | Loss Given Default                                                    |
| <b>BHC</b>                                                    | Bank Holding Company                                                                                                                                                                                                                                 | <b>LIBOR</b>              | London Inter-Bank Offered Rate                                        |
| <b>Board</b>                                                  | Board of Directors                                                                                                                                                                                                                                   | <b>LTD</b>                | Long-Term Debt                                                        |
| <b>BOLI</b>                                                   | Bank-Owned Life Insurance                                                                                                                                                                                                                            | <b>MMLF</b>               | Money Market Mutual Fund Liquidity Facility                           |
| <b>bps</b>                                                    | Basis points                                                                                                                                                                                                                                         | <b>MRAC</b>               | Management Risk and Capital Committee                                 |
| <b>CAP</b>                                                    | Capital Adequacy Process                                                                                                                                                                                                                             | <b>MRC</b>                | Model Risk Committee                                                  |
| <b>CCAR</b>                                                   | Comprehensive Capital Analysis and Review                                                                                                                                                                                                            | <b>MRRS</b>               | Model Risk Rating System                                              |
| <b>CCB</b>                                                    | Capital Conservation Buffer                                                                                                                                                                                                                          | <b>MVG</b>                | Model Validation Group                                                |
| <b>CCF<sup>(1)</sup></b>                                      | Credit Conversion Factor                                                                                                                                                                                                                             | <b>NII</b>                | Net interest income                                                   |
| <b>CECL</b>                                                   | Current Expected Credit Loss                                                                                                                                                                                                                         | <b>OTC derivative</b>     | Over-the-counter derivative contract                                  |
| <b>CEM</b>                                                    | Current Exposure Method                                                                                                                                                                                                                              | <b>Parent Company</b>     | State Street Corporation without consolidation of its subsidiaries    |
| <b>CET1</b>                                                   | Common Equity Tier 1                                                                                                                                                                                                                                 | <b>PD<sup>(1)</sup></b>   | Probability of Default                                                |
| <b>CMRC</b>                                                   | Credit and Market Risk Committee                                                                                                                                                                                                                     | <b>P&amp;L</b>            | Profit-and-loss                                                       |
| <b>CVA</b>                                                    | Credit Valuation Adjustment                                                                                                                                                                                                                          | <b>PRC</b>                | Portfolio Risk Committee                                              |
| <b>Deposit beta</b>                                           | A measure of how much of an interest rate increase is expected to be passed on to client interest-bearing accounts, on average.                                                                                                                      | <b>PUA</b>                | Purchase undertaking agreement                                        |
| <b>Dodd-Frank Act</b>                                         | Dodd-Frank Wall Street Reform and Consumer Protection Act                                                                                                                                                                                            | <b>RC</b>                 | Risk Committee                                                        |
| <b>E&amp;A Committee</b>                                      | Examining & Audit Committee of the Board                                                                                                                                                                                                             | <b>RWA<sup>(1)</sup></b>  | Risk-Weighted Assets                                                  |
| <b>EAD<sup>(1)</sup></b>                                      | Exposure at Default                                                                                                                                                                                                                                  | <b>SA-CCR</b>             | Standardized Approach for Counterparty Credit Risk                    |
| <b>EGRRCPA</b>                                                | Economic Growth, Regulatory Relief, and Consumer Protection Act                                                                                                                                                                                      | <b>SCB</b>                | Stress Capital Buffer                                                 |
| <b>EMEA</b>                                                   | Europe, the Middle East, and Africa                                                                                                                                                                                                                  | <b>SEC</b>                | Securities and Exchange Commission                                    |
| <b>ERM</b>                                                    | Enterprise Risk Management                                                                                                                                                                                                                           | <b>SIFI</b>               | Systematically Important Financial Institution                        |
| <b>EVE</b>                                                    | Economic Value of Equity                                                                                                                                                                                                                             | <b>SLR<sup>(1)</sup></b>  | Supplementary Leverage Ratio                                          |
| <b>FDIC</b>                                                   | Federal Deposit Insurance Corporation                                                                                                                                                                                                                | <b>SRWA<sup>(1)</sup></b> | Simple Risk-Weight Approach                                           |
| <b>Federal Reserve</b>                                        | Board of Governors of the Federal Reserve System                                                                                                                                                                                                     | <b>SSFA<sup>(1)</sup></b> | Simplified Supervisory Formula Approach in the Basel III final rule   |
| <b>FFELP</b>                                                  | Federal Family Education Loan Program                                                                                                                                                                                                                | <b>State Street</b>       | State Street Corporation and its subsidiaries on a consolidated basis |
| <b>FSB</b>                                                    | Financial Stability Board                                                                                                                                                                                                                            | <b>State Street Bank</b>  | State Street Bank and Trust Company                                   |
| <b>FX</b>                                                     | Foreign Exchange                                                                                                                                                                                                                                     | <b>Stressed VaR</b>       | Stressed Value-at-Risk                                                |
| <b>GAAP</b>                                                   | Generally Accepted Accounting Principles                                                                                                                                                                                                             | <b>TLAC</b>               | Total Loss-Absorbing Activity                                         |
| <b>GCR</b>                                                    | Global Credit Review group                                                                                                                                                                                                                           | <b>UOM</b>                | Unit of Measure                                                       |
| <b>G-SIB</b>                                                  | Global Systemically Important Bank                                                                                                                                                                                                                   | <b>VaR</b>                | Value-at-Risk                                                         |

<sup>(1)</sup> As defined by the applicable U.S. regulations.

**STATE STREET CORPORATION  
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**BASEL III DISCLOSURE MAP**

The table below highlights where sections of this Public Disclosure can be referenced to State Street's December 31, 2021 Form 10-K.

| <b>Section</b>                                | <b>Description</b>                                       | <b>December 31, 2021<br/>Public Disclosure<br/>Page Reference</b> | <b>2021 Form<br/>10-K Page<br/>Reference</b> |
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## GENERAL

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. For purposes of this Public Disclosure, 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. 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 provide a broad range of financial products and services to institutional investors worldwide. We operate in more than 100 geographic markets worldwide, including in the U.S., Canada, Europe, the Middle East and Asia.

The Public Disclosure provided herein is required by the Basel III regulatory capital rules issued by the Board of Governors of the Federal Reserve System, referred to as the Federal Reserve, in 2013, which we refer to as the Basel III final rule. This Public Disclosure provides qualitative and quantitative information about regulatory capital, calculated in conformity with the "advanced approaches" provisions of the Basel III final rule, for State Street and, where applicable, State Street Bank as of December 31, 2021.

We expect to update this Public Disclosure on a quarterly basis and make it available on the "Investor Relations" section of our corporate website, [www.statestreet.com](http://www.statestreet.com). The information presented in this Public Disclosure may not be consistent with Generally Accepted Accounting Principles (GAAP), and may differ, in presentation, form or otherwise, from similar information, or disclosures on similar topics, provided in our Securities and Exchange Commission (SEC) filings. In addition, the information provided in this Public Disclosure may also differ from, and may not be comparable to, similar disclosures made by other banking organizations. The information provided in this Public Disclosure is not required to be, and has not been, audited by our independent registered public accounting firm.

The regulatory capital ratios as of December 31, 2021 presented in this Public Disclosure were calculated in conformity with the advanced approaches provisions of the Basel III final rule as well as the final rules implementing the Supplementary Leverage Ratio (SLR). These ratios reflect calculations and determinations with respect to our capital and related matters as of as of December 31, 2021, based on State Street and external data, quantitative formulae, statistical models, historical correlations and assumptions, collectively referred to as "advanced systems," in effect and used by State

Street for those purposes as of the time we made this Public Disclosure available on our corporate website. Significant components of these advanced systems involve the exercise of judgment by us and our regulators, and our advanced systems may not accurately represent or calculate the scenarios, circumstances, outputs or other results for which they are designed or intended.

Due to the influence of changes in these advanced systems, whether resulting from changes in data inputs, regulation or regulatory supervision or interpretation, State Street-specific 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.

Models implemented under the Basel III final rule, particularly those implementing the advanced approaches, remain subject to regulatory review and approval. The full effects of the Basel III final rule on State Street and State Street Bank are therefore subject to further evaluation and also to further regulatory guidance, action or rule-making.

We use acronyms and other defined terms for certain business terms and abbreviations which are defined in the Glossary of this Public Disclosure.

The disclosures provided within this document should be read in conjunction with our 2021 Form 10-K, which can be found on our corporate website at [www.statestreet.com](http://www.statestreet.com).

## FORWARD-LOOKING STATEMENTS

This Public Disclosure, 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, dividend and stock purchase programs, acquisitions (including, without limitation, our planned acquisition of Brown Brothers Harriman's Investor Services business), outcomes of legal proceedings, market growth, joint ventures and divestitures, client growth and new technologies, services 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. For more information about the risks and uncertainties to which forward-looking statements are subject, refer to pages 4-6 in our 2021 Form 10-K.

## REGULATION AND SUPERVISION

### Overview

The Basel III final rule provides for two frameworks: the "standardized approach", which replaced Basel I, and the "advanced approaches", applicable to advanced approaches banking organizations, like State Street, as originally defined under Basel II.

As required by the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) enacted in 2010, and the Stress Capital Buffer (SCB) rule enacted in 2020, 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, including the capital conservation buffer (CCB) and the SCB, for the advanced approach and standardized approach, respectively, and a countercyclical capital buffer. The countercyclical buffer is currently set to zero by the U.S. federal banking agencies. In addition, we are subject to a Global Systemically Important Bank (G-SIB) surcharge. Our risk-based capital ratios for regulatory assessment purposes are the lower of each ratio calculated under the standardized approach and the advanced approaches.

Our minimum risk-based capital ratios as of January 1, 2021 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.

Based on a calculation date of December 31, 2019, our current G-SIB surcharge, through December 31, 2022, is 1.0%. Based on a calculation date of December 31, 2020, our G-SIB surcharge beginning January 1, 2023 could have been 1.5%. However, in May 2021, the Federal Reserve granted our request for relief relating to the effects of the Money Market Mutual Fund Liquidity Facility (MMLF) program on the calculation of our G-SIB surcharge. As a result of this relief, our G-SIB surcharge for 2023 will remain at 1.0%.

Failure to meet these minimum requirements would result in restriction on capital distributions and certain discretionary bonus payments based on a percentage of State Street's eligible retained income. We calculate eligible retained income as the greater of (i) net income for the four preceding quarters, net of any distributions and associated tax effects not

already reflected in net income, and (ii) the average of net income over the four preceding quarters. As of December 31, 2021, the eligible retained income for State Street was \$673 million. For more information on regulation and supervision, refer to pages 10-14 in our 2021 Form 10-K.

### Regulatory Developments

In April 2018, the Federal Reserve issued a proposed rule which would replace the current 2.0% SLR buffer for G-SIBs, with a buffer equal to 50% of their G-SIB surcharge. This proposal would also make conforming modifications to our Total Loss-Absorbing Capacity (TLAC) and eligible Long-Term Debt (LTD) requirements applicable to G-SIBs. At this point in time, it is unclear whether this proposal will be implemented as proposed.

In November 2019, the Federal Reserve and other U.S. federal banking agencies issued a final rule that, among other things, implements the SA-CCR, a new methodology for calculating the exposure amount for derivative contracts. Under the final rule, which became effective on January 1, 2022, we will have the option to use the SA-CCR or the IMM to measure the exposure amount of our cleared and uncleared derivative transactions under our advanced approaches calculation. We will be required to determine the amount of these exposures using the SA-CCR under our standardized approach capital calculation. Additionally, we will have to apply a revised formula to determine the RWA amount of our central counterparty default fund contributions. Applying the SA-CCR to our derivative exposures as of December 31, 2021, in place of then-applicable Current Exposure Method (CEM), under the standardized approach, with all else equal, would on a pro-forma basis increase our total RWA as of that date by approximately 10%. As part of a plan to partially offset these SA-CCR RWA impacts, various business actions have been identified for optimization and completion in the first half of 2022.

On March 4, 2020, the U.S. federal banking agencies issued the SCB final rule that replaces, under the standardized approach, the capital conservation buffer (2.5%) with a SCB calculated as the difference between an institution's starting and lowest projected CET1 ratio under the Comprehensive Capital Analysis and Review (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. Based on our results from the 2021 supervisory stress test, our SCB for the period of October 1, 2021 through September 2022 is set at the minimum of 2.5% of RWA.

The Federal Reserve and other U.S. federal banking agencies issued an interim final rule effective in March 2020 and later finalized on a permanent basis on August 26, 2020, which revised the definition of eligible retained income for all U.S. banking organizations. The revised definition of eligible

retained income makes any automatic limitations on capital distributions, where a banking organization's regulatory ratios were to decline below the respective minimum requirements, take effect on a more gradual basis.

Following the launch of the MMLF program, which we participated in, the Federal Reserve issued an interim final rule on March 19, 2020 (followed by a final rule on September 29, 2020), allowing Bank Holding Companies (BHCs) to exclude assets purchased with the MMLF program from their RWA, total leverage exposure and average total consolidated assets. No new credit extensions were made after March 31, 2021, as the program had expired.

On March 27, 2020, the Basel Committee on Banking Standards (BCBS) announced the deferral of the implementation of the revisions to the Basel III framework to January 1, 2023. As of now, the U.S. federal banking agencies have not formally proposed the implementation of the BCBS revisions.

Effective April 1, 2020, the Federal Reserve and other U.S. federal banking agencies adopted a final rule as part of the Economic Growth, Regulatory Relief, and Consumer Protection Act (EGRRCPA) that establishes a deduction for qualifying central bank deposits from a custodial banking organization's total leverage exposure equal to the lesser of (i) the total amount of funds the custodial banking organization and its consolidated subsidiaries have on deposit at qualifying central banks and (ii) the total amount of client funds on deposit at the custodial banking organization that are linked to fiduciary or custodial and safekeeping accounts. For the quarter ended December 31, 2021, we deducted \$84.1 billion of average balances held on deposit at central banks from the denominator used in the calculation of our SLR, based on this custodial banking deduction.

On October 20, 2020, the Federal Reserve and other U.S. federal banking agencies issued a final rule that requires us and State Street Bank to make certain deductions from regulatory capital for investments in certain unsecured debt instruments, including eligible LTD under the TLAC rule, issued by the Parent Company and other U.S. and foreign G-SIBs. The final rule became effective on April 1, 2021.

In light of the decision to administer a new stress test, the Federal Reserve limited the ability of all CCAR banking organizations to make capital distributions in the third and fourth quarters of 2020, although banking organizations were permitted to pay common stock dividends at previous levels provided such distributions did not exceed an amount determined by a formula based on the banking organization's recent income. As a result, CCAR banking organizations, including us, were not permitted to return capital to shareholders in the form

of common share repurchases during the third quarter and fourth quarter of 2020.

On August 10, 2020, the Federal Reserve confirmed that our SCB was 2.5% for the period starting on October 1, 2020 and ending on September 30, 2021.

On December 18, 2020, following the release of a second round of stress test results for 2020, the Federal Reserve modified the restrictions on capital distributions for the first quarter of 2021. Common stock dividends and share repurchases in the first quarter of 2021 were limited to the average of our net income for the four preceding quarters plus a number of shares equal to the share issuances in the quarter related to expensed employee compensation, provided that we did not increase the amount of our common stock dividends to be larger than the level paid in the second quarter of 2020. On March 25, 2021, the Federal Reserve extended these restrictions through the second quarter of 2021.

On June 24, 2021, we were notified by the Federal Reserve of the results from the 2021 supervisory stress test. Our SCB calculated under this supervisory stress test was well below the 2.5% minimum, resulting in an SCB at that floor, which was effective starting October 1, 2021 and will run through September 30, 2022. The Federal Reserve also lifted the restrictions on capital distributions implemented in response to the COVID-19 pandemic and we are currently governed in our capital distributions by minimum capital requirements inclusive of the SCB.

For additional information about regulatory developments, refer to the "Regulatory Developments" section of "Capital" in Management's Discussion and Analysis of Financial Condition and Results of Operations in our 2021 Form 10-K.

### **Restrictions on Transfer of Capital**

Our and State Street Bank's primary federal banking regulator in the U.S. is the Federal Reserve. Federal banking regulations place certain restrictions on dividend payments by banking subsidiaries to their parent company. The Federal Reserve has the authority to prohibit or to limit dividend payments by the banking organizations it supervises, including us and State Street Bank, if, in the Federal Reserve's opinion, the payment of such a dividend would constitute an unsafe or unsound practice in light of the financial condition of the banking organization. All of these policies and other requirements could affect our ability to declare dividend payments and repurchase our common stock, or require us to provide capital assistance to State Street Bank and/or any other banking subsidiary. For more information on regulation and supervision, refer to pages 10-14 in our 2021 Form 10-K.

## REGULATORY CAPITAL

Our objective with respect to regulatory capital management is to maintain a capital base and structure that is sized to support our unique business model and material risks. Our strong capital position provides us the financial flexibility to meet our business needs, including maintaining access to financial markets to support our clients' activity and to fund corporate growth, and to provide protection against loss to depositors and creditors. We strive to maintain an appropriate level of capital, commensurate with our risk profile, on which an appropriate return to shareholders is expected to be realized over both the short- and long-term, while protecting our obligations to depositors and creditors and complying with regulatory capital adequacy requirements. For more information on regulatory capital, refer to pages 114-121 in our 2021 Form 10-K.

### Regulatory Capital Requirements

Under the Basel III final rule, our total regulatory capital is composed of three tiers: CET1 capital, tier 1 capital (inclusive of CET1 capital), and tier 2 capital. The total of tier 1 and tier 2 capital, adjusted as applicable, is referred to as total regulatory capital.

CET1 capital is composed of core capital elements, such as qualifying common shareholders' equity and related surplus; retained earnings; the cumulative effect of foreign currency translation; and net unrealized gains (losses) on debt and equity securities classified as Available-for-Sale (AFS); reduced by treasury stock. Goodwill and other intangible assets, net of related deferred tax liabilities, are deducted from the CET1 capital elements. Tier 1 capital is composed of CET1 capital plus additional tier 1 capital instruments, which for us, includes four series of preferred stock. Tier 2 includes certain eligible subordinated long-term debt instruments. Other than the maturity phase-out for tier 2 instruments, the remaining Basel III phase-in and phase-out provisions do not apply to us and our capital measures are considered fully phased-in.

Certain other items, if applicable, must be deducted from tier 1 and tier 2 capital. These items primarily include deductible investments in unconsolidated banking, financial and insurance entities that in aggregate exceed the 10% CET1 deduction threshold, and the amount of expected credit losses that exceeds recorded allowances for credit losses. Expected credit losses are calculated for wholesale credit exposures in conformity with the Basel III final rule.

The CET1 risk-based capital ratio is a principal measure of capital adequacy for internationally active banking organizations. Under the Basel III framework, the ratio compares a banking organization's CET1 capital with the sum of its total risk-weighted assets

(RWA) associated with credit risk, operational risk and market risk. In conformity with the Basel III final rule, we calculate our required capital and total RWA associated with credit risk, operational risk and market risk primarily through the use of internal models.

As an advanced approaches banking organization in the U.S., we are required by the Basel III final rule to apply the Advanced Internal Rating-Based Approach (AIRB) approach in the calculation of our RWA related to credit risk. We calculate RWA for over 90% of our on- and off-balance sheet exposures associated with credit risk using internal risk-rating models under the AIRB approach.

The AIRB approach categorizes credit exposures into five types for the calculation of RWA:

- Wholesale
- Securitizations
- Equity
- Retail
- All Other

Our credit exposures fall predominantly into the "wholesale" and "securitizations" categories. We have no credit exposures in the "retail" category. The "all other" category consists of exposures not categorized as any of the other types listed above, as well as any credit exposures defined by us as "not material," where we do not apply the AIRB approach to calculate related RWA. As required by the Basel III final rule, RWA for the above-described categories are aggregated and multiplied by a scaling factor of 1.06.

As an advanced approaches banking organization in the U.S., we are required by the Basel III final rule to apply the Advanced Measurement Approach (AMA) in the calculation of our RWA related to operational risk. Additional information about our process to manage operational risk and quantify required operational risk capital and RWA is provided under "Operational Risk" in this Public Disclosure.

We calculate our RWA related to market risk associated with our trading activities based on our measures of Value-at-Risk (VaR) and stressed VaR in conformity with the requirements of the previously described final market risk capital rule. Additional information about the market risk associated with our trading activities and our related VaR and stressed-VaR measures is provided under "Market Risk" in this Public Disclosure.

The following table presents the regulatory capital structure, total RWA and related risk-based capital ratios for State Street and State Street Bank, calculated under the advanced and standardized approaches provisions of the Basel III final rule as of the date indicated:

**TABLE 1: REGULATORY CAPITAL STRUCTURE AND RELATED REGULATORY CAPITAL RATIOS**

| (Dollars in millions)                                                            | State Street                       |                                 | State Street Bank           |                                 |
|----------------------------------------------------------------------------------|------------------------------------|---------------------------------|-----------------------------|---------------------------------|
|                                                                                  | Basel III Advanced Approach        | Basel III Standardized Approach | Basel III Advanced Approach | Basel III Standardized Approach |
|                                                                                  | December 31, 2021                  | December 31, 2021               | December 31, 2021           | December 31, 2021               |
| <b>Common shareholders' equity:</b>                                              |                                    |                                 |                             |                                 |
| Common Stock and related surplus                                                 | \$ 11,291                          | \$ 11,291                       | \$ 13,047                   | \$ 13,047                       |
| Retained earnings                                                                | 25,238                             | 25,238                          | 15,700                      | 15,700                          |
| Accumulated other comprehensive income (loss)                                    | (1,133)                            | (1,133)                         | (926)                       | (926)                           |
| Treasury stock, at cost                                                          | (10,009)                           | (10,009)                        | —                           | —                               |
| <b>Total</b>                                                                     | <b>25,387</b>                      | <b>25,387</b>                   | <b>27,821</b>               | <b>27,821</b>                   |
| Regulatory capital adjustments:                                                  |                                    |                                 |                             |                                 |
| Goodwill and other intangible assets, net of associated deferred tax liabilities | (8,935)                            | (8,935)                         | (8,667)                     | (8,667)                         |
| Other adjustments                                                                | (505)                              | (505)                           | (309)                       | (309)                           |
| <b>Common equity tier 1 capital</b>                                              | <b>15,947</b>                      | <b>15,947</b>                   | <b>18,845</b>               | <b>18,845</b>                   |
| Preferred stock                                                                  | 1,976                              | 1,976                           | —                           | —                               |
| Other adjustments                                                                | —                                  | —                               | —                           | —                               |
| <b>Tier 1 capital</b>                                                            | <b>17,923</b>                      | <b>17,923</b>                   | <b>18,845</b>               | <b>18,845</b>                   |
| Qualifying subordinated long-term debt                                           | 1,588                              | 1,588                           | 752                         | 752                             |
| ACL and other                                                                    | —                                  | 108                             | —                           | 108                             |
| Other adjustments                                                                | —                                  | —                               | —                           | —                               |
| <b>Total capital</b>                                                             | <b>\$ 19,511</b>                   | <b>\$ 19,619</b>                | <b>\$ 19,597</b>            | <b>\$ 19,705</b>                |
| <b>Risk-weighted assets<sup>(1)</sup></b>                                        |                                    |                                 |                             |                                 |
| Credit risk <sup>(2)</sup>                                                       | \$ 63,735                          | \$ 109,554                      | \$ 57,405                   | \$ 106,405                      |
| Operational risk                                                                 | 45,550                             | NA                              | 42,813                      | NA                              |
| Market risk                                                                      | 2,113                              | 2,113                           | 2,113                       | 2,113                           |
| <b>Total</b>                                                                     | <b>\$ 111,398</b>                  | <b>\$ 111,667</b>               | <b>\$ 102,331</b>           | <b>\$ 108,518</b>               |
| <b>Capital Ratios:</b>                                                           |                                    |                                 |                             |                                 |
|                                                                                  | Minimum Requirement <sup>(3)</sup> |                                 |                             |                                 |
| Common equity tier 1 capital                                                     | 8.0%                               | 14.3%                           | 14.3%                       | 17.4%                           |
| Tier 1 capital                                                                   | 9.5                                | 16.1                            | 16.1                        | 17.4                            |
| Total capital                                                                    | 11.5                               | 17.5                            | 17.6                        | 18.2                            |

<sup>(1)</sup> Refer to "Table 6: Components of Total Risk-Weighted Assets" in this "Regulatory Capital" section for detail about the underlying sub-components of each type of RWA.

<sup>(2)</sup> Under the advanced approaches, credit risk RWA includes a Credit Valuation Adjustment (CVA) RWA which reflects the risk of potential fair value adjustments for credit risk in our valuation of OTC derivative contracts. We use the simple CVA approach in conformity with the Basel III advanced approaches.

<sup>(3)</sup> 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 0.0%.

<sup>NA</sup> Not applicable

## Supplementary Leverage Ratio

The following table presents the SLR for State Street using tier 1 capital as calculated under the SLR provisions of the Basel III final rule as of the date indicated:

**TABLE 2: SUPPLEMENTARY LEVERAGE RATIO**

|                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>State Street</b>      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>December 31, 2021</b> |
| <b>(In millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                        |                          |
| <b>Part 1: Summary comparison of accounting assets and total leverage exposure</b>                                                                                                                                                                                                                                                                                                                                                          |                          |
| Total consolidated assets as reported in published financial statements <sup>(1)</sup>                                                                                                                                                                                                                                                                                                                                                      | 314,624                  |
| Derivative exposure adjustments                                                                                                                                                                                                                                                                                                                                                                                                             | 12,176                   |
| Repo-Style exposure adjustments                                                                                                                                                                                                                                                                                                                                                                                                             | 3,120                    |
| Other off-balance sheet exposures adjustments                                                                                                                                                                                                                                                                                                                                                                                               | 17,052                   |
| Other Adjustments <sup>(2)</sup>                                                                                                                                                                                                                                                                                                                                                                                                            | (9,440)                  |
| Adjustments for frequency calculations <sup>(1)</sup>                                                                                                                                                                                                                                                                                                                                                                                       | (10,980)                 |
| Adjustments for deductions of qualifying central bank deposits for custodial banking organizations <sup>(3)</sup>                                                                                                                                                                                                                                                                                                                           | (84,113)                 |
| Total Leverage Exposure                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>242,439</b>           |
| <b>Part 2: Supplementary Leverage Ratio<sup>(4)</sup></b>                                                                                                                                                                                                                                                                                                                                                                                   |                          |
| <b>On-balance sheet exposures</b>                                                                                                                                                                                                                                                                                                                                                                                                           |                          |
| On-balance sheet assets (excluding on-balance sheet assets for repo-style transactions and derivative exposures, but including cash collateral received in derivative transactions)                                                                                                                                                                                                                                                         | 269,940                  |
| LESS: Amounts deducted from tier 1 capital                                                                                                                                                                                                                                                                                                                                                                                                  | 9,440                    |
| LESS: Deductions of qualifying central bank deposits from total on-balance sheet exposures for custodial banking organizations <sup>(3)</sup>                                                                                                                                                                                                                                                                                               | 84,113                   |
| Total on-balance sheet exposures (excluding on-balance sheet assets for repo-style transactions and derivative exposures, but including cash collateral received in derivative transactions)                                                                                                                                                                                                                                                | <b>176,387</b>           |
| <b>Derivative exposures</b>                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |
| Replacement cost for derivative exposures (that is, net of cash variation margin)                                                                                                                                                                                                                                                                                                                                                           | 6,518                    |
| Add-on amounts for potential future exposure (PFE) for derivative exposures                                                                                                                                                                                                                                                                                                                                                                 | 9,601                    |
| Gross-up for certain cash collateral posted if deducted from the on-balance sheet assets, except for cash variation margin                                                                                                                                                                                                                                                                                                                  | 860                      |
| Effective notional principal amount of sold credit protection                                                                                                                                                                                                                                                                                                                                                                               | —                        |
| Total derivative exposures                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>16,979</b>            |
| <b>Repo-style transactions</b>                                                                                                                                                                                                                                                                                                                                                                                                              |                          |
| On-balance sheet assets for repo-style transactions, except include the gross value of receivables for reverse repurchase transactions. Exclude from this item the value of securities received in a security-for-security repo-style transaction where the securities lender has not sold or rehypothecated the securities received. Include in this item the value of securities that qualified for sales treatment that must be reversed | 80,485                   |
| LESS: Reduction of the gross value of receivables in reverse repurchase transactions by cash payables in repurchase transactions under netting agreements                                                                                                                                                                                                                                                                                   | 51,878                   |
| Counterparty credit risk for all repo-style transactions                                                                                                                                                                                                                                                                                                                                                                                    | 3,414                    |
| Total exposures for repo-style transactions                                                                                                                                                                                                                                                                                                                                                                                                 | <b>32,021</b>            |
| <b>Other off-balance sheet exposures</b>                                                                                                                                                                                                                                                                                                                                                                                                    |                          |
| Off-balance sheet exposures at gross notional amounts                                                                                                                                                                                                                                                                                                                                                                                       | 45,981                   |
| LESS: Adjustments for conversion to credit equivalent amounts <sup>(5)</sup>                                                                                                                                                                                                                                                                                                                                                                | 28,929                   |
| Off-balance sheet exposures                                                                                                                                                                                                                                                                                                                                                                                                                 | <b>17,052</b>            |
| <b>Capital and total leverage exposure</b>                                                                                                                                                                                                                                                                                                                                                                                                  |                          |
| Total leverage exposure                                                                                                                                                                                                                                                                                                                                                                                                                     | <b>242,439</b>           |
| Tier 1 capital                                                                                                                                                                                                                                                                                                                                                                                                                              | <b>17,923</b>            |
| <b>Supplementary leverage ratio<sup>(4)</sup></b>                                                                                                                                                                                                                                                                                                                                                                                           | <b>7.4 %</b>             |

<sup>(1)</sup> In accordance with the SLR rule, total consolidated assets are reported as quarter-end balances, whereas certain other line items in Part 1 are reported as average balances for the quarter. To account for this timing difference, a frequency adjustment has been included.

<sup>(2)</sup> "Other Adjustments" includes goodwill, net of associated deferred tax liabilities, and other intangible assets, net of associated deferred tax liabilities, with all such adjustments applied in conformity with the Basel III final rule as well as other applicable regulatory adjustments.

<sup>(3)</sup> Includes the exclusion of MMLF Held-to-Maturity (HTM) securities.

<sup>(4)</sup> Supplementary Leverage Ratio is calculated by dividing tier 1 capital (numerator) by total leverage exposure for SLR (denominator). Total leverage exposure is calculated as the quarterly average of total on-balance sheet assets plus the average of each of the three month's period-end balances for specified off-balance sheet amounts.

<sup>(5)</sup> Credit equivalent amounts are calculated using the credit conversion factors in accordance with the Basel III standardized approach.

### Global Systemically Important Bank

We are designated as a large BHC subject to enhanced supervision and prudential standards, commonly referred to as a Systemically Important Financial Institution (SIFI). We have been identified by the Financial Stability Board (FSB) and the BCBS as a G-SIB. Our designation as a G-SIB requires us to maintain an additional capital buffer above the Basel III final rule minimum CET1 capital ratio of 4.5%, based on a number of factors, as evaluated by banking regulators.

Based on a calculation date of December 31, 2019, our current G-SIB surcharge, through December 31, 2022, is 1.0%. Based on a calculation date of December 31, 2020, our G-SIB surcharge beginning January 1, 2023 could have been 1.5%. However, in May 2021, the Federal Reserve granted our request for relief relating to the effects of the MMLF program on the calculation of our G-SIB surcharge. As a result of this relief, our G-SIB surcharge for 2023 will remain at 1.0%.

Further, like all other U.S. G-SIBs, we are also subject to a 2.0% leverage buffer under the SLR final rule. If we fail to exceed the 2.0% leverage buffer, we will be subject to increased restrictions (depending upon the extent of the shortfall) regarding capital distributions and discretionary executive bonus payments.

### Total Loss-Absorbing Capacity

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 and LTD. Specifically, we must hold:

#### Amount equal to:

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Combined eligible tier 1 regulatory capital and LTD | <p>Greater of:</p> <ul style="list-style-type: none"> <li>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 counter-cyclical buffer, which is currently 0%); and</li> <li>9.5% of total leverage exposure (7.5% minimum plus the SLR buffer of 2.0%), as defined by the SLR final rule.</li> </ul> |
| Qualifying external LTD                             | <p>Greater of:</p> <ul style="list-style-type: none"> <li>7.0% of RWA (6.0% minimum plus a G-SIB surcharge calculated for these purposes under method 2 of 1.0%); and</li> <li>4.5% of total leverage exposure, as defined by the SLR final rule.</li> </ul>                                                                                                                                 |

As of April 1, 2020, the TLAC and LTD requirements calibrated to the SLR denominator to reflect the deduction of certain central bank balances

as prescribed by the regulatory relief implemented under the EGRRCPA.

The following table presents external LTD and external TLAC as of December 31, 2021

**TABLE 3: TOTAL LOSS-ABSORBING CAPACITY**

|                                                                                         | As of December 31, 2021 |        |             |        |
|-----------------------------------------------------------------------------------------|-------------------------|--------|-------------|--------|
| (In millions)                                                                           | Actual                  |        | Requirement |        |
| Total loss-absorbing capacity (eligible Tier 1 regulatory capacity and long term debt): |                         |        |             |        |
| Risk-weighted assets                                                                    | \$ 31,231               | 28.0 % | \$ 24,008   | 21.5 % |
| Supplementary leverage exposure                                                         | 31,231                  | 12.9   | 23,032      | 9.5    |
| Long term debt:                                                                         |                         |        |             |        |
| Risk-weighted assets                                                                    | 13,308                  | 11.9   | 7,817       | 7.0    |
| Supplementary leverage exposure                                                         | 13,308                  | 5.5    | 10,910      | 4.5    |

## Regulatory Capital Instruments

Instruments issued and included in our regulatory capital stack include common stock, preferred stock and tier 2 qualifying subordinated long-term debt. The following table presents summary information about the capital instruments included as of December 31, 2021:

**TABLE 4: REGULATORY CAPITAL INSTRUMENTS**

December 31, 2021

(Dollars in millions)

| Description                                    | Amount Issued | Capital Amount | Capital Category | Type           | Maturity         | Dividend/Coupon       |
|------------------------------------------------|---------------|----------------|------------------|----------------|------------------|-----------------------|
| <b>Equity:</b>                                 |               |                |                  |                |                  |                       |
| Common stock <sup>(1)</sup>                    | \$ 1,282      | \$ 1,282       | CET1             | NA             | NA               | NA <sup>(4)</sup>     |
| Series D preferred stock <sup>(2)</sup>        | 742           | 742            | Tier 1           | Fixed to Float | NA               | 5.90 % <sup>(5)</sup> |
| Series F Preferred stock <sup>(2)</sup>        | 247           | 247            | Tier 1           | Float          | NA               | 3.80 <sup>(6)</sup>   |
| Series G Preferred stock <sup>(2)</sup>        | 493           | 493            | Tier 1           | Fixed to Float | NA               | 5.35 <sup>(7)</sup>   |
| Series H Preferred stock <sup>(2)</sup>        | 494           | 494            | Tier 1           | Fixed to Float | NA               | 5.63 <sup>(8)</sup>   |
| <b>Qualifying subordinated long-term debt:</b> |               |                |                  |                |                  |                       |
| Subordinated debt                              | \$ 1,000      | \$ 204         | Tier 2           | Fixed          | May 15, 2023     | 3.10 %                |
| Subordinated debt <sup>(3)</sup>               | 500           | 541            | Tier 2           | Fixed to Float | November 1, 2034 | 3.03                  |
| Subordinated debt                              | 850           | 843            | Tier 2           | Fixed          | March 3, 2031    | 2.20                  |

<sup>(1)</sup> Amount consists of common stock issued and related surplus, net of common stock held in treasury.

<sup>(2)</sup> Amount issued is net of related issuance costs. Dividends payable on preferred stock are non-cumulative and are payable if, as and when declared by the Board.

<sup>(3)</sup> This issuance has a November 1, 2029 call date.

<sup>(4)</sup> Common Stock dividends are payable if, as and when declared quarterly by the Board with no contractual obligation or stated coupon rate.

<sup>(5)</sup> From the date of issuance to, but excluding, March 15, 2024, dividends will be calculated at an annual rate of 5.90%; from, and including, March 15, 2024, dividends will be calculated at an annual rate equal to three-month London Inter-bank Offered Rate (LIBOR) plus 3.108%.

<sup>(6)</sup> From the date of issuance to, but excluding, September 15, 2020, dividends will be calculated at an annual rate of 5.25%; from, and including, September 15, 2020, dividends will be calculated at an annual rate equal to three-month LIBOR plus 3.597%, or 3.7998% effective September 15, 2021.

<sup>(7)</sup> From the date of issuance to, but excluding, March 15, 2026, dividends will be calculated at an annual rate of 5.35%, and from, and including, March 15, 2026, dividends will be calculated at an annual rate equal to three-month LIBOR plus 3.709%.

<sup>(8)</sup> From the date of issuance to, but excluding, December 15, 2023, dividends will be calculated at an annual rate of 5.625%, and from, and including, December 15, 2023, dividends will be calculated at an annual rate equal to three-month LIBOR plus 2.539%.

<sup>NA</sup> Not applicable

### Common Stock

Our common stock consists of 750 million shares authorized for issuance, \$1.00 par value per share, of which 503,879,642 shares were issued, 137,896,822 shares were held in treasury, and 365,982,820 shares were outstanding as of December 31, 2021. Our common stock is listed on the New York Stock Exchange under the ticker symbol STT. Outstanding shares of our common stock are validly issued, fully paid and non-assessable. Holders of our common stock are not, and will not be, subject to any liability as shareholders.

Holders of our common stock are entitled to receive dividends if, as and when declared by the Board out of any funds legally available for dividends. Holders of our common stock are also entitled, upon our liquidation, and after claims of creditors and the preferences of any class or series of preferred stock outstanding at the time of liquidation, to receive our net assets on a pro-rata basis. Currently, the payment of future common stock dividends by our parent company to its shareholders, or the purchase by our parent company of shares of our common stock, is subject to the review of our capital plan by the Federal Reserve in connection with its annual CCAR process. We are generally not permitted to purchase shares of our common stock unless full dividends are paid (or declared, with funds set aside for payment) on all outstanding shares of preferred stock.

Holders of our common stock are entitled to one vote for each share that they hold and are vested with all of the voting power except as the Board has provided, or may provide in the future, with respect to preferred stock or any other class or series of preferred stock that the Board may hereafter authorize.

## Preferred Stock

Our preferred stock has, and any other series of preferred stock upon issuance will have, preference over our common stock with respect to the payment of dividends and the distribution of assets in the event of our liquidation, winding up or dissolution. Our preferred stock also has such other preferences as may be fixed by the Board.

The following table presents the details on each of the series of the preferred stock issued and outstanding as of December 31, 2021:

**TABLE 5: PREFERRED STOCK**

| Preferred Stock <sup>(1)</sup> : | Issuance Date  | Depository Shares Issued | Amount outstanding (in millions) | Ownership Interest Per Depository Share | Liquidation Preference Per Share | Liquidation Preference Per Depository Share | Per Annum Dividend Rate                                                                                                                            | Dividend Payment Frequency                     | Carrying Value as of December 31, 2021 (In millions) | Redemption Date <sup>(2)</sup> |
|----------------------------------|----------------|--------------------------|----------------------------------|-----------------------------------------|----------------------------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|------------------------------------------------------|--------------------------------|
| 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%                                             | Quarterly: March, June, September and December | 742                                                  | March 15, 2024                 |
| Series F <sup>(3)</sup>          | May 2015       | 250,000                  | 250                              | 1/100th                                 | 100,000                          | 1,000                                       | 5.25% to but excluding September 15, 2020, then a floating rate equal to the three-month LIBOR plus 3.597%, or 3.7998% effective December 15, 2021 | 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%                                             | 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%                                         | Semi-annually: June and December               | 494                                                  | December 15, 2023              |

<sup>(1)</sup> The preferred stock and corresponding depository 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 depository share plus any declared and unpaid dividends, without accumulation of any undeclared dividends.

<sup>(2)</sup> On the redemption date, or any dividend payment date thereafter, the preferred stock and corresponding depository shares may be redeemed by us, in whole or in part, at the liquidation price per share and liquidation price per depository share plus any declared and unpaid dividends, without accumulation of any undeclared dividends.

<sup>(3)</sup> Series F preferred stock is redeemable on September 15, 2020 and on each succeeding dividend payment date.

## Qualifying Subordinated Long-Term Debt

Subordinated debt included in our tier 2 capital is comprised of three issuances; \$1.0 billion maturing on May 15, 2023, \$500 million maturing on November 1, 2034 with a November 1, 2029 call date, and \$850 million maturing on March 3, 2031. As is necessary to qualify for inclusion in tier 2 capital, among other things, these issuances each have a minimum original maturity of at least five years. As required by Basel III, in the last five years before its maturity, the amount of an issuance included in tier 2 capital is discounted downward by cumulative increments of 20% per year until its maturity. When the remaining maturity is less than one year, the amount is excluded from tier 2 capital.

## Total Risk-Weighted Assets

The following table presents the components of our total RWA and, where applicable, sub-components, related to credit risk, operational risk and market risk for State Street and State Street Bank, calculated under the advanced approaches provisions of the Basel III final rule as of the date indicated:

**TABLE 6: COMPONENTS OF TOTAL RISK-WEIGHTED ASSETS**

| December 31, 2021<br>(In millions)         | State Street             |                    | State Street Bank        |                    |
|--------------------------------------------|--------------------------|--------------------|--------------------------|--------------------|
|                                            | RWA                      | EAD <sup>(1)</sup> | RWA                      | EAD <sup>(1)</sup> |
| <b>Credit risk:</b>                        |                          |                    |                          |                    |
| Wholesale                                  | \$ 43,776                | \$ 332,734         | \$ 43,457                | \$ 331,473         |
| Securitizations <sup>(2)</sup>             | 3,482                    | 15,264             | 3,482                    | 15,264             |
| Equity <sup>(2)</sup>                      | 9,729                    | 6,624              | 3,982                    | 5,152              |
| All other <sup>(3)</sup>                   | 5,223                    | 4,232              | 4,931                    | 4,088              |
| Credit valuation adjustment <sup>(4)</sup> | 1,525                    | NA                 | 1,553                    | NA                 |
| <b>Total credit risk<sup>(5)</sup></b>     | <b>63,735</b>            | <b>\$ 358,854</b>  | <b>57,405</b>            | <b>\$ 355,977</b>  |
| <b>Operational risk<sup>(6)</sup></b>      | <b>45,550</b>            | <b>NA</b>          | <b>42,813</b>            | <b>NA</b>          |
| <b>Market risk:</b>                        |                          |                    |                          |                    |
|                                            | Sixty-Day<br>Average VaR |                    | Sixty-Day<br>Average VaR |                    |
| Value-at-risk <sup>(7)</sup>               | 600                      | 16                 | 600                      | 16                 |
| Stressed value-at-risk <sup>(7)</sup>      | 1,513                    | 40                 | 1,513                    | 40                 |
| <b>Total market risk</b>                   | <b>2,113</b>             |                    | <b>2,113</b>             |                    |
| <b>Total risk-weighted assets</b>          | <b>\$ 111,398</b>        |                    | <b>\$ 102,331</b>        |                    |

<sup>(1)</sup> Exposure at Default (EAD) represents our estimated exposure to a counterparty if that counterparty defaults; EAD is more fully described under "Advanced Internal Ratings-Based Approach" in this Public Disclosure.

<sup>(2)</sup> Additional detail with respect to the RWA and EAD of securitizations and equity exposures is provided under "Securitizations" and "Equity Exposures Not Subject to Market Risk Rule," respectively, in this Public Disclosure.

<sup>(3)</sup> "All Other" consists of assets not assigned to an exposure category and exposures defined as "non material".

<sup>(4)</sup> CVA reflects the risk of potential fair-value adjustments for credit risk reflected in our valuation of OTC derivative contracts. We use the simple CVA approach in conformity with the Basel III Final rule.

<sup>(5)</sup> RWA reflects 1.06 supervisory scaling factor described earlier in this Public Disclosure under "Regulatory Capital Requirements."

<sup>(6)</sup> RWA for operational risk are calculated using required capital measured by an internally developed loss distribution model; refer to "Operational Risk" in this Public Disclosure.

<sup>(7)</sup> RWA for market risk associated with trading activities are calculated based on respective 60-day moving averages of VaR and stressed-VaR measures; refer to "Market Risk" in this Public Disclosure.

NA Not applicable

## RISK MANAGEMENT

### General

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

- credit and counterparty risk;
- liquidity risk, funding and management;
- operational risk;
- information technology risk;
- market risk associated with our trading activities;
- market risk associated with our non-trading activities, which we refer to as asset-and-liability management, and which consists primarily of interest rate risk;
- model risk;
- strategic risk;

- reputational, fiduciary and business conduct risk.

For more information on our risk management framework, refer to pages 83-88 in our 2021 Form 10-K.

### Governance and Structure

We have an approach to risk management that involves all levels of management, from the Board and its committees, including its Examining & Audit Committee of the Board (E&A Committee), Risk Committee (RC), Human Resources Committee (HRC), and Technology and Operations Committee, to each business unit and each employee. We allocate responsibility for risk oversight so that risk/return decisions are made at an appropriate level, and are subject to robust and effective review and challenge. While we believe that our risk management program is effective in managing the risks in our businesses, internal and external factors may create risks that cannot always be identified or anticipated.

## Agency Credit Ratings

Our ability to maintain consistent access to liquidity is fostered by the maintenance of high investment grade ratings as measured by the major independent 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 assurance for unsecured funding and depositors;
- increasing the potential market for our debt and improving our ability to offer products;
- serving markets; and
- engaging in transactions in which clients value high credit ratings.

A downgrade or reduction of 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 draw-downs 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. For more information, refer to page 99 in our 2021 Form 10-K.

## 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.

Our model risk management program has three principal components:

- A model risk governance program that defines roles and responsibilities, including the authority to restrict model usage, provides policies and guidance, monitors compliance, and reports regularly to the Board on the

overall degree of model risk across the corporation;

- A model development process that focuses on sound design and computational accuracy, and includes activities designed to test for robustness, stability, and sensitivity to assumptions; and
- An independent model validation function designed to verify that models are conceptually sound, computationally accurate, are performing as expected, and are in line with their design objectives.

## Governance

Models used in the regulatory capital calculation can only be deployed for use after undergoing a model validation by Enterprise Risk Management's (ERM) Model Risk Management group. The model validation results and/or a decision by the Model Risk Committee (MRC) must permit model usage or the model may not be used.

The Model Risk Management group is responsible for defining the corporate-wide model risk governance framework and maintaining policies that achieve the framework's objectives. All regulatory capital calculation models, including Artificial Intelligence and Machine Learning models must comply with the model risk governance framework and corresponding policies. The team is responsible for overall model risk governance capabilities, with particular emphasis in the areas of model validation, model risk reporting, model performance monitoring, tracking of new model development status, and committee-level review and challenge.

The MRC, which is composed of senior managers responsible for representing functional areas and business units with key models across the organization, reports to Management Risk and Capital Committee (MRAC), and provides guidance and oversight to the Model Risk Management function.

## Model Development and Usage

Models are developed under standards governing data sourcing, methodology selection and model integrity testing. Model development includes a statement of purpose to align development with intended use. It also includes a comparison of alternative approaches to promote a sound modeling approach.

Model developers conduct an assessment of data quality and relevance. The development teams conduct a variety of tests of the accuracy, robustness and stability of each model.

Model owners submit models to the Model Validation Group (MVG) for validation on a regular basis, as per the existing policy.

## **Model Validation**

MVG is part of the Model Risk Management group within ERM and performs model validations and reviews. MVG is independent, as required by applicable bank regulatory requirements, of both the developers and users of the models. MVG validates models through a sophisticated evaluation process that assesses the appropriateness, accuracy, and suitability of data inputs, methodologies, documentation, assumptions, and processing code. Model validation also encompasses an assessment of model performance, sensitivity, and robustness, as well as a model's potential limitations given its particular assumptions or deficiencies. Based on the results of its review, MVG issues a model use decision and may require remedial actions and/or compensating controls. MVG also maintains a model risk-rating system, which assigns a risk rating to each model based on an assessment of a model's inherent and residual risks. These ratings aid in the understanding and reporting of model risk across the model portfolio, and enable the triaging of needs for remediation.

Although model validation is the primary method of subjecting models to independent review and challenge, in practice, a multi-step governance process provides the opportunity for challenge by multiple parties. First, MVG conducts a model validation and issues a model use decision that may be accompanied by remedial actions and/or compensating controls. MVG communicates its results as one of the following three outcomes: "Approved", "Approved with conditions", or "Not Approved". There are three ways in which a model can be deemed "Not approved for Use" given a validation: 1) the aggregation of the model scoring within MRM's Model Risk Rating System (MRRS) model is poor enough to result in a "high" rating, 2) the scoring of one or more MRRS model element(s) is deemed "critical" resulting in an automatic "high" rating irrespective of the other elements as the "critical" element(s) undermines the model, or 3) the remediation action is not properly taken by the due date resulting in a severe compliance breach that undercuts the model rating. Second, these decisions may be reviewed, challenged, and confirmed by the MRC. Finally, model use decisions, risk ratings, and overall levels of model risk may be reported to and reviewed by MRAC. MVG also reports regularly on model risk issues to the Board.

## **WHOLESALE CREDIT RISK**

### ***Core Policies and Principles***

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 lending activities,

such as 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.

We distinguish between three major types of credit risk:

- Default risk - the risk that a counterparty fails to meet its contractual payment obligations;
- Country risk - the risk that we may suffer a loss, in any given country, due to any of the following reasons: deterioration of economic conditions, political and social upheaval, nationalization and appropriation of assets, government repudiation of indebtedness, exchange controls, and disruptive currency depreciation or devaluation; and
- Settlement risk - the risk that the settlement or clearance of transactions will fail, which arises whenever the exchange of cash, securities and/or other assets is not simultaneous.

The Credit and Market Risk Committee (CMRC) has responsibility for independent risk oversight and is the decision-making body for all of State Street's credit, counterparty and trading-related activities, including market risk. The subcommittees of the CMRC include the Credit Committee, Collateral Management Oversight Committee; Tax Credit Investment Committee, Swap Dealer Senior Management Committee and the Portfolio Risk Committee (PRC). The acceptance of credit risk by State Street is governed by corporate policies and guidelines, which include standardized procedures applied across the entire organization. These policies and guidelines include specific requirements related to each counterparty's risk profile; the markets served; counterparty, industry and country concentrations; and regulatory compliance. These policies and procedures also implement a number of core principles, which include the following:

- We measure and consolidate credit risks to each counterparty, or group of counterparties, in accordance with a "one-obligor" principle that aggregates risks across our business units;
- ERM reviews and approves all material extensions of credit, or changes to such extensions of credit (such as changes in term, collateral structure or covenants), in accordance with assigned credit-approval authorities;

- Credit-approval authorities are assigned to individuals according to their qualifications, experience and training, and these authorities are periodically reviewed. Our largest exposures require approval by the Credit Committee. With respect to small and low-risk extensions of credit to certain types of counterparties, approval authority is granted to individuals outside of ERM;
- We seek to avoid or limit undue concentrations of risk. Counterparty (or groups of counterparties), industry, country and product-specific concentrations of risk are subject to frequent review and approval in accordance with our risk appetite;
- We determine the creditworthiness of counterparties through a detailed risk assessment, including the use of internal risk-rating methodologies;
- We review all extensions of credit and the creditworthiness of counterparties at least annually. The nature and extent of these reviews are determined by the size, nature and term of the extensions of credit and the creditworthiness of the counterparty; and
- We subject all corporate policies and guidelines to periodic review as an integral part of our periodic assessment of our risk appetite.

Our corporate policies and guidelines require that the business units which engage in activities that give rise to credit and counterparty risk comply with procedures that promote the extension of credit for legitimate business purposes; are consistent with the maintenance of proper credit standards; limit credit-related losses; and are consistent with our goal of maintaining a strong financial condition.

For more information on credit risk management, refer to pages 88-93 in our 2021 Form 10-K.

### **Structure and Organization**

The Credit and Global Markets Risk group within ERM is responsible for the assessment, approval and monitoring of credit risk across State Street. The group is managed centrally, has dedicated teams in a number of locations worldwide across our businesses, and is responsible for related policies and procedures, and for our internal credit-rating systems and methodologies. In addition, the group, in conjunction with the business units, establishes appropriate measurements and limits to control the amount of credit risk accepted across its various business activities, both at the portfolio level and for each individual counterparty or group of counterparties, to individual industries, and also to counterparties by product and country of risk. These measurements and limits are reviewed periodically.

In conjunction with other groups in ERM, the Credit and Global Markets Risk group is jointly responsible for the design, implementation and oversight of our credit risk measurement and management systems, including data and assessment systems, quantification systems and the reporting framework.

Various key committees within State Street are responsible for the oversight of credit risk and associated credit risk policies, systems and models. All credit-related activities are governed by our risk appetite framework and our credit risk guidelines, which define our general philosophy with respect to credit risk and the manner in which we control, manage and monitor such risks.

The previously described CMRC has primary responsibility for the oversight of credit risk, including the periodic review and approval of the credit risk guidelines and policies.

The Credit Committee has responsibility for assigning credit authority and approving the largest and higher-risk extensions of credit to individual counterparties or groups of counterparties.

CMRC provides periodic updates to MRAC and the Board's RC.

### **Credit Ratings**

We perform initial and ongoing reviews to exercise due diligence on the creditworthiness of our counterparties when conducting any business with them or approving any credit limits.

This due diligence process generally includes the assignment of an internal credit rating, which is determined by the use of internally developed and validated methodologies, scorecards and a 15-grade rating scale. This risk-rating process incorporates the use of risk-rating tools in conjunction with management judgment; qualitative and quantitative inputs are captured in a replicable manner and, following a formal review and approval process, an internal credit rating based on our rating scale is assigned. Credit ratings are reviewed and approved by the Credit and Global Markets Risk group or designees within ERM. To facilitate comparability across the portfolio, counterparties within a given sector are rated using a risk-rating tool developed for that sector.

Our risk-rating methodologies are approved by the PRC, after completion of internal model validation processes, and are subject to an annual review, including re-validation.

We generally rate our counterparties individually, although a small number of accounts defined by us as low-risk are rated on a pooled basis. We evaluate and rate the credit risk of our counterparties on an ongoing basis.

## **Risk Parameter Estimates**

Our internal risk-rating system promotes a clear and consistent approach to the determination of appropriate credit risk classifications for our credit counterparties and exposures, tracking the changes in risk associated with these counterparties and exposures over time. This capability enhances our ability to more accurately calculate both risk exposures and capital, enabling better strategic decision making across the organization.

We use credit risk parameter estimates for the following purposes:

- The assessment of the creditworthiness of new counterparties and, in conjunction with our risk appetite statement, the development of appropriate credit limits for our products and services, including loans, foreign exchange, securities finance, placements and repurchase agreements;
- The use of an automated process for limit approvals for certain low-risk counterparties, as defined in our credit risk guidelines, based on the counterparty's probability of default (PD), rating class;
- The development of approval authority matrices based on PD; counterparties with higher PDs and/or higher limits require higher levels of approval compared to counterparties with lower PDs and/or lower limits;
- The analysis of risk concentration trends using historical PD and exposure-at-default (EAD), data;
- The standardization of rating integrity testing by Global Credit Review group (GCR) using rating parameters;
- The determination of the level of management review of short-duration advances depending on PD; riskier counterparties with higher PDs generally trigger higher levels of management escalation for comparable short-duration advances compared to less risky counterparties with lower PDs;
- The monitoring of credit facility utilization levels using EAD values and the identification of instances where counterparties have exceeded limits;
- The aggregation and comparison of counterparty exposures with risk appetite levels to determine if businesses are maintaining appropriate risk levels; and
- The determination of our regulatory capital requirements for the AIRB provided in the Basel framework.

## **Credit Risk Mitigation**

State Street seeks to limit its credit exposure and reduce our potential credit losses through the use of various types of credit risk mitigation. The Basel III final rule permits State Street to reflect the application of credit risk mitigation when it meets the standards outlined therein. Examples of forms of credit risk mitigation include collateral, netting, guarantees and secured interest in non-financial assets. Where possible, we apply the recognition of collateral, guarantees and secured interest over non-financial assets to mitigate overall risk within its counterparty credit portfolio. While credit default swaps are permitted under the Basel III final rule, State Street does not actively use credit default swaps as a risk mitigation tool.

### **Collateral**

In many parts of our business, we regularly require or agree for collateral to be received from or provided to clients and counterparties in connection with contracts that incur credit risk. In our trading businesses, this collateral is typically in the form of cash, as well as highly-rated and/or liquid securities (i.e., government securities and other bonds or equity securities). Credit risks in our non-trading and securities finance businesses are also often secured by bonds and equity securities and by other types of assets. Collateral serves to reduce the risk of loss inherent in an exposure by reducing the level of exposure or improving the prospect of recovery in the event of a counterparty default. However, rapidly changing market values of the collateral we hold, unexpected increases in the credit exposure to a client or counterparty, reductions in the value or change in the type of securities held by us, as well as operational errors or errors in the manner in which we seek to exercise our rights, may reduce the risk mitigation effects of collateral or result in other security interests not being effective to reduce potential credit exposure. While collateral is often an alternative source of repayment, it generally does not replace the requirement within our policies and guidelines for high-quality underwriting standards. We also may choose to incur credit exposure without the benefit of collateral or other risk mitigating credits rights.

Our credit risk guidelines require that the collateral we accept for risk mitigation purposes is of high quality, can be reliably valued and is supported by a valid security interest that permits liquidation if or when required. Generally, when collateral is of lower quality, more difficult to value or more challenging to liquidate, higher discounts to market values are applied for the purposes of measuring credit risk. For certain less liquid collateral, longer liquidation periods are assumed when determining the credit exposure.

All types of collateral are assessed regularly by ERM, as is the basis on which the collateral is valued.

Our assessment of collateral, including the ability to liquidate collateral in the event of a counterparty default, and also with regard to market values of collateral under a variety of hypothetical market conditions, is an integral component of our assessment of risk and approval of credit limits. We also seek to identify, limit and monitor instances of "wrong-way" risk, where a counterparty's risk of default is positively correlated with the risk of our collateral eroding in value.

We maintain policies and procedures requiring that documentation used to collateralize a transaction is legal, valid, binding and enforceable in the relevant jurisdictions. We also conduct legal reviews to assess whether our documentation meets these standards on an ongoing basis.

### **Netting**

Netting is a mechanism that allows institutions and counterparties to net offsetting exposures and payment obligations against one another through the use of qualifying master netting agreements. A master netting agreement allows for, upon a counterparty default, the netting of rights and obligations arising under derivatives or other transactions under such agreement. In such an event, the netting of obligations would result in a single net claim owed by, or to, the counterparty. This is commonly referred to as "close-out netting," and is pursued wherever possible. We may also enter into master agreements that allow for the netting of amounts payable on a given day and in the same currency, reducing our settlement risk. This is commonly referred to as "payment netting," and is widely used in our foreign exchange activities.

As with collateral, we have policies and procedures in place to apply close-out and payment netting only to the extent that we have verified legal validity and enforceability of the master agreement. In the case of payment netting, operational constraints may preclude us from reducing settlement risk, notwithstanding the legal right to require the same under the master netting agreement. In the event we become unable, due to operational constraints, actions by regulators, changes in accounting principles, law or regulation (or related interpretations) or other factors, to net some or all of our offsetting exposures and payment obligations under those agreements, we would be required to gross up our assets and liabilities on our statement of condition and our calculation of RWA, accordingly. This would result in a potentially material change in our regulatory ratios, including the Liquidity Coverage Ratio (LCR), and present increased credit, liquidity, asset-and-liability management and operational risks, some of which could be material.

### **Guarantees**

A guarantee is a financial instrument that results in credit support being provided by a third party, (i.e., the protection provider) to the underlying obligor (the beneficiary of the provided protection) on account of an exposure owing by the obligor. The protection provider may support the underlying exposure either in whole or in part. Support of this kind may take different forms, including, for example, financial guarantees and letters of credit.

ERM and Legal teams have established a review process to evaluate guarantees under the applicable requirements of State Street policies and Basel III requirements. The governance process requires ongoing consideration of various factors that may impact the recognition of the guarantee (e.g., documentation changes and/or credit quality of protection providers).

### **Credit Limits**

Central to our philosophy for our management of credit risk is the approval and imposition of credit limits, against which we monitor the actual and potential future credit exposure arising from our business activities with counterparties or groups of counterparties. Credit limits are a reflection of our risk appetite, which may be determined by the creditworthiness of the counterparty, the nature of the risk inherent in the business undertaken with the counterparty, or a combination of relevant credit factors. Our risk appetite for certain sectors and certain countries and geographic regions may also influence the level of risk we are willing to assume to certain counterparties.

The analysis and approval of credit limits is undertaken in a consistent manner across our businesses, although the nature and extent of the analysis may vary, based on the type, term and magnitude of the risk being assumed. Credit limits and underlying exposures are assessed and measured on both a gross and net basis where appropriate, with net exposure determined by deducting the value of any collateral held. For certain types of risk being assumed, we will also assess and measure exposures under a variety of hypothetical market conditions.

Credit limits are re-evaluated annually, or more frequently as needed, and are revised periodically on prevailing and anticipated market conditions, changes in counterparty or country-specific credit ratings and outlook, changes in State Street's risk appetite for certain counterparties, sectors or countries, and enhancements to the measurement of credit utilization.

### **Advanced Internal Ratings-Based Approach**

We measure and monitor our wholesale credit risk exposures by applying the AIRB approach using standard risk parameters, all of which apply

methodologies consistent with the Basel framework. With respect to our Securities Finance - Agency business, we measure our credit risk exposures using a VaR model which has been reviewed and approved by our primary regulator.

The AIRB approach consists of three main building blocks:

- **PD.** We define probability of default (PD) as our estimate of the long-run average likelihood that a counterparty will be unable to meet its financial or settlement obligations over a one-year time horizon, expressed as a percentage. A PD is computed for each of our counterparties using a model specific to the type of counterparty or sector; the PD is then converted into a numeric credit rating using our 15-grade rating masterscale.
- **LGD.** We define loss given default (LGD) as our estimate of the economic loss per dollar of EAD (described below) that we would expect to incur in the event of a counterparty default, within a one-year time horizon in economic downturn conditions, expressed as a percentage. LGD amounts are based on the specific characteristics and structure of the individual exposures to a counterparty.
- **EAD.** We define exposure at default (EAD) as our estimate of our exposure to a counterparty upon a default by that counterparty. For example, this amount may represent the outstanding principal balance of a loan or the fair value and potential future exposure of a derivative contract.

#### ***Estimation and Validation of PD, LGD and EAD***

We calculate our PD, LGD and EAD parameters under a unified framework that assesses the relative risk of different exposures and counterparty types. All three parameters are based upon a consistent definition of default.

#### ***Definition of Default***

We consider a counterparty to be in default if: (1) we determine that the counterparty is unlikely to pay its credit obligations to State Street in full, without recourse by State Street to actions such as underlying collateral (if held); or (2) the counterparty is past due more than 90 days on any material credit obligation(s) to us.

A counterparty in default remains in default until we have reasonable assurance of repayment and performance for all contractual principal and interest payments on all of our exposures to the counterparty (other than exposures that we have fully written down or charged off).

#### ***PD Models and Development***

Our PD models incorporate a combination of quantitative and qualitative factors to calculate a PD

for a given counterparty to estimate the probability that a counterparty will default within the next year. These factors may include the counterparty's leverage, debt service capacity, return on equity and other financial ratios, including those derived from publicly-available financial reports. Other factors may include the quality of management and, for counterparties which are investment funds, the investment strategy of the counterparty, derived from research performed by our credit analysts. The weights, or coefficients, of the factors used in our PD models are generally estimated using a statistical method known as regression analysis.

We use professional judgment to determine some of the qualitative risk factors, including the use of warning signals. Such professional judgment is consistently supported and validated by in-depth analysis.

PD estimates require sufficient data to provide a reasonable level of statistical certainty that the results are accurate. All of our PD models are developed with a minimum of five years of data. When internal and external default information is limited, a margin of conservatism is included within the estimates to allow for a level of uncertainty to be reflected in the model output.

Since historical default rates in our portfolios are low, our PD models rely on a shadow-rating method based on default-rate data obtained from independent credit rating agencies. We update our models in accordance with our internal model governance policies and related regulatory requirements.

We perform tests of model integrity on each PD model as part of our model development and annual process update.

Our PD models are based on the following assumptions:

- The selected modeling approach is valid, i.e., the data is representative of the current portfolio, the model is suitable for the parameter estimation, and the estimated relationship based on the historical data can be applied to the current portfolio;
- Since defaults in our portfolio are rare, we use the default data from nationally recognized statistical rating agencies for modeling purposes; and
- Non-publicly-rated counterparties share the same risk characteristics as publicly-rated counterparties; this allows the use of internal models developed on publicly-rated counterparties to be applied to non-publicly-rated counterparties.

#### ***Credit Rating Process***

We have created rating tools to rate the credit quality of our counterparties, as delineated below:

- Banks;
- Broker/dealers;
- Commercial Real Estate;
- Corporations;
- Insurance Companies;
- Sovereigns;
- Municipalities;
- Alternative Funds;
- Real Money Funds;

We have developed mapping models based on the actual long-term average annual default rates for each external rating reported by the major independent credit rating agencies. External ratings are associated with corresponding PDs and, in turn, are mapped to the appropriate State Street internal ratings by comparing the PDs to the upper and lower boundaries of our masterscale. The mapping specifies the relationship between the internal and external credit ratings.

### **PD Mapping**

The following table presents our general masterscale, which is used for the vast majority of our counterparties:

**TABLE 7: GENERAL MASTERSCALE**

| Category        | State Street Risk Rating | PD (Basis Points) | PD Band (Basis Points) |       | External Agency Rating |
|-----------------|--------------------------|-------------------|------------------------|-------|------------------------|
| Pass            | 1                        | 1                 | —                      | 1.7   | AAA to AA              |
|                 | 2                        | 3                 | 1.7                    | 3.9   | AA-                    |
|                 | 3                        | 5                 | 3.9                    | 7     | A+ to A                |
|                 | 4                        | 10                | 7                      | 14    | A-                     |
|                 | 5                        | 20                | 14                     | 28    | BBB+                   |
|                 | 6                        | 40                | 28                     | 57    | BBB to BBB-            |
|                 | 7                        | 80                | 57                     | 113   | BB+                    |
|                 | 8                        | 160               | 113                    | 219   | BB to BB-              |
|                 | 9                        | 300               | 219                    | 387   | B+                     |
|                 | 10                       | 500               | 387                    | 707   | B                      |
| Special Mention | 11                       | 1,000             | 707                    | 1,414 | B- to CCC+             |
|                 | 12                       | 2,000             | 1,414                  | 3,162 | CCC to CCC-            |
| Substandard     | 13                       | 5,000             | 3,162                  | 7,071 | CC to C                |
| Doubtful        | 14                       | 10,000            | 7,071                  | —     |                        |
| Loss            | 15                       | 10,000            | —                      | —     | D                      |

## ***LGD Models and Development***

Our LGD models incorporate professional judgment as well as statistical and structural approaches. Among other things, our LGD models incorporate several factors, including facility type, facility seniority, counterparty type, industry, jurisdiction, market type, type of collateral, and the amount of underlying collateral.

The Basel framework requires robust LGD models to be built using at least seven years of historical default data. Since the historical default rates of our counterparties are low, generally external data is used to construct our LGD models. Downturn LGD estimates are determined based upon historical stress periods and incorporate conservative recovery assumptions.

Our models calculate LGD as the ratio of final economic loss to EAD. The final loss is adjusted to reflect the cost and time needed to recover any underlying collateral. Final loss is also adjusted to reflect currency and jurisdiction for counterparties not domiciled in the U.S., as well as factors that affect present value.

LGD estimates generally require sufficient data to provide a reasonable level of statistical certainty that results are reliable. When internal and external default data are limited, a margin of conservatism is added to the estimates that reflects the level of uncertainty inherent in the model output.

Our LGD models are based on the following assumptions:

- External data sources used to address our lack of internal default experience are representative of our portfolio; where possible, we have taken steps to show that external data sources are representative of our portfolio;
- Where no internal or external data are available, a structured approach combined with expert judgment is used to provide sufficiently accurate LGD estimates; and
- Recovery amount calculations may include a distinct cost-of-recovery component related to the direct and indirect costs of liquidating assets, legal proceedings and other steps; recoveries are discounted back to the default date using discount rates and model dependent assumed times to recovery.

## ***EAD Models and Development***

Our EAD models incorporate a mix of qualitative assessment and quantitative modeling. Given the importance of EAD in our determination of RWA, we subject our EAD calculations to the same rigorous standards as our PD and LGD calculations. We follow the general principles described below in our determination of EAD:

- We apply conservatism in our calculation of EAD, without unduly sacrificing risk sensitivity;
- We base our EAD adjustments for credit risk mitigation on properly documented qualifying master netting agreements which we determine to be legally enforceable, as well as eligible collateral; and
- We model the distribution of EAD for positions with stochastic or random exposure over the life of the exposure or, for a collateralized exposure, the liquidation time horizon of the collateral.

We use a variety of methodologies to calculate EAD for our exposures where applicable; for example, we use the CEM to calculate the EAD for OTC derivative contracts; a VaR methodology for repo-style transactions composed of our indemnified agency securities lending; and the collateral haircut approach, using supervisory haircuts, for repo-style transactions composed of reverse repurchase and repurchase agreements initiated by our Global Treasury group as well as our principal securities lending and borrowing activities.

The following section describes our calculations of EAD for certain lending activities, as well as our indemnified agency securities lending and principal securities lending and borrowing activities.

### ***Committed Facilities***

A CCF is designed to capture the exposure implicit in these commitments, and represents the percentage of the undrawn portion of a facility to which we expect to be exposed in a default event.

Given the high quality of our credit portfolio, very few empirical observations on draw-down behavior exist for the vast majority of our counterparty types and associated loan products. This gives rise to challenges in deriving a quantitative estimate for potential future draws on commitments via modeling of credit conversion factors. As such, we have adopted a conservative stance by applying a CCF of 100% for all undrawn commitments for the purposes of State Street's regulatory capital calculation.

For such committed facilities, business specialists evaluate the terms of the agreements, as well as the need for and use of facilities across different counterparties, to assess the extent to which facilities would be utilized in a default event.

For these facilities, the outstanding balance on any particular facility does not fully capture our potential exposure in the event of a default, since the commitments have not been fully funded. As a result, we are exposed to additional losses if committed but undrawn amounts are funded. Total EAD equals the current outstanding amount plus the product of the

CCF and the undrawn portion of the committed facility.

### **Principal and Indemnified Agency Securities Lending and Borrowing**

We calculate EAD for our indemnified agency lending business using a VaR model, which is a hybrid of historical and parametric simulation. This hybrid VaR model separates a daily return into a systematic return and an idiosyncratic return. To determine the systematic return, a given security is mapped to an index based on several characteristics, including whether or not the security is an equity or fixed-income security, whether it is a U.S. or a non-U.S. security, and other characteristics. The systematic return is then determined by the volatility-adjusted historical return on the benchmark to which the security was mapped.

The idiosyncratic return is determined by a draw from a parametric distribution. The returns are aggregated at the netting-set level, as determined by legally enforceable netting agreements. The VaR for each netting set is calculated as the convolution of the systematic and idiosyncratic returns of the securities within the netting set. The EAD for a netting set is the greater of the VaR less margin or zero.

Conservative adjustments are considered and applied to exposures when empirical observations are scarce.

We calculate EAD for our Enhanced Custody business using the collateral haircut approach as described by the Basel III final rule.

### **Impairment Analysis and Allowance for Credit Losses**

Our credit portfolio, and the risk profile of our counterparties, is generally of high quality, such that ordinarily the size of our watch list is small relative to our overall credit exposure and our impaired credit assets are not significant relative to our financial assets. The processes we use to consider potential and actual impairment, together with those we use to assess the appropriate level of our allowance for credit losses, are outlined in this section.

#### **Non-Accrual**

We define past-due credits as those assets where contractually agreed payments of principal and/or interest remain unpaid by the borrower, but for which interest continues to be accrued. We generally place credit assets on non-accrual status when they become 90 days past due as to either principal and/or interest, or earlier when full collection of principal or interest is not considered probable. Credit assets 90 days past due, but considered both well-secured and in the process of collection, are treated as exceptions and may be excluded from non-accrual status.

When we place a credit asset on non-accrual status, the accrual of interest is discontinued and

previously recorded but unpaid interest is reversed and generally charged against interest income. For credits on non-accrual status, revenue is recognized on a cash basis after recovery of principal, if and when interest payments are received. Credits may be removed from non-accrual status when repayment is reasonably assured and performance under the terms of the asset has been demonstrated.

### **Allowance for Credit Losses**

We recognize an allowance for credit losses for financial assets held at amortized cost and off-balance sheet commitments utilizing an expected loss methodology. The allowance for credit losses for financial assets is recorded as a reduction of the financial asset's amortized cost in our consolidated statement of condition, and represents management's estimate of expected credit losses for our assets as of the date of our consolidated statement of condition. The allowance for credit losses is evaluated on a regular basis by management. Factors considered in evaluating the appropriate level of the allowances for credit losses for our credit portfolio include:

- Loss experience;
- The Cumulative Probability of Default (PD) based on our internal risk rating of the counterparty's creditworthiness;
- Current and expected economic conditions and adverse situations that may affect the borrower's ability to repay;
- The Loss Given Default (LGD);
- The performance of individual counterparties in relation to contract terms, including expected rates of prepayment; and
- Other relevant factors.

The allowance for credit losses may be determined using other 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.

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 for the individual asset are evaluated using a variety of methods, including measuring the difference between the discounted value of the expected future cash flows, utilizing the effective interest rate, and the amortized cost basis of the asset.

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.

An allowance for credit losses is recognized on HTM securities upon acquisition of the security, and on AFS securities when the expected future cash flows of the investment securities are less than their amortized cost basis.

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.

Provisions for credit losses, recorded in our consolidated statement of income, reflect our estimate of the amount necessary to maintain the allowance for credit losses at a level considered by us to be appropriate to absorb the estimate of expected credit losses in our credit portfolio. The provision for credit losses related to loans and other financial assets held at amortized cost, including investment securities classified as HTM and off-balance sheet commitments, was a \$33 million release of credit reserves in 2021.

Financial assets 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 an asset or a portion of an asset is determined to be uncollectible. In addition, any impaired financial asset that is determined to be collateral-dependent (as defined above) is reduced to an amount equal to the fair value of the collateral less costs to sell. Recoveries are recorded on a cash basis as adjustments to the allowance for credit losses.

The reserve for off-balance sheet credit exposures, recorded in accrued expenses and other liabilities in our consolidated statement of condition, represents management's estimate of probable credit losses on unfunded commitments as of the balance sheet date. The reserve is evaluated on a regular basis by management. Factors considered in evaluating the appropriate level of this reserve are similar to those considered with respect to the allowance for credit losses. Provisions to maintain the reserve at a level considered by us to be appropriate to absorb the estimate of expected credit losses are recorded in the provision for credit losses in our consolidated statement of income.

As of December 31, 2021, no financial assets, including institutional loans and commercial real estate loans, were modified in troubled debt restructurings. As of December 31, 2021, there are no financial assets on non-accrual status. Our reserve

for off-balance sheet credit exposures totaled approximately \$19 million in 2021.

**TABLE 8: ALLOWANCE FOR CREDIT LOSSES**

|                                                                          | Twelve months ended<br>December 31,<br>2021 |      |
|--------------------------------------------------------------------------|---------------------------------------------|------|
| (In millions)                                                            |                                             |      |
| Beginning balance                                                        | \$                                          | 148  |
| Provision for credit losses<br>(funded commitments) <sup>(1)</sup>       |                                             | (29) |
| Provisions for credit losses<br>(unfunded commitments)                   |                                             | (2)  |
| Provisions for credit losses<br>(investment securities and all<br>other) |                                             | (2)  |
| Charge-offs <sup>(2)</sup>                                               |                                             | (2)  |
| FX translation                                                           |                                             | (5)  |
| Ending balance                                                           | \$                                          | 108  |

<sup>(1)</sup> The provision for credit losses is primarily related to commercial and financial loans.

<sup>(2)</sup> The charge-offs are related to commercial and financial loans.

The following table presents the EAD of our wholesale credit risk exposures by type as of the date indicated, and the average EAD for the period indicated:

**TABLE 9: WHOLESALE CREDIT RISK EXPOSURE AT DEFAULT**

| (In millions)                                                               | December 31, 2021 | Quarter Ended<br>December 31, 2021 |
|-----------------------------------------------------------------------------|-------------------|------------------------------------|
|                                                                             | EAD               | Average EAD <sup>(1)</sup>         |
| <b>Wholesale credit risk exposures<sup>(2)</sup></b>                        |                   |                                    |
| Cash and due from, and interest-bearing deposits with, banks <sup>(3)</sup> | \$ 127,828        | \$ 120,798                         |
| Investment securities - wholesale                                           | 104,282           | 101,794                            |
| Loans <sup>(4)</sup>                                                        | 63,522            | 65,882                             |
| OTC derivative contracts <sup>(5)</sup>                                     | 13,500            | 14,778                             |
| Repo-style transactions <sup>(6)</sup>                                      | 13,180            | 12,745                             |
| Other wholesale                                                             | 10,422            | 11,268                             |
| <b>Total</b>                                                                | <b>\$ 332,734</b> | <b>\$ 327,265</b>                  |

<sup>(1)</sup> Amounts represent the average of the three month-end EAD amounts in the quarter.

<sup>(2)</sup> Amounts exclude securitizations, equity exposures, assets not in a defined exposure category and exposures classified as "non material."

<sup>(3)</sup> Amounts predominantly consist of deposits with banks and central banks.

<sup>(4)</sup> Amounts include unused commitments and financial standby letters of credit.

<sup>(5)</sup> Amounts reflect the benefit of netting permitted by GAAP and the Basel III final rule, as applicable.

<sup>(6)</sup> Amounts include the aggregate of indemnified agency securities lending and enhanced custody and reverse repurchase and repurchase agreements; exposure reflects the benefit of collateral and netting permitted by GAAP and the Basel III final rule, as applicable.

The following table presents the EAD of our wholesale credit risk exposures by major geographic region as of the date indicated:

**TABLE 10: WHOLESALE CREDIT RISK EXPOSURE AT DEFAULT - GEOGRAPHIC MIX**

**December 31, 2021**

| (In millions)                                                               | EAD               | Americas          | Europe           | Asia/Pacific     | Other <sup>(1)</sup> |
|-----------------------------------------------------------------------------|-------------------|-------------------|------------------|------------------|----------------------|
| <b>Wholesale credit risk exposures<sup>(2)</sup></b>                        |                   |                   |                  |                  |                      |
| Cash and due from, and interest-bearing deposits with, banks <sup>(3)</sup> | \$ 127,828        | \$ 53,441         | \$ 59,660        | \$ 14,527        | \$ 200               |
| Investment securities - wholesale                                           | 104,282           | 84,213            | 14,898           | 5,171            | —                    |
| Loans <sup>(4)</sup>                                                        | 63,522            | 53,588            | 9,865            | 67               | 2                    |
| OTC derivative contracts <sup>(5)</sup>                                     | 13,500            | 4,572             | 5,625            | 3,252            | 51                   |
| Repo-style transactions <sup>(6)</sup>                                      | 13,180            | 10,285            | 2,277            | 384              | 234                  |
| Other wholesale                                                             | 10,422            | 9,335             | 818              | 242              | 27                   |
| <b>Total</b>                                                                | <b>\$ 332,734</b> | <b>\$ 215,434</b> | <b>\$ 93,143</b> | <b>\$ 23,643</b> | <b>\$ 514</b>        |

<sup>(1)</sup> "Other" geographic region represents our exposures primarily in Africa and the Middle East.

<sup>(2)</sup> Amounts exclude securitizations, equity exposures, assets not in a defined exposure category and exposures classified as "non material."

<sup>(3)</sup> Amounts predominantly consist of deposits with banks and central banks.

<sup>(4)</sup> Amounts include unused commitments and financial standby letters of credit.

<sup>(5)</sup> Amounts reflect the benefit of netting permitted by GAAP and the Basel III final rule, as applicable.

<sup>(6)</sup> Amounts include the aggregate of indemnified agency securities lending and enhanced custody and reverse repurchase and repurchase agreements; exposure reflects the benefit of collateral and netting permitted by GAAP and the Basel III final rule, as applicable.

The following table presents the EAD of our wholesale credit risk exposures by counterparty type as of the date indicated:

**TABLE 11: WHOLESALE CREDIT RISK EXPOSURE AT DEFAULT - COUNTERPARTY TYPE**

**December 31, 2021**

| (In millions)                                                               | EAD               | Governments, central banks and supra-nationals <sup>(1)</sup> | Commercial Banks | Broker/Dealers  | Funds            | Other <sup>(2)</sup> |
|-----------------------------------------------------------------------------|-------------------|---------------------------------------------------------------|------------------|-----------------|------------------|----------------------|
| <b>Wholesale credit risk exposures<sup>(3)</sup></b>                        |                   |                                                               |                  |                 |                  |                      |
| Cash and due from, and interest-bearing deposits with, banks <sup>(4)</sup> | \$ 127,828        | \$ 121,598                                                    | \$ 6,129         | \$ 34           | \$ 4             | \$ 63                |
| Investment securities - wholesale                                           | 104,282           | 99,498                                                        | 748              | 15              | —                | 4,021                |
| Loans <sup>(5)</sup>                                                        | 63,522            | 9,047                                                         | 4                | 200             | 42,588           | 11,683               |
| OTC derivative contracts <sup>(6)</sup>                                     | 13,500            | 601                                                           | 4,341            | 637             | 7,116            | 805                  |
| Repo-style transactions <sup>(7)</sup>                                      | 13,180            | 689                                                           | 803              | 3,788           | 7,545            | 355                  |
| Other wholesale                                                             | 10,422            | 532                                                           | 256              | 4,902           | 502              | 4,230                |
| <b>Total</b>                                                                | <b>\$ 332,734</b> | <b>\$ 231,965</b>                                             | <b>\$ 12,281</b> | <b>\$ 9,576</b> | <b>\$ 57,755</b> | <b>\$ 21,157</b>     |

<sup>(1)</sup> Amounts include municipalities, government agencies and multi-lateral development banks.

<sup>(2)</sup> "Other" counterparty type category represents our exposures primarily to corporates and insurance companies.

<sup>(3)</sup> Amounts exclude securitizations, equity exposures, assets not in a defined exposure category and exposures classified as "non material."

<sup>(4)</sup> Amounts predominantly consist of deposits with banks and central banks.

<sup>(5)</sup> Amounts include unused commitments and financial standby letters of credit.

<sup>(6)</sup> Amounts reflect the benefit of netting permitted by GAAP and the Basel III final rule, as applicable.

<sup>(7)</sup> Amounts include the aggregate of indemnified agency securities lending and enhanced custody and reverse repurchase and repurchase agreements; exposure reflects the benefit of collateral and netting permitted by GAAP and the Basel III final rule, as applicable.

The following table presents the EAD of our wholesale credit risk exposures by remaining contractual maturity as of the date indicated:

**TABLE 12: WHOLESALE CREDIT RISK EXPOSURE AT DEFAULT - REMAINING CONTRACTUAL MATURITY**

**December 31, 2021**

| (In millions)                                                               | EAD               | < = 1 year        | 1 - 3 years      | > 3 years <sup>(1)</sup> |
|-----------------------------------------------------------------------------|-------------------|-------------------|------------------|--------------------------|
| <b>Wholesale credit risk exposures<sup>(2)</sup></b>                        |                   |                   |                  |                          |
| Cash and due from, and interest-bearing deposits with, banks <sup>(3)</sup> | \$ 127,828        | \$ 127,828        | \$ —             | \$ —                     |
| Investment securities - wholesale                                           | 104,282           | 11,012            | 17,161           | 76,109                   |
| Loans <sup>(4)</sup>                                                        | 63,522            | 36,534            | 13,783           | 13,205                   |
| OTC derivative contracts <sup>(5)</sup>                                     | 13,500            | 13,231            | 235              | 34                       |
| Repo-style transactions <sup>(6)</sup>                                      | 13,180            | 12,718            | —                | 462                      |
| Other wholesale                                                             | 10,422            | 8,327             | 90               | 2,005                    |
| <b>Total</b>                                                                | <b>\$ 332,734</b> | <b>\$ 209,650</b> | <b>\$ 31,269</b> | <b>\$ 91,815</b>         |

<sup>(1)</sup> Exposures with remaining contractual maturities of greater than five years are capped at five years for RWA calculation purposes as per the Basel III final rule.

<sup>(2)</sup> Amounts exclude securitizations, equity exposures, assets not in a defined exposure category and exposures classified as "non material."

<sup>(3)</sup> Amounts predominantly consist of deposits with banks and central banks.

<sup>(4)</sup> Amounts include unused commitments and financial standby letters of credit.

<sup>(5)</sup> Amounts reflect the benefit of netting permitted by GAAP and the Basel III final rule, as applicable.

<sup>(6)</sup> Amounts include the aggregate of indemnified agency securities lending and enhanced custody and reverse repurchase and repurchase agreements; exposure reflects the benefit of collateral and netting permitted by GAAP and the Basel III final rule, as applicable.

The following table presents EAD and related information associated with our wholesale credit risk exposures, by range of PD as of the date or for the period indicated:

**TABLE 13: WHOLESALE CREDIT RISK EXPOSURE - PROBABILITY OF DEFAULT**

**December 31, 2021**

(Dollars in millions, except where otherwise noted)

| PD range                       | EAD <sup>(1)(2)</sup> | Weighted-Average LGD | Weighted-Average PD | Weighted-Average Risk Weight | Unfunded Commitments <sup>(3)</sup> | Average EAD (in thousands) |
|--------------------------------|-----------------------|----------------------|---------------------|------------------------------|-------------------------------------|----------------------------|
| 0.00 to < 0.03% <sup>(4)</sup> | \$ 147,206            | 18.51 %              | 0.01 %              | 1.87 %                       | \$ —                                | \$ 116,831                 |
| 0.03 to < 0.10%                | 125,594               | 30.19                | 0.03                | 10.04                        | 29,532                              | 3,956                      |
| 0.10 to < 0.15%                | 16,062                | 46.86                | 0.10                | 26.48                        | 3,507                               | 2,890                      |
| 0.15 to < 0.20%                | 304                   | 37.94                | 0.17                | 22.42                        | 93                                  | 510                        |
| 0.20 to < 1.00%                | 31,586                | 34.51                | 0.32                | 41.63                        | 8,954                               | 3,379                      |
| 1.00 to < 5.00%                | 5,110                 | 41.52                | 2.07                | 133.85                       | 380                                 | 7,108                      |
| 5.00 to < 10.00%               | 370                   | 41.44                | 5.00                | 179.61                       | 9                                   | 3,939                      |
| 10.00 to < 20.00%              | 122                   | 51.41                | 10.00               | 245.80                       | —                                   | 12,195                     |
| 20.00 to < 100%                | 361                   | 27.32                | 33.70               | 155.98                       | 67                                  | 11,294                     |
| 100%                           | 8                     | 50.60                | 100.00              | 100.00                       | —                                   | 3,780                      |
| <b>Total</b>                   | <b>\$ 326,723</b>     |                      |                     |                              | <b>\$ 42,542</b>                    |                            |

<sup>(1)</sup> EAD does not reflect the effect of credit risk mitigation, such as collateral and netting, except for OTC derivatives and securities finance exposures, which reflect the benefit of netting and collateral, as applicable.

<sup>(2)</sup> Amounts exclude securitizations, equity exposures, assets not in a defined exposure category and exposures classified as "non material." These amounts also exclude centrally cleared exposures not subject to AIRB and PD treatment.

<sup>(3)</sup> Unfunded commitments represent contractual unfunded amount prior to credit conversion.

<sup>(4)</sup> Amounts include sovereign exposures and exposures to, or directly and unconditionally guaranteed by, the Bank for International Settlements, the International Monetary Fund, the European Commission, the European Central Bank and multilateral development banks.

The following table presents information with respect to the EAD of our credit risk exposures that meet the definition of OTC derivative contracts as of the date indicated:

**TABLE 14: OVER-THE-COUNTER DERIVATIVE CONTRACTS<sup>(1)(2)</sup>**

**December 31, 2021**

| (in millions)                             | Gross Positive Fair Value | Potential Future Exposure | Netting Benefit  | Net Positive Fair Value | EAD              |
|-------------------------------------------|---------------------------|---------------------------|------------------|-------------------------|------------------|
| Foreign exchange contracts <sup>(3)</sup> | \$ 15,040                 | \$ 9,218                  | \$ 11,097        | \$ 4,922                | \$ 13,161        |
| Other contracts <sup>(4)(5)</sup>         | 77                        | 194                       | 72               | —                       | 339              |
| <b>Total</b>                              | <b>\$ 15,117</b>          | <b>\$ 9,412</b>           | <b>\$ 11,169</b> | <b>\$ 4,922</b>         | <b>\$ 13,500</b> |

<sup>(1)</sup> Exposure is calculated using the CEM.

<sup>(2)</sup> Amounts exclude contracts treated as securitizations; refer to "Securitizations" in this Public Disclosure.

<sup>(3)</sup> EAD for "Foreign exchange contracts" include the benefit of collateral, which predominantly consists of cash and government securities.

<sup>(4)</sup> "Other contracts" include cleared transactions with central counterparties where State Street acts as agent, riskless principal, and principal.

<sup>(5)</sup> "Other contracts" may reflect a 0.71 scaling factor, which represents a five-day holding period, as outlined in the Basel III final rule.

The following tables present information with respect to our exposures treated as repo-style transactions, by type of exposure and treatment methodology as of the date indicated. The first table presents information with respect to EAD associated with reverse repurchase and repurchase agreements, which predominantly result from our activities executed on behalf of our clients; the second table presents information with respect to EAD associated with our indemnified agency securities lending and enhanced custody business, which is State Street's principal securities finance for our custody clients:

**TABLE 15: REVERSE REPURCHASE AND REPURCHASE AGREEMENTS**

| <b>December 31, 2021</b>         |                                     |                                 |                              |
|----------------------------------|-------------------------------------|---------------------------------|------------------------------|
| <b>(In millions)</b>             | <b>Gross Exposure<sup>(1)</sup></b> | <b>Collateral<sup>(2)</sup></b> | <b>Net EAD<sup>(3)</sup></b> |
| Agreements centrally cleared     | \$ 151,115                          | \$ 150,050                      | \$ 1,071                     |
| Agreements not centrally cleared | 58,682                              | 58,504                          | 1,310                        |
| <b>Total</b>                     | <b>\$ 209,797</b>                   | <b>\$ 208,554</b>               | <b>\$ 2,381</b>              |

<sup>(1)</sup> Gross exposure does not reflect the benefits of legally enforceable netting agreements and collateral. In instances, wherein State Street facilitates both sides of the same trade (i.e. repurchase agreement on one side and reverse repurchase agreement on the other), the gross exposure includes State Street's exposure on both sides.

<sup>(2)</sup> Collateral consists primarily of cash, U.S. Treasury securities and U.S. government agency securities. The amount of collateral may exceed the measure for gross exposure for individual agreements, because certain repo-style transactions are over-collateralized, while others are under-collateralized. In instances wherein State Street facilitates both sides of the same trade (i.e. repurchase agreement on one side and reverse repurchase agreement on the other), the collateral includes the fair value of cash and the securities received by State Street on both sides.

<sup>(3)</sup> Under the collateral haircut approach, EAD for repo-style transactions is calculated using a supervisory formula that incorporates the benefits of legally enforceable netting agreements and collateral, as well as prescribed supervisory haircuts for market price volatility and currency mismatches.

**TABLE 16: INDEMNIFIED AGENCY LENDING AND ENHANCED CUSTODY**

| <b>December 31, 2021</b>                        |                                     |                                      |                              |
|-------------------------------------------------|-------------------------------------|--------------------------------------|------------------------------|
| <b>(In millions)</b>                            | <b>Base EAD<sup>(1)</sup></b>       | <b>Netting Benefit<sup>(2)</sup></b> | <b>Net EAD<sup>(3)</sup></b> |
| <b>Indemnified Agency Lending<sup>(4)</sup></b> | <b>\$ 14,156</b>                    | <b>\$ 10,972</b>                     | <b>\$ 3,184</b>              |
| <b>(In millions)</b>                            | <b>Gross Exposure<sup>(5)</sup></b> | <b>Collateral<sup>(6)</sup></b>      | <b>Net EAD<sup>(3)</sup></b> |
| <b>Enhanced Custody<sup>(7)</sup></b>           | <b>\$ 54,864</b>                    | <b>\$ 59,318</b>                     | <b>\$ 7,153</b>              |

<sup>(1)</sup> Base EAD represents the net exposure of repurchase and securities lending or borrowing agreements at a client or counterparty level under a single agreement.

<sup>(2)</sup> The netting benefit for indemnified agency securities lending represents the benefit of collateral arrangements under a qualifying master netting agreement that allows for the netting, as applicable, of repurchase and securities lending exposures to a particular counterparty. The netting benefit for enhanced custody represents the benefit of netting, as applicable, of repurchase and securities lending or securities borrowing exposures to a particular counterparty under a qualifying master netting agreement.

<sup>(3)</sup> As of December 31, 2021, approximately \$650 million (approximately 20.4%) of Net EAD for indemnified agency lending and approximately \$8 million (approximately 0.1%) of Net EAD for enhanced custody is currently covered by guarantees considered eligible for Basel III purposes.

<sup>(4)</sup> EAD is calculated by applying a VaR methodology.

<sup>(5)</sup> Gross exposure does not reflect the benefits of legally enforceable netting agreements and collateral.

<sup>(6)</sup> The amount of collateral may exceed the measure for gross exposure for individual agreements, because certain repo-style transactions are over-collateralized, while others are under-collateralized.

<sup>(7)</sup> EAD is calculated by applying the collateral haircut approach using a supervisory formula that incorporates the benefits of legally enforceable netting agreements and collateral, as well as prescribed supervisory haircuts for market price volatility and currency mismatches.

## SECURITIZATIONS

We engage in securitization activities primarily as an investor. Most of our aggregate securitization exposure is carried in our investment securities portfolio in our consolidated statement of condition. We purchase various types of securitized financial assets in the form of U.S. and non-U.S. asset-backed securities which meet the definition of securitizations under the Basel framework. These securities are typically collateralized by various types of assets, including, for example, the Federal Family Education Loan Program (FFELP) and private student loans, credit card receivables, residential mortgages, automobile and equipment leases and commercial mortgages. Our primary objective with respect to our investment in asset-backed securities is to generate interest income.

Investing in securitizations carries the risk of loss. Default risk, credit downgrade risk, interest rate risk and liquidity risk are present in these securitizations. We are aware of these risks and endeavor to mitigate these and other risks through various measures.

Our investments in securitizations are diversified across a variety of sectors and jurisdictions. To calculate the required capital and RWA of our securitization exposures, we apply the Simplified Supervisory Formula Approach (SSFA) methodology. We elected to apply the SSFA methodology as a result of the availability of underlying information with respect to the exposures.

We have securitization exposures to highly-rated commercial mortgage-backed securities through third-party-managed separate accounts associated with our investment in Bank-Owned Life Insurance (BOLI), which we treat as equity exposures, and include in Other on Table 19. We treat these securitization exposures as equity exposures, specifically investments in investment funds. Refer to "Equity Exposures not Subject to Market Risk Rule" in this Public Disclosure. We also enter into a limited number of liquidity/credit facilities with counterparties which qualify as securitizations under the Basel framework.

The following table presents the EAD, Capital Requirement and RWA of our securitization exposures, by type of exposure as of the date indicated.

**TABLE 17: SECURITIZATION EXPOSURES**

**December 31, 2021**

| (In millions)                                  |                  |                            |                          |  |
|------------------------------------------------|------------------|----------------------------|--------------------------|--|
| <b>Asset class</b>                             | <b>EAD</b>       | <b>Capital Requirement</b> | <b>RWA<sup>(1)</sup></b> |  |
| U.S. asset-backed                              | \$ 5,213         | \$ 93                      | \$ 1,167                 |  |
| U.S. residential mortgage-backed               | 39               | 1                          | 8                        |  |
| U.S. commercial mortgage-backed                | 344              | 6                          | 73                       |  |
| Collateralized loan obligations <sup>(2)</sup> | 5,910            | 100                        | 1,254                    |  |
| Non-U.S. asset-backed                          | 1,259            | 24                         | 305                      |  |
| Non-U.S. residential mortgage-backed           | 1,958            | 42                         | 520                      |  |
| Other <sup>(3)</sup>                           | 541              | 12                         | 155                      |  |
| <b>Total</b>                                   | <b>\$ 15,264</b> | <b>\$ 278</b>              | <b>\$ 3,482</b>          |  |

<sup>(1)</sup> RWA reflects 1.06 supervisory scaling factor described earlier in this Public Disclosure under "Regulatory Capital Requirements."

<sup>(2)</sup> Amounts include Collateralized Loan Obligations in security and loan form which meet the definition of securitizations.

<sup>(3)</sup> Amounts include structured loans which meet the definition of securitizations.

The following table presents the EAD, Capital Requirement and RWA of our securitization exposures, by range of risk weights as of the date indicated:

**TABLE 18: SECURITIZATION EXPOSURES - RANGE OF RISK WEIGHTS**

**December 31, 2021**

(In millions)

| <b>Risk Weight Range</b>           | <b>EAD</b>       | <b>Capital Requirement</b> | <b>RWA<sup>(1)</sup></b> |  |
|------------------------------------|------------------|----------------------------|--------------------------|--|
| <b>Asset Securitizations</b>       |                  |                            |                          |  |
| 20%-100%                           | \$ 15,208        | \$ 262                     | \$ 3,271                 |  |
| 101%-200%                          | 28               | 3                          | 40                       |  |
| 201%-500%                          | 12               | 3                          | 41                       |  |
| 501%-1000%                         | 11               | 5                          | 67                       |  |
| 1001%-1250%                        | 5                | 5                          | 63                       |  |
| <b>Total Asset Securitizations</b> | <b>\$ 15,264</b> | <b>\$ 278</b>              | <b>\$ 3,482</b>          |  |

<sup>(1)</sup> RWA reflects 1.06 supervisory scaling factor described earlier in this Public Disclosure under "Regulatory Capital Requirements."

## Credit Risk Monitoring

Our Global Treasury group manages our portfolio of asset-backed investment securities, in conjunction with a comprehensive risk management process. The elements of this process require a prescribed management structure and an investment policy with supporting guidelines, as well as governance and management oversight in connection with the group's asset-and-liability and liquidity management activities.

Global Treasury's approach is subject to corporate risk policies and guidelines, including the limits prescribed by the credit risk guidelines. A common work flow applies to the qualitative and quantitative examination conducted at various steps during the investment process, before and after trade execution, for all approved asset classes; however, the examination process, as well as ongoing monitoring, varies according to the asset class and type of security being considered for purchase.

As a general policy, all securities are analyzed from a credit perspective regardless of the availability of external credit ratings data and/or credit analysis from various major independent credit rating agencies, or from other sources. Credit analysts in Global Treasury review each security prior to purchase to assess creditworthiness and the associated level of credit risk. This process is applied across the risk spectrum; the analysts review credit fundamentals, servicer risk, underlying collateral, structure, peer comparisons and considerations of expected and downside loss projections. Global Treasury credit professionals must approve any complex or less diversified asset classes or securities prior to purchase, and a consensus must be reached for any investment by the credit analyst and the portfolio manager responsible for the applicable asset class. Each trade is tested for compliance with internal credit limits prior to purchase.

While the pre-purchase process is applied across the portfolio, a surveillance process is followed for each sector, given the diversity of the portfolio and each sector's unique attributes included in the monitoring process.

ERM oversees the securitization exposures carried in the investment portfolio, including re-securitizations, and is responsible for State Street's quarterly assessment of impairment. The quarterly impairment assessment includes a "deep-dive" credit review of any exposure deemed to be at higher risk for impairment, based on future economic outlook, historical collateral repayment and loss behavior.

Final impairment and required credit reserve recommendations, along with key assumptions used and results of stress and sensitivity testing of loss assumptions, are presented to and approved by State Street's Credit Reserve Assessment Committee,

composed of senior management from ERM and Corporate Finance.

In addition to ongoing credit surveillance and the performance of regular stress testing by ERM, we test the portfolio for potential impact to regulatory capital under corporate-wide stress tests, in conjunction with the Federal Reserve's CCAR process. We utilize econometric credit models to forecast impairment and RWA impact under a variety of macroeconomic scenarios. In addition, we forecast changes in the fair value of AFS securities portfolio under prescribed CCAR macroeconomic scenarios, which can affect capital.

We do not utilize credit risk mitigation for our securitization exposures.

## Significant Accounting Policies

The following provides information on State Street's significant accounting policies associated to securitizations.

As previously described, we purchase various types of securitized financial assets in the form of U.S. and non-U.S. asset-backed securities which meet the definition of securitizations under the Basel framework. These securitized financial assets, which we account for as investment securities, are classified as either trading account assets, AFS securities or securities held to maturity at the time of purchase, based on management's intent. Generally, we do not hold any securitization exposures classified as trading account assets.

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 non-credit gains and losses are recorded in Accumulated Other Comprehensive Income (AOCI). Gains or losses realized on sales of AFS debt 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.

We recognize interest income generated by these investment securities 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 nonrefundable fees or costs, as well as purchase premiums or discounts, resulting in amortization or accretion, accordingly.

We conduct quarterly reviews of HTM securities on a collective (pool) basis when similar risk characteristics exist to determine whether an allowance for credit losses should be recognized.

An AFS security is impaired when the current fair value of an individual security is below its amortized cost basis. For additional information about the review of investment securities for expected credit losses or impairment, refer to pages 144 to 149 in Note 3 to the consolidated financial statements included under Item 8, Financial Statements and Supplementary Data, in our 2021 Form 10-K.

Our evaluation of impairment of mortgage- and asset-backed securities incorporates detailed information with respect to underlying loan-level performance. Accordingly, the range of estimates pertaining to each collateral type reflects the unique characteristics of the underlying loans, such as payment options and collateral geography, among other factors.

## **EQUITY EXPOSURES NOT SUBJECT TO MARKET RISK RULE**

We carry two major categories of equity exposures: investments in entities and investments in funds. These investments include the following:

- Tax-advantaged investments, primarily composed of equity investments in alternative energy and low-income housing projects;
- Investments in joint ventures and other partnerships, and Community Reinvestment Act investments;
- Seed capital investments in sponsored investment funds;
- General investments in investment funds;
- Investments in connection with our BOLI program; and
- Stable value wrap contracts.

We carry the above-described equity exposures in our investment portfolio and in other assets in our consolidated statement of condition. Currently, our investment portfolio strategy does not support investments in equity exposures other than investments in funds. We hold investments in many different types of funds, ranging from money market funds to U.S. and foreign mutual funds. For regulatory capital purposes, we use a combination of the Full Look-through, Alternative Modified Look-through, and Simple Look-through approaches in calculating RWA for these positions.

The equity exposures recorded in other assets predominantly consist of equity investments in alternative energy and low-income housing projects; seed capital investments in sponsored investment funds; investments in separate accounts in connection with our BOLI program; equity held in clearing houses; joint ventures; and Federal Reserve Bank and Federal Home Loan Bank stock. RWA for these exposures are calculated under the Simple Risk Weight Approach, excluding investments in sponsored investment funds and separate accounts

associated with BOLI, which receive similar capital treatment as described above for equity investments in funds.

Our exposure related to stable value wrap contracts represents contingent off-balance exposure; these contingent exposures are treated as equity derivative instruments, from a Basel classification perspective.

## **Significant Accounting Policies**

The following provides information on State Street's significant accounting policies associated with equity investments. We generally account for our equity investments under one of the approaches described below.

### ***Investment Securities***

Our investments in funds carried in our investment securities portfolio are held at fair value through profit and loss.

When measuring the fair value of these investments, we consider the principal or most advantageous market in which we would transact and consider assumptions that market participants would use when pricing the asset or liability. Investments in money market funds are valued at a net asset value of \$1 per share.

Additional information, with respect to our accounting for AFS securities, is provided under "Securitizations" in this Public Disclosure.

### ***Equity Method Investments***

We account for certain investments under the equity method of accounting if we, as an investor, have the ability to exercise significant influence over the operations of the investee. Investments of more than five percent in limited partnerships and investments in joint ventures are generally accounted for under the equity method, due to the presumed presence of significant influence.

We initially record equity-method investments in other assets at cost. Subsequent to the date that significant influence is achieved, we adjust the carrying amount of our investment each reporting period to recognize our share of earnings/losses as reported by the investee. Our share of earnings/losses from investments accounted for, under the equity method, is recorded in our consolidated statement of income. Dividends received from an investee reduce the carrying amount of our investment.

### ***Cost Method Investments***

Investments where we, as an investor, do not have the ability to exercise significant influence over the operations of the investee are recorded in other assets and are accounted for under the cost method of accounting. Examples of such investments are our alternative energy investments and certain

Community Reinvestment Act investments. We initially record our investment at cost and subsequently re-measure at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer until it is

sold or otherwise disposed of, or written down due to impairment in value. Dividends received in excess of the investee's earnings subsequent to the date of our investment are considered a return of capital, and reduce the carrying value of our investment.

The following table presents our equity exposures by type and risk-weighting approach as of the date indicated:

**TABLE 19: EQUITY EXPOSURES**

**December 31, 2021**

| (In millions)                                                  | Risk Weight | Carrying Value <sup>(1)</sup> | EAD             | Capital Requirement | RWA <sup>(2)</sup> |
|----------------------------------------------------------------|-------------|-------------------------------|-----------------|---------------------|--------------------|
| <b>Simple risk-weight approach:</b>                            |             |                               |                 |                     |                    |
| Equity investments in the 0% risk-weight category              | — %         | \$ 387                        | \$ 387          | \$ —                | \$ —               |
| Equity investments in the 20% risk-weight category             | 20          | 10                            | 10              | —                   | 2                  |
| Community development equity exposures                         | 100         | 971                           | 971             | 82                  | 1,029              |
| Non-significant equity exposures                               | 100         | 977                           | 977             | 83                  | 1,036              |
| Significant exposures to financial institutions <sup>(3)</sup> | 250         | —                             | —               | —                   | —                  |
| Non-publicly traded equity investments                         | 400         | —                             | —               | —                   | —                  |
| <b>Total simple risk-weight approach</b>                       |             | <b>2,345</b>                  | <b>2,345</b>    | <b>165</b>          | <b>2,067</b>       |
| <b>Investment funds:</b>                                       |             |                               |                 |                     |                    |
| Full look-through approach                                     |             | \$ —                          | \$ —            | \$ —                | \$ —               |
| Simple modified look-through approach                          |             | 631                           | 631             | 102                 | 1,280              |
| Alternative modified look-through approach                     |             | 626                           | 626             | 343                 | 4,292              |
| Other <sup>(4)</sup>                                           |             | 3,022                         | 3,022           | 167                 | 2,090              |
| <b>Total investment funds</b>                                  |             | <b>4,279</b>                  | <b>4,279</b>    | <b>612</b>          | <b>7,662</b>       |
| <b>Alternative modified look-through approach</b>              |             |                               |                 |                     |                    |
| <b>Total equity investments</b>                                |             | <b>\$ 6,624</b>               | <b>\$ 6,624</b> | <b>\$ 777</b>       | <b>\$ 9,729</b>    |

<sup>(1)</sup> Amounts represent the fair value of investments recorded in AFS securities, as well as investments recorded in other assets that are accounted for under either the equity method or the cost method. Refer to "Significant Accounting Policies" described in this Public Disclosure.

<sup>(2)</sup> RWA reflects 1.06 supervisory scaling factor described earlier in this Public Disclosure under "Regulatory Capital Requirements."

<sup>(3)</sup> Represents equity investments in unconsolidated financial institutions considered "significant" as defined in the Basel III final rule, which are not deducted from common equity tier 1 capital and are assigned a transitional risk weight of 100% until 2017. Such risk weight was changed to 250% in 2019.

<sup>(4)</sup> Amounts consist of our investment in BOLI and contingencies related to stable value wrap contracts. Carrying value includes adjusted notional exposure of stable value wrap contracts, which is off-balance sheet and is not recorded in our consolidated statement of condition.

## OPERATIONAL RISK

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

Operational risk is inherent in the performance of investment servicing and investment management activities on behalf of our clients. Whether it be risk associated with execution and processing or other types of operational risk, a consistent, transparent and effective operational risk framework is key to identifying, monitoring and managing operational risk.

We have established an operational risk framework that is based on three major goals:

- Strong, active governance;
- Ownership and accountability; and
- Consistency and transparency.

For additional information about operational risk, refer to pages 99-102 in our 2021 Form 10-K.

### Risk Identification and Assessments

The objective of risk identification and assessments is to understand business unit strategy, risk profile and potential exposures. It is achieved through a series of risk assessments across State Street across our business using techniques for the identification, assessment and measurement of risk across a spectrum of potential frequency and severity combinations. Three primary risk assessment programs, which occur annually, augmented by other business-specific programs, are the core of this component:

- The Integrated Non-Financial Risk Assessment (INFRA) program seeks to understand the risks associated with day-to-day activities, and the effectiveness of controls intended to manage potential exposures arising from these activities. These risks are typically frequent in nature but generally not severe in terms of exposure;
- The Material Risk Identification process utilizes a bottom-up approach to identify State Street's most significant risk exposures across all on- and off-balance sheet risk-taking activities. The program is specifically designed to consider risks that could have a material impact irrespective of their likelihood or frequency. This can include risks that may have an impact on longer-term business objectives, such as significant change management activities or long-term strategic initiatives;
- The Scenario Analysis program focuses on the set of risks with the highest severity and most relevance from a capital perspective.

These are generally referred to as "tail risks" and provide inputs into stress testing; and

- Business-specific programs to identify, assess and measure risk, including new business and product review and approval, new client screening, and, as deemed appropriate, targeted risk assessments.

### Capital Analysis

The primary measurement tool used is an internally developed loss distribution approach model, referred to as the Loss Distribution Approach (LDA) model. We use the LDA model to quantify required operational risk capital, from which we calculate RWA related to operational risk. Such required capital and RWA totaled \$3.6 billion and \$45.6 billion, respectively, as of December 31, 2021; refer to the "Components of Risk-Weighted Assets" table provided under "Total Risk-Weighted Assets" in this Public Disclosure.

The LDA model incorporates the four required operational risk elements described below:

- Internal loss event data is collected from across State Street in conformity with our operating loss policy that establishes the requirements for collecting and reporting individual loss events. We categorize the data into seven Basel-defined event types and further subdivide the data by business unit, as deemed appropriate. Each of these loss events are represented in a Unit of Measure (UOM) which is used to estimate a specific amount of capital required for the types of loss events that fall into each specific category. Some UOMs are measured at the corporate level because they are not "business specific," such as damage to physical assets, where the cause of an event is not primarily driven by the behavior of a single business unit. Internal losses of \$500 or greater are captured, analyzed and included in the modeling approach. Loss event data is collected using a corporate-wide data collection tool, referred to as the Incident Capture and Management System (ICAMS), which stores the data in a centralized data mart to support processes related to analysis, risk management reporting and the calculation of required capital. Internal loss event data provides State Street-specific frequency and severity information to our capital calculation process for historical loss events experienced by State Street. Internal loss event data may be incorporated into our LDA model in a future quarter following the realization of the losses, 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 LDA model and our operational risk RWA under the advanced approaches depending on the severity of the loss event, its categorization among the seven Basel-defined UOMs and the stability of the distributional approach for a particular UOM.

- External loss event data provides information with respect to loss event severity from other financial institutions to inform our capital estimation process of events in similar business units at other banking organizations. This information supplements the data pool available for use in our LDA model. Assessments of the sufficiency of internal data and the relevance of external data are completed before pooling the two data sources for use in our LDA model.
- Scenario analysis workshops are conducted across State Street to inform management of the less frequent but most severe, or “tail risks” that the organization faces. The workshops are attended by senior business unit managers, other support and control partners and business-aligned risk management staff. The workshops are designed to capture information about the significant risks and to estimate potential exposures for individual risks should a loss event occur.
- Business environment and internal control factors are gathered as part of our scenario analysis program to inform the scenario analysis workshop participants of internal loss event data and business-relevant metrics, such as INFRA results, along with industry loss event data and case studies where appropriate. Business environment and internal control factors are those characteristics of a bank’s internal and external operating environment that bear an exposure to operational risk. The use of this information indirectly influences our calculation of required capital by providing additional relevant data to workshop participants when reviewing specific UOM risks.

## **MARKET RISK**

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, FX 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.

We engage in trading activities primarily to support our clients’ needs and to contribute to our overall corporate earnings and liquidity. In connection with certain of these trading activities, we enter into a variety of derivative financial instruments to support our clients’ needs and to manage our interest-rate and currency risk. These activities are generally intended to generate trading services revenue and to manage potential earnings volatility. In addition, we provide services related to derivatives in our role as both a manager and a servicer of financial assets.

Our clients use derivatives to manage the financial risks associated with their investment goals and business activities. With the growth of cross-border investing, our clients often enter into FX forward contracts to convert currency for international investments and to manage the currency risk in their international investment portfolios. As an active participant in the FX markets, we provide FX forward and option contracts in support of these client needs, and also act as a dealer in the currency markets.

As part of our trading activities, we assume positions in the FX and interest-rate markets by buying and selling cash instruments and entering into derivative instruments, including FX forward contracts, FX and interest-rate options and interest rate swaps, interest rate forward contracts, and interest rate futures. As of December 31, 2021, the notional amount of these derivative contracts was \$2.60 trillion, of which \$2.58 trillion was composed of FX forward, swap and spot contracts. We seek to match positions closely with the objective of mitigating related currency and interest rate risk. All FX contracts are valued daily at current market rates.

### **Governance**

Our assumption of market risk in our trading activities is an integral part of our corporate risk appetite. Our Board reviews and oversees our management of market risk, including the approval of key market risk policies and the receipt and review of regular market risk reporting, as well as periodic updates on selected market risk topics.

The CMRC oversees all market risk-taking activities across State Street associated with trading. The CMRC, which reports to MRAC, is composed of members of ERM, our global markets business and our Global Treasury group, as well as our senior executives who manage our trading businesses and other members of management who possess specialized knowledge and expertise. The CMRC meets regularly to monitor the management of our trading market risk activities.

Our business units identify, actively manage and are responsible for the market risks inherent in their businesses. A dedicated market risk management group within ERM, and other groups within ERM, work with those business units to assist them in the identification, assessment, monitoring, management and control of market risk, and assist business unit managers with their market risk management and measurement activities. ERM provides an additional line of oversight, support and coordination designed to promote the consistent identification, measurement and management of market risk across business units, separate from those business units' discrete activities.

The ERM market risk management group is responsible for the management of corporate-wide market risk, the monitoring of key market risks and the development and maintenance of market risk management policies, guidelines, and standards aligned with our corporate risk appetite. This group also establishes and approves market risk tolerance limits and trading authorities based on, but not limited to, measures of notional amounts, sensitivity, VaR and stress. Such limits and authorities are specified in our trading and market risk guidelines which govern our management of trading market risk.

Corporate Audit separately assesses the design and operating effectiveness of the market risk controls within our business units and ERM. Other related responsibilities of Corporate Audit include the periodic review of ERM and business unit compliance with market risk policies, guidelines, and corporate standards, as well as relevant regulatory requirements. We are subject to regular monitoring, reviews and supervisory exams of our market risk function by the Federal Reserve. In addition, we are regulated by, among others, the SEC, Federal Deposit Insurance Corporation (FDIC), the Financial Industry Regulatory Authority and the U.S. Commodities Futures Trading Commission.

### **Risk Appetite**

Our corporate market risk appetite is specified in policy statements that outline the governance, responsibilities and requirements surrounding the identification, measurement, analysis, management and communication of market risk arising from our trading activities. These policy statements also set forth the market risk control framework to monitor,

support, manage and control this portion of our risk appetite. All groups involved in the management and control of market risk associated with trading activities are required to comply with the qualitative and quantitative elements of these policy statements. Our trading market risk control framework is composed of the following components:

- A trading market risk management process led by ERM, separate from the business units' discrete activities;
- Clearly defined responsibilities and authorities for the primary groups involved in trading market risk management;
- A trading market risk measurement methodology that captures correlation effects and allows aggregation of market risk across risk types, markets and business lines;
- Daily monitoring, analysis, and reporting of market risk exposures associated with trading activities against market risk limits;
- A defined limit structure and escalation process in the event of a market risk limit excess;
- Use of VaR models to measure the one-day market risk exposure of trading positions;
- Use of VaR as a ten-day-based regulatory capital measure of the market risk exposure of trading positions;
- Use of non-VaR-based limits and other controls;
- Use of stressed-VaR models, stress-testing analysis and scenario analysis to support the trading market risk measurement and management process by assessing how portfolios and global business lines perform under extreme market conditions;
- Use of back-testing as a diagnostic tool to assess the accuracy of VaR models and other risk management techniques; and
- A new product approval process that requires market risk teams to assess trading-related market risks and apply risk tolerance limits to proposed new products and business activities.

We use our CAP to assess our overall capital and liquidity in relation to our risk profile and provide a comprehensive strategy for maintaining appropriate capital and liquidity levels. With respect to market risk associated with trading activities, our risk management and our calculations of regulatory capital are based primarily on our internal VaR models and stress testing analysis. As discussed in detail under "Value-at-Risk" below, VaR is measured daily by ERM.

The CMRC oversees our market risk exposure in relation to limits established within our risk appetite

framework. These limits define threshold levels for VaR- and stressed VaR-based measures and are applicable to all trading positions subject to regulatory capital requirements. These limits are designed to prevent any undue concentration of market risk exposure, in light of the primarily non-proprietary nature of our trading activities. The risk appetite framework and associated limits are reviewed and approved by the Board's RC.

### **Covered Positions**

Our trading positions are subject to regulatory market risk capital requirements if they meet the regulatory definition of a "covered position." A covered position is generally defined by U.S. banking regulators as an on- or off-balance sheet position associated with the organization's trading activities that is free of any restrictions on its tradability, but does not include intangible assets, certain credit derivatives recognized as guarantees and certain equity positions not publicly traded. All FX and commodity positions are considered covered positions, regardless of the accounting treatment they receive. The identification of covered positions for inclusion in our market risk capital framework is governed by our trading and market risk guidelines, which outlines the standards we use to determine whether a trading position is a covered position.

Our covered positions consist primarily of the trading portfolios held by our global markets business. They also arise from certain positions held by our Global Treasury group. These trading positions include products such as spot FX, FX forwards, non-deliverable forwards, FX options, FX funding swaps, currency futures, financial futures, and interest rate futures. New activities are analyzed to determine if the positions arising from such new activities meet the definition of a covered position and conform to our trading and market risk guidelines. This documented analysis, including any decisions with respect to market risk treatments, must receive approval from the CMRC.

We use spot rates, forward points, yield curves and discount factors imported from third-party sources to measure the value of our covered positions, and we use such values to mark our covered positions to market on a daily basis. These values are subject to separate validation by us in order to evaluate reasonableness and consistency with market experience. The mark-to-market gain or loss on spot transactions is calculated by applying the spot rate to the foreign currency principal and comparing the resultant base currency amount to the original transaction principal. The mark-to-market gain or loss on a forward FX contract or forward cash flow contract is determined as the difference between the life-to-date (historical) value of the cash flow and the value of the cash flow at the inception of the transaction. The mark-to-market gain or loss on

interest-rate swaps is determined by discounting the future cash flows from each leg of the swap transaction.

### **Value-at-Risk and Stressed VaR**

As noted above, 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.

We utilize an internal VaR model to calculate our regulatory market risk capital requirements. We use a historical simulation model to calculate daily VaR- and stressed VaR-based measures for our covered positions in conformity with regulatory requirements. Our VaR model seeks to capture identified material risk factors associated with our covered positions, including risks arising from market movements such as changes in FX rates, interest rates and option-implied volatilities.

We have adopted standards and guidelines to value our covered positions which govern our VaR- and stressed VaR-based measures. 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 also use the same platform to calculate a one-tail, 99% confidence interval, one-business-day VaR for internal risk management purposes. A 99% one-tail confidence interval implies that daily trading losses are not expected to exceed the estimated VaR more than 1% of the time, or less than three business days out of a year.

Our market risk models, including our VaR model, are subject to change in connection with the governance, validation and back-testing processes described below. These models can change as a result of changes in our business activities, our historical experiences, market forces and events, regulations and regulatory interpretations and other factors. In addition, the models are subject to continuing regulatory review and approval. Changes in our models may result in changes in our measurements of our market risk exposures, including VaR, and related measures, including regulatory capital. These changes could result in material changes in those risk measurements and related measures as calculated and compared from period to period.

### **Value-at-Risk Measures**

VaR measures are based on the most recent two years of historical price movements for instruments

and related risk factors to which we have exposure. The instruments in question are limited to FX spot, forward, swap and option contracts and interest-rate contracts, including futures and interest-rate swaps. Historically, these instruments have exhibited a higher degree of liquidity relative to other available capital markets instruments. As a result, the VaR measures shown reflect our ability to rapidly adjust exposures in highly dynamic markets. For this reason, risk inventory, in the form of net open positions, across all currencies is typically limited. In addition, long and short positions in major, as well as minor, currencies provide risk offsets that limit our potential downside exposure.

Our VaR methodology uses a historical simulation approach based on market-observed changes in FX rates, U.S. and non-U.S. interest rates and implied volatilities, and incorporates the resulting diversification benefits provided from the mix of our trading positions. Our VaR model incorporates approximately 5,000 risk factors and includes correlations among currency, interest rates, and other market rates.

All VaR measures are subject to limitations and must be interpreted accordingly. Some, but not all, of the limitations of our VaR methodology include the following:

- Compared to a shorter observation period, a two-year observation period is slower to reflect increases in market volatility (although temporary increases in market volatility will affect the calculation of VaR for a longer period); consequently, in periods of sudden increases in volatility or increasing volatility, in each case relative to the prior two-year period, the calculation of VaR may understate current risk;
- Compared to a longer observation period, a two-year observation period may not reflect as many past periods of volatility in the markets, because such past volatility is no longer in the observation period; consequently, historical market scenarios of high volatility, even if similar to current or likely future market circumstances, may fall outside the two-year observation period, resulting in a potential understatement of current risk;
- The VaR-based measure is calibrated to a specified level of confidence and does not indicate the potential magnitude of losses beyond this confidence level;
- In certain cases, VaR-based measures approximate the impact of changes in risk factors on the values of positions and portfolios; this may happen because the number of inputs included in the VaR model

is necessarily limited; for example, yield curve risk factors do not exist for all future dates;

- The use of historical market information may not be predictive of future events, particularly those that are extreme in nature; this “backward-looking” limitation can cause VaR to understate or overstate risk;
- The effect of extreme and rare market movements is difficult to estimate; this may result from non-linear risk sensitivities as well as the potential for actual volatility and correlation levels to differ from assumptions implicit in the VaR calculations; and
- Intra-day risk is not captured.

### *Stress Testing*

We have a corporate-wide stress testing program in place that incorporates an array of 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).

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 identifies 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 automatically incorporated.

We perform scenario analysis daily 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. Relevant scenarios are chosen from an inventory of historical financial stresses and applied to our current portfolio. These historical event scenarios involve spot FX, credit, equity, unforeseen geo-political events and natural disasters, and government and central bank intervention scenarios. Examples of the specific historical scenarios we incorporate in our stress testing program may include the Asian financial crisis of 1997, the September 11, 2001 terrorist attacks in the U.S., and the 2008 financial crisis. We continue to update our inventory of historical stress scenarios as new stress conditions emerge in the financial markets.

As each of the historical stress events is associated with a different time horizon, we normalize results by scaling down the longer horizon events to a ten-day horizon and keeping the shorter horizon events (i.e., events that are shorter than ten days) at their original terms. We also conduct sensitivity analysis daily to calculate the impact of a large predefined shock in a specific risk factor or a group of risk factors on our current portfolio. These predefined shocks include parallel and non-parallel yield curve shifts and FX spot and volatility surface shifts. In a parallel shift scenario, we apply a constant factor shift across all yield curve tenors. In a non-parallel shift scenario, we apply different shock levels to different tenors of a yield curve, rather than shifting the entire curve by a constant amount. Non-parallel shifts include steepening, flattening and butterflies.

Stress testing results and limits are actively monitored on a daily basis by ERM and reported to the 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 intra-day 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 intra-day activity.

We had one back-testing exception in the twelve months ended December 31, 2021. 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 2021 back-testing exception has been attributed to dislocation in FX markets caused by greater demand for funding over year-end periods.

Our model validation process also evaluates the integrity of our VaR models through the use of regular outcome analysis. This outcome analysis includes back-testing, which compares the VaR model's predictions to actual outcomes using out-of-sample information. Consistent with regulatory guidance, the back-testing compared “clean” P&L, defined above, with the one-day VaR produced by the model. The back-testing was performed for a time period not used for model development. The number of occurrences where “clean” trading-book P&L exceeded the one-day VaR was within our expected VaR tolerance level.

#### **Market Risk Reporting**

Our ERM market risk management group is responsible for market risk monitoring and reporting. We use a variety of systems and controlled market feeds from third-party services to compile data for several daily, weekly, and monthly management reports.

The following tables present VaR and stressed VaR associated with our trading activities for covered positions held as of the dates indicated, as measured by our VaR methodology:

**Table 20: TEN-DAY VaR ASSOCIATED WITH TRADING ACTIVITIES FOR COVERED POSITIONS**

|                 | Year Ended December 31, 2021 |                 |                 | As of December 31, 2021 |
|-----------------|------------------------------|-----------------|-----------------|-------------------------|
| (In thousands)  | Average                      | Max.            | Min.            | VaR                     |
| Global Markets  | \$ 15,214                    | \$30,485        | \$ 5,252        | \$ 16,998               |
| Global Treasury | 3,189                        | 9,762           | 220             | 3,556                   |
| Diversification | (2,115)                      | (7,958)         | 1,024           | (4,519)                 |
| Total VaR       | <u>\$ 16,288</u>             | <u>\$32,289</u> | <u>\$ 6,496</u> | <u>\$ 16,035</u>        |

**Table 21: TEN-DAY STRESSED VaR ASSOCIATED WITH TRADING ACTIVITIES FOR COVERED POSITIONS**

|                    | Year Ended December 31, 2021 |                  |                 | As of December 31, 2021 |
|--------------------|------------------------------|------------------|-----------------|-------------------------|
| (In thousands)     | Average                      | Max.             | Min.            | VaR                     |
| Global Markets     | \$ 41,698                    | \$101,535        | \$13,037        | \$ 65,840               |
| Global Treasury    | 9,601                        | 29,651           | 814             | 12,419                  |
| Diversification    | (5,607)                      | (20,018)         | 2,918           | (17,505)                |
| Total Stressed VaR | <u>\$ 45,692</u>             | <u>\$111,168</u> | <u>\$16,769</u> | <u>\$ 60,754</u>        |

The twelve month average of our stressed VaR-based measure was approximately \$46 million for the twelve months ended December 31, 2021.

The VaR-based measures 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. Overall levels of volatility have been low both on an absolute basis and relative to the historical information observed at the beginning of the period used for the calculations. Both the ten-day VaR-based measures and the stressed VaR-based measures are based on historical changes observed during rolling ten-day periods for the portfolios as of the close of business each day over the past one-year period.

We 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 these 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 December 31, 2021. The totals of the VaR-based and stressed VaR-based measures for the three attributes in total exceeded the related total VaR and total stressed VaR presented in the foregoing tables as of each period-end, primarily due to the benefits of diversification across risk types.

**Table 22: TEN-DAY VaR ASSOCIATED WITH TRADING ACTIVITIES BY RISK FACTOR<sup>(1)</sup>**

| As of December 31, 2021 |                             |                       |                    |
|-------------------------|-----------------------------|-----------------------|--------------------|
| (In thousands)          | Foreign<br>Exchange<br>Risk | Interest Rate<br>Risk | Volatility<br>Risk |
| By component:           |                             |                       |                    |
| Global Markets          | \$ 6,945                    | \$ 16,424             | \$ 108             |
| Global Treasury         | 531                         | 3,688                 | —                  |
| Diversification         | (877)                       | (3,682)               | —                  |
| Total VaR               | <u>\$ 6,599</u>             | <u>\$ 16,430</u>      | <u>\$ 108</u>      |

**Table 23: TEN-DAY Stressed VaR ASSOCIATED WITH TRADING ACTIVITIES BY RISK FACTOR<sup>(1)</sup>**

| As of December 31, 2021 |                             |                       |                    |
|-------------------------|-----------------------------|-----------------------|--------------------|
| (In thousands)          | Foreign<br>Exchange<br>Risk | Interest Rate<br>Risk | Volatility<br>Risk |
| By component:           |                             |                       |                    |
| Global Markets          | \$ 9,445                    | \$ 63,368             | \$ 157             |
| Global Treasury         | 667                         | 13,218                | —                  |
| Diversification         | (1,551)                     | (17,500)              | —                  |
| Total Stressed VaR      | <u>\$ 8,561</u>             | <u>\$ 59,086</u>      | <u>\$ 157</u>      |

<sup>(1)</sup> 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 characteristics of our balance sheet liabilities, including the currency composition of our significant non-U.S. dollar denominated client liabilities.

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. The baseline view of NII is updated on a regular basis. Relative to December 31, 2020, the December 31, 2021 baseline forecast reflects an increased balance sheet size. Table 24, Key Interest Rates for Baseline Forecasts, presents the spot and 12-month forward rates used in our baseline forecasts at December 31, 2021 and December 31, 2020. Our December 31, 2021 baseline forecast includes the expectation of three rate hikes by the Federal Reserve over the next 12 months.

**TABLE 24: KEY INTEREST RATES FOR BASELINE FORECASTS**

|                        | December 31, 2021 |                  | December 31, 2020 |                  |
|------------------------|-------------------|------------------|-------------------|------------------|
|                        | Fed Funds Target  | 10-Year Treasury | Fed Funds Target  | 10-Year Treasury |
| Spot rates             | 0.25 %            | 1.77 %           | 0.25 %            | 0.93 %           |
| 12-month forward rates | 1.00              | 1.95             | 0.25              | 1.12             |

In Table 25: Net Interest Income Sensitivity, we report the expected change in NII over the next twelve months from instantaneous shocks to various tenors on the yield curve, 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 interest rate changes 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 are assumed to remain consistent with the baseline forecast. In lower rate scenarios, the full impact of the shock is realized for all currencies even if the result is negative interest rates.

**TABLE 25: NET INTEREST INCOME SENSITIVITY**

|                                                   | December 31, 2021 <sup>(2)</sup> |                      |        | December 31, 2020  |                      |        |
|---------------------------------------------------|----------------------------------|----------------------|--------|--------------------|----------------------|--------|
|                                                   | U.S. Dollar                      | All Other Currencies | Total  | U.S. Dollar        | All Other Currencies | Total  |
| (In millions)                                     |                                  |                      |        |                    |                      |        |
| Rate change:                                      | Benefit (Exposure)               |                      |        | Benefit (Exposure) |                      |        |
| <b>Parallel shifts:</b>                           |                                  |                      |        |                    |                      |        |
| +100 bps shock                                    | \$ 447                           | \$ 306               | \$ 753 | \$ 410             | \$ 172               | \$ 582 |
| -100 bps shock                                    | 384                              | (39)                 | 345    | 591                | 196                  | 787    |
| <b>Steeper yield curve:</b>                       |                                  |                      |        |                    |                      |        |
| '+100 bps shift in long-end rates <sup>(1)</sup>  | 114                              | 16                   | 130    | 135                | 3                    | 138    |
| '-100 bps shift in short-end rates <sup>(1)</sup> | 519                              | (22)                 | 497    | 743                | 199                  | 942    |
| <b>Flatter yield curve:</b>                       |                                  |                      |        |                    |                      |        |
| '+100 bps shift in short-end rates <sup>(1)</sup> | 337                              | 290                  | 627    | 282                | 168                  | 450    |
| '-100 bps shift in long-end rates <sup>(1)</sup>  | (132)                            | (16)                 | (148)  | (141)              | (3)                  | (144)  |

<sup>(1)</sup> The short end is 0-3 months. The long end is 5 years and above. Interim term points are interpolated.

<sup>(2)</sup> Does not reflect any impact of our planned acquisition of the BBH Investor Services business.

As of December 31, 2021, NII is expected to benefit from an increase in interest rates. Compared to December 31, 2020, our NII is more sensitive to parallel rate increases primarily driven by higher levels of deposits partially offset by higher expected client deposit betas as rates rise. Our projection of an NII benefit to an upward rate shock of +100bps assumes deposit betas are similar to the 2016-2017 rising rate cycle. Our projection also assumes that baseline deposit levels remain relatively consistent with fourth quarter 2021 averages. We expect that our NII benefit in the +100bps scenarios would be lower if either deposit levels decline relative to our baseline or client deposit betas are higher than the prior rising rate cycle.

Our NII is expected to benefit from a -100 bps rate shock due to assets with contractual floors, primarily in our lending portfolio, but compared to December 31, 2020, the benefit has decreased primarily due to the expectation

that some central banks will raise rates over the next 12 months. This expectation widens the margin on client deposits in our baseline, but compresses them in lower rate scenarios.

EVE sensitivity is a discounted cash flow model designed to estimate the fair value of assets and liabilities under a series of interest rate shocks over a long-term horizon. In the following table, we report our EVE sensitivity to 200 bps instantaneous rate shocks, relative to spot interest rates. Management compares the change in EVE sensitivity against our aggregate Tier 1 and Tier 2 risk-based capital, calculated in conformity with current applicable regulatory requirements. EVE sensitivity is dependent on the timing of interest and principal cash flows. Also, the measure only evaluates the spot balance sheet and does not include the impact of new business assumptions.

**TABLE 26: EVE SENSITIVITY**

| (Dollars in millions) | December 31, 2021  |         | December 31, 2020 |         |
|-----------------------|--------------------|---------|-------------------|---------|
|                       | Benefit (Exposure) |         |                   |         |
| Rate change:          |                    |         |                   |         |
| +200 bps shock        | \$                 | (1,380) | \$                | (1,603) |
| -200 bps shock        |                    | 3,829   |                   | 5,538   |

As of December 31, 2021, EVE sensitivity remains exposed to upward shifts in interest rates. Compared to December 31, 2020, our sensitivity in the up 200 bps shock scenario decreased due to higher client deposits and an increase in expected prepayment speeds on agency RMBS, partially offset by growth in our securities portfolio and interest rate hedging activity.

Both NII sensitivity and EVE sensitivity are routinely monitored as market conditions change. For additional information about our Asset and Liability Management Activities, refer to pages 109 to 110 included under Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, in our 2021 Form 10-K.