

REFINITIV

DELTA REPORT

10-K

BANK OF AMERICA CORP /DE/
10-K - DECEMBER 31, 2023 COMPARED TO 10-K - DECEMBER 31, 2022

The following comparison report has been automatically generated

TOTAL DELTAS	7496
CHANGES	1324
DELETIONS	3523
ADDITIONS	2649

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the Fiscal Year Ended December 31, 2022 December 31, 2023

or

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

For the transition period from to

Commission file number:
1-6523

Exact name of registrant as specified in its charter:

Bank of America Corporation

State or other jurisdiction of incorporation or organization:
Delaware

IRS Employer Identification No.:
56-0906609

Address of principal executive offices:
Bank of America Corporate Center
100 N. Tryon Street
Charlotte, North Carolina 28255

Registrant's telephone number, including area code:
(704) 386-5681

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.01 per share	BAC	New York Stock Exchange
Depository Shares, each representing a 1/1,000th interest in a share of Floating Rate Non-Cumulative Preferred Stock, Series E	BAC PrE	New York Stock Exchange
Depository Shares, each representing a 1/1,000th interest in a share of 6.000% Non-Cumulative Preferred Stock, Series GG	BAC PrB	New York Stock Exchange
Depository Shares, each representing a 1/1,000th interest in a share of 5.875% Non-Cumulative Preferred Stock, Series HH	BAC PrK	New York Stock Exchange
7.25% Non-Cumulative Perpetual Convertible Preferred Stock, Series L	BAC PrL	New York Stock Exchange
Depository Shares, each representing a 1/1,200th interest in a share of Bank of America Corporation Floating Rate Non-Cumulative Preferred Stock, Series 1	BML PrG	New York Stock Exchange

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Depository Shares, each representing a 1/1,200th interest in a share of Bank of America Corporation Floating Rate Non-Cumulative Preferred Stock, Series 2	BML PrH	New York Stock Exchange
Depository Shares, each representing a 1/1,200th interest in a share of Bank of America Corporation Floating Rate Non-Cumulative Preferred Stock, Series 4	BML PrJ	New York Stock Exchange
Depository Shares, each representing a 1/1,200th interest in a share of Bank of America Corporation Floating Rate Non-Cumulative Preferred Stock, Series 5	BML PrL	New York Stock Exchange
Floating Rate Preferred Hybrid Income Term Securities of BAC Capital Trust XIII (and the guarantee related thereto)	BAC/PF	New York Stock Exchange
5.63% Fixed to Floating Rate Preferred Hybrid Income Term Securities of BAC Capital Trust XIV (and the guarantee related thereto)	BAC/PG	New York Stock Exchange
Income Capital Obligation Notes initially due December 15, 2066 of Bank of America Corporation	MER PrK	New York Stock Exchange
Senior Medium-Term Notes, Series A, Step Up Callable Notes, due November 28, 2031 of BofA Finance LLC (and the guarantee of the Registrant with respect thereto)	BAC/31B	New York Stock Exchange
Depository Shares, each representing a 1/1,000th interest in a share of 5.375% Non-Cumulative Preferred Stock, Series KK	BAC PrM	New York Stock Exchange
Depository Shares, each representing a 1/1,000th interest in a share of 5.000% Non-Cumulative Preferred Stock, Series LL	BAC PrN	New York Stock Exchange
Depository Shares, each representing a 1/1,000th interest in a share of 4.375% Non-Cumulative Preferred Stock, Series NN	BAC PrO	New York Stock Exchange
Depository Shares, each representing a 1/1,000th interest in a share of 4.125% Non-Cumulative Preferred Stock, Series PP	BAC PrP	New York Stock Exchange
Depository Shares, each representing a 1/1,000th interest in a share of 4.250% Non-Cumulative Preferred Stock, Series QQ	BAC PrQ	New York Stock Exchange
Depository Shares, each representing a 1/1,000th interest in a share of 4.750% Non-Cumulative Preferred Stock, Series SS	BAC PrS	New York Stock Exchange

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

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

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

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

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

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

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

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

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

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

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

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

As of **June 30, 2022** **June 30, 2023**, the aggregate market value of the registrant's common stock ("**Common Stock**") (**Common Stock**) held by non-affiliates was approximately **\$250,136,457,342** **\$228,187,725,798**. At **February 21, 2023** **February 16, 2024**, there were **8,003,839,222** **7,872,657,542** shares of Common Stock outstanding.

Documents incorporated by reference: Portions of the definitive proxy statement relating to the registrant's **2023** **2024** annual meeting of shareholders are incorporated by reference in this Form 10-K in response to Items 10, 11, 12, 13 and 14 of Part III.

Table of Contents

Bank of America Corporation and Subsidiaries

	Page
Part I	
Item 1. Business	2
Item 1A. Risk Factors	8
Item 1B. Unresolved Staff Comments	23
Item 1C. Cybersecurity	23
Item 2. Properties	23
Item 3. Legal Proceedings	23
Item 4. Mine Safety Disclosures	23
Part II	
Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	23
Item 6. [Reserved]	24 23
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations	25 24
Item 7A. Quantitative and Qualitative Disclosures about Market Risk	86
Item 8. Financial Statements and Supplementary Data	86
Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	169 172
Item 9A. Controls and Procedures	169 172
Item 9B. Other Information	169 172
Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections	169 172
Part III	
Item 10. Directors, Executive Officers and Corporate Governance	169 172
Item 11. Executive Compensation	170 173
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	170 174
Item 13. Certain Relationships and Related Transactions, and Director Independence	170 174
Item 14. Principal Accounting Fees and Services	170 174
Part IV	
Item 15. Exhibits, Financial Statement Schedules	171 175
Item 16. Form 10-K Summary	174 178

Part I

Bank of America Corporation and Subsidiaries

Item 1. Business

Bank of America Corporation is a Delaware corporation, a bank holding company (BHC) and a financial holding company. When used in this report, "Bank of America," "the Corporation," "we," "us" and "our" may refer to Bank of America Corporation individually, Bank of America Corporation and its subsidiaries, or certain of Bank of America Corporation's subsidiaries or affiliates. As part of our efforts to streamline the Corporation's organizational structure and reduce complexity and costs, the Corporation has reduced and intends to continue to reduce the number of its corporate subsidiaries, including through intercompany mergers.

Bank of America is one of the world's largest financial institutions, serving individual consumers, small- and middle-market businesses, institutional investors, large corporations and governments with a full range of banking, investing, asset management and other financial and risk management products and services. Our principal executive offices are located in the Bank of America Corporate Center, 100 North Tryon Street, Charlotte, North Carolina 28255.

Bank of America's website is www.bankofamerica.com, and the Investor Relations portion of our website is <https://investor.bankofamerica.com>. We use our website to distribute company information, including as a means of disclosing material, non-public information and for complying with our disclosure obligations under Regulation FD. We routinely post and make accessible financial and other information, including environmental, social and governance (ESG) information, regarding the Corporation on our website. Investors should monitor our website, including the Investor Relations portion of our website, in addition to our press releases, U.S. Securities and Exchange Commission (SEC) filings, public conference calls and webcasts. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (Exchange Act) are available on the Investor Relations portion of our website as soon as reasonably practicable after we electronically file such reports with, or furnish them to, the SEC and at the SEC's website, www.sec.gov. Notwithstanding the foregoing, the information contained on our website as referenced in this paragraph, or otherwise in this Annual Report on Form 10-K, is not incorporated by reference into this Annual Report on Form 10-K. Also, we make available on the Investor Relations portion of our website: (i) our Code of Conduct; (ii) our Corporate Governance Guidelines; and (iii) the charter of each active committee of our Board of Directors (the Board). Our Code of Conduct constitutes a "code of ethics" and a "code of business conduct and ethics" that applies to the required

individuals associated with the Corporation for purposes of the respective rules of the SEC and the New York Stock Exchange. We also intend to disclose any amendments to our Code of Conduct and waivers of our Code of Conduct required to be disclosed by the rules of the SEC and the New York Stock Exchange on the Investor Relations portion of our website. All of these corporate governance materials are also available free of charge in print to shareholders who request them in writing to: Bank of America Corporation, Attention: Office of the Corporate Secretary, Bank of America Corporate Center, 100 North Tryon Street, NC1-007-56-06, Charlotte, North Carolina 28255.

Segments

Through our various bank and nonbank subsidiaries throughout the U.S. and in international markets, we provide a diversified range of banking and nonbank financial services and products through four business segments: *Consumer Banking*, *Global Wealth & Investment Management (GWIM)*, *Global Banking* and *Global Markets*, with the remaining operations recorded in *All Other*. Additional information related to our business segments and the products and services they provide is included in the information set forth on pages 3734 through 4643 of Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) and Note 23 – *Business Segment Information* to the Consolidated Financial Statements.

Competition

We operate in a highly competitive environment. Our competitors include banks, thrifts, credit unions, investment banking firms, investment advisory firms, brokerage firms, investment companies, insurance companies, mortgage banking companies, credit card issuers, mutual fund companies, hedge funds, private equity firms, and e-commerce and other internet-based companies, including merchant banks and companies providing nonbank financial services. We compete with some of these competitors globally and with others on a regional or product-specific basis. We are increasingly competing with firms offering products solely over the internet and with non-financial nonfinancial companies, including firms utilizing emerging technologies, such as digital assets, rather than, or in addition to, traditional banking products.

Competition is based on a number of factors including, among others, customer service and convenience, the pricing, quality and range of products and services offered, lending limits, the quality and delivery of our technology and our reputation, experience and relationships in relevant markets. Our ability to continue to compete effectively also depends in large part on our ability to attract new employees and develop, retain and motivate our existing employees, while managing compensation and other costs.

Human Capital Resources

We strive to make Bank of America a great place to work for our employees. We value our employees and seek to establish and maintain human resource policies that are consistent with our core values and help to realize the power of our people. Our Board and its Compensation and Human Capital Committee provide oversight of our human capital management strategies, programs, initiatives and practices. The Corporation's senior management provides regular briefings on human capital matters to the Board and its Committees to facilitate the Board's oversight.

At December 31, 2022, December 31, 2023 and 2021, 2022, the Corporation employed approximately 217,000, 213,000 and 208,000, 217,000 employees, of which 79, 78 percent and 80, 79 percent were located in the U.S. None of our U.S. employees are subject to a collective bargaining agreement. Additionally, in 2022, 2023 and 2021, 2022, the Corporation's compensation and benefits expense was \$36.4 billion, \$38.3 billion and \$36.1 billion, \$36.4 billion, or 59, 58 percent and 61, 59 percent, of total noninterest expense.

Diversity and Inclusion

The Corporation's commitment to diversity and inclusion starts at the top with oversight from our Board and CEO, Chief Executive Officer (CEO). The Corporation's senior management sets the diversity and inclusion goals, and the Chief Human Resources Officer and Chief Diversity & Inclusion Officer partner with our CEO and senior management to drive our diversity and inclusion strategy, programs, initiatives and policies. The Our Global Diversity and Inclusion Council, which has been in place for over 20 years, is chaired by our CEO and consists of senior executives from every line of business and region, is chaired by our CEO and has been in place for over 20 years, region. The Council sponsors and supports business, operating unit and regional diversity and inclusion councils to align with enterprise diversity and inclusion strategies and goals, aspirational goals across the enterprise.

Our practices and policies have resulted in strong representation across the Corporation where our broad employee population mirrors the clients and communities we serve. We have a Our Board and senior management team that are 53, 62 percent and 55 percent racially, ethnically and gender diverse. The following table presents diversity metrics for our global employees who self-identified as women and our U.S.-based employees who self-identified as people of color, including those who self-identified as Asian, Black/African American and Hispanic/Latino. These workforce diversity metrics are reported regularly to the senior management team and to the Board.

**Diversity
Metrics as of
December 31,
2022**

Diversity Metrics as of December 31, 2023

Diversity Metrics as of December 31, 2023

Diversity Metrics as of December 31, 2023

		Total Employees		Top Three Management Levels		Managers at All Levels	
Global employees		Total Employees		Total Employees		Total Employees	
Women		50 %		42 %		42 %	
Women		50 %		41 %		42 %	
U.S.-based employees		Total Employees		Total Employees		Total Employees	
People of color		50		26		42	
Asian		14		11		14	
Black/African American		14		8		10	
Hispanic/Latino		19		6		16	

We invest in our talent by offering a range of development programs and resources that are designed to allow all employees to develop and progress in their careers. We reinforce our commitment to diversity and inclusion by investing internally in our employee networks and by facilitating voluntary enterprise-wide learning and conversations about various diversity and inclusion topics and issues. Further, topics. In addition, we partner with various external organizations, which focus on advancing diverse talent. We also have practices in place for attracting and retaining diverse talent, including campus recruitment. For example, in 2022, 2023, 44 percent of our global campus hires were women and, in the U.S., 59 62 percent were people of color.

Employee Engagement and Talent Retention

As part of our ongoing efforts to make the Corporation a great place to work, we have conducted conduct a confidential annual Employee Engagement Survey (Survey) and have done so for nearly two decades. The Survey results are reviewed by the Board and senior management and used to assist in reviewing the Corporation's human capital strategies, programs, initiatives and practices. In 2022, 85 2023, 88 percent of the Corporation's employees participated in the Survey, and our Employee Engagement Index, an overall measure of employee satisfaction with the Corporation, was 85 87 percent. Our turnover among employees was eight percent in 2023 and 13 percent in 2022 and 12 percent in 2021, 2022.

Additionally, the Corporation provides a variety of resources to help employees grow in their current roles and build new skills, including resources to help employees find new opportunities, re-skill and seek leadership positions. The learning and development strategy is grounded in the

development of horizontal skills delivered throughout the organization. Senior leaders, managers and teammates are onboarded and build both horizontal skills, as well as and role-specific skills, to help drive high performance. This approach also helps facilitate internal mobility and promotion of talent to build a bench of qualified managers and leaders. In 2022, 2023, more than 30,000 5,000 employees found new roles within the Corporation, and we delivered more than 11 million approximately 6.7 million hours of training and development to our teammates through Bank of America Academy. Additionally, our Board oversees CEO and senior management succession planning, which is formally reviewed at least annually.

3 Bank of America

Fair and Equitable Compensation

Our compensation philosophy is to pay for performance over the long term, as well as on an annual basis. Our performance considerations encompass both financial and nonfinancial measures, including the manner in which results are achieved. These considerations are designed to reinforce and promote our Responsible Growth strategy and maintain alignment with our Risk Framework.

The Corporation is committed to racial and gender pay equity by striving and strives to compensate all of our employees fairly and equitably. We maintain robust policies and practices that reinforce our commitment, including reviews conducted by a third-party consultant with oversight from our Board and senior management. In 2022, 2023, our review covered our regional hubs (U.S., U.K., France, Ireland, Hong Kong and Singapore) and India and showed that compensation received by women globally, on average, was greater than 99 percent of that received by men in comparable positions. In the U.S., compensation received by people of color was, on average, greater than 99 percent of that received by teammates who are not people of color in comparable positions.

We also strive to pay our employees fairly based on market rates for their roles, experience and how they perform. We regularly benchmark against other companies both within and outside our industry to help confirm our pay is competitive. In 2021, the Corporation announced it would increase its minimum hourly wage for U.S. employees to \$25 per hour by 2025. In June 2022, October 2023, as a next step towards that goal, the Corporation increased its hourly minimum wage for U.S. employees to \$22 \$23 per hour. In addition, in January 2023, 2024, for the sixth seventh year since 2017, we announced that we recognized our teammates with Sharing Success compensation awards for their efforts during 2022, 2023. Approximately 96 97 percent of employees globally will receive an award in the first quarter of 2023, 2024.

Health and Wellness – 2022 2023 Focus

The Corporation is also committed to supporting employees providing employees with access to leading benefits and programs that help promote their physical, emotional and financial wellness by offering flexible wellness. Investments we make in our teammates are designed to help them thrive, both at work and competitive benefits, including comprehensive health at home, enabling them to better deliver for our clients, communities and insurance benefits and wellness resources. During 2022, we continued efforts to support our employees through the ongoing health crisis resulting from Coronavirus Disease 2019 (COVID-19). We provided no-cost COVID-19 testing and teammates with incentives for getting the vaccine and booster. We also held on-site flu and COVID-19 vaccine and booster clinics, each other.

We continued our efforts around providing to provide affordable access to healthcare, including offering no-cost, 24/7 access to virtual general medical and behavioral health resources to help our enrolled U.S. teammates stay healthy, both physically and emotionally, healthy. We kept U.S. health insurance premiums unchanged for teammates earning less than \$50,000 for the tenth eleventh year in a row and had nominal premium increases for teammates earning from \$50,000 up to \$100,000 for the sixth seventh year in a row. We provided in-network generic prescription medications at no cost for teammates enrolled in a U.S. bank medical PPO or Consumer Direct plan, along with continuing and we continue to provide preventative care medications at no cost for all teammates enrolled in U.S. medical plans. We also

3 Bank of America

continued to enhance access to care across the Corporation, through near-site health centers, vaccination clinics and wellness screenings in many of our U.S. locations, as we believe primary and preventive care are important to our teammates' health and safety.

We offer an extensive benefit package and support work-life balance for our teammates, which includes in the U.S., 16 weeks of paid parental leave for both primary and secondary

caregivers and backup dependent care (5050 days per year of child and adult backup care per year). We doubled the number dependent care. Globally, teammates and members of no-cost their households can utilize our Employee Assistance Program for 12 free, in-person confidential counseling sessions, from six to 12 for all employees and family members and now offer 12 globally, unlimited phone consultations. Beginning in 2023, teammates celebrating at least 15 years of continuous service with the Corporation may participate in its global Sabbatical Program.

For more information about our human capital management, see the Corporation's website and 2022 2023 Annual Report to shareholders that will we expect to be available on the Investor Relations portion of our website in March 2023 2024 (the content of which is not incorporated by reference into this Annual Report on Form 10-K).

Government Supervision and Regulation

The following discussion describes, among other things, elements of an extensive regulatory framework applicable to BHCs, financial holding companies, banks and broker-dealers, including specific information about Bank of America.

We are subject to an extensive regulatory framework applicable to BHCs, financial holding companies and banks and other financial services entities. U.S. federal regulation of banks, BHCs and financial holding companies is intended primarily for the protection of depositors and the Deposit Insurance Fund (DIF) rather than for the protection of shareholders and creditors.

As a registered financial holding company and BHC, the Corporation is subject to the supervision of, and regular inspection by, the Board of Governors of the Federal Reserve System (Federal Reserve). Our U.S. bank subsidiaries (the Banks), organized as national banking associations, are subject to regulation, supervision and examination by the Office of the Comptroller of the Currency (OCC), the Federal Deposit Insurance Corporation (FDIC) and the Federal Reserve. In addition, the Federal Reserve and the OCC have adopted guidelines that establish minimum standards for the design, implementation and board oversight of BHCs' and national banks' risk governance frameworks. U.S. financial holding companies, and the companies under their control, are permitted to engage in activities considered "financial in nature" as defined by the Gramm-Leach-Bliley Act and related Federal Reserve interpretations. The Corporation's status as a financial holding company is conditioned upon maintaining certain eligibility requirements for both the Corporation and its U.S. depository institution subsidiaries, including minimum capital ratios, supervisory ratings and, in the case of the depository institutions, at least satisfactory Community Reinvestment Act ratings. Failure to be an eligible financial holding company could result in the Federal Reserve limiting Bank of America's activities, including potential acquisitions. Additionally, we are subject to a significant number of laws, rules and regulations that govern our businesses in the U.S. and in the other jurisdictions in which we operate, including permissible activities, minimum levels of capital and liquidity, compliance risk management, consumer products and sales practices, anti-money laundering and anti-corruption, government sanctions, privacy, data protection and executive compensation, among others.

Bank of America 4

The scope of the laws and regulations and the intensity of the supervision to which we are subject have increased over the past several years, beginning with the response to the 2008 financial crisis, as well as other factors such as technological and market changes. In addition, the banking and financial services sector is subject to substantial regulatory enforcement and fines. Many of these changes have occurred as a result of the 2010 Dodd-Frank Wall Street Reform and Consumer Protection Act (the Financial Reform Act). We cannot assess whether or not there will be any additional major changes in the regulatory environment and expect that our business will remain subject to continuing and extensive regulation and supervision.

We are also subject to various other laws and regulations, as well as supervision and examination by other regulatory agencies, all of which directly or indirectly affect our entities, management and ability to make distributions to shareholders. For instance, our broker-dealer subsidiaries are subject to both U.S. and international regulation, including supervision by the SEC, Financial Industry Regulatory Authority and New York Stock Exchange, among others; our futures commission merchant subsidiaries supporting commodities and derivatives businesses in the U.S. are subject to regulation by and supervision of the U.S. Commodity Futures Trading Commission (CFTC), National Futures Association, the Chicago Mercantile Exchange, and in the case of the Banks, certain banking regulators; our insurance activities are subject to licensing and regulation by state insurance regulatory agencies; and our consumer financial products and services are regulated by the Consumer Financial Protection Bureau (CFPB). In addition, certain U.S. and foreign subsidiaries are also registered with the CFTC as swap dealers, and conditionally registered with the SEC as security-based swap dealers.

Our non-U.S. businesses are also subject to extensive regulation by various non-U.S. regulators, including governments, securities exchanges, prudential regulators, central banks and other regulatory bodies, in the jurisdictions in which those businesses operate. For example, our financial services entities in the United Kingdom (U.K.), Ireland and France are subject to regulation by the Prudential Regulatory Authority and Financial Conduct Authority, (FCA), the European Central Bank and Central Bank of Ireland, and the Autorité de Contrôle Prudentiel et de Résolution and Autorité des Marchés Financiers, respectively.

The Corporation is also subject to extensive laws, rules and regulations in the U.S. and in the other jurisdictions in which it operates regarding bribery and corruption, know-your-customer requirements, anti-money laundering, embargo programs and economic sanctions. For example, we are subject to the U.S. Bank Secrecy Act (BSA), which contains anti-money laundering and financial transparency laws designed to detect and deter money laundering and the financing of terrorism, as well as record-keeping, reporting, due diligence and customer verification requirements, various sanctions programs administered and enforced by the U.S. Department of the Treasury's Office of Foreign Assets Control (OFAC) and foreign jurisdictions, which target entities or individuals that are, or are located in countries that are, involved in activities, such as terrorism, hostilities, drug trafficking or human rights violations and the U.S. Foreign Corrupt Practices Act (FCPA) and the U.K. Bribery Act, relating to corrupt and illegal payments to government officials and others.

Source of Strength

Under the Financial Reform Act and Federal Reserve policy, BHCs are expected to act as a source of financial strength to

each subsidiary bank and to commit resources to support each such subsidiary. Similarly, under the cross-guarantee provisions of the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA), in the event of a loss suffered or anticipated by the FDIC, either as a result of default of a bank subsidiary or related to FDIC assistance provided to such a subsidiary in danger of default, the affiliate banks of such a subsidiary may be assessed for the FDIC's loss, subject to certain exceptions.

Transactions with Affiliates

Pursuant to Section 23A and 23B of the Federal Reserve Act, as implemented by the Federal Reserve's Regulation W, the Banks are subject to restrictions that limit certain types of transactions between the Banks and their nonbank affiliates. In general, U.S.

banks are subject to quantitative and qualitative limits on extensions of credit, purchases of assets and certain other transactions involving their nonbank affiliates. Additionally, transactions between U.S. banks and their nonbank affiliates are required to be on arm's length terms and must be consistent with standards of safety and soundness.

Deposit Insurance

Deposits placed at U.S. domiciled banks are insured by the FDIC, subject to limits and conditions of applicable law and the FDIC's regulations. Pursuant to the Financial Reform Act, FDIC insurance coverage limits are \$250,000 per depositor, per insured bank for each account ownership category. All insured depository institutions are required to pay assessments to the FDIC in order to fund the DIF.

The FDIC is required to maintain a statutory minimum ratio of the DIF to insured deposits in the U.S. of at least 1.35 percent and has established a long-term goal of a two percent DIF ratio. As of the date of this report, the DIF is below the statutory minimum ratio and the FDIC's long-term goal. In October 2022, the FDIC adopted a restoration plan that includes an increase in deposit insurance assessments across the industry of two basis points (bps). The FDIC has indicated that it intends to maintain such assessment rates for the foreseeable future. Deposit insurance assessment rates are subject to change by the FDIC and will be impacted by the overall economy and the stability of the banking industry as a whole. The FDIC also has the authority to charge special assessments from time to time, including in connection with systemic risk events. For example, on November 16, 2023, the FDIC issued its final rule to impose a special assessment to recover the loss to the DIF resulting from the closure of Silicon Valley Bank and Signature Bank. For more information on the impact to the Corporation of the FDIC special assessment, see Executive Summary – Recent Developments in the MD&A on page 26. For more information regarding deposit insurance, see Item 1A. Risk Factors – Regulatory, Compliance and Legal on page 17.

Capital, Liquidity and Operational Requirements

As a financial holding company, we and our bank subsidiaries are subject to the regulatory capital and liquidity rules issued by the Federal Reserve and other U.S. banking regulators, including the OCC and the FDIC. These rules are complex and are evolving as U.S. and international regulatory authorities propose and enact amendments to these rules. The Corporation seeks to manage its capital position to maintain sufficient capital to satisfy these regulatory rules and to support our business activities. These continually evolving rules are likely to influence our planning processes and may require additional regulatory capital and liquidity, as well as impose additional operational and compliance costs on the Corporation.

For more information on regulatory capital rules, capital composition and pending or proposed regulatory capital changes, see Capital Management on page 49, 47 and Note 16 – Regulatory Requirements and Restrictions to the Consolidated Financial Statements, which are incorporated by reference in this Item 1.

Distributions

We are subject to various regulatory policies and requirements relating to capital actions, including payment of dividends and common stock repurchases. For instance, Federal Reserve regulations require major U.S. BHCs to submit a capital plan as part of an annual Comprehensive Capital Analysis and Review (CCAR).

Our ability to pay dividends and make common stock repurchases depends in part on our ability to maintain regulatory capital levels above minimum requirements plus buffers and non-capital standards established under the FDICIA. To the extent that the Federal Reserve increases our stress capital buffer (SCB), global systemically important bank (G-SIB) surcharge or countercyclical capital buffer, our returns of capital to shareholders, including dividends and common stock repurchases, could decrease. As part of its CCAR, the Federal Reserve conducts stress testing on parts of our business using hypothetical economic scenarios prepared by the Federal Reserve. Those scenarios may affect our CCAR stress test results, which may impact the level of our SCB. For example, based on the results of our 2022 2023 CCAR stress test, the Corporation's SCB increased decreased to 3.4 percent, and 2.5 percent. Additionally, the Corporation's G-SIB surcharge is expected to increase increased to 3.0 percent on January 1, 2024. Additionally, the The Federal Reserve could also impose limitations or prohibitions on taking capital actions such as paying or increasing dividends or repurchasing common stock. For example, as a result of the economic uncertainty resulting from the COVID-19 pandemic, in the second half of 2020, the Federal Reserve introduced certain limitations to capital distributions for all large banks, including the Corporation, which were removed effective July 1, 2021.

If the Federal Reserve finds that any of our Banks are not "well-capitalized" or "well-managed," we would be required to enter into an agreement with the Federal Reserve to comply with all applicable capital and management requirements, which may contain additional limitations or conditions relating to our activities. Additionally, the applicable federal regulatory authority is authorized to determine, under certain circumstances relating to the financial condition of a bank or BHC, that the payment of dividends would be an unsafe or unsound practice and to prohibit payment thereof.

For more information regarding the requirements relating to the payment of dividends, including the minimum capital requirements, see Note 13 – Shareholders' Equity and Note 16 – Regulatory Requirements and Restrictions to the Consolidated Financial Statements.

Many of our subsidiaries, including our bank and broker-dealer subsidiaries, are subject to laws that restrict dividend payments, or authorize regulatory bodies to block or reduce the flow of funds from those subsidiaries to the parent company or other subsidiaries. The rights of the Corporation, our shareholders and our creditors to participate in any distribution of the assets or earnings of our subsidiaries are further subject to the prior claims of creditors of the respective subsidiaries.

For more information regarding distributions, including the minimum capital requirements, see Note 13 – Shareholders' Equity and Note 16 – Regulatory Requirements and Restrictions to the Consolidated Financial Statements.

5 Bank of America

Resolution Planning

As a BHC with greater than \$250 billion of assets, the Corporation is required by the Federal Reserve and the FDIC to periodically submit a plan for a rapid and orderly resolution in the event of material financial distress or failure.

Such resolution plan is intended to be a detailed roadmap for the orderly resolution of the BHC, including the continued operations or solvent wind down of its material entities, pursuant to the U.S. Bankruptcy Code under one or more hypothetical scenarios assuming no extraordinary government assistance.

If both the Federal Reserve and the FDIC determine that the BHC's plan is not credible, the Federal Reserve and the FDIC may jointly impose more stringent capital, leverage or liquidity requirements or restrictions on growth, activities or operations. A summary of our plan is available on the Federal Reserve and FDIC websites.

The FDIC also requires the submission of a resolution plan for Bank of America, National Association, which must describe how the insured depository institution would be resolved under the bank resolution provisions of the Federal Deposit Insurance Act. A description of this plan is available on the FDIC's website.

We continue to make substantial progress to enhance our resolvability, which includes continued improvements to our preparedness capabilities to implement our resolution plan, both from a financial and operational standpoint.

Across international jurisdictions, resolution planning is the responsibility of national resolution authorities (RA) and central resolution authorities (CA). Among those, the jurisdictions with the greatest impact to the Corporation's subsidiaries are the U.K., Ireland and France, where rules have been issued requiring the submission of significant information about locally incorporated subsidiaries as well as the Corporation's banking branches located in those jurisdictions that are deemed to be material for resolution planning purposes. As a result of the RA's RA's and CA's review of the submitted information, we could be required to take certain actions over the next several years that could increase operating costs and potentially result in the restructuring of certain businesses and subsidiaries.

For more information regarding our resolution plan, see Item 1A. Risk Factors – Liquidity on page 9.

Insolvency and the Orderly Liquidation Authority

Under the Federal Deposit Insurance Act, the FDIC may be appointed receiver of an insured depository institution if it is insolvent or in certain other circumstances. In addition, under the Financial Reform Act, when a systemically important financial institution (SIFI) such as the Corporation is in default or danger of default, the FDIC may be appointed receiver in order to conduct an orderly liquidation of such institution. In the event of such appointment, the FDIC could, among other things, invoke the orderly liquidation authority, instead of the U.S. Bankruptcy Code, if the Secretary of the Treasury makes certain financial distress and systemic risk determinations. The orderly liquidation authority is modeled in part on the Federal Deposit Insurance Act, but also adopts certain concepts from the U.S. Bankruptcy Code.

The orderly liquidation authority contains certain differences from the U.S. Bankruptcy Code. For example, in certain circumstances, the FDIC could permit payment of obligations it determines to be systemically significant (e.g., short-term creditors or operating creditors) in lieu of paying other obligations (e.g., long-term creditors) without the need to obtain creditors' consent or prior court review. The insolvency and resolution process could also lead to a large reduction or total

elimination of the value of a BHC's outstanding equity, as well as impairment or elimination of certain debt.

Under the FDIC's "single point of entry" strategy for resolving SIFIs, the FDIC could replace a distressed BHC with a bridge holding company, which could continue operations and result in an orderly resolution of the underlying bank, but whose equity is held solely for the benefit of creditors of the original BHC.

Furthermore, the Federal Reserve requires that BHCs maintain minimum levels of long-term debt required to provide adequate loss absorbing capacity in the event of a resolution.

For more information regarding our resolution, see Item 1A. Risk Factors – Liquidity on page 9.

Limitations on Acquisitions

The Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 permits a BHC to acquire banks located in states other than its home state without regard to state law, subject to certain conditions, including the condition that the BHC, after and as a result of the acquisition, controls no more than 10 percent of the total amount of deposits of insured depository institutions in the U.S. and no more than 30 percent or such lesser or greater amount set by state law of such deposits in that state. At **June 30, 2022** **June 30, 2023**, we held greater than 10 percent of the total amount of deposits of insured depository institutions in the U.S.

In addition, the Financial Reform Act restricts acquisitions by a financial institution if, as a result of the acquisition, the total liabilities of the financial institution would exceed 10 percent of the total liabilities of all financial institutions in the U.S. At **June 30, 2022** **June 30, 2023**, our liabilities did not exceed 10 percent of the total liabilities of all financial institutions in the U.S.

The Volcker Rule

The Volcker Rule prohibits insured depository institutions and companies affiliated with insured depository institutions (collectively, banking entities) from engaging in short-term proprietary trading of certain securities, derivatives, commodity futures and options for their own account. The Volcker Rule also imposes limits on banking entities' investments in, and other relationships with, hedge funds and private equity funds. The Volcker Rule provides exemptions for certain activities, including market making, underwriting, hedging, trading in government obligations, insurance company activities and organizing and offering hedge funds and private equity funds. The Volcker Rule also clarifies that certain activities are not prohibited, including acting as agent, broker or custodian. A banking entity with significant trading operations, such as the Corporation, is required to maintain a detailed compliance program to comply with the restrictions of the Volcker Rule.

Derivatives

Our derivatives **operations** **businesses** are subject to extensive regulation **globally**. These **operations are subject to regulation globally, including** under the Financial Reform Act, the European Union (EU) Markets in Financial Instruments Directive and Regulation, the European Market Infrastructure Regulation, analogous U.K. regulatory regimes and similar regulatory regimes in other **jurisdictions that regulate or will regulate the derivatives markets in which we operate by, jurisdictions. These regulations, among other things: requiring things, require** clearing and exchange trading of certain **derivatives; enforcing existing or imposing new derivatives, establish** capital, margin, reporting, registration and business conduct requirements for certain market participants; **imposing participants, set** position limits on certain **derivatives; derivatives and imposing set out** derivatives trading transparency requirements. **These regulations are already in effect in many markets in which we operate.**

In addition, many G-20 jurisdictions, including the U.S., **EU**, U.K., and Japan, have adopted resolution stay regulations to address concerns that the close-out of derivatives and other

financial contracts in resolution could impede orderly resolution of G-SIBs, and additional jurisdictions are expected to follow suit. In addition, the EU has implemented EU-wide resolution stay requirements. Generally, these resolution stay regulations require amendment of certain financial contracts to provide for contractual recognition of stays of termination rights under

various statutory resolution regimes and a stay on the exercise of cross-default rights based on an affiliate's entry into insolvency proceedings. Resolution regulations may also require contractual recognition by the counterparty that amounts owed to them may be written down or converted into equity as part of a bail in. As resolution stay regulations of a particular jurisdiction applicable to us go into effect, we amend impacted financial contracts in compliance with such regulations either as a regulated entity or as a counterparty facing a regulated entity in such jurisdiction.

Consumer Regulations

Our consumer businesses are subject to extensive regulation and oversight by federal and state regulators. Certain federal consumer finance laws to which we are subject, including the Equal Credit Opportunity Act, Home Mortgage Disclosure Act, Fair Housing Act, Electronic Fund Transfer Act (EFTA), Fair Credit Reporting Act, Real Estate Settlement Procedures Act, prohibitions on unfair, deceptive, or abusive acts or practices (UDAAP), Truth in Lending Act and Truth in Savings Act, are enforced by the CFPB. Other federal consumer finance laws, such as the Servicemembers Civil Relief Act, are enforced by the OCC.

Privacy and Information Security

We are subject to many U.S. federal, state and international laws and regulations governing requirements for maintaining policies and procedures regarding the collection, disclosure, use and protection of the non-public confidential information of our customers and employees. The Gramm-Leach-Bliley Act requires us to periodically disclose Bank of America's privacy policies and practices relating to sharing such information and enables retail customers to opt out of our ability to share information with unaffiliated third parties, under certain circumstances. The Gramm-Leach-Bliley Act and other laws also require us to

implement a comprehensive information security program that includes administrative, technical and physical safeguards to provide the security and confidentiality of customer records and information. Security and privacy policies and procedures for the protection of personal and confidential information are in effect across all businesses and geographic locations.

Other laws and regulations, at the international, federal and state level, impact our ability to share certain information with affiliates and non-affiliates for marketing and/or non-marketing purposes, or contact customers with marketing offers and establish certain rights of consumers in connection with their personal information. For example, California's Consumer Privacy Act (CCPA), as modified by the California Privacy Rights Act (CPRA), provides consumers with the right to know what personal data is being collected, know whether their personal data is sold or disclosed and to whom and opt out of the sale of their personal data, among other rights. In addition, in the EU and other countries around the world, similar laws, like the General Data Protection Regulation (GDPR) replaced the Data Protection Directive (GDPR), afford those countries' residents with certain rights related to their information and related implementing national laws in its member states. The CCPA's, CPRA's and GDPR's may impose additional obligations on financial institutions. These laws' impact on the Corporation was assessed and addressed through comprehensive compliance implementation programs. These existing and evolving legal requirements in the U.S. and abroad, as well as court proceedings and changing guidance from regulatory bodies, with respect to including the validity of cross-border data transfer mechanisms from the EU and other jurisdictions, continue to lend uncertainty to privacy compliance globally.

Additionally, the Corporation is subject to evolving information security (including cybersecurity) laws, rules and regulations enacted by U.S. federal and state governments and non-U.S. jurisdictions, including requirements to develop cybersecurity programs, policies and frameworks, as well as provide disclosure and/or notifications of certain cybersecurity incidents and data breaches.

Item 1A. Risk Factors

The discussion below addresses our material risk factors of which we are aware. Any risk factor, either by itself or together with other risk factors, could materially and adversely affect our businesses, results of operations, cash flows and/or financial condition. References to third parties may include suppliers, service providers, counterparties, financial market utilities, exchanges and clearing houses, data aggregators and other partners and their upstream and downstream service providers (e.g., fourth parties, fifth parties) who may also contribute to our risks. Other factors not currently known to us or that we currently deem immaterial could also adversely affect our businesses, results of operations, cash flows and/or financial condition. Therefore, the risk factors below should not be considered all of the potential risks that we may face. For more information on how we manage risks, see Managing Risk in the MD&A beginning on page 46, 44. For more information about the risks contained in the Risk Factors this section, see Item 1. Business beginning on page 2, MD&A beginning on page 26, 25 and Notes to Consolidated Financial Statements beginning on page 94.

Market

We may be adversely affected by the financial markets, fiscal, monetary, and regulatory policies, and economic conditions.

General economic, political, social and health conditions in the U.S. and abroad affect financial markets and our business. In particular, global markets may be affected by the level and volatility of interest rates, availability and market conditions of financing, changes in gross domestic product (GDP), economic growth or its sustainability, inflation, supply chain disruptions, consumer spending, employment levels, labor shortages, challenging labor market conditions, wage stagnation, federal government shutdowns, energy prices, home prices, commercial property values, bankruptcies and a default by a significant market participant or class of counterparties, including companies in emerging markets. Global markets also may be affected by adverse developments impacting the U.S. or global banking industry, including bank failures and liquidity concerns, fluctuations or other significant changes in both debt and equity capital markets and currencies, liquidity, the continued transition from InterBank Offered Rates (IBORs) and other of benchmark rates, including the Bloomberg Short-Term Bank Yield Index (BSBY), to alternative reference rates (ARRs), the impact of the volatility of digital assets on the broader market, the rate of growth of global trade and commerce, trade policies, the availability and cost of capital and credit, disruption of communication, transportation or energy infrastructure, recessionary fears, investor sentiment and investor sentiment the U.S. and global election cycles, including resulting changes to policy and the geopolitical environment. Global markets, including energy and commodity markets, may also be adversely affected by the current or anticipated impact of climate change, acute and/or chronic extreme weather events or natural disasters, the emergence or continuation of widespread health emergencies or pandemics, cyberattacks, military conflict, terrorism, or other geopolitical events. Market fluctuations may impact our margin requirements and affect our liquidity. Any sudden or prolonged market downturn, as a result of the above factors or otherwise, could result in a decline in net interest income and noninterest income and adversely affect our results of operations and financial condition, including capital and liquidity levels. High Elevated inflation elevated and interest rate levels, supply chain disruptions, monetary tightening by central banks, and geopolitical developments, including the Russia/Ukraine conflict including and the related energy impact conflict in Europe, the Middle East, have adversely impacted and may continue to adversely impact

securities, and impact our borrowers and potentially increase delinquency rates and may also raise government debt levels, adversely affect businesses and household incomes, adversely impact the banking sector generally, and increase uncertainty surrounding monetary policy. Monetary policy in response to high inflation has led to a significant increase in market interest rates and a flattening and/or inversion of the yield curve. This has resulted in and may continue to result in volatility of equity and other markets, further volatility of the U.S. dollar, a widening in credit spreads and higher interest rates and recessionary concerns, and could result in elevated unemployment, which could impact investor risk appetite and our borrowers, potentially increasing delinquency rates. It is Financial market volatility could also possible that high result from uncertainty about the timing and extent of rate cuts by the Federal Reserve in response to moderating inflation and/or weakening economic conditions. Elevated inflation may limit the scope of monetary support, including cuts to the federal funds rate, in the event of an economic downturn, resulting in a more protracted period of a flat and/or inverted yield curve.

Any future change in monetary policy by the Federal Reserve, in an effort to stimulate the economy or otherwise, resulting in lower interest rates would likely result in lower revenue through lower net interest income, which could adversely affect our results of operations. Additionally, changes to existing U.S. laws and regulatory policies and evolving priorities, including those related to financial regulation, taxation, international trade, fiscal policy, climate change (including efforts to transition to a low-carbon economy) and healthcare, may adversely impact U.S. or global economic activity and our customers', our counterparties' and our earnings and operations. Globally, many central banks are have simultaneously reducing reduced monetary accommodation through interest rate or balance sheet policy, which has contributed and may continue to contribute to elevated financial and capital market volatility and significant changes to asset values. While higher interest rates have positively impacted our net interest income, higher interest rates have negatively impacted and could continue to negatively impact investment securities, deposits, loan demand and funding costs. If In addition to higher interest rates, wider credit spreads can negatively impact capital by reducing the value of debt securities. High and rising federal debt levels and uncertainty about the U.S. budget process could lead to higher interest rates and financial market volatility, potentially impacting broader economic

financial markets and macroeconomic conditions and could result in additional market volatility and disruptions.

Global uncertainties regarding fiscal and monetary policies present economic challenges. Actions taken by the Federal Reserve or other central banks in other jurisdictions, including changes in target rates, balance sheet management and lending facilities, are beyond our control and difficult to predict, particularly in a high an elevated inflation environment. This can affect interest rates and the value of financial instruments and other assets, such as debt

activity. Further, if the U.S. government's debt ceiling limit is not raised in January 2025, the ramifications could result in market volatility, ratings downgrades and limit fiscal policy responses to recessionary conditions. This could have a negative and potentially severe impact on the U.S. and world economy and financial and capital markets, including higher interest rates, higher volatility, lower asset values, lower liquidity, downgrades to U.S. debt, and a weakened U.S. dollar.

Changes to international trade and investment policies by the U.S. could negatively impact financial markets. Escalation of tensions between the U.S. and the People's Republic of China

Bank of America 8

(China) could lead to further U.S. measures that adversely affect financial markets, disrupt world trade and commerce and lead to trade retaliation, including through the use of tariffs, foreign exchange measures or the large-scale sale of U.S. Treasury bonds. Any restrictions on the activities of businesses, could also negatively affect financial markets.

These developments could adversely affect our businesses, customers, securities and derivatives portfolios, including the risk of lower re-investment rates within those portfolios, our level of charge-offs and provision for credit losses, the carrying value of our deferred tax assets, our capital levels, our liquidity and our results of operations.

Increased market volatility and adverse changes in financial or capital market conditions may increase our market risk.

Our liquidity, competitive position, business, results of operations and financial condition are affected by market risks such as changes in interest and currency exchange rates, fluctuations in equity, commodity and futures prices, trading volumes and prices of securitized products, the implied volatility of interest rates and credit spreads and other economic and

Bank of America 8

business factors. These market risks may adversely affect, among other things, the value of our securities, including our on- and off-balance sheet securities, trading assets and other financial instruments, the cost of debt capital and our access to credit markets, the value of assets under management (AUM), fee income relating to AUM, customer allocation of capital among investment alternatives, the volume of client activity in our trading operations, investment banking, underwriting and other capital market fees, which have already been negatively impacted, the general profitability and risk level of the transactions in which we engage and our competitiveness with respect to deposit pricing. The value of certain of our assets is sensitive to changes in market interest rates. If the Federal Reserve or a non-U.S. central bank changes or signals a change in monetary policy, market interest rates or credit spreads could be affected, which could adversely impact the value of such assets. Changes to fiscal policy, including expansion of U.S. federal deficit spending and resultant debt issuance, could also affect market interest rates. If interest rates decrease, our results of operations could be negatively impacted, including future revenue and earnings growth. **The continued flattening and/or inversion of the yield curve could also negatively impact our results of operations, including revenue and earnings.**

Our models and strategies to assess and control our market risk exposures are subject to inherent limitations. In times of market stress or other unforeseen circumstances, previously uncorrelated indicators may become **correlated and vice versa, correlated**. Such changes to the relationship between market parameters may limit the effectiveness of our hedging strategies and cause us to incur significant losses. Changes in correlation can be exacerbated where market participants use risk or trading models with assumptions or algorithms similar to ours. In these and other cases, it may be difficult to reduce our risk positions due to activity of other market participants or widespread market dislocations, including circumstances where asset values are declining significantly or no market exists. Where we own securities that do not have an established liquid trading market or are otherwise subject to restrictions on sale or hedging, or where the degree of accessible liquidity declines significantly, we may not be able to reduce our positions and risks associated with such holdings, so we may suffer larger than expected losses when adverse price movements take place. This risk can be exacerbated where we hold a position that is large relative to the available liquidity.

If asset values decline, we may incur losses and negative impacts to capital and liquidity requirements.

Increases in interest rates or changes in spreads may continue to adversely impact the fair value of our debt securities and, accordingly, for debt securities classified as **available for sale, may continue to available-for-sale (AFS)**, adversely affect accumulated other comprehensive income and, thus, our capital levels. **These market moves increases in interest rates** could also adversely impact our regulatory liquidity requirements. **Any decreases position and requirements, which include certain AFS debt securities and the use of repurchase agreements against a portion of the held-to-maturity (HTM) debt securities. As our liquidity is dependent on the fair value of these assets, increases in market interest rates, which have adversely impacted and may increase prepayment speeds continue to adversely impact the fair value of certain assets, and, therefore, debt securities, could adversely affect net interest income. Changes in interest rates also may impact the value of mortgage service rights retained, liquidity levels.**

Fair values may be impacted by declining values of the underlying assets or the prices at which observable market transactions occur and the continued availability of these transactions or indices. The financial strength of counterparties, with whom we have economically hedged some of our exposure to these assets, also will affect the fair value of these assets. Sudden declines and volatility in the prices of assets may curtail or eliminate trading activities in these assets, which may make it difficult to sell, hedge or value these assets. The inability to sell or effectively hedge assets reduces our ability to limit losses in such positions, and the difficulty in valuing assets may increase our risk-weighted assets (RWA), which requires us to maintain additional capital and increases our funding costs. Values of AUM also impact revenues in our wealth management and related advisory businesses for asset-based management and performance fees. Declines in values of AUM can result in lower fees earned for managing such assets.

Liquidity

If we are unable to access the capital markets, have prolonged net deposits outflows, or our borrowing costs increase, our liquidity and competitive position will be negatively affected.

Liquidity is essential to our businesses. We fund our assets primarily with globally sourced deposits in our bank entities, as well as secured and unsecured liabilities transacted in the capital markets. We rely on certain secured funding sources, such as repo markets, which are typically short-term and credit-sensitive. We also engage in asset securitization transactions, including with the government-sponsored enterprises (GSEs), to fund consumer lending activities. Our liquidity could be adversely affected by any inability to access the capital markets, illiquidity or volatility in the capital markets, the decrease in value of eligible collateral or increased collateral requirements (including as a result of credit concerns for short-term

We have a large portfolio of financial instruments, including loans and loan commitments, securities financing agreements, asset-backed secured financings, derivative assets and liabilities, debt securities, marketable equity securities and certain other assets and liabilities that we measure at fair value and are subject to valuation and impairment assessments. We determine these values based on applicable accounting guidance, which, for financial instruments measured at fair value, requires an entity to base fair value on exit price and to maximize the use of observable inputs and minimize the use of unobservable inputs in fair value measurements. The fair values of these financial instruments include adjustments for market liquidity, credit quality, funding impact on certain derivatives and other transaction-specific factors, where appropriate.

Gains or losses on these instruments can have a direct impact on our results of operations, unless we have effectively **hedged mitigated the risk of** our exposures. Increases in interest rates may **result in further cause** decreases in residential mortgage loan originations and could impact the origination of corporate debt. In addition,

borrowing), changes to our relationships with our funding providers based on real or perceived changes in our risk profile, prolonged federal government shutdowns, or changes in regulations, guidance or GSE status that impact our funding.

Additionally, our liquidity or cost of funds may be negatively impacted by the unwillingness or inability of the Federal Reserve to act as lender of last resort, unexpected simultaneous draws on lines of credit or deposits, slower customer payment rates, restricted access to the assets of prime brokerage clients, the withdrawal of or failure to attract customer deposits or invested funds (which could result from attrition driven by customers seeking higher yielding deposits or securities products, customer desire to utilize an alternative financial institution perceived to be safer, changes in customer spending behavior due to inflation, decline in the economy or other drivers resulting in an increased need for cash), increased regulatory liquidity, capital and margin requirements for our U.S. or international banks and their nonbank subsidiaries, which could result in the inability to transfer liquidity internally and inefficient funding, changes in patterns of intraday liquidity usage resulting from a counterparty or technology failure or other idiosyncratic event or failure or

9 Bank of America

default by a significant market participant or third party (including clearing agents, custodians, central banks or central counterparty clearinghouses (CCPs)). These factors **also have the potential to may** increase our borrowing costs and negatively impact our liquidity.

Several of these factors may arise due to circumstances beyond our control, such as general market volatility, disruption, shock or stress, the emergence or continuation of widespread health emergencies or pandemics, **and military conflicts (including the Russia/Ukraine conflict and the conflict in the Middle East)**. Federal Reserve policy decisions (including fluctuations in interest rates or Federal Reserve balance sheet composition), negative views or loss of confidence about us or the financial services industry generally or due to a specific news event, changes in the regulatory environment or governmental fiscal or monetary policies, actions by credit rating agencies or an operational problem that affects third parties or us. The impact of these potentially sudden events, whether within our control or not, could include an inability to sell assets or redeem investments, unforeseen outflows of cash, the need to draw on liquidity facilities, the reduction of financing balances and the loss of equity secured funding, debt repurchases to support the secondary market or meet client requests, the need for additional funding for commitments and contingencies and unexpected collateral calls, among other things, the result of which could be increased costs, a liquidity shortfall and/or impact on our liquidity coverage ratio.

Our liquidity and cost of obtaining funding may be directly related to investor behavior **and confidence**, debt market disruption, firm specific concerns or prevailing market conditions, including changes in interest and currency exchange rates, significant fluctuations in equity and futures prices, lower trading volumes and prices of securitized products and our credit spreads. Increases in interest rates and our credit spreads can increase the cost of our funding and result in mark-to-market or credit valuation adjustment exposures. Changes in our credit spreads are market driven and may be influenced by market perceptions of our creditworthiness, including changes in our credit ratings or changes in broader financial market and macroeconomic conditions. Changes to interest rates and our credit spreads occur continuously and may be unpredictable and highly volatile. We may also experience net interest margin compression as a result of offering higher than expected deposit rates in order to attract and maintain deposits. Concentrations within our funding profile, such as maturities,

credit ratings could result in a wider credit spread and negatively affect our **liquidity**, access to credit markets, the related cost of funds, our businesses and certain trading revenues, particularly in those businesses where counterparty creditworthiness is critical. If the short-term credit ratings of our parent company, **or bank or broker-dealer subsidiaries were downgraded, by one or more levels**, we may experience loss of access to short-term funding sources such as repo financing, and/or incur increased cost of funds and increased collateral requirements. Under the terms of certain OTC derivative contracts and other trading agreements, if our or our subsidiaries' credit ratings are downgraded, the counterparties may require additional collateral or terminate these contracts or agreements.

While certain potential impacts are contractual and quantifiable, the full consequences of a credit rating downgrade are inherently uncertain and depend upon numerous dynamic, complex and inter-related factors and assumptions, including the relationship between long-term and short-term credit ratings and the behaviors of customers, investors and counterparties.

Bank of America Corporation is a holding company, is dependent on its subsidiaries for liquidity and may be restricted from transferring funds from subsidiaries.

Bank of America Corporation, as the parent company, is a separate and distinct legal entity from our bank and nonbank subsidiaries. We evaluate and manage liquidity on a legal entity basis. Legal entity liquidity is an important consideration as there are legal, regulatory, contractual and other limitations on our ability to utilize liquidity from one legal entity to satisfy the liquidity requirements of another, including the parent company, which could result in adverse liquidity events. The parent company depends on dividends, distributions, loans and other payments from our bank and nonbank subsidiaries to fund dividend payments on our preferred stock and common stock and to fund all payments on our other obligations, including debt obligations. Any inability of our subsidiaries to transfer funds, pay dividends or make payments to us may adversely affect our cash flow, **liquidity** and financial condition.

Many of our subsidiaries, including our bank and broker-dealer subsidiaries, are subject to laws that restrict dividend payments, or authorize regulatory bodies to block or reduce the flow of funds from those subsidiaries to the parent company or other subsidiaries. Our bank and broker-dealer subsidiaries are subject to restrictions on their ability to lend or transact with affiliates, minimum regulatory capital and liquidity requirements

currencies or counterparties, can **also** reduce our funding efficiency.

Reduction in our credit ratings could limit our access to funding or the capital markets, increase borrowing costs or trigger additional collateral or funding requirements.

Our borrowing costs and ability to raise funds are directly impacted by our credit ratings. Credit ratings **may are** also **be** important to investors, customers or counterparties when we compete in certain markets and seek to engage in certain transactions, including over-the-counter (OTC) derivatives. Our credit ratings are subject to ongoing review by rating agencies, which consider a number of financial and **non-financial nonfinancial** factors, including our franchise, financial strength, performance and prospects, management, governance, risk management practices, capital adequacy, asset quality and operations, among other criteria, as well as factors not under our control, such as regulatory developments, the macroeconomic and geopolitical environment and changes to the methodologies used to determine our **ratings, or ratings generally, ratings.**

Rating agencies could **make adjustments to adjust** our credit ratings at any time and there can be no assurance as to whether or when **any downgrades a downgrade** could occur. **A Any reduction in our**

and restrictions on their ability to use funds deposited with them in bank or brokerage accounts to fund their businesses. Intercompany arrangements we entered into in connection with our resolution planning submissions could restrict the amount of funding available to the parent company from our subsidiaries under certain adverse conditions.

Additional restrictions on related party transactions, increased capital and liquidity requirements and additional limitations on the use of funds on deposit in bank or brokerage accounts, as well as lower earnings, can reduce the amount of funds available to meet the obligations of the parent company and even require the parent company to provide additional funding to such subsidiaries. Also, regulatory action that requires additional liquidity at each of our subsidiaries could impede access to funds we need to pay our obligations or pay dividends. In addition, our right to participate in a distribution of assets upon a subsidiary's liquidation or reorganization is subject to prior claims of the subsidiary's creditors.

Bank of America 10

Bank of America Corporation's liquidity and financial condition, and the ability to pay dividends and obligations, could be adversely affected in the event of a resolution.

Bank of America Corporation, our parent holding company, is required to periodically submit a plan to the FDIC and Federal Reserve describing its resolution strategy under the U.S. Bankruptcy Code in the event of material financial distress or failure. Bank of America Corporation's preferred resolution strategy is a "single point of entry" strategy, whereby only the parent holding company would file for bankruptcy under the U.S. Bankruptcy Code. Certain key operating subsidiaries would be provided with sufficient capital and liquidity to operate through severe stress and to enable such subsidiaries to continue operating or be wound down in a solvent manner following a bankruptcy of the parent holding company. Bank of America Corporation has entered into intercompany arrangements resulting in the contribution of most of its capital and liquidity to key subsidiaries. Pursuant to these arrangements, if Bank of America Corporation's liquidity resources deteriorate so severely that resolution becomes imminent, it will no longer be able to draw liquidity from its key subsidiaries and will be required to contribute its remaining financial assets to a wholly-owned holding company subsidiary. This could adversely affect our liquidity and financial condition, including the ability to meet our payment obligations and the ability to return capital to shareholders, including through the payment of dividends and repurchase of the Corporation's common stock.

If the FDIC and Federal Reserve jointly determine that Bank of America Corporation's resolution plan is not credible, they could impose more stringent capital, leverage or liquidity requirements or restrictions on our growth, activities or operations. We could also be required to take certain actions that could impose operating costs and result in the divestiture of assets or restructuring of businesses and subsidiaries.

When a G-SIB such as Bank of America Corporation is in default or danger of default, the FDIC may be appointed receiver to conduct an orderly liquidation, and could, among other things, invoke the orderly liquidation authority, instead of the U.S. Bankruptcy Code, if the Secretary of the Treasury makes certain financial distress and systemic risk determinations. Additionally, the FDIC could replace Bank of America Corporation with a bridge holding company, which could continue operations and result in an orderly resolution of the underlying bank, but whose equity would be held solely for the benefit of our creditors. The FDIC's "single point of entry" strategy may result in our security holders suffering greater losses than would have been the case under a bankruptcy proceeding or a different resolution strategy.

including declines in GDP, consumer spending or property values, asset price corrections, increasing consumer and corporate leverage, increases in corporate bond spreads, government shutdowns or policies such as student loan debt payment resummptions, tax changes, rising or elevated unemployment levels, elevated inflation, fluctuations in foreign exchange or interest rates, as well as the emergence or continuation of widespread health emergencies or pandemics, extreme weather events and the impacts of climate change, including acute and/or chronic extreme weather events and efforts to transition to a low-carbon economy. Significant economic or market stresses and disruptions typically have a negative impact on the business environment and financial markets, which could impact the underlying credit quality of our borrowers, counterparties and assets. Property value declines or asset price corrections could increase the risk of borrowers or counterparties defaulting or becoming delinquent in their obligations to us, and could decrease the value of the collateral we hold, which could increase credit losses. Credit risk could also be magnified by lending to leveraged borrowers or declining asset prices, including property or collateral values, unrelated to macroeconomic stress. Simultaneous drawdowns on lines of credit and/or an increase in a borrower's leverage in a weakening economic environment, or otherwise, could result in deterioration in our credit portfolio, should borrowers be unable to fulfill competing financial obligations. Increased delinquency and default rates could adversely affect our credit portfolios, including consumer credit card, home equity and residential mortgage portfolios through increased charge-offs and provisions for credit losses.

A recessionary environment and/or a rise in unemployment could adversely impact the ability of our consumer and/or commercial borrowers or counterparties to meet their financial obligations and negatively impact our credit portfolio. Consumers have been and may continue to be negatively impacted by inflation, resulting in drawdowns of savings or increases in household debt. Higher interest rates, which have increased debt servicing costs for some businesses and households, may adversely impact credit quality, particularly in a recessionary environment. Certain sectors also remain at risk (e.g., commercial real estate, office exposure, consumer discretionary industries) particularly office) as a result of shifts in demand from the pandemic, and tighter financial and credit conditions. Globally, conditions of slow growth or recession could further contribute to weaker credit conditions. If the macroeconomic environment worsens, or certain sectors worsen, our credit portfolio, net charge-offs, provision and allowance for credit losses could be adversely impacted.

If the Corporation is resolved under the U.S. Bankruptcy Code or the FDIC's orderly liquidation authority, third-party creditors of the Corporation's our subsidiaries may receive significant or full recoveries on their claims, while security holders of Bank of America Corporation could face significant or complete losses.

Credit

Economic or market disruptions and insufficient credit loss reserves may result in a higher provision for credit losses.

A number of our products expose us to credit risk, including loans, letters of credit, derivatives, debt securities, trading account assets and assets held-for-sale. Deterioration in the financial condition of our consumer and commercial borrowers, counterparties or underlying collateral could adversely affect our financial condition and results of operations, operations and financial condition.

Our credit portfolios may be impacted by U.S. and global macroeconomic and market conditions, events and disruptions.

We establish an allowance for credit losses, which includes the allowance for loan and lease losses and the reserve for unfunded lending commitments, based on management's best estimate of lifetime expected credit losses (ECL) inherent in our relevant financial assets. The process to determine the allowance for credit losses uses models and assumptions that require us to make difficult and complex judgments that are often interrelated, including forecasting how borrowers or counterparties may perform in changing economic conditions. The ability of our borrowers or counterparties to repay their obligations may be impacted by changes in future economic conditions, which in turn could impact the accuracy of our loss forecasts and allowance estimates. There is also the possibility that we have failed or will fail to accurately identify the appropriate economic indicators or accurately estimate their impacts to our borrowers or counterparties, which could impact the accuracy of our loss forecasts and allowance estimates.

If the models, estimates and assumptions we use to establish reserves or the judgments we make in extending credit to our borrowers or counterparties, which are more sensitive

11 Bank of America

due to the current uncertain macroeconomic and geopolitical environment, prove inaccurate in predicting future events, we may suffer losses in excess of our ECL. In addition, changes to external factors can negatively impact our recognition of credit losses in our portfolios and allowance for credit losses.

The allowance for credit losses is our best estimate of ECL; however, there is no guarantee that it will be sufficient to address credit losses, particularly if the economic outlook deteriorates significantly, and quickly, or unexpectedly. As circumstances change, we may increase our allowance, which would reduce our earnings. If economic conditions worsen, impacting our consumer and commercial borrowers, counterparties or underlying collateral, and credit losses are worse than expected, we may increase our provision for credit losses, which could adversely affect our results of operations and financial condition.

Our concentrations of credit risk could adversely affect our credit losses, results of operations and financial condition.

We may be subject to concentrations of credit risk because of a common characteristic or common sensitivity to economic, financial, public health or business developments. Concentrations of credit risk may reside in a particular industry, geography, product, asset class, counterparty or within any pool of exposures with a common risk characteristic. A deterioration in the financial condition or prospects of a particular industry, geographic location, product or asset class, or a failure or downgrade of, or default by, any particular entity or group of entities could negatively affect our businesses, and it is possible our limits and credit monitoring exposure controls will not function as anticipated.

We execute a high volume of transactions and have significant credit concentrations with respect to the financial services industry, predominantly comprised of broker-dealers, commercial banks, investment banks, insurance companies, mutual funds, hedge funds, CCPs and other institutional clients. Financial services institutions and other counterparties are inter-related because of trading, funding, clearing or other relationships. Defaults by one or more counterparties, or market uncertainty about the financial stability of one or more financial services institutions, or the financial services industry generally, could lead to market-wide liquidity disruptions, losses, defaults and related disputes and litigation.

Our credit risk may also be heightened by market risk when the collateral held by us cannot be liquidated or is liquidated at prices not sufficient to recover the full amount of the loan or commercial real estate or our customers' ability and/or willingness to pay fees, outstanding loans or afford new products. This could also cause insurability risk and/or increased insurance costs to customers.

Economic weaknesses, sustained elevated inflation, adverse business conditions, market disruptions, adverse economic or market events, rising interest or capitalization rates, declining asset prices, greater volatility in areas where we have concentrated credit risk or deterioration in real estate values or household incomes may cause us to experience a decrease in cash flow and higher credit losses in our portfolios or cause us to write down the value of certain assets. We could also experience continued and long-term negative impacts to our commercial credit exposure and an increase in credit losses within those industries that may be permanently impacted by a change in consumer preferences resulting from COVID-19 (e.g., commercial real estate exposure) or other industry disruptions.

We also enter into transactions with sovereign nations, U.S. states and municipalities. Unfavorable economic or political conditions, (such as those arising from the Russia/Ukraine conflict), disruptions to capital markets, currency fluctuations, changes in oil prices, social instability and changes in government or monetary policies could adversely impact the operating budgets or credit ratings of these government entities and expose us to credit and liquidity risk.

Liquidity disruptions in the financial markets may result in our inability to sell, syndicate or realize the value of our positions, increasing concentrations, which could increase RWA and the credit and market risk associated with our positions.

We may be adversely affected by weaknesses in the U.S. housing market.

During 2023, the U.S. home prices declined and housing demand slowed in the second half of 2022, including in certain markets where we have large concentrations of loans, driven in part market continued to be impacted by higher mortgage rates, including 30-year fixed-rate mortgages that more than doubled from 2021. This has negatively impacted the demand in some cases and underlying collateral for many of our products. Additionally, our mortgage loan production volume is generally influenced by the rate of growth in residential mortgage debt outstanding and the size of the residential mortgage market, both of which have slowed due to rising higher interest rates and reduced affordability. A deeper downturn in the condition of the U.S. housing market could result in both significant write-downs of asset values in several asset classes, notably mortgage-backed securities (MBS). If the U.S. housing market were to further weaken, the value of real estate could decline, which could result in increased credit losses and delinquent servicing expenses, negatively affect our

derivatives exposure due to us, which may occur as a result of events that impact the value of the collateral, such as a sudden change in asset price correction or fraud. Disputes with obligors as to the valuation of collateral could increase in times of significant market stress, volatility or illiquidity, and we could suffer losses during such periods if we are unable to realize the fair value of the collateral or manage declines in the value of collateral.

We have concentrations of credit risk, including with respect to our consumer real estate and consumer credit card and exposure, as well as our commercial real estate and asset managers and funds portfolios, which represent a significant percentage of our overall credit portfolio. Declining home price valuations and demand where we have large concentrations could result in increased servicing advances and expenses, defaults, delinquencies or credit losses. The impacts of earthquakes, as well as climate change, such as rising average global temperatures and sea levels, and the increasing frequency and severity of extreme weather events and natural disasters, including droughts, floods, wildfires and hurricanes, could negatively impact collateral, the valuations of home or

representations and warranties exposures, and adversely affect our financial condition and results of operations. operations and financial condition. Our derivatives businesses may expose us to unexpected risks, which may result in losses and potential losses. adversely affect liquidity.

We are party to a large number of derivatives transactions that may expose us to unexpected market, credit and operational risks that could cause us to suffer unexpected losses. Severe declines Fluctuations in asset values or rates or an unanticipated credit event, including unforeseen circumstances that may cause previously uncorrelated factors to become correlated, and vice versa, may create lead to losses resulting from risks not appropriately taken into account or anticipated in the development, structuring or pricing of a derivative instrument. Certain OTC derivative contracts and other trading agreements provide that upon the occurrence of certain specified events, such as a change to our or our affiliates' credit ratings, we may be required to provide additional collateral or take other

remedial actions, and we could experience increased difficulty obtaining funding or hedging risks. In some cases our counterparties may have the right to terminate or otherwise diminish our rights under these contracts or agreements, agreements upon the occurrence of such events.

We are also a member of various CCPs, which potentially increases our results in credit risk exposures exposure to those CCPs. In the event that one or more members of a CCP default on their obligations, we may be required to pay a portion of any losses incurred by the CCP as a result of that default. A CCP may also, at its discretion, modify the margin we are required to post, which could mean unexpected and increased funding costs and exposure to that CCP. As a clearing member, we are exposed to the risk of non-performance by our clients for which we clear transactions, which may not be covered by available collateral. Additionally, default by a significant market participant may result in further risk and potential losses.

Geopolitical

We are subject to numerous political, economic, market, reputational, operational, compliance, legal, regulatory and other risks in the jurisdictions in which we operate.

We do business throughout the world, including in emerging markets. Economic or geopolitical stress in one or more countries could have a negative impact regionally or globally, resulting in, among other things, market volatility, reduced market value and economic output. Our liquidity and credit risk could be adversely impacted by, and our businesses and revenues derived from non-U.S. jurisdictions are subject to, risk of loss from financial, social or judicial instability, economic sanctions, changes in government leadership, including as a result of electoral outcomes or otherwise, changes in governmental policies or policies of central banks, expropriation, nationalization and/or confiscation of assets, price controls, high inflation, natural disasters, the emergence or continuation of widespread health emergencies or pandemics, capital controls, currency re-denomination risk from a country exiting the EU or otherwise, currency fluctuations, foreign exchange controls or movements (caused by devaluation or de-pegging), unfavorable political and diplomatic developments, oil price fluctuations and changes in legislation. These risks are especially elevated in emerging markets.

Continued tensions between the U.S. and important trading partners, particularly China, may result in sanctions, further tariff increases or other restrictive actions on cross-border trade, investment and transfer of information technology, that weigh on which could reduce trade volumes, raise result in further supply chain disruptions, increase costs for producers, and adversely affect our

liquid and more volatile than U.S. trading markets. Risks in one nation can limit our opportunities for portfolio growth and negatively affect our operations in other nations, including our U.S. operations. Market and economic disruptions may affect consumer confidence levels and spending, corporate investment and job creation, bankruptcy rates, levels of incurrence and default on consumer and corporate debt, economic growth rates and asset values, among other factors.

Elevated government debt levels raise the risk of volatility, significant valuation changes, political tensions among EU members regarding fiscal policy or defaults on or devaluation of sovereign debt, which could expose us to substantial losses. Financial markets have been and may continue to be sensitive to government plans to lower taxes or increase spending.

Our non-U.S. businesses are also subject to extensive regulation by governments, securities exchanges and regulators, central banks and other regulatory bodies. In many countries, the laws and regulations applicable to the financial services and securities industries are less predictable, prone to change and uncertainty, and evolving, regularly evolving. Significant resources are spent on determining, understanding and it may be difficult to determine the requirements of local monitoring foreign laws, in every market or manage rules and regulations, as well as managing our relationships with multiple regulators in various jurisdictions. Significant resources are spent on understanding and monitoring foreign laws, rules and regulations. Our inability to remain in compliance with local laws and manage our relationships with regulators could result in increased expenses, changes to our organizational structure and adversely affect our businesses, reputation and results of operations in that market.

We are also subject to complex and extensive U.S. and non-U.S. laws, rules and regulations, which subject us to costs and risks relating to bribery and corruption, know-your-customer requirements, anti-money laundering, embargo programs and economic sanctions, which can vary by jurisdiction and require implementation of complex operational capabilities and compliance programs. Non-compliance, including improper implementation, and/or violations could result in an increase in operational and compliance costs, and enforcement actions and civil and criminal penalties against us and individual employees. The increasing speed and novel ways in which funds circulate could make it more challenging to track the movement of funds and heighten financial crimes risk. Compliance with these evolving regulatory regimes and legal requirements depends on our ability to improve our processes, controls, surveillance, detection and reporting and analytic capabilities.

In connection with the U.K.'s exit from the EU, we are now subject to different laws and regulations, which are expected to diverge further over time, and are subject to the oversight of additional regulatory authorities. As political and regulatory environments evolve, further changes to the legal and regulatory framework under which our subsidiaries provide products and services in the U.K. and in the EU may result in additional compliance costs and have negative tax consequences or an adverse impact on our results of operations.

In the U.S., the government's debt ceiling and budget deficit concerns have increased the possibility of U.S. government defaults on its debt and/or further downgrades to its credit ratings, and prolonged government shutdowns, which could

businesses and revenues, as well as our customers and counterparties, including their credit quality.

Slowing growth, recessionary conditions, market volatility adverse geopolitical conditions and/or political or civil unrest, global supply chain disruptions, labor shortages, wage pressures and elevated inflation in many certain countries pose additional challenges, including in the form of volatility in financial markets. Foreign exchange rates against the U.S. dollar remain an area of uncertainty and potential volatility, as the Federal Reserve and other central banks raise interest rates, and depreciation could increase our financial risks with clients that deal in non-U.S. currencies but have U.S. dollar-denominated debt.

We invest or trade in the securities of corporations and governments located in non-U.S. jurisdictions, including emerging markets. Revenues from the trading of non-U.S. securities may be subject to negative fluctuations as a result of the above factors. Furthermore, the impact of these fluctuations could be magnified because non-U.S. trading markets, particularly in emerging markets, are generally smaller, less

weaken the U.S. dollar, cause market volatility, negatively impact the global economy and banking system and adversely affect our financial condition, including our liquidity. Additionally, changes in fiscal, monetary, regulatory and/or regulatory foreign policy, including as a result of the election cycle, labor shortages, wage pressures, supply chain disruptions and higher inflation, could increase our compliance costs and adversely affect our business operations, organizational structure and results of operations. Monetary Emerging market currency values and monetary policy has contributed to a significant depreciation of many foreign currencies over the past

year. Emerging markets settings are particularly vulnerable sensitive to tighter such changes in U.S. monetary policy. Additionally, further restrictive U.S. monetary policy, and many have responded by tightening monetary policy and intervening potentially including further rate increases, could result in foreign exchange markets. Further monetary tightening by the Federal Reserve risks creating additional currency volatility and recessionary conditions in a number of non-U.S. markets.

We are also subject to geopolitical risks, including economic sanctions, acts or threats of international or domestic terrorism, including responses by the U.S. or other governments thereto, increased risk of state-sponsored cyberattacks or campaigns, civil unrest and/or military conflicts, including the escalation of tensions between China and Taiwan, which could adversely affect business, market trade and general economic conditions abroad and in the U.S. The Russia/Ukraine conflict has and the conflict in the Middle East have magnified such risks and resulted in regional instability and adversely impacted commodity and other financial markets, as well as economic conditions, especially in Europe where there is significant risk of recession in some countries. The disruption of energy supplies and other goods and sanctions have contributed to inflationary pressures in Europe and other regions, which has resulted in greater monetary tightening by policymakers, and could adversely impact the profitability of businesses and our credit risk. Military escalation Europe. Widening regional conflicts resulting in the involvement of neighboring countries and/or North Atlantic Treaty Organization member countries or new sanctions could result in additional economic disruptions, financial market volatility, higher inflation and changes to asset valuations, which could disrupt our operations and adversely affect our results of operations.

Business Operations

A failure in or breach of our operational operations or security information systems, or infrastructure, or those of third parties or the financial services industry, could cause disruptions, adversely impact our businesses, results of operations and financial condition, and cause legal or reputational harm.

Operational risk exposure exists throughout our organization and as a result of our extensive interactions with, and reliance on, third parties and the financial services industry, infrastructure, including the processing and reporting of a large number of transactions in many currencies and jurisdictions. Our operational operations and security information systems, which comprise the hardware, software, infrastructure, including our computer backup systems emerging technologies, data management and internal processes and controls, as well as those other technology which we own or use to collect, process, maintain, use, share, disseminate or dispose of third parties, information, are integral to the performance of our performance, businesses.

Our financial, accounting, data processing operations and transmission, storage, backup and other operating or security information systems and infrastructure, or components thereof, and those of our third parties, may have been, and in the future could be, ineffective or fail to operate properly or become disabled or damaged as a result of a number of factors, including events that are wholly or partially beyond our or such third party's control, which control. Such events have adversely affected, and in the future could adversely affect, physical site access of our operations, our ability to process transactions, provide services and perform other operations. Short-term or provide services. Prolonged prolonged disruptions to our critical business operations and customer services are possible due to computer, telecommunications, network, utility, electronic or physical infrastructure outages, including from abuse or failure of our electronic trading and algorithmic platforms, significant unplanned increases in customer transactions, fraudulent transactions, newly identified vulnerabilities in key hardware and software, failure of aging

political or social matters, including civil unrest, terrorist acts and military conflict.

We continue to have greater reliance on our and our third parties' remote access tools and technology, and employees' personal systems (and our third parties' employees' personal systems) and increased data utilization and are increasingly dependent dependence upon our information technology infrastructure systems to operate our businesses remotely, due to the increased number including as a result of employees who work from home and evolving customer preferences, including which has led to increased reliance on digital banking and other digital services provided by our businesses. Effective management of our business continuity increasingly depends on the security, reliability and adequacy of such systems.

We also rely on our employees, representatives and third parties in our day-to-day operations, who may, due to illness, unavailability, the emergence or continuation of health emergencies or pandemics, human error, misconduct (including errors in judgment, malice, fraudulent fraud or illegal activity), malfeasance or a failure or breach of information systems, or infrastructure cause disruptions to our organization and expose us to operational losses, regulatory risk and reputational harm. Our and our third parties' inability to properly introduce, deploy and manage operational changes, including with regard to internal financial and governance processes, existing products, services and technology, and new product innovations and technology, could also result in additional operational and regulatory risk.

Regardless of the measures we have taken to implement training, procedures, backup systems and other safeguards to support our operations and bolster our operational resilience, our ability to conduct business may be adversely affected by significant disruptions to us or to third parties with whom we interact or upon whom we rely, including localized or systemic cyber events that result in system information systems outages and unavailability of part or all of the internet, cloud services and/or the financial services industry infrastructure (including electronic trading and algorithmic platforms and critical banking activities). Our ability to implement backup systems and other safeguards with respect to third-party systems and the financial services industry infrastructure is more limited than with respect to our own systems. Weakness in our

infrastructure or manual processes, retired or redundant software and/or hardware, technology project implementation challenges and supply chain disruptions. Operational disruptions and prolonged operational outages could also result from events arising from natural disasters, including acute and chronic weather events, such as wildfires, tornadoes, hurricanes and floods, some of which are happening with more frequency and severity, and earthquakes, as well as local or larger scale

third parties' processes or controls could impact our ability to deliver products or services to our clients and expose us to compliance and operational risks.

There can be no assurance that our business continuity and information security response plans will effectively mitigate our operational risks. Any backup systems or manual processes may not process data accurately and/or as quickly or effectively as our primary systems, and some data might not have been backed up. Additionally, the speed in which we are able to remediate any failure or disruption of our operations and/or information systems may vary across jurisdictions. We regularly update the information systems we rely on to support our operations and growth and as part of our efforts to remain compliant comply with all applicable laws, rules and regulations globally. This updating entails significant costs and creates risks associated with implementing new or modified information systems and integrating them with existing ones, information systems, including business interruptions.

A failure or breach of our operational or security our third parties' operations or information systems or infrastructure resulting in disruption to our critical business operations and customer services and/or failure to identify, effectively respond to operational risks in a timely manner, and continue to deliver our services through an operational disruption could expose us to a number of risks, including market abuse, regulatory, market, privacy and liquidity risk, and adversely impact our results of operations and financial condition, and cause legal or reputational harm.

A cyberattack, information or security breach, or a technology failure of ours or of a third party could adversely affect our ability to conduct our business, result in the misuse or disclosure of information, result in additional costs, damage to our reputation, increase our regulatory and legal risks and cause financial losses.

Our business is highly dependent on the security, controls and efficacy of our infrastructure, computer and data management systems, and those of our customers, suppliers, counterparties and other third parties, the financial services

business operations and customer services, a failure to identify or effectively respond to operational risks in a timely manner and/or a failure to continue to deliver our services through an operational disruption could impact the confidentiality, integrity or availability of data and expose us to a number of risks, including market abuse, customer attrition, regulatory, market, privacy and liquidity risk, adversely impact our results of operations and financial condition and cause legal, regulatory or reputational harm.

The Corporation and third parties with whom we interact and/or on whom we rely, are subject to cybersecurity incidents, information and security breaches, and technology failures that have and in the future could adversely affect our ability to conduct our businesses, result in the misuse, destruction or disclosure of information, damage our reputation, increase our regulatory and legal risks, result in additional costs or financial losses and/or otherwise adversely impact our businesses and results of operations.

Our business is highly dependent on the security, controls and efficacy of our information systems, and the information systems of our customers, third parties, the financial services industry and financial data aggregators with whom we interact, on whom we rely or who have access to our customers' personal or account information. We rely on effective access management and the secure collection, processing, transmission, storage maintenance, use, sharing, dissemination and retrieval disposition of confidential, proprietary, personally identifiable and other information in our and our third parties' computer and data management systems and networks.

information systems. Our cybersecurity risk and exposure remains heightened because of, among other things, our prominent size and scale, high-profile brand, geographic footprint and international presence and role in the financial services industry and the broader economy. The proliferation of third-party financial data aggregators and emerging technologies, including our and our third parties' use of automation, artificial intelligence (AI) and robotics, increase increases our cybersecurity risks and exposure.

We, our employees, customers, regulators and third parties are regularly the target ongoing targets of an increasing number of cyber cybersecurity threats and attacks. Cyber threats cyberattacks. The tactics, techniques and techniques procedures used in cyberattacks are pervasive, sophisticated and difficult designed to prevent, evade security measures, including computer viruses, malicious or destructive code (such as ransomware), social engineering (including phishing, vishing and smishing), denial of service or information or other security breach tactics that have and in the future could result in disruptions to our businesses and operations and the loss of our funds, including from attempts to defraud us and/or our clients' customers, and impact the unauthorized disclosure, release, gathering, monitoring, misuse, loss confidentiality, integrity or destruction or theft availability of confidential, proprietary and other our information, including intellectual property, or that of ours, our employees, our customers or of and third parties. Cyberattacks may be are carried out on a worldwide scale and by a growing number of cyber actors, including organized crime groups, hackers, terrorist organizations, extremist parties, hostile foreign governments, state-sponsored actors, activists, disgruntled employees and other third parties, persons or entities, including those involved in corporate espionage.

Cyber Cybersecurity threats and the tactics, techniques and procedures used in cyberattacks change, develop and evolve rapidly, including from emerging technologies, such as advanced forms of AI, machine learning and quantum computing. Despite substantial efforts to protect the integrity and resilience of our information systems and implement controls, processes, policies, employee training and other protective measures, we may are not be able to anticipate and/or detect cyberattacks or information or security breaches all cybersecurity threats and incidents and/or develop or implement effective preventive or defensive measures designed to address prevent, respond to or mitigate such attacks or breaches, all cybersecurity threats and incidents. Internal access

third parties with whom we do business, and the financial services industry, upon whom we rely to facilitate or enable our business activities or upon whom our customers rely. Other indirect risks relate to rely, including the secure collection, processing, maintenance, use, sharing, dissemination and disposition of customer and other sensitive information, providers of products and/or services, financial counterparties, financial data aggregators, financial intermediaries, such as clearing agents, exchanges and clearing houses, regulators, providers of critical outsourced infrastructure, such as internet access, cloud service providers and electrical power, and retailers for whom we process transactions. Such third-party information systems extend beyond our security and control systems, and such third parties have varying levels of security and cybersecurity resources, expertise, safeguards, controls and capabilities. Threat actors may actively seek to exploit security and cybersecurity weaknesses at our third parties and the relationships of our third parties with us may increase the risk that they are targeted by the same threats we face, and such third parties may be less prepared for such threats. We are also at additional risk resulting from critical third-party information security and open-source software vulnerabilities.

We have exposure to cyber threats due to must rely on our continuous transmission of sensitive information to, and storage of such information by, third parties including providers of products and/or services, to adequately detect and regulators, the outsourcing of some of our business operations, promptly report cybersecurity incidents, and system and customer account updates and conversions. Further, any such event may not be disclosed their failure to us in a timely manner. Any failure, cyberattack or other information or security breach that significantly degrades, deletes or compromises our systems or data do so could adversely impact third parties, counterparties and the critical infrastructure of the financial services industry, affect our ability to report or respond to cybersecurity incidents effectively or timely.

Due to increasing consolidation, interdependence and complexity of financial entities and

management failures could result in impact the compromise confidentiality, integrity or unauthorized exposure availability of confidential data. Additionally, the failure of our employees to exercise sound judgment and vigilance when targeted with social engineering or other cyberattacks may increase increases our vulnerability.

Our risk from and exposure to cyberattacks cybersecurity threats and incidents, information and security breaches continue and technology failures continues to increase due to the acceptance and use of digital banking and other digital products and services, including mobile banking products, and reliance on remote access tools and technology, which have increased our reliance on virtual/ virtual or digital interactions and a larger number of access points to our networks information systems that must be secured. This increased risk of unauthorized access to our networks secured, and results in greater amounts of information being available for access. Employees working remotely away from the office (whether on personal or our devices) also represent inherently greater risk than employees working in our offices. Greater demand on our information technology infrastructure systems and security tools and processes will likely continue.

We also face indirect significant third-party technology, cybersecurity and operational risks relating to the large number of customers clients and other

technology and information systems, a technology failure, cyberattack cybersecurity threat or other incident, information or security vulnerability, breach or technology failure or breach that significantly exposes, degrades, deletes destroys or compromises the information systems or data information of one or more financial entities or third parties could adversely impact us and increase the risk of operational failure and loss, as disparate systems need to be integrated, often on an accelerated basis. Similarly, any cybersecurity threat or incident, information or security breach or technology failure that significantly exposes, degrades, destroys or compromises our information systems or information could adversely impact third parties and the critical infrastructure of the financial services industry, thereby creating additional risk for us.

Cyberattacks Cybersecurity incidents or information or security breaches could persist for an extended period of time before being detected, and take it often takes additional time to determine the scope, extent, amount and type of impact, including information altered, destroyed or otherwise compromised, following which the impact and measures to recover and restore to a business-as-usual state may be difficult to assess. We have spent and expect to continue to expend spend significant additional money and resources to modify or and enhance

15 Bank of America

our protective measures, investigate and remediate any information security, software or and network vulnerabilities, or and defend against, detect and respond to cybersecurity threats and incidents whether specific to us, a third party, the industry or businesses in general, and develop enhance our capabilities to respond and recover.

While we and our third parties have experienced cyberattacks cybersecurity incidents, information and security breaches and expect to continue to, technology failures, as well as adverse impacts from such events, including as described in this risk factor, we have not experienced any material losses or other material consequences relating to technology failure, cyberattacks or other cybersecurity incidents, information or security breaches or technology failures, whether directed at us or our third parties. There However, we expect to continue to experience such events and impacts with increased frequency and severity due to the evolving threat environment, and there can be no assurance that future cybersecurity incidents, information and security breaches and technology failures, including as a result of cybersecurity incidents, information and security breaches and technology failures experienced by our controls and procedures in place to monitor and mitigate the risks of cyber threats, including the remediation of critical information security and software vulnerabilities, will be sufficient and/or timely and that we third parties, will not suffer have a material losses adverse impact on us, including our businesses, results of operations and financial condition.

Any future cybersecurity incident, information or consequences in the future. Successful penetration security breach or circumvention of system security technology failure suffered by us or our third parties could result in negative consequences, disruption to our day-to-day business activities, an inability to effect transactions, execute trades, service our customers, manage our exposure to risk, expand our businesses, detect and prevent fraudulent or unauthorized transactions, including transactions impacting our customers, maintain information systems access and business operations and customer services, in the U.S. and/or globally. Additionally, we could experience the loss of customers and business opportunities, the withdrawal of customer deposits, the misappropriation, alteration or destruction of our or our third parties' intellectual property proprietary information or confidential information, and the unauthorized access to or the confidential, proprietary temporary or permanent loss or theft of personally identifiable information, including of certain parties, such as our employees customers, providers of products and services, counterparties and other third parties, or damage to their computers or systems. Any future technology failure, cyberattack or breach could adversely affect our ability to conduct day-to-day business activities, effect transactions, service our clients, manage our exposure to risk or expand our

15 Bank of America

businesses, result in fraudulent or unauthorized transactions or cause prolonged computer and network outages resulting in material disruptions to our or our customers' or other third parties' network access or critical business operations and customer services, in the U.S. and/or globally.

Any cyberattack or breach, whether directed at us or third parties, may result in customers, significant lost revenue, give rise to losses and claims brought by third parties, violations of applicable privacy, cybersecurity and other laws, rules and regulations, litigation exposure, regulatory economic sanctions, enforcement actions, government fines, penalties or intervention and other negative consequences. The actual or perceived success of a cyberattack on our systems may damage our reputation with customers and third parties with whom we do business and/or result in the loss of confidence in our security measures. Additionally, our failure to disclose or communicate cyber incidents appropriately to relevant parties could result in regulatory, privacy, operational and reputational risk. Although we maintain cyber insurance, there can be no assurance that liabilities or losses we may incur will be covered under such policies or that the amount of insurance will be adequate. Cyberattacks In addition, in the case of any cybersecurity incident, information or other security breach or technology failure arising from third-party systems impacting us, any third-party indemnification may not be applicable or sufficient to address the impact of such cybersecurity incidents, information or security breaches could also result in a violation or technology failures, including monetary losses of applicable privacy and other laws, reimbursement or other compensatory costs, additional compliance costs, and our internal controls or disclosure controls being rendered ineffective, the Corporation. The occurrence of any of these the events described above could adversely impact our businesses, results of operations, liquidity and financial condition, condition, as well as cause reputational harm, whether such events are actual or perceived.

Failure to satisfy our obligations as servicer for residential mortgage securitizations, loans owned by other entities and other related losses could adversely impact our reputation, servicing costs or results of operations.

We and our legacy companies service mortgage loans on behalf of third-party securitization vehicles and other investors. If we commit a material breach of our obligations as servicer or master servicer, we may be subject to termination if the breach is not cured within a specified period of time following notice, which could cause us to lose servicing income. We may also have liability for any failure by us, as a servicer or master servicer, for

governs the conservatorship of FHLMC and FNMA and delineated the continued objective to remove the GSEs from conservatorship. However, we cannot predict the future prospects of the GSEs, timing of the recapitalization or release from conservatorship, or content of legislative or rulemaking proposals regarding the future status of the GSEs in the housing market. If the GSEs take a reduced role in the marketplace, including by limiting the mortgage products they offer, we could be required to seek alternative funding sources, retain additional loans on our balance sheet, secure funding through the Federal Home Loan Bank system, or securitize the loans through Private Label Securitization, which could increase our cost of funds related to the origination of new mortgage loans, increase credit risk and/or impact our capacity to originate new mortgage loans. Uncertainty regarding their future and the MBS they guarantee continues to exist for the foreseeable future. These developments could adversely affect our securities portfolios, capital levels, liquidity and results of operations.

Our risk management framework may not be effective in mitigating risk and reducing the potential for losses.

Our risk management framework is designed to minimize risk and loss to us. We seek to effectively and consistently identify, measure, monitor, report and control the key types of risk to which we are subject, including strategic, credit, market, liquidity, compliance, operational and reputational risks. Additionally, risks Risks also may span across multiple key risk types, including cybersecurity risk, climate risk and legal risk. While we employ a broad and diversified set of controls and risk mitigation techniques, including modeling and forecasting, hedging strategies and techniques that seek to balance our ability to profit from trading positions with our exposure to potential losses, our ability to control and mitigate risks that result in losses is inherently limited by our ability to identify and measure all risks, including emerging and unknown risks, anticipate the timing and impact of risks, apply effective hedging strategies, make correct assumptions, manage and aggregate data correctly and efficiently, identify changes in markets or client behaviors not yet inherent in historical data and develop risk management models and forecasts to assess and control risk.

any act or omission on our part that involves willful misfeasance, bad faith, gross negligence or reckless disregard of our duties. If any such breach was found to have occurred, it may harm our reputation, increase our servicing costs or losses due to potential indemnification obligations, result in litigation or regulatory action or adversely impact our results of operations. Additionally, foreclosures may result in costs, litigation or losses due to irregularities in the underlying documentation, or if the validity of a foreclosure action is challenged by a borrower or overturned by a court because of errors or deficiencies in the foreclosure process. We may also incur costs or losses relating to delays or alleged deficiencies in processing documents necessary to comply with state law governing foreclosure.

Changes in the structure of and relationship among the GSEs could adversely impact our business.

We rely on the GSEs to guarantee or purchase mortgage loans that meet their conforming loan requirements. During 2022, 2023, we sold approximately \$4.1 billion \$3.1 billion of loans to GSEs, primarily Freddie Mac (FHLMC). FHLMC and Fannie Mae (FNMA) are currently in conservatorship, with the Federal Housing Finance Agency (FHFA) acting as conservator. In 2019, the Treasury Department published a proposal to recapitalize FHLMC and FNMA and remove them from conservatorship and reduce their role in the marketplace. In January 2021, the Treasury Department further amended the agreement that

Our ability to manage risk is dependent on our ability to consistently execute all elements of our risk management program, and develop and maintain a culture of managing risk well throughout the Corporation and manage risks associated with third parties, including providers of products and/or services, enable to allow for effective risk management and help confirm that risks are appropriately considered, evaluated and responded to in a timely manner. Uncertain economic and geopolitical conditions, health emergencies and pandemics, heightened legislative and regulatory scrutiny of and change within the financial services industry, the pace of technological changes, accounting, tax and market developments, the failure of employees, representatives and third parties to comply with our policies and Risk Framework and the overall complexity of our operations, among other developments, have in the past and may in the future result in a heightened level of risk. For example, we have experienced increased risk, including operational, reputational and compliance risk as a result of the prior need to rapidly deploy and implement multiple and varying pandemic relief programs, including the processing of unemployment benefits for California and certain other states, which have resulted in and will continue to result in losses. risk. Our failure to manage evolving risks or properly anticipate, manage, control or mitigate risks could result in additional losses. losses and adversely affect our results of operations.

Bank of America 16

Regulatory, Compliance and Legal

We are highly regulated and subject to evolving government legislation and regulations and certain settlements, orders and agreements with government authorities from time to time.

We Our businesses are highly regulated and we are subject to evolving and comprehensive regulation under federal and state laws in the U.S. and the laws of the various foreign jurisdictions in which we operate, including increasing and complex regulatory economic sanctions regimes. These laws and regulations significantly affect and have the potential to restrict the scope of our existing businesses, require changes to our business strategies, limit our ability to pursue certain business opportunities, including the products and services we offer, reduce certain fees and rates and/or make our products and services more expensive for our clients. We are also required to file various financial and non-financial nonfinancial regulatory reports to comply with laws, rules and regulations in the jurisdictions in which we operate, operate, which results in additional compliance risk.

We continue to adjust our business and operations, legal entity structure, disclosure and policies, processes, procedures and controls, including with regard to capital and liquidity management, risk management and data management, in an effort to comply with laws, rules and regulations, as well as evolving expectations, guidance and interpretation by regulatory authorities, including the Department of Treasury (including the Internal Revenue Service (IRS)) and OFAC, Federal Reserve, OCC, CFPB, Financial Stability Oversight Council, FDIC, Department of Labor, SEC and CFTC in the U.S., foreign regulators, other government authorities and self-regulatory organizations. Further, we could expect to become subject to future laws, rules and regulations beyond those currently proposed, adopted or contemplated in the U.S. or abroad, including as well as evolving interpretations of existing and future laws, rules and regulations, which may include policies and rulemaking related to FDIC assessments, loss allocations between financial institutions and customers with regard to the use of our products and services, including electronic payments, emerging technologies, such as the development and use of AI and machine learning, cybersecurity and data, and further climate risk management and ESG governance and reporting, including emissions and sustainability disclosure. The cumulative effect of all of the current and possible future legislation and regulations, as well as related interpretations, on our litigation and regulatory exposure, businesses, operations and profitability remains uncertain and necessitates that we make certain assumptions

compliance has been magnified by the collection of employee health and/or other information in response to the pandemic. Additionally, we are and will likely continue to be subject to new and evolving data privacy laws in the U.S. and abroad, which could result in additional costs of compliance, litigation, regulatory fines and enforcement actions. There remains complexity and uncertainty, including potential suspension or prohibition, regarding data transfer because of concerns over compliance with laws, rules and regulations for cross-border flows and transfers of personal data from the European Economic Area (EEA) to the U.S. and other jurisdictions outside of the EEA, resulting from judicial and regulatory guidance. To the extent that a new EU-U.S. Data Privacy Framework leads to a relaxation of applicable legislation and regulations, regardless of transfer mechanism, challenges are expected from consumer advocacy groups. Other jurisdictions, including China Russia and India, have commenced consultation efforts or enacted new legislation or regulations to establish standards for personal data transfers. If cross-border personal data transfers are suspended or restricted or we are required to implement distinct processes for each jurisdiction's standards, this could result in operational disruptions to our businesses, additional costs, increased enforcement activity, new contract negotiations with third parties, and/or modification of such data management.

As part of their enforcement authority, our regulators and other government authorities have the authority to, among other things, conduct investigations and assess significant civil or criminal monetary fines, penalties or restitution, issue cease and desist orders, suspend or withdraw licenses and authorizations, initiate injunctive action, apply regulatory sanctions or cause us to enter into consent orders. The amounts paid by us and other financial institutions to settle proceedings or investigations have, in some instances, been substantial and may increase. In some cases, governmental authorities have required criminal pleas or other extraordinary terms as part of such resolutions, which could have significant consequences, including reputational harm, loss of customers, restrictions on the ability to access capital markets, and the inability to operate certain businesses or offer certain products.

with respect to the scope and requirements of existing, prospective and proposed laws, rules and regulations in our business planning, planning and strategies. If these assumptions prove incorrect, we could be subject to increased regulatory, legal and compliance risks and costs, as well as potential reputational harm. Also, U.S. and regulatory initiatives abroad may overlap, and non-U.S. regulation and initiatives may be inconsistent or may conflict with current or proposed U.S. regulations, which could lead to compliance risks and increased costs.

Our regulators' prudential and supervisory authority gives them broad power and discretion to direct our actions, and they have assumed an active oversight, inspection and investigatory role across the financial services industry. Regulatory focus is not limited to laws, rules and regulations applicable to the financial services industry, but includes other significant laws, rules and regulations that apply across industries and jurisdictions, including those related to anti-money laundering, anti-bribery, anti-corruption know-your-customer requirements, embargo programs and regulatory economic sanctions.

We are also subject to laws, rules and regulations in the U.S. and abroad, including the GDPR and CCPA as modified by the CPRA, and a number of additional jurisdictions enacting or considering similar laws or amendments to existing laws, regarding privacy and the disclosure, collection, use, sharing and safeguarding of personally identifiable information, including our employees, customers, suppliers, counterparties and other third parties, the violation of which could result in litigation, regulatory fines, enforcement actions and operational loss. The complexity and risk of

Our response to regulators and other government authorities may be time-consuming, be expensive and divert management attention from our business. The outcome of any matter, which may last years, may be difficult to predict or estimate.

Additionally, the The terms of settlements, orders and agreements that we have entered into with government entities and regulatory authorities have also imposed, or could impose, significant operational and compliance costs on us with respect to enhancements to our procedures and controls, losses with respect to fraudulent transactions perpetrated against our customers, expansion of our risk and control functions within our lines of business, investment in technology and the hiring of significant numbers of additional risk, control and compliance personnel. If we fail to meet the requirements of the regulatory settlements, orders or agreements to which we are subject, or, more generally, fail to maintain risk and control procedures and processes that meet the heightened standards established by our regulators and other government authorities, we could be required to enter into further settlements, orders or agreements and pay additional fines, penalties or judgments, or accept material regulatory restrictions on our businesses.

Improper actions, behaviors or practices by us, our employees or representatives that are illegal, unethical or contrary to our core values could harm us, our shareholders or customers or damage the integrity of the financial markets, and are subject to regulatory scrutiny across jurisdictions. The complexity of the regulatory and enforcement regimes in the

17 Bank of America

U.S., coupled with the global scope of our operations and the regulatory environment worldwide, also means that a single event or practice or a series of related events or practices may give rise to a significant number of overlapping investigations and regulatory proceedings, either by multiple federal and state agencies in the U.S. or by multiple regulators and other governmental entities in different jurisdictions. Actions by other members of the financial services industry related to business activities in which we participate may result in investigations by regulators or other government authorities.

While we believe that we have adopted appropriate risk management and compliance programs, compliance risks will continue to exist, particularly as we anticipate and adapt to new and evolving laws, rules and regulations, regulations and evolving interpretations. We also rely upon third parties who may expose us to compliance and legal risk. Future legislative or regulatory actions, and any required changes to our business or operations or strategy, or those of third parties upon whom we rely, resulting from such developments and actions could result in a significant loss of revenue, impose additional compliance and other costs or otherwise reduce our profitability, limit the products and services that we offer or our ability to pursue certain business opportunities, require us to dispose of certain businesses or assets, require us to curtail certain businesses, affect the value of assets that we hold, necessitate changes in our compensation practices, require us to increase our prices and therefore reduce demand for our products, or otherwise adversely affect our businesses.

We are subject to significant financial and reputational risks from potential liability arising from lawsuits and regulatory and government action.

We face significant legal risks in our business, with a high volume of claims against us and other financial institutions. The amount of damages, penalties and fines that litigants and regulators seek from us and other financial institutions continues to be significant. This includes disputes with consumers, customers and other counterparties.

use and management of emerging technologies, including AI and machine learning. Related litigation or government enforcement, including with regard to compliance with U.S. and global laws, rules and regulations, could subject us to fines, judgments and/or settlements and involve reputational losses. Additionally, misconduct by our employees and representatives, including unethical, fraudulent, improper or illegal conduct, the failure to fulfill fiduciary obligations, unfair, deceptive, abusive or discriminatory business practices, or violations of policies, procedures, laws, rules or regulations, including conduct that affects compliance with books and records requirements, can have resulted and could result in further litigation and/or government investigations and enforcement actions, and cause significant reputational harm. In particular, we are the subject of litigation and regulatory and government inquiries regarding our processing of electronic payments, our efforts to detect, prevent and address fraud perpetrated against our customers and/or the handling of fraud-related disputes, which could result in fines, judgments, and/or settlements, as well as adversely affect our businesses and strategies due to the treatment of loss allocations between customers and us, all of which could also have an adverse impact on other similar products and services. We are also subject to litigation and regulatory and government actions regarding fraud perpetrated against our customers in connection with the use of our products and services and increased increasing scrutiny of sustainability-related policies, goals, targets and disclosure, which could result in litigation, regulatory investigations and actions and reputational harm.

The global environment of extensive investigations, regulation, regulatory compliance burdens, litigation and

Financial institutions, including us, continue to be the subject of claims alleging anti-competitive conduct with respect to various products and markets, including U.S. antitrust class actions claiming joint and several liability for treble damages. As disclosed in Note 12 – Commitments and Contingencies to the Consolidated Financial Statements, we also face contractual indemnification and loan-repurchase claims arising from alleged breaches of representations and warranties in the sale of residential mortgages by legacy companies, which may result in a requirement that we repurchase the mortgage loans, or make whole or provide other remedies to counterparties.

U.S. regulators and government agencies regularly pursue enforcement claims against financial institutions, including the Corporation us, for alleged violations of law and customer harm, including under the Financial Institutions Reform, Recovery, and Enforcement Act, the federal securities laws, the False Claims Act, fair lending laws and regulations (including the Equal Credit Opportunity Act and the Fair Housing Act), the FCPA, the BSA, regulations issued by OFAC, Home Mortgage Disclosure Act, antitrust laws, and consumer protection laws and regulations related to products and services such as overdraft and sales practices, including prohibitions on unfair, deceptive, and/or abusive acts and practices (UDAAP) under the Consumer Financial Protection Act and the Federal Trade Commission Act, and EFTA, as well as other enforcement action taken by prudential regulators with respect to safety, soundness and appropriateness of our business practices. Such claims may carry significant penalties, restitution and, in certain cases, treble damages, and the ultimate resolution of regulatory inquiries, investigations and other proceedings to which we are subject to from time-to-time is difficult to predict.

There is also an increased focus on compliance with U.S. information security. This includes cybersecurity incidents perpetrated against us, our customers, providers of products and global laws, rules services, counterparties and regulations related to other third parties, the collection, use and sharing of data, and safeguarding of personally identifiable information and corporate data, as well as the development, implementation,

regulatory enforcement, combined with uncertainty related to the continually evolving regulatory environment, have affected and will likely continue to affect operational and compliance costs and risks, including the **adaptation of business strategies and/or** limitation or cessation of our ability or feasibility to continue providing certain products and services. Lawsuits and regulatory actions have resulted in and will likely continue to result in judgments, orders, settlements, penalties and fines adverse to us. Further, we entered into orders with **certain government authorities agencies** regarding **credit card sales and marketing practices and the representment of non-sufficient fund fees, as well as** our participation in implementing government relief measures related to the **COVID-19** pandemic and other federal and state government assistance programs, including the processing of unemployment benefits for California and certain other states, and continue to be involved in related litigation **which that** may result in judgments and/or settlements. Litigation and investigation costs, substantial legal liability or significant regulatory or government action against us could **have material adverse effects on** **adversely affect** our **business, businesses**, financial condition, including liquidity, and results of operations, and/or cause significant reputational harm. **U.S. federal banking agencies may require us to increase our regulatory capital, total loss-absorbing capacity (TLAC), long-term debt or liquidity requirements.**

We are subject to U.S. regulatory capital and liquidity rules. These rules, among other things, establish minimum requirements to qualify as a well-capitalized institution. If any of our subsidiary insured depository institutions fail to maintain their status as well capitalized under the applicable regulatory capital rules, the Federal Reserve will require us to agree to bring the insured depository institution back to well-capitalized status. For the duration of such an agreement, the Federal Reserve may impose restrictions on our activities. If we were to fail to enter into or comply with such an agreement, the Federal Reserve may impose more severe restrictions on our activities, including requiring us to cease and desist activities permitted under the Bank Holding Company Act of 1956.

Capital and liquidity requirements are frequently introduced and amended. **It is possible that regulators Regulators** may increase regulatory capital requirements, including TLAC and long-term debt requirements, change how regulatory capital or RWA is calculated or increase liquidity requirements. **In 2023, U.S. banking regulators issued proposals to revise the calculation of the G-SIB surcharge and TLAC and long-term debt requirements.** Our ability to return capital to our shareholders depends in part on our ability to maintain regulatory capital levels above minimum requirements plus buffers. To the extent that increases occur in our SCB, G-SIB surcharge or countercyclical capital buffer, our returns of capital to shareholders, including common stock dividends and common stock repurchases, could decrease. For example, our G-SIB surcharge **is expected to increaseincreased** by 50 bps to 3.0 percent on January 1, 2024. The Federal Reserve could

Bank of America 18

also limit or prohibit capital actions, such as paying or increasing dividends or repurchasing common stock, as a result of economic disruptions or events.

As part of its annual CCAR, we are subject to extensive regulatory evaluation of capital planning practices by the Federal Reserve, conducts including stress testing on parts of our business using hypothetical economic scenarios prepared by the Federal Reserve. Those scenarios may affect our CCAR stress test results, which may impact the level of our SCB level, requiring us to hold additional capital. For example, based on CCAR 2022 stress test results, our SCB increased 90 bps to 3.4 percent on October 1, 2022, capital or causing changes in required capital buffers.

A significant component of regulatory capital ratios is calculating our RWA and our leverage exposure, which may increase. The Basel Committee on Banking Supervision has also revised exposure. In July 2023, U.S. banking regulators issued a notice of proposed rulemaking to revise several key methodologies for measuring RWA, that have not yet been implemented in the U.S.,

including a standardized approach for operational risk, revised market risk and credit risk requirements and constraints on removal of the use of certain internal models, which would increase our regulatory capital requirements, if adopted as well as a capital floor based on the revised standardized approaches. It is expected in 2023 that U.S. banking regulators will propose updates to the U.S. capital framework to incorporate the Basel Committee revisions, proposed. Economic disruptions or events may also cause an increase in our balance sheet, RWA or leverage exposures, increasing required regulatory capital and liquidity amounts.

Changes to and compliance with the regulatory capital and liquidity requirements may impact our operations by requiring us to liquidate assets, increase borrowings, issue additional equity or other securities, reduce the amount of common stock repurchases or dividends, cease or alter certain operations, pricing strategies and business activities or hold highly liquid assets, which may adversely affect our results of operations.

Changes in accounting standards or assumptions in applying accounting policies could adversely affect us.

Accounting policies and methods are fundamental to how we record and report our financial condition and results of operations. Some of these policies require the use of estimates and assumptions that may affect the reported value of our assets or liabilities and results of operations and are critical because they require management to make difficult, subjective and complex judgments about matters that are inherently uncertain. If assumptions, estimates or judgments were are erroneously applied, we could be required to correct and restate prior-period financial statements. Accounting standard-setters and those who interpret the accounting standards, including the SEC, banking regulators and our independent registered public accounting firm may also amend or even reverse their previous interpretations or positions on how various standards should be applied. These changes may be difficult to predict and could impact the preparation and reporting of our financial statements, including the application of new or revised standards retrospectively, resulting in revisions to prior-period financial statements.

We may be adversely affected by changes in U.S. and non-U.S. tax laws and regulations.

It is possible that governmental Governmental authorities in the U.S. and/or other countries could further change tax laws in a way that would materially adversely affect us, including changes to the Tax Cuts and Jobs Act of 2017 and Inflation Reduction Act of 2022. New Also, new guidelines issued by the Organization for Economic Cooperation and Development could adversely impact how the (OECD), which are currently being enacted into law in some OECD countries in which we operate, are expected to impose a 15 percent global profits minimum tax on a country-by-country basis. Any implementation of multinational enterprises are taxed. Any and/or change in tax laws and regulations or interpretations of current or future tax laws and regulations could materially adversely affect our effective tax rate, tax liabilities and results of operations. U.S. and foreign tax laws are complex and our judgments,

interpretations or applications of such tax laws could differ from that of the relevant governmental authority. This could result in additional tax liabilities and interest, penalties, the reduction of certain tax benefits and/or the requirement to make adjustments to amounts recorded, which could be material.

Additionally, we have U.K. net deferred tax assets (DTA) which consist primarily of net operating losses that are expected to be realized by certain subsidiaries over an extended number of years. Adverse developments with respect to tax laws or to other material factors, such as prolonged worsening of Europe's capital markets or changes in the ability of our U.K. subsidiaries to conduct business in the EU, could lead our management to reassess and/or change its current conclusion that no valuation allowance is necessary with respect to our U.K. net DTA.

Reputation

Damage to our reputation could harm our businesses, including our competitive position and business prospects.

Our ability to attract and retain customers, clients, investors and employees is impacted by our reputation. Harm to our reputation can arise from various sources, including actual or perceived activities of our officers, directors, employees, contractors, other representatives, customers and third parties, clients, including counterparties, and other representatives, such as fraud, misconduct and unethical behavior (such as employees' sales practices), adequacy of our responsiveness ability to detect, prevent and/or respond to fraud claims perpetrated against our customers, and the handling of related disputes with regard to the use of our products and services, including electronic payments, effectiveness of our internal controls, litigation or regulatory matters the fees charged to our customers, including overdraft and their outcomes, non-sufficient fund fees, compensation practices, lending practices, suitability or reasonableness of particular trading or investment strategies, including the reliability of our research and models and prohibiting clients from engaging in certain transactions.

Our reputation may also be harmed by actual or perceived failure to deliver the products and standards of service and quality expected by our customers, clients and the community, including the overstatement or mislabeling of the environmental benefits of our products, services or transactions, the failure to protect our customers and/or recognize and address customer complaints, compliance failures, inability to implement technology changes, the implementation, management and/or manage use of emerging technologies, including quantum computing, AI and machine learning, and technology change, the failure to maintain effective data management, cybersecurity incidents and information and security breaches cyber incidents, affecting us and our third parties, which have occurred and we expect to continue to experience with increased frequency and severity due to the evolving threat environment, prolonged or repeated system outages, the Corporation's privacy policies, the unintended disclosure of or failure to safeguard personal, proprietary or confidential information, the breach of the Corporation's fiduciary obligations and handling of the emergence or continuation of health emergencies and pandemics. Our reputation may also be harmed by litigation and/or pandemics, regulatory matters and their outcomes, relating to the topics discussed above or otherwise. For example, we entered into orders with certain government agencies regarding credit card sales and marketing practices and the representment of non-sufficient fund fees, as well as our processing of unemployment benefits for California and certain other states, and continue to be involved in related litigation, which may result in judgments and/or settlements. Our reputation may also be negatively impacted by Challenges to our ESG practices and disclosures, and those of our customers and third parties, parties, including from diverging views regarding ESG-related practices and disclosures may also harm our reputation.

Actions Increases in market interest rates have resulted in increased focus on asset and liability management, including HTM and AFS securities and related unrealized losses. Perceptions of our liquidity and financial condition, actions by the financial services industry generally, or by certain members or individuals in the industry also can adversely affect may harm our reputation. Also, adverse Adverse publicity or negative information posted on social media by employees, the media or otherwise, whether or not factually correct, may adversely impact our business prospects or financial results, and results of operations.

We are subject to complex and evolving laws, regulations and regulations interpretations regarding fair lending activity, UDAAP, electronic funds transfers, know-your-customer requirements, data protection and privacy, including the GDPR and the CCPA as modified by the CPRA, cross-border data movement,

cybersecurity and other matters, as well as evolving and expansive interpretations of these laws and

regulations. Principles concerning the appropriate scope of consumer and commercial privacy vary considerably in different jurisdictions, and regulatory and public expectations regarding the definition and scope of consumer and commercial privacy may remain fluid. These laws may be interpreted and applied by various jurisdictions in a manner inconsistent with our current or future practices, or with one another. If personal, confidential or proprietary information of customers in our possession, or in the possession of third parties or financial data aggregators, is mishandled, misused or mismanaged, or if we do not timely or adequately address such information, we may face regulatory, legal and operational risks, which could adversely affect our reputation, financial condition and results of operations.

We could suffer reputational harm if we fail to properly identify and manage potential conflicts of interest. Management of potential conflicts of interest has become increasingly complex as we expand our business activities through more numerous transactions, obligations and interests with and among our clients. The actual or perceived failure to adequately address conflicts of interest could affect the willingness of clients to use our products and services, or result in litigation or enforcement actions, which could adversely affect our business.

Our actual or perceived failure to address these and other issues, such as operational risks, gives could give rise to reputational risk that could harm us and our business prospects, prospects, including the attraction and retention of customers and employees. Failure to appropriately address any of these issues could also give rise to additional regulatory restrictions, legal risks and reputational harm, which could, among other consequences, increase the size and number of litigation claims and damages asserted or subject us to enforcement actions, fines and penalties, and cause us to incur related costs and expenses.

Other

The impacts of the pandemic have adversely affected and may in the future adversely affect us.

The COVID-19 pandemic has directly and indirectly negatively impacted the global economy, disrupted global supply chains, adversely affected equity market valuations, created significant volatility and disruption in financial and capital markets, resulted in challenging labor market conditions, and adversely impacted our financial results to varying degrees and in various respects. The future direct and indirect effects of the pandemic on global health and economic conditions and activity remain uncertain, continue to evolve by region, country and state and depend on future developments that cannot be predicted, including impacts from the expiration of the federal COVID-19 Public Health Emergency, surges of COVID-19 cases and the spread of more dangerous variants of COVID-19, the availability, usage and acceptance of effective medical treatments and vaccines, changing client preferences and behavior and future public response and government actions, including travel bans and restrictions, and limitations on business. Such evolving impacts of the pandemic could disrupt the U.S. and global economy, including changes in financial and capital markets, and adversely affect our businesses and operations, liquidity, results of operations and financial condition, including from increased allowance for credit losses and noninterest expenses, which are dependent on the pandemic's duration and severity.

Reforms to and replacement of IBORs and certain other rates or indices benchmarks may adversely affect our reputation, business, financial condition and results of operations.

Though significant progress has been made in the global financial markets to replace products and contracts referencing London Interbank Offered Rate (LIBOR) or other IBORs (IBOR Products), the aggregate notional amount of these IBOR

Products remains material to our business. Risks and challenges associated with reference rate reform, including the transition from IBORs remain and may result in consequences that cannot be fully anticipated, which potential replacement of benchmark rates with ARR (e.g., the expected cessation of BSBY), could expose us to various financial, operational, supervisory, conduct and legal risk.

While there has been significant progress in market and client adoption Usage of ARRs usage of ARRs for impacted benchmarks may vary across or within categories of contracts, products and services, potentially resulting in market fragmentation, decreased trading volumes and liquidity, increased complexity and modeling and operational risks. ARRs may have compositions and characteristics that differ from the replaced benchmarks, they replace, in some cases they have including limited liquidity and may demonstrate less predictable performance over time than the benchmarks they replace. For example, certain ARRs are calculated on a compounded or weighted-average basis and, unlike IBORs, do not reflect bank credit risk and therefore typically require a spread adjustment. There are important differences between the fallbacks, triggers and calculation methodologies being implemented in cash and derivatives markets. Any mismatch between the adoption of ARRs in loans, securities and derivatives markets may impact hedging or other financial arrangements we have implemented, and we may experience resulting in unanticipated market exposures. Changes resulting from transition Transition to successor or alternative rates ARRs may adversely affect the yield on loans or securities held by us, amounts paid on our securities we have issued, amounts and received and paid on derivatives we have entered into, the value of such loans, securities or derivative instruments, the trading market for such products and contracts, and our ability to effectively effective use of hedging instruments to manage risk. There can be is no assurance that existing assets and liabilities based on or linked impacted benchmarks will transition to IBORs that have not already transitioned to ARRs will transition without delay or potential disputes.

Although a significant majority The transition of the aggregate notional amount of our remaining IBOR Products maturing after 2022 include or have been amended to include fallbacks to ARRs, the transitioning of certain IBOR Products any products using impacted benchmarks (Impacted Products) that do not include fallback provisions or adequate fallback mechanisms may require additional efforts to modify their terms. Some outstanding IBOR Products are particularly terms, and may be more challenging to modify due to the requirement that if all

Bank of America 20

impacted parties are required to consent to such modification. To address outstanding IBOR Products that are difficult to modify, legislation has been adopted in the U.S. and in other jurisdictions. Litigation disputes or other action disputes may occur as a result of the interpretation or application of any transition-related legislation or regulations adopted in the U.S. and/or foreign jurisdictions, including if there is an overlap between the laws or regulations in different jurisdictions or from interactions with any FCA-compelled "synthetic" LIBOR settings. overlap.

Some of our IBOR Impacted Products may contain language giving the calculation agent (which may be us) Corporation discretion to determine the successor rate (including the applicable spread adjustment) to the existing benchmark. We may face a risk of litigation, disputes or other actions from clients, customers, counterparties, customers, investors or others based on various claims, for example, that we incorrectly interpreted or enforced IBOR-based contract provisions, failed to appropriately communicate the effect that the transition to effects of ARRs will have on to existing and future products, treated affected parties unfairly or made inappropriate product recommendations to or investments on behalf of its our clients, or engaged in anti-competitive behavior or unlawfully manipulated markets or benchmarks.

ARR-based products that we develop, launch and/or support including products using credit sensitive rates, may perform differently to IBOR from Impacted Products during times of economic stress,

adverse or volatile market conditions and across the credit and economic cycle, which may impact the value, return on and profitability of our ARR-based assets. New financial products linked to ARRs may have additional legal, financial, **accounting**, tax, operational, market, compliance, reputational, competitive or other risks to us, our **clients customers** and other market participants. **Banking Scrutiny by banking** regulators in the U.S. and globally **have maintained heightened regulatory scrutiny and intensified supervisory focus on financial institution LIBOR transition plans, preparations and readiness including our use of credit-sensitive rates like the Bloomberg Short-Term Bank Yield Index and ARR-based term rates, which** could result in regulatory action, litigation and/or the need to change the products offered by our businesses. **Failure to meet industry-wide IBOR transition milestones and to cease issuance of IBOR Products by relevant cessation dates may, subject to certain regulatory exceptions, result in supervisory enforcement by applicable regulators, increase our cost of, and access to, capital or lead to other consequences.**

The ongoing market transition has altered, and additional developments may further alter, some aspects of our risk profile and risk management strategies, including derivatives and hedging strategies, modeling and analytics, valuation tools, product design and systems, controls, procedures and operational infrastructure. Further changes may increase costs and expose us to potential risks related to regulatory compliance, requirements or inquiries. Among other risks, various IBOR Products transition to ARRs at different times or in different manners, with the result that we may face unexpected interest rate, pricing or other exposures across business or product lines, and we may face operational risks related to planned processes at certain CCPs to convert outstanding USD LIBOR-cleared derivatives to ARR positions. Continuing reforms to market transition and other factors may adversely affect our business, including the ability to serve customers and maintain market share, financial condition or results of operations and could result in reputational harm to us.

We face significant and increasing competition in the financial services industry.

We operate in a highly competitive environment and experience intense competition from local and global **bank and nonbank** financial institutions and new entrants in domestic and foreign markets. We compete on the basis of a number of factors, including customer service and convenience, the pricing, quality and range of products and services we offer, lending limits, the **quality and delivery of our technology and our reputation, experience and relationships in relevant markets.** There is increasing pressure to provide products and services on more attractive terms, including lower fees and higher interest rates on deposits, and lower cost investment strategies, which may impact our ability to effectively compete. The **current and changing regulatory environment may also create competitive disadvantages, including from different more stringent regulatory requirements, requirements applicable to the Corporation.**

Emerging technologies and the growth of e-commerce have lowered geographic and monetary barriers of other financial institutions, made it easier for non-depository institutions to offer traditional banking products and services and allowed non-traditional financial service providers and technology companies to compete with traditional financial service companies in providing electronic and internet-based financial solutions and services, including electronic securities trading with low or no fees and commissions, marketplace lending, financial data aggregation and payment processing services, including real-time payment platforms. Further, clients may choose to conduct business with other market participants who engage in business or offer products in areas we deem speculative or risky as an

distribution channels. Our success depends on our and our third-party providers' **of products and services abilities ability to timely** adapt our business strategies, products and services and their respective features, **in a timely manner,** including available payment processing services and technology to rapidly evolving industry standards and consumer preferences. **Our strategies could be further impacted by macroeconomic stress, widespread health emergencies or pandemics, cyberattacks, and military conflicts or other significant geopolitical events.**

The widespread adoption and rapid evolution of emerging technologies, including analytic capabilities, self-service digital trading platforms and automated trading markets, internet services, and digital assets, such as central bank digital currencies, cryptocurrencies (including stablecoins), tokens and other cryptoassets that utilize distributed ledger technology (DLT), as well as **DLT in payment, clearing and settlement processes creates that use DLT, create additional strategic risks,** could negatively impact our ability to compete and require substantial expenditures to the extent we were to modify or adapt our existing products and services. As such new technologies evolve and mature, our businesses and results of operations could be adversely impacted, including as a result of the introduction of new competitors to the payment ecosystem and increased volatility in deposits and/or significant long-term reduction in deposits (i.e., financial disintermediation). Also, we may not be as timely or successful in **accurately assessing the competitive landscape and developing or introducing new products and services, integrating new products or services into our existing offerings, responding, managing or adapting to changes in consumer behavior, preferences, spending, investing and/or saving habits, achieving market acceptance of our products and services, reducing costs in response to pressures to deliver products and services at lower prices or sufficiently developing and maintaining loyal customers. The Corporation's, Our or its our third-party providers', inability or resistance to timely innovate or adapt its operations, products and services to evolving regulatory and market environments,** industry standards and consumer preferences could result in service disruptions and harm our business and adversely affect our results of operations and reputation.

We could suffer operational, reputational and financial harm if our models fail to properly anticipate and manage risk.

We use models extensively to forecast losses, project revenue and expenses, assess and control our operations and financial condition, assist in capital planning, **manage liquidity** and measure, forecast and assess capital and liquidity requirements for credit, market, operational

alternative to traditional banking products. Increased competition may reduce our **market share,** net interest margin and revenues from our fee-based products and services and negatively affect our earnings, including by pressuring us to lower pricing or credit standards, requiring additional investment to improve the quality and delivery of our technology **reducing our market share and/or affecting the willingness of our clients to do business with us.**

Our inability to adapt our business strategies, products and services could harm our business.

We rely on a diversified mix of businesses that deliver a broad range of financial products and services through multiple

and strategic risks. Under our Enterprise Model Risk Policy, Model Risk Management is required to perform model oversight, including independent validation before initial use, ongoing monitoring reviews through outcomes analysis and benchmarking, and periodic revalidation. However, models are subject to inherent limitations from simplifying assumptions, uncertainty regarding economic and financial outcomes, and emerging risks from applications that rely on **AI, AI or machine learning.**

Our models may not be sufficiently predictive of future results due to limited historical patterns, extreme or unanticipated market movements or customer behavior and liquidity, especially during severe market downturns or stress events (e.g., geopolitical or pandemic events), which could limit

21 Bank of America

their effectiveness and require timely recalibration. The models that we use to assess and control our market risk exposures also reflect assumptions about the degree of correlation among prices of various asset classes or other market indicators, which may not be representative of the next downturn and would magnify the limitations inherent in using historical data to

21 Bank of America

manage risk. Market conditions in recent years have involved unprecedented dislocations and highlight the limitations inherent in using historical data to manage risk. Our models may also be adversely impacted by human error and may not be effective if we fail to properly oversee and review them at regular intervals and detect their flaws during our review and monitoring processes, they contain erroneous data, assumptions, valuations, formulas or algorithms or our applications running the models do not perform as expected. Regardless of the steps we take to help confirm effective controls, governance, monitoring and testing, and implement new technology and automated processes, we could suffer operational, reputational and financial harm, including funding or liquidity shortfalls, if models fail to properly anticipate and manage risks.

Failure to properly manage data may result in our inability to manage risk and business needs, errors in our operations, critical reporting and strategic decision-making, inaccurate reporting and non-compliance with laws, rules and regulations.

We rely on our ability to manage and process data in an accurate, timely and complete manner, including capturing, transporting, aggregating, using, transmitting data externally, and retaining and protecting data appropriately. While we continually update our policies, programs, processes and practices and implement emerging technologies, such as automation, AI, machine learning and robotics, our data management processes may not be effective and are subject to weaknesses and failures, including human error, data limitations, process delays, system failure or failed controls. Failure to properly manage data effectively in an accurate, timely and complete manner may adversely impact its quality and reliability and our ability to manage current and emerging risk, produce accurate financial and/or nonfinancial, regulatory, operational and non-financial, regulatory and operational ESG reporting, detect or surveil potential misconduct or non-compliance with laws, rules and regulations, as well as and to manage changing business needs, strategic decision-making, resolution strategy and operations. The failure to establish and maintain effective, efficient and controlled data management could adversely impact our ability to develop our products and relationships with our customers, increase regulatory risk and operational losses, and damage our reputation.

Our operations, businesses and customers could be adversely affected by the impacts related to climate change.

Climate change and related environmental sustainability matters present short-term and long-term risks to us. The physical risks include an increase in the frequency and severity of extreme weather events and natural disasters, including floods, wildfires, hurricanes and tornados, as well as and chronic longer-term shifts such as rising average global temperatures and sea levels. Such disasters and effects could adversely impact our facilities, and employees and disrupt our operations or the operations of customers or third parties, and result in market volatility or negatively impact our customers' ability to repay outstanding loans, disrupt the operations of us and our customers or third parties, cause supply chain or distribution network disruptions, damage collateral and/or result in market volatility, rapid deposit outflows or drawdowns of credit facilities, cause supply chain and/or distribution network disruptions, damage collateral or result in the deterioration of the value of collateral or insurance shortfalls.

There is also increasing risk related to the transition to a low-carbon economy. Changes in consumer preferences or financial condition of our customers and counterparties, market pressures, advancements in technology and additional

supply chain and insurance availability and cost. We have devoted cost, increase expenses, impact capital requirements and expect adversely impact our results of operations. In particular, there is an increasing global regulatory focus, including state, federal and non-U.S. jurisdictions, on climate change resulting in new or heightened regulatory requirements, with potential jurisdictional divergence, which is expected to continue to devote additional resources as a result of increase our response to climate change. legal, compliance and public disclosure risks and costs in the U.S. and globally.

Our climate change strategies, policies, and disclosures, our ability to achieve our climate-related goals, targets and commitments and/or the environmental or climate impacts attributable to our products, transactions services or services transactions will likely result in heightened legal and compliance risk and could result in reputational harm as a result of negative public sentiment, regulatory scrutiny, litigation and reduced investor and stakeholder confidence. Due to divergent views of stakeholders, we are at increased risk that any action, or lack thereof, by us concerning our response to climate change will be perceived negatively by some stakeholders, which could adversely impact our reputation and businesses. Our ability to meet our climate-related goals, targets and commitments, including our goal to achieve certain greenhouse gas (GHG) emissions targets by 2030 and net zero GHG emissions in our financing activities, operations and supply chain before 2050, is subject to risks and uncertainties, many of which are outside of our control, such as technology technological advances, clearly defined roadmaps for industry sectors, public policies and better emissions data reporting, and ongoing engagement with customers, suppliers, investors, government officials and other stakeholders. Due to the evolving nature of climate-related risks, which are expected to increase over time, it is difficult to predict, identify, monitor and effectively mitigate climate-related risks and uncertainties.

There Furthermore, there are and will continue to be challenges related to the availability and capturing, measuring, verifying, analyzing and disclosing climate-related data, which includes nonfinancial including data and other information that is subject to measurement uncertainties, may not be independently verified, and obtained from third parties, which may result in legal, compliance and/or reputational harm.

Our ability to attract, develop and retain qualified employees is critical to our success, business prospects and competitive position.

Our performance and competitive position is heavily dependent on the talents, development and efforts of highly skilled individuals. Competition for qualified personnel is intense from within

legislation, regulatory, compliance and legal requirements could alter our strategic planning and the scope of our existing businesses, limit our ability to pursue certain business activities and offer certain products and services, amplify credit and market risks, negatively impact asset values, and increase expenses, including as a result of legal, compliance and public disclosure costs in the U.S. and globally with potential jurisdictional divergence, strategic planning, required require capital expenditures and changes in technology and markets, including

the financial services industry and from businesses outside the financial services industry is intense industry.

Our competitors include global institutions and institutions subject to different compensation and hiring regulations than those imposed on U.S. institutions and financial institutions. Also, our ability to attract, develop and retain employees could be impacted by changing workforce concerns, expectations, practices and preferences (including remote work), and increasing labor shortages and competition for labor, which could increase labor costs.

In order to attract and retain qualified personnel, we must provide market-level compensation. As a large financial and banking institution, we are and may become subject to additional limitations on compensation practices by the Federal Reserve, the OCC, the FDIC and other regulators around the world globally, which may or may not affect our competitors. Furthermore, because a substantial portion of our annual incentive compensation paid to many of our employees is long-term equity-based awards based on the value of our common stock, declines in our profitability or outlook could adversely affect the ability to attract and retain employees. If we are unable to continue to attract, develop and retain qualified individuals, our business prospects and competitive position could be adversely affected.

Item 1B. Unresolved Staff Comments

None

Item 1C. Cybersecurity

See Compliance and Operational Risk Management in the MD&A beginning on page 79, which is incorporated herein by reference.

Item 2. Properties

As of December 31, 2022 December 31, 2023, certain principal offices and other materially important properties consisted of the following:

Facility Name	Location	General Character of the Physical Property	Primary Business Segment	Property Status	Property Square Feet
					(1)
Bank of America Corporate Center	Charlotte, NC	60 Story Building	Principal Executive Offices	Owned	1,212,177
Bank of America Tower at One Bryant Park	New York, NY	55 Story Building	GWIM, Global Banking and Global Markets	Leased (2)	1,836,575 1,939,431
Bank of America Financial Centre	London, UK	43 Building Campus	Global Banking and Global Markets	Leased	502,344 510,171
Cheung Kong Center	Hong Kong	62 Story Building	Global Banking and Global Markets	Leased	149,790

(1) For leased properties, property square feet represents the square footage occupied by the Corporation.

(2) The Corporation has a 49.9 percent joint venture interest in this property.

We own or lease approximately 69.5 million 65.9 million square feet in over 20,000 facilities and ATM locations globally, including approximately 63.9 million 60.3 million square feet in the U.S. (all 50 states and the District of Columbia, the U.S. Virgin Islands, Puerto Rico and Guam) and approximately 5.6 million square feet in more than 35 countries.

We believe our owned and leased properties are adequate for our business needs and are well maintained. We continue to evaluate our owned and leased real estate and may determine from time to time that certain of our premises and facilities, or ownership structures, are no longer necessary for our

operations. In connection therewith, we regularly evaluate the sale or sale/leaseback of certain properties, and we may incur costs in connection with any such transactions.

Item 3. Legal Proceedings

See Litigation and Regulatory Matters in Note 12 – Commitments and Contingencies to the Consolidated Financial Statements, which is incorporated herein by reference.

Item 4. Mine Safety Disclosures

None

Part II

Bank of America Corporation and Subsidiaries

Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

The principal market on which our common stock is traded is the New York Stock Exchange under the symbol “BAC.” As of February 21, 2023 February 16, 2024, there were 143,301 137,369 registered shareholders of common stock.

The table below presents common share repurchase activity for the three months ended December 31, 2022 December 31, 2023. The primary source of funds for cash distributions by the Corporation to its

shareholders is dividends received from its bank subsidiaries. Each of the bank subsidiaries is subject to various regulatory policies and requirements relating to the payment of dividends, including requirements to maintain capital above regulatory minimums. All of the Corporation’s preferred stock outstanding has preference over the Corporation’s common stock with respect to payment of dividends.

(Dollars in millions, except per share information; shares in thousands)	Total Common Shares	Weighted-Average Per	Total Shares Purchased as Part of Publicly	Remaining Buyback
	Purchased (1,2)	Share Price	Announced Programs (2)	Authority Amounts (3)

October 1 - 31, 2022	2,018	\$	34.68	2,018	\$	16,332
November 1 - 30, 2022	17,085		37.14	16,961		15,949
December 1 - 31, 2022	9,133		32.67	9,117		15,783
Three months ended December 31, 2022	28,236		35.52	28,096		

(Dollars in millions, except per share information; shares in thousands)	Total Common Shares	Weighted-Average Per Share Price	Total Shares Purchased as Part of Publicly Announced Programs ⁽²⁾	Remaining Buyback Authority Amounts
	Purchased ^(1,2)			
October 1 - 31, 2023	10,251	\$ 26.85	10,242	\$ 13,278
November 1 - 30, 2023	9,413	28.15	9,275	13,017
December 1 - 31, 2023	8,676	31.79	8,650	12,742
Three months ended December 31, 2023	28,340	28.79	28,167	

⁽¹⁾ Includes 146 173 thousand shares of the Corporation's common stock acquired by the Corporation in connection with satisfaction of tax withholding obligations on vested restricted stock or restricted stock units and certain forfeitures and terminations of employment-related awards and for potential re-issuance to certain employees under equity incentive plans.

⁽²⁾ In October 2021, the Corporation's Board of Directors (Board) authorized the repurchase of up to \$25 billion of common stock over time (October 2021 Authorization). Additionally, the Board authorized repurchases to offset shares awarded under equity-based compensation plans. In September 2023, the Board modified the October 2021 Authorization, effective October 1, 2023, to include repurchases to offset shares awarded under equity-based compensation plans when determining the remaining repurchase authority. During the three months ended December 31, 2022 December 31, 2023, pursuant to the Board's authorizations, the Corporation repurchased approximately 28 million shares, or \$998 million \$811 million, of its common stock, including repurchases to offset shares awarded under equity-based compensation plans. For more information, see Capital Management - CCAAR and Capital Planning in the MD&A on page 48 47 and Note 13 – Shareholders' Equity to the Consolidated Financial Statements.

⁽³⁾ Remaining Buyback Authority Amounts represents the remaining buyback authority of the October 2021 Authorization. Excludes repurchases to offset shares awarded under equity-based compensation plans.

Depository Share Repurchases

On December 13, 2022, following the expiration of its cash tender offers, BofA Securities, Inc. (BofAS), a wholly owned indirect subsidiary of Bank of America Corporation (Parent), acquired depository shares representing fractional interests in shares of the Parent's preferred stock registered under Section 12 of the Securities Exchange Act of 1934, as amended, in the amounts and for the per share total price set forth in the following table. Also on December 13, 2022, the Parent acquired from BofAS such depository shares that were previously purchased by BofAS for the same per share price.

23 Bank of America

Depository Shares Representing Fractional Interests in Series of Bank of America Preferred Stock	Total Number of Depository Shares Purchased	Per Depository Share ¹			
		Purchase Price			Total Price Paid ²
			Accrued Dividends		
Depository Shares, each representing a 1/1,000th interest in a share of Floating Rate Non-Cumulative Preferred Stock, Series E	373,745	\$ 19.22	\$ 0.0963694	\$	19.3163694
Depository Shares, each representing a 1/1,000th interest in a share of 5.875% Non-Cumulative Preferred Stock, Series HH	110,762	24.08	0.1999132		24.2799132
Depository Shares, each representing a 1/1,000th interest in a share of 5.375% Non-Cumulative Preferred Stock, Series KK	627,514	22.12	n/a		22.1200000
Depository Shares, each representing a 1/1,000th interest in a share of 5.000% Non-Cumulative Preferred Stock, Series LL	355,040	20.44	n/a		20.4400000
Depository Shares, each representing a 1/1,000th interest in a share of 4.375% Non-Cumulative Preferred Stock, Series NN	1,006,802	18.20	0.1215278		18.3215278
Depository Shares, each representing a 1/1,000th interest in a share of 4.125% Non-Cumulative Preferred Stock, Series PP	99,685	17.27	0.1174479		17.3874479
Depository Shares, each representing a 1/1,000th interest in a share of 4.250% Non-Cumulative Preferred Stock, Series QQ	121,078	17.30	0.0767361		17.3767361
Depository Shares, each representing a 1/1,000th interest in a share of 4.750% Non-Cumulative Preferred Stock, Series SS	537,327	19.90	0.0857639		19.9857639

Depository Shares, each representing a 1/1,200th interest in a share of Floating Rate				
Non-Cumulative Preferred Stock, Series 1	106,361	18.92	0.0571489	18.9771489
Depository Shares, each representing a 1/1,200th interest in a share of Floating Rate				
Non-Cumulative Preferred Stock, Series 5	870,231	19.17	0.0790691	19.2490691

a) The liquidation preference attributable to each depository share is \$25.00.

a) The total price paid per depository shares equals the applicable Purchase Price for such depository shares, plus, if applicable, the Accrued Dividends for such depository shares.

n/a = not applicable

The Corporation did not have any unregistered sales of equity securities during the three months ended December 31, 2022 December 31, 2023.

Item 6. [Reserved]

23Bank of America24

Item 7. Bank of America Corporation and Subsidiaries

Management's Discussion and Analysis of Financial Condition and Results of Operations

Table of Contents

	Page
Executive Summary	26
Recent Developments	27 26
Financial Highlights	28 26
Balance Sheet Overview	30 28
Supplemental Financial Data	32 29
Business Segment Operations	37 34
Consumer Banking	38 35
Global Wealth & Investment Management	40 37
Global Banking	42 39
Global Markets	44 41
All Other	45 43
Managing Risk	46 44
Strategic Risk Management	49 47
Capital Management	49 47
Liquidity Risk	54 52
Credit Risk Management	59 57
Consumer Portfolio Credit Risk Management	59 58
Commercial Portfolio Credit Risk Management	64 62
Non-U.S. Portfolio	70 68
Loan and Lease Contractual Maturities	71 70
Allowance for Credit Losses	73 71
Market Risk Management	75 73
Trading Risk Management	76 74
Interest Rate Risk Management for the Banking Book	79 77
Mortgage Banking Risk Management	80 79
Compliance and Operational Risk Management	80 79
Reputational Risk Management	81 80
Climate Risk Management	81
Complex Accounting Estimates	82
Non-GAAP Reconciliations	85

Management's Discussion and Analysis of Financial Condition and Results of Operations

Bank of America Corporation (the Corporation) and its management may make certain statements that constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements can be identified by the fact that they do not relate strictly to historical or current facts. Forward-looking statements often use words such as "anticipates," "targets," "expects," "hopes," "estimates," "intends," "plans," "goals," "believes," "continue" and other similar expressions or future or conditional verbs such as "will," "may," "might," "should," "would" and "could." Forward-looking statements represent the Corporation's current expectations, plans or forecasts of its future results, revenues, liquidity, net interest income, provision for credit losses, expenses, efficiency ratio, capital measures, strategy, deposits, assets, and future business and economic conditions more generally, and other future matters. These statements are not guarantees of future results or performance and involve certain known and unknown risks, uncertainties and assumptions that are difficult to predict and are often beyond the Corporation's control. Actual outcomes and results may differ materially from those expressed in, or implied by, any of these forward-looking statements.

You should not place undue reliance on any forward-looking statement and should consider the following uncertainties and risks, as well as the risks and uncertainties more fully discussed under Item 1A. Risk Factors of this Annual Report on Form 10-K: and in any of the Corporation's subsequent Securities and Exchange Commission filings: the Corporation's potential judgments, orders, settlements, penalties, fines and reputational damage resulting from pending or future litigation and regulatory investigations, proceedings and enforcement actions, including as a result of our participation in and execution of government programs related to the Coronavirus Disease 2019 (COVID-19) pandemic, such as the processing of unemployment benefits for California and certain other states; the possibility that the Corporation's future liabilities may be in excess of its recorded liability and estimated range of possible loss for litigation, and regulatory and government actions; the possibility that the Corporation could face increased claims from one or more parties involved in mortgage securitizations; the Corporation's ability to resolve representations and warranties repurchase and related claims; the risks related to the discontinuation of the London Interbank Offered Rate and other reference rates, including increased expenses and litigation and the effectiveness of hedging strategies; uncertainties about the financial stability and growth rates of non-U.S. jurisdictions, the risk that those jurisdictions may face difficulties servicing their sovereign debt, and related stresses on financial markets, currencies and trade, and the Corporation's exposures to such risks, including direct, indirect and operational; the impact of U.S. and global interest rates, inflation, currency exchange rates, economic conditions, trade policies and tensions, including tariffs, and potential geopolitical instability; the impact of the interest rate, inflationary, macroeconomic, banking and macroeconomic regulatory environment on the Corporation's assets, business, financial condition and results of operations; the impact of adverse developments affecting the U.S. or global banking industry, including bank failures and liquidity concerns, resulting in worsening economic and market volatility, and regulatory responses thereto; the possibility that future credit losses may be higher than currently expected due to changes in economic assumptions, customer behavior, adverse developments with respect to U.S. or global economic conditions and other uncertainties, including the impact of supply chain disruptions, inflationary pressures and charge-offs, effective tax rate, loan growth or other projections; adverse changes to the Corporation's credit ratings from the major credit rating agencies; an inability to access capital markets or maintain deposits or borrowing costs; estimates of the fair value and other accounting values, subject to impairment assessments, of certain of the Corporation's assets and liabilities; the estimated or actual impact of changes in accounting standards or assumptions in applying those standards; uncertainty regarding the content, timing and impact of regulatory capital and liquidity requirements; the impact of adverse changes to total loss-absorbing capacity requirements, stress capital buffer requirements and/or global systemically important bank surcharges; the potential impact of actions of the Board of Governors of the Federal Reserve System on the Corporation's capital plans; the effect of changes in or interpretations of income tax laws and regulations; the impact of implementation and compliance with U.S. and international laws, regulations and regulatory interpretations, including, but not limited to, recovery and resolution planning requirements, Federal Deposit Insurance Corporation assessments, the Volcker Rule, fiduciary standards, derivatives regulations and potential changes to loss allocations between financial institutions and customers, including for losses incurred from the Coronavirus Aid, Relief, use of our products and Economic Security Act services, including electronic payments and any similar payment of checks, that were authorized by the customer but induced by fraud; the impact of failures or related rules and regulations; a failure or disruption disruptions in or breach breaches of the Corporation's operational operations or security information systems or infrastructure, or those of third parties, including as a result of cyber-attacks or campaigns; cybersecurity incidents; the risks related to the development, implementation, use and management of emerging technologies, including

labor shortages on economic conditions and our business; potential losses related to the Corporation's concentration of credit risk; the Corporation's ability to achieve its expense targets and expectations regarding revenue, net interest income, provision for credit losses, net

artificial intelligence and machine learning; the risks related to the transition and physical impacts of climate change; our ability to achieve environmental, social and governance goals and commitments or the impact of any changes in the Corporation's sustainability strategy or commitments generally; the impact of any future federal government shutdown and uncertainty regarding the federal government's debt limit or changes in fiscal, monetary or regulatory policy; the emergence or continuation of widespread health emergencies or pandemics, including the magnitude and duration of the COVID-19 pandemic and its impact on U.S. and/or global financial market conditions and our business, results of operations, financial condition and prospects; pandemics; the impact of natural disasters, extreme weather events, military conflict conflicts (including the Russia/Ukraine conflict, the conflict in the Middle East, the possible expansion of such conflict conflicts and potential geopolitical consequences), terrorism or other geopolitical events; and other matters.

Forward-looking statements speak only as of the date they are made, and the Corporation undertakes no obligation to update any forward-looking statement to reflect the impact of circumstances or events that arise after the date the forward-looking statement was made.

Notes to the Consolidated Financial Statements referred to in the Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) are incorporated by reference into the MD&A. Certain prior-year amounts have been reclassified to conform to current-year presentation. Throughout the MD&A, the Corporation uses certain acronyms and abbreviations which are defined in the Glossary.

Executive Summary

Business Overview

The Corporation is a Delaware corporation, a bank holding company (BHC) and a financial holding company. When used in this report, "Bank of America," "the Corporation," "we," "us" and "our" may refer to Bank of America Corporation individually, Bank of America Corporation and its subsidiaries, or certain of Bank of America Corporation's subsidiaries or affiliates. Our

principal executive offices are located in Charlotte, North Carolina. Through our various bank and nonbank subsidiaries throughout the U.S. and in international markets, we provide a diversified range of banking and nonbank financial services and products through four business segments: *Consumer Banking*, *Global Wealth & Investment Management (GWIM)*, *Global Banking* and *Global Markets*, with the remaining operations recorded in *All Other*. We operate our banking activities primarily under the Bank of America, National Association (Bank of America, N.A. or BANA) charter. At **December 31, 2022** **December 31, 2023**, the Corporation had **\$3.1 trillion** **\$3.2 trillion** in assets and a headcount of approximately **217,000** **213,000** employees.

As of **December 31, 2022** **December 31, 2023**, we served clients through operations across the U.S., its territories and more than 35 countries. Our retail banking footprint covers all major markets in the U.S., and we serve approximately **67 million** **69 million** consumer and small business clients with approximately **3,900** **3,800** retail financial centers, approximately **16,000** **15,000** ATMs, and leading digital banking platforms (www.bankofamerica.com) with approximately **44 million** **46 million** active users, including approximately **\$5 million** **38 million** active mobile users. We offer industry-leading support to approximately **three** **four** million small business households. Our *GWIM* businesses, with client balances of **\$3.4 trillion** **\$3.8 trillion**, provide tailored solutions to meet client needs through a full set of investment management, brokerage, banking, trust and retirement products. We are a global leader in corporate and investment banking and trading across a broad range of asset classes serving corporations, governments, institutions and individuals around the world.

Recent Developments

Capital Management

On **February 1, 2023** **January 31, 2024**, the Corporation's Board of Directors (the Board) declared a quarterly common stock dividend of **\$0.22** **\$0.24** per share, payable on **March 31, 2023** **March 29, 2024** to shareholders of record as of **March 3, 2023** **March 1, 2024**.

For more information on our capital resources, see Capital Management on page **49** **47**.

Changes Impact of SBSY's Future Cessation

In the fourth quarter of 2023, the Corporation recognized a net non-cash, pretax charge of approximately **\$1.6 billion** in **U.S. Tax Law**

On August 16, 2022, market making and similar activities as a result of the U.S. enacted the Inflation Reduction Act announcement of 2022, which contained a number of tax-related provisions. The tax changes included the extension and expansion of renewable energy tax credit programs, the establishment of a new 15 percent alternative minimum tax (AMT) on adjusted financial statement income for large corporations and a one percent excise tax on stock repurchases. Bloomberg Short-Term Bank Yield Index's (BSBY) future cessation. For more information, see **Financial Highlights** **Business Segment Operations – Income Tax Expense** **All Other** on page **29**.

Russia/Ukraine Conflict

Due **43**, **Note 3 – Derivatives** to the Russia/Ukraine conflict, there has been significant volatility in financial **Consolidated Financial Statements** and commodities markets, and multiple jurisdictions have implemented various economic sanctions. At December 31, 2022 and 2021, our direct net country exposure to Russia was \$443 million and \$733 million, primarily consisting of outstanding loans and leases totaling \$391 million and \$686 million, and our net country exposure to Ukraine was not significant. While the Corporation's direct exposure to Russia is limited, the potential duration, course and impact of the Russia/Ukraine conflict remain uncertain and could adversely affect macroeconomic and geopolitical conditions, which could negatively impact the Corporation's businesses, results of operations and financial position. For more **Current Report on Form 8-K** filed on January 8, 2024.

information on the risks related to the Russia/Ukraine conflict, see the Market, Credit and Geopolitical sections in Item 1A. Risk Factors on page **8**. **FDIC Special Assessment** **LIBOR and Other Benchmark Rates**

After December 31, 2021 On November 16, 2023, ICE Benchmark Administration (IBA) ceased publishing British Pound Sterling (GBP), Euro, Swiss Franc, and Japanese Yen (JPY) London Interbank Offered Rate (LIBOR) settings and one-week and two-month U.S. dollar (USD) LIBOR settings, subject to the continued publication of certain non-representative LIBOR settings based on a modified calculation (i.e., on a "synthetic" basis). The remaining USD LIBOR settings (i.e., overnight, one month, three month, six month and 12 month) will cease or become non-representative immediately after June 30, 2023, although the Financial Conduct Authority (FCA) has issued a consultation seeking views on whether to compel publication of the one-month, three-month and six-month USD LIBOR settings on a "synthetic" basis for a short time after June 30, 2023 (i.e., through September 30, 2024). Separately, the Federal Reserve, the Office of the Comptroller of the Currency and the Federal Deposit Insurance Corporation (FDIC) issued supervisory guidance encouraging banks its final rule to cease entering into new contracts that use USD LIBOR as impose a reference rate by December 31, 2021, subject special assessment to certain regulatory-approved exceptions (USD LIBOR Guidance).

As a result, a major transition has been recover the loss to the Deposit Insurance Fund resulting from the closure of Silicon Valley Bank and continues to be in progress Signature Bank. Accordingly, in the global financial markets with respect to the replacement fourth quarter of Interbank Offered Rates (IBORs). This has been and continues to be a complex process impacting a variety of our businesses and operations. IBORs have historically been used in many of the Corporation's products and contracts, including derivatives, consumer and commercial loans, mortgages, floating-rate notes and other adjustable-rate products and financial instruments. In response, 2023, the Corporation established an enterprise-wide IBOR transition program, with active involvement recorded noninterest expense of senior management and regular reports to the Management Risk Committee (MRC) and Enterprise Risk Committee (ERC). The program continues to drive the Corporation's industry and regulatory engagement, client and financial contract changes, internal and external communications, technology and operations modifications, including updates to **\$2.1 billion** for its operational models, systems and processes, introduction of new products, migration of existing clients, and program strategy and governance.

As of December 31, 2021, the Corporation transitioned or otherwise addressed IBOR-based products and contracts referencing the rates that ceased or became non-representative after December 31, 2021, including LIBOR-linked commercial loans, LIBOR-based adjustable-rate consumer mortgages, LIBOR-linked derivatives and interdealer trading of certain USD LIBOR and other interest rate swaps, and related hedging arrangements. Additionally, in accordance with the USD LIBOR Guidance, the Corporation has ceased entering into new contracts that use USD LIBOR as a reference rate, subject to limited exceptions, including those consistent with supervisory guidance.

The Corporation launched capabilities and services to support the issuance of and trading in products indexed to various alternative reference rates (ARRs) and developed employee training programs as well as other internal and external sources of information on the various challenges and opportunities that the replacement of IBORs has presented and continues to present. The Corporation continues to monitor a variety of market scenarios as part of its transition efforts, including risks associated with insufficient preparation by

individual market participants or the overall market ecosystem, ability of market participants to meet regulatory and industry-wide recommended milestones, and access and demand by clients and market participants to liquidity in certain products, including LIBOR products.

With respect to the transition of LIBOR products referencing USD LIBOR settings ceasing or becoming non-representative as of June 30, 2023, a significant majority of the Corporation's notional contractual exposure to such LIBOR settings, of which the significant majority is derivatives contracts, have been remediated (i.e., updated to include fallback provisions to ARRs based on market-driven protocols, regulatory guidance and industry-recommended fallback provisions and related mechanisms), and the Corporation is continuing to remediate the remaining USD LIBOR exposure. For example, during the first half of 2023, certain central counterparties (CCPs) expect to complete processes to convert outstanding USD LIBOR-cleared derivatives to ARR positions. The remaining exposure, a majority of which is made up of derivatives and commercial loans and which represents a small minority of outstanding USD LIBOR notional contractual exposure of the Corporation, requires active dialogue with clients to modify the contracts. For any residual exposures after June 2023 that continue to have no fallback provisions, the Corporation continues to assess and plans to leverage relevant contractual and statutory solutions, including the Adjustable Interest Rate (LIBOR) Act in the U.S. (as implemented by the Federal Reserve) and "synthetic" USD LIBOR (if the FCA compels such publication), to transition such exposure.

While there remain risks to the Corporation associated with the transition from IBORs (as discussed under Item 1A. Risk Factors – Other on page 20), such risks have been monitored and, where applicable, managed through the Corporation's efforts and dedicated operational resources to date. In the Corporation's view, the potential likelihood and/or impact of transition-related risks has lessened over time, and the Corporation anticipates it has devoted appropriate resources to remaining transition efforts and will be able to continue to appropriately monitor and manage such risks as the transition process continues. The Corporation expects transition-related risks to further diminish as certain market developments occur prior to June 30, 2023.

The Corporation has implemented regulatory, tax and accounting changes and continues to monitor current and potential impacts of the transition, including Internal Revenue Service tax regulations and guidance and Financial Accounting Standards Board guidance. In addition, the Corporation has engaged impacted clients in connection with the transition by providing education on ARRs and the timing of transition events. The Corporation is also working actively with global regulators, industry working groups and trade associations.

estimated assessment amount. For more information, on see Note 12 – Commitments and Contingencies to the expected replacement of LIBOR and other benchmark rates, see Item 1A. Risk Factors – Other on page 20.

Consolidated Financial Statements.

Financial Highlights

Table 1	Table 1	Summary Income Statement and Selected Financial Data
Table 1		
Table 1		Summary Income Statement and Selected Financial Data
(Dollars in millions, except per share information)		
(Dollars in millions, except per share information)		
(Dollars in millions, except per share information)	(Dollars in millions, except per share information)	2022202120232022
Income statement	Income statement	
Net interest income		
Net interest income		
Net interest income	Net interest income	\$ 52,462 \$ 42,934
Noninterest income	Noninterest income	42,48846,179
Total revenue, net of interest expense	Total revenue, net of interest expense	94,95089,113

Provision for credit losses	Provision for credit losses	2,543	(4,594)
Noninterest expense	Noninterest expense	61,438	59,731
Income before income taxes	Income before income taxes	30,969	33,976
Income tax expense	Income tax expense	3,441	1,998
Net income	Net income	27,528	31,978
Preferred stock dividends and other	Preferred stock dividends and other	1,513	1,421
Net income applicable to common shareholders	Net income applicable to common shareholders	\$ 26,015	\$ 30,557

Per common share information	Per common share information	Per common share information	
Earnings	Earnings	\$ 3.21	\$ 3.60
Diluted earnings	Diluted earnings	3.19	3.57
Dividends paid	Dividends paid	0.86	0.78

Performance ratios	Performance ratios		
Return on average assets	Return on average assets		
(1)	(1)	0.88 %	1.05 %

Return on average assets (1)			
Return on average assets (1)	0.84	%	0.88 %

Return on average common shareholders' equity (1)	Return on average common shareholders' equity (1)	10.75	12.23
Return on average tangible common shareholders' equity (2)	Return on average tangible common shareholders' equity (2)	15.15	17.02
Efficiency ratio (1)	Efficiency ratio (1)	64.71	67.03

Balance sheet at year end

Balance sheet at year end

Balance sheet at year end	Balance sheet at year end		
Total loans and leases	Total loans and leases	\$1,045,747	\$ 979,124
Total assets	Total assets	3,051,375	3,169,495
Total deposits	Total deposits	1,930,341	2,064,446
Total liabilities	Total liabilities	2,778,178	2,899,429
Total common shareholders' equity	Total common shareholders' equity	244,800	245,358
Total shareholders'	Total shareholders'		

equity	equity	273,197	270,066

(1) For definitions, see Key Metrics on page 167, 170.

(2) Return on average tangible common shareholders' equity is a non-GAAP financial measure. For more information and a corresponding reconciliation to the most closely related financial measures defined by accounting principles generally accepted in the United States of America (GAAP), see Non-GAAP Reconciliations on page 85.

Net income was \$26.5 billion, or \$3.08 per diluted share in 2023 compared to \$27.5 billion, or \$3.19 per diluted share in 2022 compared to \$32.0 billion, or \$3.57 per diluted share in 2021. 2022. The decrease in net income was primarily due to an increase in higher noninterest expense and provision for credit losses, lower noninterest income and higher noninterest expense, partially offset by higher net interest income.

For discussion and analysis of our consolidated and business segment results of operations for 2021 2022 compared to 2020, 2021, see Financial Highlights and Business Segment Operations sections in the MD&A of the Corporation's 2021 2022 Annual Report on Form 10-K.

Net Interest Income

Net interest income increased \$9.5 billion \$4.5 billion to \$52.5 billion \$56.9 billion in 2022 2023 compared to 2021, 2022. Net interest yield on a fully taxable-equivalent (FTE) basis increased 30 12 basis points (bps) to 1.96 2.08 percent for 2022, 2023. The increase was increases were primarily driven by benefits from higher interest rates including lower premium amortization expense, and loan growth, partially offset by a higher funding costs, lower amount of accelerated deposits and net capitalized loan fees due interest income related to Paycheck Protection Program (PPP) loan forgiveness, which primarily occurred in 2021. Global Markets activity. For more information on net interest yield and the FTE basis, see Supplemental Financial Data on page 32, 29, and for

more information on interest rate risk management, see Interest Rate Risk Management for the Banking Book on page 79, 77.

Noninterest Income

Table Noninterest					
Table 2	Income				
Table 2					
Table 2					
(Dollars in millions)					
(Dollars in millions)					
(Dollars in millions)	(Dollars in millions)	2022	2021	2023	2022
Fees and commissions:	Fees and commissions:				
Card income					
Card income					
Card income	Card income	\$ 6,083	\$ 6,218		
Service charges	Service charges	6,405	7,504		
Investment and brokerage services	Investment and brokerage services	15,901	16,690		
Investment banking fees	Investment banking fees	4,823	8,887		
Total fees and commissions	Total fees and commissions	33,212	39,299		
Market making and similar activities	Market making and similar activities	12,075	8,691		
Other income	Other income	(2,799)	(1,811)		
Other income					
Other income					
Total noninterest income	Total noninterest income	\$42,488	\$46,179		
Total noninterest income					
Total noninterest income					

Noninterest income decreased \$3.7 billion \$838 million to \$42.5 billion for 2022 \$41.7 billion in 2023 compared to 2021, 2022. The following highlights the significant changes.

- Service charges decreased \$1.1 billion \$721 million primarily driven by the impact of non-sufficient funds and overdraft policy changes, as well as lower treasury service charges.
- Investment and brokerage services decreased \$789 million \$338 million primarily due to lower transactional revenue and asset management fees driven by lower market valuations and declines in assets under management (AUM) pricing, as well as lower average market valuations, partially offset by the impact of positive AUM flows.
- Investment banking fees decreased \$4.1 billion \$115 million primarily driven by a decline in demand resulting in due to lower equity advisory and debt issuance fees, and lower advisory partially offset by higher equity issuance fees.
- Market making and similar activities increased \$3.4 billion \$657 million primarily driven by improved performance across macro trading in mortgage products in fixed income, currencies Fixed Income, Currencies and commodities Commodities (FICC) and by the impact of higher interest rates on client financing activities in Equities, Equities, partially offset by the net \$1.6 billion impact of BSBY's future cessation.
- Other income decreased \$988 million \$292 million primarily due to higher partnership losses on tax-advantaged investments and losses on sales of available-for-sale (AFS) debt securities, partially offset by certain negative valuation adjustments, adjustments in the prior year.

Provision for Credit Losses

The provision for credit losses increased \$7.1 billion \$1.9 billion to \$2.5 billion for 2022 \$4.4 billion in 2023 compared to 2021, 2022. The provision for credit losses for 2022 2023 was driven by our consumer portfolio primarily due to credit card loan growth and asset quality, partially offset by improved macroeconomic conditions that primarily benefited our commercial portfolio. For the same period in the prior year, the provision for credit losses was primarily driven by loan growth and a dampened macroeconomic outlook, partially offset by a reserve release for reduced reduction in COVID-19 pandemic (the pandemic) uncertainties. For the same period in the prior year, the benefit in the provision for credit losses was due to an improved macroeconomic outlook. For more information on the provision for credit losses, see Allowance for Credit Losses on page 73, 71.

Noninterest Expense

	Table Noninterest				
Table 3	3	Expense			
Table 3					
Table 3					
(Dollars in millions)					
(Dollars in millions)					
(Dollars in millions)	(Dollars in millions)	2022	2021	2023	2022
Compensation and benefits	Compensation and benefits	\$36,447	\$36,140		
Occupancy and equipment	Occupancy and equipment	7,071	7,138		
Information processing and communications	Information processing and communications	6,279	5,769		
Product delivery and transaction related	Product delivery and transaction related	3,653	3,881		
Marketing	Marketing	1,825	1,939		
Professional fees	Professional fees	2,142	1,775		
Other general operating	Other general operating	4,021	3,089		
Total noninterest expense	Total noninterest expense	\$61,438	\$59,731		

Noninterest expense increased \$1.7 billion \$4.4 billion to \$61.4 billion \$65.8 billion in 2022 2023 compared to 2021. The increase was 2022 primarily due to higher investments in people and technology and higher FDIC expense, associated with including \$2.1 billion for the settlement estimated special assessment amount arising from the closure of the legacy monoline insurance litigation Silicon Valley Bank and expense related to certain regulatory matters, Signature Bank, partially offset by lower net COVID-19 related costs. litigation expense and revenue-related compensation.

Income Tax Expense

Income					
Table 4	Table 4	Tax Expense			
Table 4					
Table 4					
(Dollars in millions)					
(Dollars in millions)					
(Dollars in millions)	(Dollars in millions)	2022	2021	2023	2022
Income before income taxes	Income before income taxes	\$ 30,969	\$ 33,976		

Income tax expense	Income tax expense	3,441	1,998		
Effective tax rate	Effective tax rate	11.1 %	5.9 %	6.4 %	11.1 %

Trading account assets						
Trading account assets						
Debt securities						
Debt securities						
Debt securities	Debt securities	862,819	982,627	(119,808)	(12)	
Loans and						
leases	Loans and leases	1,045,747	979,124	66,623	7	
Loans and leases						
Loans and leases						
Allowance for loan and lease losses						
Allowance for loan and lease losses						
Allowance for loan and lease losses	Allowance for loan and lease losses	(12,682)	(12,387)	(295)	2	
All other assets	All other assets	361,606	374,110	(12,504)	(3)	
All other assets						
All other assets						
Total assets						
Total assets						
Total assets	Total assets	\$3,051,375	\$3,169,495	\$(18,120)	(4)	
Liabilities						
Liabilities						
Liabilities						
Deposits						
Deposits						
Deposits	Deposits	\$1,930,341	\$2,064,446	\$(134,105)	(6)	
Federal funds purchased and securities loaned or sold under agreements to repurchase	Federal funds purchased and securities loaned or sold under agreements to repurchase	195,635	192,329	3,306	2	
Federal funds purchased and securities loaned or sold under agreements to repurchase						
Federal funds purchased and securities loaned or sold under agreements to repurchase						
Trading account liabilities						
Trading account liabilities						
Trading account liabilities	Trading account liabilities	80,399	100,690	(20,291)	(20)	
Short-term						
borrowings	Short-term borrowings	26,932	23,753	3,179	13	
Short-term borrowings						
Short-term borrowings						
Long-term debt						
Long-term debt						
Long-term debt	Long-term debt	275,982	280,117	(4,135)	(1)	
All other						
liabilities	All other liabilities	268,889	238,094	30,795	13	
All other liabilities						
All other liabilities						
Total liabilities						
Total liabilities						

Total liabilities	Total liabilities	2,778,178	2,899,429	(121,251)	(4)
Shareholders' equity	Shareholders' equity	273,197	270,066	3,131	1
Shareholders' equity					
Shareholders' equity					
Total liabilities and shareholders' equity	Total liabilities and shareholders' equity	\$3,051,375	\$3,169,495	\$(118,120)	(4)
Total liabilities and shareholders' equity					
Total liabilities and shareholders' equity					

Assets

At December 31, 2022 December 31, 2023, total assets were approximately \$3.1 trillion \$3.2 trillion, down \$118.1 billion up \$128.8 billion from December 31, 2021 December 31, 2022. The decrease increase in assets was primarily due to lower debt securities and higher cash and cash equivalents, partially offset by an increase in loans and leases, trading account assets and federal funds sold and securities borrowed or purchased under agreements to resell. equivalents.

Cash and Cash Equivalents

Cash and cash equivalents decreased \$118.0 billion increased \$102.9 billion primarily driven by lower deposits increased funding to support balance sheet and continued loan growth.liquidity positioning.

Federal Funds Sold and Securities Borrowed or Purchased Under Agreements to Resell

Federal funds transactions involve lending reserve balances on a short-term basis. Securities borrowed or purchased under agreements to resell are collateralized lending transactions utilized to accommodate customer transactions, earn interest rate spreads and obtain securities for settlement and for collateral. Federal funds sold and securities borrowed or

purchased under agreements to resell increased \$16.9 billion \$13.1 billion primarily due to the investment of excess cash from higher federal funds purchased and securities loaned or sold under agreements to repurchase, short-term borrowings and long-term debt, as well as client activity within Global Markets.

Trading Account Assets

Trading account assets consist primarily of long positions in equity and fixed-income securities including U.S. government and agency securities, corporate securities and non-U.S. sovereign debt. Trading account assets increased \$49.0 billion decreased \$18.8 billion primarily due to client activity a decline in inventory within Global Markets.

Debt Securities

Debt securities primarily include U.S. Treasury and agency securities, mortgage-backed securities (MBS), principally agency MBS, non-U.S. bonds, corporate bonds and municipal debt. We use reinvest cash in the debt securities portfolio primarily to manage interest rate and liquidity risk and to leverage market conditions that create economically attractive returns on these investments. risk. Debt securities decreased \$119.8 billion increased \$8.6 billion primarily driven by lower deposits due to investment of excess cash from higher federal funds purchased and continued loan growth. securities loaned or sold under agreements to repurchase, short-term borrowings and long-term

debt. For more information on debt securities, see Note 4 – Securities to the Consolidated Financial Statements.

Loans and Leases

Loans and leases increased \$66.6 billion \$8.0 billion primarily driven by growth in commercial loans, higher credit card spending and higher residential mortgages due to lower paydowns and continued originations, growth in commercial loans. For more information on the loan portfolio, see Credit Risk Management on page 59, 57.

Allowance for Loan and Lease Losses

The allowance for loan and lease losses increased \$295 million \$660 million driven by the Corporation's consumer portfolio primarily driven by due to credit card loan growth and a dampened macroeconomic outlook asset quality, ok, partially offset by a reserve release for reduced pandemic uncertainties, in the Corporation's commercial portfolio primarily driven by improved macroeconomic conditions applicable to the commercial portfolio. For more information, see Allowance for Credit Losses on page 73, 71.

All Other Assets

All other assets decreased \$12.5 billion increased \$15.7 billion primarily driven by a decline in margin loans and loans held-for-sale (LHFS), Global Markets activity.

Liabilities

At December 31, 2022 December 31, 2023, total liabilities were approximately \$2.8 trillion \$2.9 trillion, down \$121.3 billion up \$110.3 billion from December 31, 2021 December 31, 2022, primarily due to lower deposits, higher federal funds purchased and securities loaned or sold under agreements to repurchase and long-term debt.

Deposits

Deposits decreased \$134.1 billion \$6.5 billion primarily due to an increase in customer spending and a shift customers' movement of balances to higher yielding accounts, investment alternatives.

Federal Funds Purchased and Securities Loaned or Sold Under Agreements to Repurchase

Federal funds transactions involve borrowing reserve balances on a short-term basis. Securities loaned or sold under agreements to repurchase are collateralized borrowing transactions utilized to accommodate customer transactions, earn interest rate spreads and finance assets on the balance sheet. Federal funds purchased and securities loaned or sold

under agreements to repurchase increased \$3.3 billion \$88.3 billion primarily driven by an increase in repurchase agreements to support liquidity.

Trading Account Liabilities

Trading account liabilities consist primarily of short positions in equity and fixed-income securities including U.S. Treasury and agency securities, non-U.S. sovereign debt and corporate securities. Trading account liabilities decreased \$20.3 billion increased \$15.1 billion primarily due to lower higher levels of short positions within Global Markets.

Short-term Borrowings

Short-term borrowings provide an additional funding source and primarily consist of Federal Home Loan Bank (FHLB) short-term borrowings, notes payable and various other borrowings that generally have maturities of one year or less. Short-term borrowings increased \$3.2 billion \$5.2 billion primarily due to an increase in FHLB advances and commercial paper to manage liquidity needs. For more information on short-term borrowings, see Note 10 – Securities Financing Agreements, Short-term Borrowings, Collateral and Restricted Cash to the Consolidated Financial Statements.

Long-term Debt

Long-term debt decreased \$4.1 billion increased \$26.2 billion primarily due to maturities, redemptions debt issuances and valuation adjustments, partially offset by issuances, debt maturities and redemptions. For more information on long-term debt, see Note 11 – Long-term Debt to the Consolidated Financial Statements.

All Other Liabilities

All other liabilities increased \$30.8 billion decreased \$17.9 billion primarily driven by Global Markets client activity.

Shareholders' Equity

Shareholders' equity increased \$3.1 billion \$18.4 billion primarily due to net income and the issuance of preferred stock, market value increases on derivatives, partially offset by market value decreases on derivatives and debt securities, and returns of capital to shareholders through common and preferred stock dividends and common stock repurchases.

Cash Flows Overview

The Corporation's operating assets and liabilities support our global markets and lending activities. We believe that cash flows from operations, available cash balances and our ability to generate cash through short- and long-term debt are sufficient to fund our operating liquidity needs. Our investing activities primarily include the debt securities portfolio and loans and leases. Our financing activities reflect cash flows primarily related to customer deposits, securities financing agreements, long-term debt and common and preferred stock. For more information on liquidity, see Liquidity Risk on page 54.

Supplemental Financial Data

Non-GAAP Financial Measures

In this Form 10-K, we present certain non-GAAP financial measures. Non-GAAP financial measures exclude certain items or otherwise include components that differ from the most directly comparable measures calculated in accordance with GAAP. Non-GAAP financial measures are provided as additional useful information to assess our financial condition, results of operations (including period-to-period operating performance) or compliance with prospective regulatory requirements. These non-GAAP financial measures are not intended as a substitute for GAAP financial measures and may not be defined or calculated the same way as non-GAAP financial measures used

by other companies.

We view net interest income and related ratios and analyses on an FTE basis, which when presented on a consolidated basis, are net interest income on an FTE basis is a non-GAAP financial measures, measure. To derive the FTE basis, net interest income is adjusted to reflect tax-exempt income on an equivalent before-tax basis with a corresponding increase in income tax expense. For purposes of this calculation, we use the federal statutory tax rate of 21 percent and a representative state tax rate. Net interest yield, which measures the basis points we earn over the cost of funds, utilizes net interest income on an FTE basis. We believe that presentation of these items on an FTE basis allows for comparison of amounts from both taxable and tax-exempt sources and is consistent with industry practices.

We may present certain key performance indicators and ratios excluding certain items (e.g., debit valuation adjustment (DVA) gains (losses)), which result in non-GAAP financial measures. We believe that the presentation of measures that exclude these items is useful because such measures provide additional information to assess the underlying operational performance and trends of our businesses and to allow better comparison of period-to-period operating performance.

We also evaluate our business based on certain ratios that utilize tangible equity, a non-GAAP financial measure. Tangible equity represents shareholders' equity or common shareholders' equity reduced by goodwill and intangible assets (excluding mortgage servicing rights (MSRs)), net of related deferred tax liabilities ("adjusted" shareholders' equity or common shareholders' equity). These measures are used to evaluate our use of equity. In addition, profitability, relationship and investment models use both return on average tangible

common shareholders' equity and return on average tangible shareholders' equity as key measures to support our overall growth objectives. These ratios are:

- Return on average tangible common shareholders' equity measures our net income applicable to common shareholders as a percentage of adjusted average common shareholders' equity. The tangible common equity ratio represents adjusted ending common shareholders' equity divided by total tangible assets.
- Return on average tangible shareholders' equity measures our net income as a percentage of adjusted average total shareholders' equity. The tangible equity ratio represents adjusted ending shareholders' equity divided by total tangible assets.
- Tangible book value per common share represents adjusted ending common shareholders' equity divided by ending common shares outstanding.

We believe ratios utilizing tangible equity provide additional useful information because they present measures of those assets that can generate income. Tangible book value per common share provides additional useful information about the level of tangible assets in relation to outstanding shares of common stock.

The aforementioned supplemental data and performance measures are presented in Tables 6 and 7.

For more information on the reconciliation of these non-GAAP financial measures to the corresponding GAAP financial measures, see Non-GAAP Reconciliations on page 85.

Key Performance Indicators

We present certain key financial and nonfinancial performance indicators (key performance indicators) that management uses when assessing our consolidated and/or segment results. We believe they are useful to investors because they provide additional information about our underlying operational

29 Bank of America

performance and trends. These key performance indicators (KPIs) may not be defined or calculated in the same way as similar KPIs used by other companies. For information on how these metrics are defined, see Key Metrics on page 167, 170.

Our consolidated key performance indicators, which include

various equity and credit metrics, are presented in Table 1 on page 28, 26, Table 6 on page 33 30 and Table 7 on page 34, 31.

For information on key segment performance metrics, see Business Segment Operations on page 37, 34.

Bank of America 32

Table 6	Selected Annual Financial Data			
	Table 6			
	Table 6			
(In millions, except per share information)				
(In millions, except per share information)				
(In millions, except per share information)	(In millions, except per share information)	2022	2021	2020
Income statement	Income statement			
Income statement				
Income statement				
Net interest income				
Net interest income				
Net interest income	Net interest income	\$ 52,462	\$ 42,934	\$ 43,360
Noninterest income	Noninterest income	42,488	46,179	42,168
Noninterest income				
Noninterest income				
Total revenue, net of interest expense				
Total revenue, net of interest expense				
Total revenue, net of interest expense	Total revenue, net of interest expense	94,950	89,113	85,528
Provision for credit losses	Provision for credit losses	2,543	(4,594)	11,320
Provision for credit losses				
Provision for credit losses				
Noninterest expense				
Noninterest expense				
Noninterest expense	Noninterest expense	61,438	59,731	55,213
Income before income taxes	Income before income taxes	30,969	33,976	18,995
Income before income taxes				
Income before income taxes				
Income tax expense				
Income tax expense				
Income tax expense	Income tax expense	3,441	1,998	1,101
Net income	Net income	27,528	31,978	17,894
Net income				
Net income				
Net income applicable to common shareholders				
Net income applicable to common shareholders				

Net income applicable to common shareholders	Net income applicable to common shareholders	26,015	30,557	16,473
Average common shares issued and outstanding	Average common shares issued and outstanding	8,113.7	8,493.3	8,753.2
Average common shares issued and outstanding				
Average common shares issued and outstanding				
Average diluted common shares issued and outstanding				
Average diluted common shares issued and outstanding				
Average diluted common shares issued and outstanding	Average diluted common shares issued and outstanding	8,167.5	8,558.4	8,796.9
Performance ratios	Performance ratios			
Performance ratios				
Performance ratios				
Return on average assets ⁽¹⁾				
Return on average assets ⁽¹⁾				
Return on average assets ⁽¹⁾	Return on average assets ⁽¹⁾	0.88 %	1.05 %	0.67 %
Return on average common shareholders' equity ⁽¹⁾	Return on average common shareholders' equity ⁽¹⁾	10.75	12.23	6.76
Return on average common shareholders' equity ⁽¹⁾				
Return on average common shareholders' equity ⁽¹⁾				
Return on average tangible common shareholders' equity ^(1, 2)				
Return on average tangible common shareholders' equity ^(1, 2)				
Return on average tangible common shareholders' equity ^(1, 2)	Return on average tangible common shareholders' equity ^(1, 2)	15.15	17.02	9.48
Return on average shareholders' equity ⁽¹⁾	Return on average shareholders' equity ⁽¹⁾	10.18	11.68	6.69
Return on average shareholders' equity ⁽¹⁾				
Return on average shareholders' equity ⁽¹⁾				

Return on average tangible					
shareholders' equity ^(1, 2)					
Return on average tangible					
shareholders' equity ^(1, 2)					
Return on average tangible shareholders' equity ^(1, 2)	Return on average tangible shareholders' equity ^(1, 2)	13.76	15.71	9.07	
Total ending equity to total ending assets	Total ending equity to total ending assets	8.95	8.52	9.68	
Total ending equity to total ending assets					
Total ending equity to total ending assets					
Common equity ratio ⁽¹⁾					
Common equity ratio ⁽¹⁾					
Common equity ratio ⁽¹⁾	Common equity ratio ⁽¹⁾	8.02	7.74	8.81	
Total average equity to total average assets	Total average equity to total average assets	8.62	9.02	9.96	
Total average equity to total average assets					
Total average equity to total average assets					
Dividend payout ⁽¹⁾					
Dividend payout ⁽¹⁾					
Dividend payout ⁽¹⁾	Dividend payout ⁽¹⁾	26.77	21.51	38.18	
Per common share data	Per common share data				
Per common share data					
Per common share data					
Earnings	Earnings	\$ 3.21	\$ 3.60	\$ 1.88	
Diluted earnings	Diluted earnings	3.19	3.57	1.87	
Diluted earnings					
Diluted earnings					
Dividends paid					
Dividends paid					
Dividends paid	Dividends paid	0.86	0.78	0.72	
Book value ⁽¹⁾	Book value ⁽¹⁾	30.61	30.37	28.72	
Book value ⁽¹⁾					
Book value ⁽¹⁾					
Tangible book value ⁽²⁾					
Tangible book value ⁽²⁾					
Tangible book value ⁽²⁾	Tangible book value ⁽²⁾	21.83	21.68	20.60	
Market capitalization	Market capitalization	\$ 264,853	\$ 359,383	\$ 262,206	

Market capitalization				
Market capitalization				
Average balance sheet				
Average balance sheet				
Average balance sheet	Average balance sheet			
Total loans and leases	Total loans and leases	\$ 1,016,782	\$ 920,401	\$ 982,467
Total loans and leases				
Total loans and leases				
Total assets				
Total assets				
Total assets	Total assets	3,135,894	3,034,623	2,683,122
Total deposits	Total deposits	1,986,158	1,914,286	1,632,998
Total deposits				
Total deposits				
Long-term debt				
Long-term debt				
Long-term debt	Long-term debt	246,479	237,703	220,440
Common shareholders' equity				
Common shareholders' equity				
Common shareholders' equity	Common shareholders' equity	241,981	249,787	243,685
Common shareholders' equity				
Common shareholders' equity				
Total shareholders' equity				
Total shareholders' equity				
Total shareholders' equity	Total shareholders' equity	270,299	273,757	267,309
Asset quality				
Asset quality				
Asset quality				
Allowance for credit losses (3)				
Allowance for credit losses (3)				
Allowance for credit losses (3)	Allowance for credit losses (3)	\$ 14,222	\$ 13,843	\$ 20,680
Nonperforming loans, leases and foreclosed properties (4)				
Nonperforming loans, leases and foreclosed properties (4)				
Nonperforming loans, leases and foreclosed properties (4)	Nonperforming loans, leases and foreclosed properties (4)	3,978	4,697	5,116
Nonperforming loans, leases and foreclosed properties (4)				
Nonperforming loans, leases and foreclosed properties (4)				
Allowance for loan and lease losses as a percentage of total loans and leases outstanding (4)				
Allowance for loan and lease losses as a percentage of total loans and leases outstanding (4)				
Allowance for loan and lease losses as a percentage of total loans and leases outstanding (4)	Allowance for loan and lease losses as a percentage of total loans and leases outstanding (4)	1.22 %	1.28 %	2.04 %

Allowance for loan and lease losses as a percentage of total loans and leases outstanding ⁽⁴⁾				
Allowance for loan and lease losses as a percentage of total loans and leases outstanding ⁽⁴⁾				
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases ⁽⁴⁾				
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases ⁽⁴⁾				
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases ⁽⁴⁾	Allowance for loan and lease losses as a percentage of total nonperforming loans and leases ⁽⁴⁾	333	271	380
Net charge-offs	Net charge-offs	\$ 2,172	\$ 2,243	\$ 4,121
Net charge-offs				
Net charge-offs				
Net charge-offs as a percentage of average loans and leases outstanding ⁽⁴⁾	Net charge-offs as a percentage of average loans and leases outstanding ⁽⁴⁾	0.21 %	0.25 %	0.42 %
Net charge-offs as a percentage of average loans and leases outstanding ⁽⁴⁾				
Net charge-offs as a percentage of average loans and leases outstanding ⁽⁴⁾				
Capital ratios at year end ⁽⁵⁾				
Capital ratios at year end ⁽⁵⁾				
Capital ratios at year end ⁽⁵⁾	Capital ratios at year end ⁽⁵⁾			
Common equity tier 1 capital	Common equity tier 1 capital	11.2 %	10.6 %	11.9 %
Common equity tier 1 capital				
Common equity tier 1 capital				
Tier 1 capital				
Tier 1 capital				
Tier 1 capital	Tier 1 capital	13.0	12.1	13.5
Total capital	Total capital	14.9	14.1	16.1
Total capital				
Total capital				
Tier 1 leverage				
Tier 1 leverage				
Tier 1 leverage	Tier 1 leverage	7.0	6.4	7.4
Supplementary leverage ratio	Supplementary leverage ratio	5.9	5.5	7.2

Supplementary leverage ratio				
Supplementary leverage ratio				
Tangible equity ⁽²⁾				
Tangible equity ⁽²⁾				
Tangible equity				
⁽²⁾	Tangible equity ⁽²⁾	6.8	6.4	7.4
Tangible				
common equity				
	Tangible common			
⁽²⁾	equity ⁽²⁾	5.9	5.7	6.5
Tangible common equity ⁽²⁾				
Tangible common equity ⁽²⁾				

- ⁽¹⁾ For definition, see Key Metrics on page 167, 170.

⁽²⁾ Tangible equity ratios and tangible book value per share of common stock are non-GAAP financial measures. For more information on these ratios and corresponding reconciliations to GAAP financial measures, see Supplemental Financial Data on page 22, 29 and Non-GAAP Reconciliations on page 85.

⁽³⁾ Includes the allowance for loan and leases losses and the reserve for unfunded lending commitments.

⁽⁴⁾ Balances and ratios do not include loans accounted for under the fair value option. For additional exclusions from nonperforming loans, leases and foreclosed properties, see Consumer Portfolio Credit Risk Management – Nonperforming Consumer Loans, Leases and Foreclosed Properties Activity on page 63, 62 and corresponding Table 27 and Commercial Portfolio Credit Risk Management – Nonperforming Commercial Loans, Leases and Foreclosed Properties Activity on page 66, 66 and corresponding Table 34, 33.

⁽⁵⁾ For more information, including which approach is used to assess capital adequacy, see Capital Management on page 49, 47.

Table 7	Selected Quarterly Financial Data								
	2022 Quarters				2021 Quarters				
Table 7									
Table 7									
2023 Quarters									
2023 Quarters									
2023 Quarters									
(In millions, except per share information)									
(In millions, except per share information)									
(In millions, except per share information)	(In millions, except per share information)	Fourth	Third	Second	First	Fourth	Third	Second	First
Income statement	Income statement								
Income statement									
Income statement									
Net interest income									
Net interest income									
Net interest income	Net interest income	\$ 14,681	\$ 13,765	\$ 12,444	\$ 11,572	\$ 11,410	\$ 11,094	\$ 10,233	\$ 10,197
Noninterest income	Noninterest income	9,851	10,737	10,244	11,656	10,650	11,672	11,233	12,624
Noninterest income									
Noninterest income									

Total revenue, net of interest expense									
Total revenue, net of interest expense									
Total revenue, net of interest expense	Total revenue, net of interest expense	24,532	24,502	22,688	23,228	22,060	22,766	21,466	22,821
Provision for credit losses	Provision for credit losses	1,092	898	523	30	(489)	(624)	(1,621)	(1,860)
Provision for credit losses									
Provision for credit losses									
Noninterest expense									
Noninterest expense									
Noninterest expense	Noninterest expense	15,543	15,303	15,273	15,319	14,731	14,440	15,045	15,515
Income before income taxes	Income before income taxes	7,897	8,301	6,892	7,879	7,818	8,950	8,042	9,166
Income before income taxes									
Income before income taxes									
Income tax expense									
Income tax expense									
Income tax expense	Income tax expense	765	1,219	645	812	805	1,259	(1,182)	1,116
Net income	Net income	7,132	7,082	6,247	7,067	7,013	7,691	9,224	8,050
Net income									
Net income									
Net income applicable to common shareholders									
Net income applicable to common shareholders									
Net income applicable to common shareholders	Net income applicable to common shareholders	6,904	6,579	5,932	6,600	6,773	7,260	8,964	7,560
Average common shares issued and outstanding	Average common shares issued and outstanding	8,088.3	8,107.7	8,121.6	8,136.8	8,226.5	8,430.7	8,620.8	8,700.1
Average common shares issued and outstanding									
Average common shares issued and outstanding									
Average diluted common shares issued and outstanding									
Average diluted common shares issued and outstanding									
Average diluted common shares issued and outstanding	Average diluted common shares issued and outstanding	8,155.7	8,160.8	8,163.1	8,202.1	8,304.7	8,492.8	8,735.5	8,755.6
Performance ratios									
Performance ratios									
Performance ratios									
Return on average assets (1)									
Return on average assets (1)									
Return on average assets	Return on average assets	0.92 %	0.90 %	0.79 %	0.89 %	0.88 %	0.99 %	1.23 %	1.13 %
(1)	(1)								

Four-quarter trailing return on average assets	Four-quarter trailing return on average assets								
(2)	(2)	0.88	0.87	0.89	0.99	1.05	1.04	0.97	0.79
Four-quarter trailing return on average assets (2)									
Four-quarter trailing return on average assets (2)									
Return on average common shareholders' equity (1)									
Return on average common shareholders' equity (1)									
Return on average common shareholders' equity (1)	Return on average common shareholders' equity (1)								
equity (1)	equity (1)	11.24	10.79	9.93	11.02	10.90	11.43	14.33	12.28
Return on average tangible common shareholders' equity (2)	Return on average tangible common shareholders' equity (2)								
equity (2)	equity (2)	15.79	15.21	14.05	15.51	15.25	15.85	19.90	17.08
Return on average tangible common shareholders' equity (2)									
Return on average tangible common shareholders' equity (2)									
Return on average shareholders' equity (1)									
Return on average shareholders' equity (1)									
Return on average shareholders' equity (1)	Return on average shareholders' equity (1)								
equity (1)	equity (1)	10.38	10.37	9.34	10.64	10.27	11.08	13.47	11.91
Return on average tangible shareholders' equity (2)	Return on average tangible shareholders' equity (2)								
equity (2)	equity (2)	13.98	13.99	12.66	14.40	13.87	14.87	18.11	16.01
Return on average tangible shareholders' equity (2)									
Return on average tangible shareholders' equity (2)									
Total ending equity to total ending assets									
Total ending equity to total ending assets									
Total ending equity to total ending assets	Total ending equity to total ending assets								
ending assets	ending assets	8.95	8.77	8.65	8.23	8.52	8.83	9.15	9.23
Common equity ratio (1)	Common equity ratio (1)								
ratio (1)	ratio (1)	8.02	7.82	7.71	7.40	7.74	8.07	8.37	8.41
Common equity ratio (1)									
Common equity ratio (1)									
Total average equity to total average assets									

Total average equity to total average assets									
Total average equity to total average assets	Total average equity to total average assets	8.87	8.73	8.49	8.40	8.56	8.95	9.11	9.52
Dividend payout	Dividend payout								
(1)	(1)	25.71	27.06	28.68	25.86	25.33	24.10	17.25	20.68
Dividend payout (1)									
Dividend payout (1)									
Per common share data									
Per common share data									
Per common share data	Per common share data								
Earnings	Earnings	\$ 0.85	\$ 0.81	\$ 0.73	\$ 0.81	\$ 0.82	\$ 0.86	\$ 1.04	\$ 0.87
Earnings									
Earnings									
Diluted earnings									
Diluted earnings									
Diluted earnings	Diluted earnings	0.85	0.81	0.73	0.80	0.82	0.85	1.03	0.86
Dividends paid	Dividends paid	0.22	0.22	0.21	0.21	0.21	0.21	0.18	0.18
Dividends paid									
Dividends paid									
Book value (1)	Book value (1)	30.61	29.96	29.87	29.70	30.37	30.22	29.89	29.07
Book value (1)									
Book value (1)									
Tangible book value (1)									
Tangible book value (1)									
Tangible book value (1)	Tangible book value (1)	21.83	21.21	21.13	20.99	21.68	21.69	21.61	20.90
Market capitalization	Market capitalization	\$ 264,853	\$ 242,338	\$ 250,136	\$ 332,320	\$ 359,383	\$ 349,841	\$ 349,925	\$ 332,337
Market capitalization									
Market capitalization									
Average balance sheet									
Average balance sheet									
Average balance sheet	Average balance sheet								
Total loans and leases	Total loans and leases	\$1,039,247	\$1,034,334	\$1,014,886	\$ 977,793	\$ 945,062	\$ 920,509	\$ 907,900	\$ 907,723
Total loans and leases									
Total loans and leases									
Total assets									
Total assets									
Total assets	Total assets	3,074,289	3,105,546	3,157,885	3,207,702	3,164,118	3,076,452	3,015,113	2,879,221
Total deposits	Total deposits	1,925,544	1,962,775	2,012,079	2,045,811	2,017,223	1,942,705	1,888,834	1,805,747
Total deposits									
Total deposits									
Long-term debt									
Long-term debt									
Long-term debt	Long-term debt	243,871	250,204	245,781	246,042	248,525	248,988	232,034	220,836

Common shareholders' equity	Common shareholders' equity	243,647	241,882	239,523	242,865	246,519	252,043	250,948	249,648
Common shareholders' equity									
Common shareholders' equity									
Total shareholders' equity									
Total shareholders' equity									
Total shareholders' equity	Total shareholders' equity	272,629	271,017	268,197	269,309	270,883	275,484	274,632	274,047
Asset quality									
Asset quality									
Asset quality									
Allowance for credit losses ⁽⁴⁾									
Allowance for credit losses ⁽⁴⁾									
Allowance for credit losses ⁽⁴⁾	Allowance for credit losses ⁽⁴⁾	\$ 14,222	\$ 13,817	\$ 13,434	\$ 13,483	\$ 13,843	\$ 14,693	\$ 15,782	\$ 17,997
Nonperforming loans, leases and foreclosed properties ⁽⁵⁾	Nonperforming loans, leases and foreclosed properties ⁽⁵⁾	3,978	4,156	4,326	4,778	4,697	4,831	5,031	5,299
Nonperforming loans, leases and foreclosed properties ⁽⁵⁾									
Nonperforming loans, leases and foreclosed properties ⁽⁵⁾									
Allowance for loan and lease losses as a percentage of total loans and leases outstanding ⁽⁵⁾									
Allowance for loan and lease losses as a percentage of total loans and leases outstanding ⁽⁵⁾									
Allowance for loan and lease losses as a percentage of total loans and leases outstanding ⁽⁵⁾	Allowance for loan and lease losses as a percentage of total loans and leases outstanding ⁽⁵⁾	1.22 %	1.20 %	1.17 %	1.23 %	1.28 %	1.43 %	1.55 %	1.80 %
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases ⁽⁵⁾	Allowance for loan and lease losses as a percentage of total nonperforming loans and leases ⁽⁵⁾	333	309	288	262	271	279	287	313
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases ⁽⁵⁾									
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases ⁽⁵⁾									
Net charge-offs									
Net charge-offs									
Net charge-offs	Net charge-offs	\$ 689	\$ 520	\$ 571	\$ 392	\$ 362	\$ 463	\$ 595	\$ 823

Annualized net charge-offs as a percentage of average loans and leases outstanding ⁽⁵⁾	Annualized net charge-offs as a percentage of average loans and leases outstanding ⁽⁵⁾	0.26 %	0.20 %	0.23 %	0.16 %	0.15 %	0.20 %	0.27 %	0.37 %

Annualized net charge-offs as a percentage of average loans and leases outstanding ⁽⁵⁾									
Annualized net charge-offs as a percentage of average loans and leases outstanding ⁽⁵⁾									

Capital ratios at period end ⁽⁶⁾									

Capital ratios at period end ⁽⁶⁾									

Capital ratios at period end ⁽⁶⁾	Capital ratios at period end ⁽⁶⁾								
Common equity tier 1 capital	Common equity tier 1 capital	11.2 %	11.0 %	10.5 %	10.4 %	10.6 %	11.1 %	11.5 %	11.8 %

Common equity tier 1 capital									
Common equity tier 1 capital									
Tier 1 capital									
Tier 1 capital									

Tier 1 capital	Tier 1 capital	13.0	12.8	12.3	12.0	12.1	12.6	13.0	13.3
Total capital	Total capital	14.9	14.7	14.2	14.0	14.1	14.7	15.1	15.6

Total capital									
Total capital									
Tier 1 leverage									
Tier 1 leverage									

Tier 1 leverage	Tier 1 leverage	7.0	6.8	6.5	6.3	6.4	6.6	6.9	7.2
Supplementary leverage ratio	Supplementary leverage ratio	5.9	5.8	5.5	5.4	5.5	5.6	5.9	7.0

Supplementary leverage ratio									
Supplementary leverage ratio									
Tangible equity ⁽⁷⁾									
Tangible equity ⁽⁷⁾									

Tangible equity ⁽⁷⁾	Tangible equity ⁽⁷⁾	6.8	6.6	6.5	6.2	6.4	6.7	7.0	7.0
Tangible common equity ⁽⁸⁾	Tangible common equity ⁽⁸⁾	5.9	5.7	5.6	5.3	5.7	5.9	6.2	6.2

Tangible common equity ⁽⁸⁾									
Tangible common equity ⁽⁸⁾									

Total loss-absorbing capacity and long-term debt metrics									
Total loss-absorbing capacity and long-term debt metrics									

Total loss-absorbing capacity and long-term debt metrics	Total loss-absorbing capacity and long-term debt metrics								
Total loss-absorbing capacity to risk-weighted assets	Total loss-absorbing capacity to risk-weighted assets	29.0 %	28.9 %	27.8 %	27.2 %	26.9 %	27.7 %	27.7 %	26.8 %

Total loss-absorbing capacity to risk-weighted assets									
Total loss-absorbing capacity to risk-weighted assets									

Total loss-absorbing capacity to supplementary leverage exposure

Total loss-absorbing capacity to supplementary leverage exposure

Total loss-absorbing capacity to supplementary leverage exposure	Total loss-absorbing capacity to supplementary leverage exposure	13.2	13.0	12.6	12.2	12.1	12.4	12.5	14.1
Eligible long-term debt to risk-weighted assets	Eligible long-term debt to risk-weighted assets	15.2	15.2	14.7	14.4	14.1	14.4	14.1	13.0

Eligible long-term debt to risk-weighted assets

Eligible long-term debt to risk-weighted assets

Eligible long-term debt to supplementary leverage exposure	Eligible long-term debt to supplementary leverage exposure	6.9	6.8	6.6	6.5	6.3	6.4	6.3	6.8

Eligible long-term debt to supplementary leverage exposure

Eligible long-term debt to supplementary leverage exposure

(1) For definitions, see Key Metrics on page 167, 170.

(2) Calculated as total net income for four consecutive quarters divided by annualized average assets for four consecutive quarters.

(3) Tangible equity ratios and tangible book value per share of common stock are non-GAAP financial measures. For more information on these ratios and corresponding reconciliations to GAAP financial measures, see Supplemental Financial Data on page 22 29 and Non-GAAP Reconciliations on page 85.

(4) Includes the allowance for loan and lease losses and the reserve for unfunded lending commitments.

(5) Balances and ratios do not include loans accounted for under the fair value option. For additional exclusions from nonperforming loans, leases and foreclosed properties, see Consumer Portfolio Credit Risk Management – Nonperforming Consumer Loans, Leases and Foreclosed Properties Activity on page 68 62 and corresponding Table 27 and Commercial Portfolio Credit Risk Management – Nonperforming Commercial Loans, Leases and Foreclosed Properties Activity on page 68 66 and corresponding Table 34 33.

(6) For more information, including which approach is used to assess capital adequacy, see Capital Management on page 48 47.

Table 8	Average Balances and Interest Rates - FTE Basis								
	Interest Income/Expense			Interest Income/Expense			Interest Income/Expense		
Table 8	Average	Expense	Yield/	Average	Expense	Yield/	Average	Expense	Yield/
	Balance	(1)	Rate	Balance	(1)	Rate	Balance	(1)	Rate
Table 8	Average								
	Balance								

											Interest Income/ Expense		Yield/ Rate		Average		Interest Income/ Expense ⁽¹⁾		Yield/ Rate													
Average Balance											⁽¹⁾		Rate		Balance		Expense ⁽¹⁾		Rate													
(Dollars in millions)	(Dollars in millions)	2022			2021			2020																								
(Dollars in millions)																																
(Dollars in millions)											2023			2022																		
Earning assets	Earning assets										Earning assets																					
Interest-bearing deposits with the Federal Reserve, non-																																
U.S. central banks and other banks											\$	195,564	\$	2,591	1.32	%	\$	255,595	\$	172	0.07	%	\$	253,227	\$	359	0.14	%				
Interest-bearing deposits with the Federal Reserve, non-U.S. central banks and other banks											Interest-bearing deposits with the Federal Reserve, non-U.S. central banks and other banks										\$	324,389	\$	15,965	4.92	%	\$	195,564	\$	2,591	1.32	%
Time deposits placed and other short-term investments	Time deposits placed and other short-term investments																															
Federal funds sold and securities borrowed or purchased under agreements to resell ⁽²⁾	Federal funds sold and securities borrowed or purchased under agreements to resell ⁽²⁾																															
Trading account assets	Trading account assets																															
Debt securities	Debt securities																															
Loans and leases ⁽³⁾																																
Loans and leases																																
(a):											Loans and leases (a):																					
Residential mortgage	Residential mortgage																															
Home equity	Home equity																															
Credit card	Credit card																															
Direct/Indirect and other consumer	Direct/Indirect and other consumer																															
Direct/Indirect and other consumer																																
Total consumer																																
Total consumer																																
Total consumer	Total consumer																															
U.S. commercial	U.S. commercial																															
Non-U.S. commercial	Non-U.S. commercial																															
Commercial real estate ⁽⁴⁾	Commercial real estate ⁽⁴⁾																															
Commercial lease financing	Commercial lease financing																															
Total commercial and leases	Total commercial and leases																															
Other earning assets																																
assets																																

Total earning assets	Total earning assets	2,700,860	73,003	2.70	2,616,428	48,099	1.84	2,317,899	52,084	2.25										
Cash and due from banks	Cash and due from banks	28,029			31,214			31,885											28,029	
Other assets, less allowance for loan and lease losses	Other assets, less allowance for loan and lease losses	407,005			386,981			333,338											407,005	
Total assets	Total assets	\$3,135,894			\$3,034,623			\$2,683,122											\$3,135,894	
Interest-bearing liabilities	Interest-bearing liabilities																			
U.S. interest-bearing deposits	U.S. interest-bearing deposits:																			
Demand and money market deposits	Demand and money market deposits	\$ 987,247	\$ 3,145	0.32 %	\$ 925,970	\$ 314	0.03 %	\$ 829,719	\$ 977	0.12 %										
Demand and money market deposits	Demand and money market deposits																			
Time and savings deposits	Time and savings deposits																			
Time and savings deposits	Time and savings deposits																			
Time and savings deposits	Time and savings deposits	166,490	818	0.49	161,512	170	0.11	170,750	734	0.43										
Total U.S. interest-bearing deposits	Total U.S. interest-bearing deposits	1,153,737	3,963	0.34	1,087,482	484	0.04	1,000,469	1,711	0.17										
Non-U.S. interest-bearing deposits	Non-U.S. interest-bearing deposits	80,951	755	0.93	82,769	53	0.06	77,046	232	0.30										
Non-U.S. interest-bearing deposits	Non-U.S. interest-bearing deposits																			
Non-U.S. interest-bearing deposits	Non-U.S. interest-bearing deposits																			
Total interest-bearing deposits	Total interest-bearing deposits	1,234,688	4,718	0.38	1,170,251	537	0.05	1,077,515	1,943	0.18										
Federal funds purchased and securities loaned or sold under agreements to repurchase	Federal funds purchased, securities loaned or sold under agreements to repurchase	214,369	4,117	1.92	210,848	461	0.22	188,511	1,229	0.65										
Short-term borrowings and other interest-bearing liabilities (2)	Short-term borrowings and other interest-bearing liabilities (2)	137,277	2,861	2.08	106,975	(819)	(0.77)	104,955	(242)	(0.23)										
Trading account liabilities	Trading account liabilities	51,208	1,538	3.00	54,107	1,128	2.08	41,386	974	2.35										
Long-term debt	Long-term debt	246,479	6,869	2.79	237,703	3,431	1.44	220,440	4,321	1.96										
Total interest-bearing liabilities	Total interest-bearing liabilities	1,884,021	20,103	1.07	1,779,884	4,738	0.27	1,632,807	8,225	0.50										
Noninterest-bearing sources	Noninterest-bearing sources																			

Noninterest-bearing sources:					Noninterest-bearing sources:				
Noninterest-bearing deposits	Noninterest-bearing deposits	751,470	744,035	555,483					
Other liabilities	Other liabilities								
(5)	(5)	230,104	236,947	227,523					
Other liabilities (5)									
Other liabilities (5)									
Shareholders' equity	Shareholders' equity	270,299	273,757	267,309					
Shareholders' equity									
Shareholders' equity									
Total liabilities and shareholders' equity									
Total liabilities and shareholders' equity									
Total liabilities and shareholders' equity	Total liabilities and shareholders' equity	\$3,135,894	\$3,034,623	\$2,683,122	\$ 3,153,513			\$3,135,894	
Net interest spread	Net interest spread	1.63 %	1.57 %	1.75 %	Net interest spread		1.18 %		
Impact of noninterest-bearing sources	Impact of noninterest-bearing sources	0.33	0.09	0.15					
Net interest income/yield on earning assets (6)	Net interest income/yield on earning assets (6)	\$52,900 1.96 %	\$43,361 1.66 %	\$43,859 1.90 %	Net interest income/yield on earning assets (6)	\$57,498 2.08 %	2.08 %	\$ 52,900 1.96 %	1.96 %

(1) Includes the impact of interest rate risk management contracts. For more information, see Interest Rate Risk Management for the Banking Book on page 79, 77.

(2) For more information on negative interest, see Note 1 – Summary of Significant Accounting Principles to the Consolidated Financial Statements.

(3) Nonperforming loans are included in the respective average loan balances. Income on these nonperforming loans is generally recognized on a cost recovery basis.

(4) Includes U.S. commercial real estate loans of \$61.1 billion \$67.2 billion, \$56.5 billion \$61.1 billion and \$59.8 billion \$56.5 billion, and non-U.S. commercial real estate loans of \$4.3 billion \$5.8 billion, \$4.3 billion and \$3.8 billion for 2023, 2022 and \$3.6 billion for 2022, 2021, and 2020, respectively.

(5) Includes \$30.7 billion \$40.2 billion, \$30.4 billion \$30.7 billion and \$34.3 billion \$30.4 billion of structured notes and liabilities for 2023, 2022 2021 and 2020, 2021, respectively.

(6) Net interest income includes FTE adjustments of \$438 million \$567 million, \$438 million and \$427 million in 2023, 2022 and \$499 million for 2022, 2021, and 2020, respectively.

Analysis of Changes in Net Interest Income - FTE Basis			
Due to Change in (1)			
Due to Change in (2)		Due to Change in (3)	
Due to Change in (1)	Net Change		Net Change

		Volume	Rate		Volume	Rate	
		Due to Change	Net		Due to Change	Net	
		in (1)	Change		in (1)	Change	
	Volume				Net Change		Net Change
(Dollars in millions)							
(Dollars in millions)							
(Dollars in millions)	(Dollars in millions)	From 2021 to 2022	From 2020 to 2021	From 2022 to 2023	From 2021 to 2022		
Increase (decrease) in interest income	Increase (decrease) in interest income						
Interest-bearing deposits with the Federal Reserve, non-U.S. central banks and other banks							
Interest-bearing deposits with the Federal Reserve, non-U.S. central banks and other banks							
Interest-bearing deposits with the Federal Reserve, non-U.S. central banks and other banks	Interest-bearing deposits with the Federal Reserve, non-U.S. central banks and other banks	\$ (35)	\$2,454	\$ 2,419	\$ (1)	\$ (186)	\$ (187)
Time deposits placed and other short-term investments	Time deposits placed and other short-term investments	2	115	117	(4)	(10)	(14)
Federal funds sold and securities borrowed or purchased under agreements to resell	Federal funds sold and securities borrowed or purchased under agreements to resell	2	4,648	4,650	(128)	(865)	(993)
Trading account assets	Trading account assets	256	1,507	1,763	—	(362)	(362)
Debt securities	Debt securities	301	4,473	4,774	7,059	(4,494)	2,565
Loans and leases	Loans and leases						
Residential mortgage	Residential mortgage	287	93	380	(612)	(731)	(1,343)
Residential mortgage							
Residential mortgage							
Home equity	Home equity	(125)	18	(107)	(245)	21	(224)
Credit card	Credit card	841	(205)	636	(994)	7	(987)
Direct/Indirect and other consumer	Direct/Indirect and other consumer	250	791	1,041	185	(454)	(269)
Direct/Indirect and other consumer							
Direct/Indirect and other consumer							
Total consumer							
Total consumer							
Total consumer	Total consumer		1,950			(2,823)	
U.S. commercial	U.S. commercial	1,113	2,532	3,645	(553)	(553)	(1,106)
Non-U.S. commercial	Non-U.S. commercial	452	1,498	1,950	(147)	(309)	(456)

Commercial real estate	Commercial real estate	126	973	1,099	(89)	(205)	(294)
Commercial lease financing	Commercial lease financing	(59)	70	11	(80)	(17)	(97)
Total commercial	Total commercial			6,705			(1,953)
Total loans and leases	Total loans and leases			8,655			(4,776)
Other earning assets	Other earning assets	(144)	2,670	2,526	904	(1,122)	(218)
Net increase (decrease) in interest income	Net increase (decrease) in interest income			\$24,904			\$(3,985)
Increase (decrease) in interest expense	Increase (decrease) in interest expense						
U.S. interest-bearing deposits	U.S. interest-bearing deposits						
U.S. interest-bearing deposits							
U.S. interest-bearing deposits							
Demand and money market deposits	Demand and money market deposits	\$ (18)	\$2,849	\$ 2,831	\$ 134	\$(797)	\$(663)
Demand and money market deposit accounts							
Demand and money market deposit accounts							
Demand and money market deposit accounts							
Time and savings deposits							
Time and savings deposits							
Time and savings deposits	Time and savings deposits	13	635	648	(39)	(525)	(564)
Total U.S. interest-bearing deposits	Total U.S. interest-bearing deposits			3,479			(1,227)
Non-U.S. interest-bearing deposits							
Non-U.S. interest-bearing deposits							
Non-U.S. interest-bearing deposits	Non-U.S. interest-bearing deposits	(4)	706	702	16	(195)	(179)
Total interest-bearing deposits	Total interest-bearing deposits			4,181			(1,406)

Federal funds purchased and securities loaned or sold under agreements to repurchase	Federal funds purchased and securities loaned or sold under agreements to repurchase	11	3,645	3,656	142	(910)	(768)
Short-term borrowings and other interest-bearing liabilities	Short-term borrowings and other interest-bearing liabilities	(238)	3,918	3,680	(4)	(573)	(577)
Trading account liabilities	Trading account liabilities	(63)	473	410	298	(144)	154
Long-term debt	Long-term debt	118	3,320	3,438	338	(1,228)	(890)
Net increase (decrease) in interest expense	Net increase (decrease) in interest expense			15,365			(3,487)
Net increase (decrease) in net interest income ⁽²⁾	Net increase (decrease) in net interest income ⁽²⁾			\$ 9,539			\$ (498)

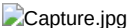
⁽¹⁾ The changes for each category of interest income and expense are divided between the portion of change attributable to the variance in volume and the portion of change attributable to the variance in rate for that category. The unallocated change in rate or volume variance is allocated between the rate and volume variances.

⁽²⁾ Includes an increase (decrease) in FTE basis adjustments of \$129 million from 2022 to 2023 and \$11 million from 2021 to 2022 and \$(72) million from 2020 to 2021. 2022.

Business Segment Operations

Segment Description and Basis of Presentation

We report our results of operations through the following four business segments: *Consumer Banking*, *GWIM*, *Global Banking* and *Global Markets*, with the remaining operations recorded in *All Other*. We manage our segments and report their results on an FTE basis. The primary activities, products and businesses of the business segments and *All Other* are shown below.



We periodically review capital allocated to our businesses and allocate capital annually during the strategic and capital planning processes. We utilize a methodology that considers the effect of regulatory capital requirements in addition to internal risk-based capital models. Our internal risk-based capital models use a risk-adjusted methodology incorporating each segment's credit, market, interest rate, business and operational risk components. For more information on the nature of these risks, see *Managing Risk* on page 46, 44. The capital allocated to the business segments is referred to as allocated capital. Allocated equity in the reporting units is comprised of allocated capital plus capital for the portion of goodwill and intangibles specifically assigned to the reporting unit. For more information, including the definition of a reporting unit, see *Note 7 – Goodwill and Intangible Asset* to the Consolidated Financial Statements.

For more information on our presentation of financial information on an FTE basis, see *Supplemental Financial Data* on page 32, 29, and for reconciliations to consolidated total revenue, net income and year-end total assets, see *Note 23 – Business Segment Information* to the Consolidated Financial Statements.

Key Performance Indicators

We present certain key financial and nonfinancial performance indicators that management uses when evaluating segment results. We believe they are useful to investors because they provide additional information about our segments' operational performance, customer trends and business growth.

Consumer Banking

Deposits																
Deposits																
Deposits																
	Total Consumer Banking															
	Deposits	Consumer Lending				Banking										
(Dollars in millions)																
(Dollars in millions)																
(Dollars in millions)	(Dollars in millions)	2022	2021	2022	2021	2022	2021	% Change	2023	2022	2023	2022	2023	2022	% Change	
Net interest income	Net interest income	\$ 19,254	\$ 14,358	\$ 10,791	\$ 10,571	\$ 30,045	\$ 24,929	21	Net interest income	\$22,545	\$19,254	\$11,144	\$10,791	\$33,689	\$30,045	12
Noninterest income:	Noninterest income:															
Card income																
Card income																
Card income	Card income	(36)	(28)	5,205	5,200	5,169	5,172	—								
Service charges	Service charges	2,703	3,535	3	3	2,706	3,538	(24)								
All other income	All other income	478	223	237	143	715	366	95								
Total noninterest income	Total noninterest income	3,145	3,730	5,445	5,346	8,590	9,076	(5)								
Total revenue, net of interest expense	Total revenue, net of interest expense	22,399	18,088	16,236	15,917	38,635	34,005	14								
Provision for credit losses	Provision for credit losses	564	240	1,416	(1,275)	1,980	(1,035)	n/m								
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																
Provision for credit losses																

Effective tax rate (1)																
Net interest yield																
Net interest yield																
Net interest yield	Net interest yield	1.82 %	1.48 %	3.72 %	3.77 %	2.73 %	2.45 %									
Return on average allocated capital	Return on average allocated capital	55	39	20	27	31	31									
Return on average allocated capital																
Return on average allocated capital																
Efficiency ratio	Efficiency ratio	55.33	64.41	47.32	48.00	51.96	56.73									
Efficiency ratio																
Efficiency ratio																
Balance Sheet																
Balance Sheet																
Balance Sheet	Balance Sheet															
Average																
Average	Average															
Average																
Total loans and leases																
Total loans and leases																
Total loans and leases	Total loans and leases	\$ 4,161	\$ 4,431	\$288,205	\$279,630	\$ 292,366	\$ 284,061	3 %	\$4,129	\$4,161	\$ 304,561	\$288,205	\$ 308,690	\$292,366	6	6 %
Total earning assets (2)	Total earning assets (2)	1,057,531	973,018	289,719	280,080	1,099,410	1,016,751	8								
Total assets (2)	Total assets (2)	1,090,692	1,009,387	296,499	285,532	1,139,351	1,058,572	8								
Total deposits	Total deposits	1,056,783	976,093	5,778	6,934	1,062,561	983,027	8								
Allocated capital	Allocated capital	13,000	12,000	27,000	26,500	40,000	38,500	4								
Year End																
Year End																
Year End																
Total loans and leases																
Total loans and leases																
Total loans and leases	Total loans and leases	\$ 4,148	\$ 4,206	\$300,613	\$282,305	\$ 304,761	\$ 286,511	6 %	\$4,218	\$4,148	\$ 310,901	\$300,613	\$ 315,119	\$304,761	3	3 %
Total earning assets (2)	Total earning assets (2)	1,043,049	1,048,009	300,787	282,850	1,085,079	1,090,331	—								
Total assets (2)	Total assets (2)	1,077,203	1,082,449	308,007	289,220	1,126,453	1,131,142	—								
Total deposits	Total deposits	1,043,194	1,049,085	5,605	5,910	1,048,799	1,054,995	(1)								

⁽¹⁾ Estimated at the segment level only.

⁽²⁾ In segments and businesses where the total of liabilities and equity exceeds assets, we allocate assets from All Other to match the segments' and businesses' liabilities and allocated shareholders' equity. As a result, total earning assets and total assets of the businesses may not equal total

Consumer Banking.

n/m = not meaningful

Consumer Banking, comprised of Deposits and Consumer Lending, offers a diversified range of credit, banking and investment products and services to consumers and small businesses. Deposits and Consumer Lending include the net impact of migrating customers and their related deposit, brokerage asset and loan balances between Deposits, Consumer Lending and GWIM, as well as other client-managed businesses. Our customers and clients have access to a coast-to-coast network including financial centers in 38 39 states and the District of Columbia. As of December 31, 2022 December 31, 2023, our network includes approximately 3,900 3,800 financial centers, approximately 16,000 15,000 ATMs, nationwide call centers and leading digital banking platforms with more than 44 million 46 million active users, including approximately 35 million 38 million active mobile users.

Consumer Banking Results

Net income for Consumer Banking increased \$625 million decreased \$923 million to \$12.5 billion \$11.6 billion due to higher revenue, partially offset by an increase in provision for credit losses and higher noninterest expense, expense, partially offset by higher revenue. Net interest income increased \$5.1 billion \$3.6 billion to \$30.0 billion \$33.7 billion primarily driven by higher interest rates and the benefits of higher deposit and loan balances, partially offset by a lower amount of accelerated net capitalized loan fees due to PPP loan forgiveness, which primarily occurred in 2021, deposit balances. Noninterest income decreased \$486 million \$248 million to \$8.6 billion \$8.3 billion primarily driven by the impact of non-sufficient funds and overdraft policy changes, partially offset by a gain on the sale of an affinity card loan portfolio in the fourth quarter of 2022, changes.

The provision for credit losses increased \$3.0 billion \$3.2 billion to \$2.0 billion \$5.2 billion primarily driven by credit card loan growth and a dampened asset quality. Noninterest expense increased \$1.3 billion to \$21.4

macroeconomic outlook in 2022, compared to a benefit in 2021 due to an improved macroeconomic outlook. Noninterest expense increased \$787 million to \$20.1 billion billion primarily driven by continued investments for business growth, including marketing, technology and people, as well as increased client activity, partially offset by an impairment charge for real estate rationalization and the contribution to the Bank of America Foundation in the prior year, business, including people and technology, higher litigation expense, including consumer regulatory matters, and higher FDIC expense.

The return on average allocated capital was 28 percent, down from 31 percent, unchanged from 2021, due to an increase in allocated capital and lower net income. For more information on capital allocated to the business segments, see Business Segment Operations on page 37, 34.

Deposits

Deposits includes the results of consumer deposit activities that consist of a comprehensive range of products provided to consumers and small businesses. Our deposit products include noninterest- and interest-bearing checking accounts, money market savings accounts, traditional savings accounts, CDs and IRAs, as well as investment accounts and products. Net interest income is allocated to deposit products using our funds transfer pricing process that matches assets and liabilities with similar interest rate sensitivity and maturity characteristics. Deposits generates fees such as account service fees and ATM fees, as well as investment and brokerage fees from Consumer Investment accounts. Consumer Investments serves investment client relationships through the Merrill Edge integrated investing and banking service platform, providing investment advice and guidance, client brokerage asset services, self-directed online investing and key banking capabilities including access to the

Corporation’s network of financial centers and ATMs.

Net income for Deposits increased \$2.4 billion \$1.6 billion to \$7.1 billion \$8.7 billion primarily due to higher revenue, partially offset by higher noninterest expense and an increase in provision for credit losses, expense. Net interest income increased \$4.9 billion \$3.3 billion to \$19.3 billion \$22.5 billion primarily due to higher interest rates, and the benefit of higher partially offset by lower deposit balances. Noninterest income decreased \$585 million \$264 million to \$3.1 billion \$2.9 billion primarily driven by the impact of non-sufficient funds and overdraft policy changes, partially offset by higher other service charges due to increased client activity, changes.

The provision for credit losses increased \$324 million to \$564 million primarily driven by increased overdraft losses due to higher payment activity related to checking accounts. The benefit in the prior year was due to an improved macroeconomic outlook. Noninterest expense increased \$743 million \$965 million to \$12.4 billion \$13.4 billion primarily driven by due to continued investments for business growth and increased client activity, partially offset by an impairment charge for real estate rationalization in the prior year, business, including people and technology, higher litigation expense, including consumer regulatory matters, and higher FDIC expense.

Average deposits increased \$80.7 billion decreased \$69.1 billion to \$1.1 trillion \$987.7 billion primarily due to net inflows outflows of \$46.8 billion in checking and \$34.9 billion \$51.8 billion in money market savings largely driven and \$28.6 billion in checking, partially offset by strong organic growth, growth in time deposits of \$19.9 billion.

The table below provides key performance indicators for Deposits. Management uses these metrics, and we believe they are useful to investors because they provide additional information to evaluate our deposit profitability and digital/mobile trends.

Key Statistics – Deposits	Key Statistics – Deposits				Key Statistics – Deposits			
	2022				2021			
	2023				2023			
	2023				2022			
Total deposit spreads (excludes noninterest costs) ⁽¹⁾	Total deposit spreads (excludes noninterest costs) ⁽¹⁾	1.86%	1.69%		Total deposit spreads (excludes noninterest costs) ⁽¹⁾	2.70%		1.86%
Year End								
Year end								
Year end								
Year end								
Consumer investment assets (in millions) ⁽²⁾								
Consumer investment assets (in millions) ⁽²⁾								
Consumer investment assets (in millions) ⁽²⁾	Consumer investment assets (in millions) ⁽²⁾	\$319,648	\$368,831	\$	424,410	\$	319,648	
Active digital banking users (in thousands) ⁽³⁾	Active digital banking users (in thousands) ⁽³⁾	44,054	41,365		46,265		44,054	
Active mobile banking users (in thousands) ⁽⁴⁾	Active mobile banking users (in thousands) ⁽⁴⁾	35,452	32,980		37,927		35,452	
Financial centers	Financial centers	3,913	4,173		3,845		3,913	
ATMs	ATMs	15,528	16,209		15,168		15,528	

⁽¹⁾ Includes deposits held in Consumer Lending.

⁽²⁾ Includes client brokerage assets, deposit sweep balances, Bank of America, N.A. brokered CDs and AUM in Consumer Banking.

⁽³⁾ Represents mobile and/or online active users over the past 90 days.

⁽⁴⁾ Represents mobile active users over the past 90 days.

Consumer investment assets decreased \$49.2 billion increased \$104.8 billion to \$319.6 billion \$424.4 billion driven by market performance partially offset by and client flows. Active mobile banking users increased approximately two million, reflecting continuing changes in our clients' banking preferences. We had a net decrease of 260 68 financial centers and 581 360 ATMs as we continue to optimize our consumer banking network.

Consumer Lending

Consumer Lending offers products to consumers and small businesses across the U.S. The products offered include debit and credit cards, residential mortgages and home equity loans, and direct and indirect loans such as automotive, recreational vehicle and consumer personal loans. In addition to earning net interest spread revenue on its lending activities, Consumer Lending generates interchange revenue from debit and credit card transactions, late fees, cash advance fees, annual credit card fees, mortgage banking fee income and other miscellaneous fees. Consumer Lending products are available to our customers through our retail network, direct telephone, and online and mobile channels. Consumer Lending results also include the impact of servicing residential mortgages and home

equity loans, including loans held on the balance sheet of Consumer Lending and loans serviced for others.

Net income for Consumer Lending decreased \$1.8 billion\$2.5 billion to \$5.4 billion\$2.9 billion primarily due to an increase in provision for credit losses. Net interest income increased \$220 million\$353 million to \$10.8 billion\$11.1 billion primarily due to higher interest rates and loan balances, largely offset by a lower amount of accelerated net capitalized loan fees due to PPP loan forgiveness, which primarily occurred in 2021. Noninterest income increased \$99 million\$16 million to \$5.4 billion primarily driven by\$5.5 billion, relatively unchanged from the same period a gain on the sale of an affinity card loan portfolio in the fourth quarter of 2022. year ago.

The provision for credit losses increased \$2.7 billion\$3.3 billion to \$1.4 billion\$4.7 billion primarily driven by credit card loan growth and a dampened macroeconomic environment in 2022 compared to a benefit in 2021 due to an improved macroeconomic outlook. asset quality. Noninterest expense increased \$44 million \$374 million to \$7.7 billion largely\$8.1 billion primarily driven by continued investments for business growth and increased client activity, partially offset by the contribution to the Bank of America Foundation in the prior year. business, including people and technology.

Average loans increased \$8.6 billion\$16.4 billion to \$288.2 billion\$304.6 billion primarily driven by an increase in credit card loans and first mortgage loans, partially offset by a decline in PPP loans.

The table below provides key performance indicators for Consumer Lending. Management uses these metrics, and we believe they are useful to investors because they provide additional information about loan growth and profitability.

Key Statistics – Consumer Lending

Key Statistics – Consumer Lending

Key Statistics – Consumer Lending

(Dollars in millions)	(Dollars in millions)	2022	2021			
(Dollars in millions)						
(Dollars in millions)		2023	2022			
Total credit card ⁽¹⁾	Total credit card ⁽¹⁾					
Gross interest yield ⁽²⁾	Gross interest yield ⁽²⁾					
Gross interest yield ⁽²⁾						
Gross interest yield ⁽²⁾	Gross interest yield ⁽²⁾	10.42 %	10.17 %	11.88 %	10.42 %	
Risk-adjusted margin ⁽³⁾	Risk-adjusted margin ⁽³⁾	10.06	10.17			
New accounts (in thousands)	New accounts (in thousands)	4,397	3,594			
Purchase volumes	Purchase volumes	\$356,588	\$311,571			
Debit card purchase volumes	Debit card purchase volumes	\$503,583	\$473,770			

⁽¹⁾ Includes GWIM's credit card portfolio.

⁽²⁾ Calculated as the effective annual percentage rate divided by average loans.

⁽³⁾ Calculated as the difference between total revenue, net of interest expense, and net credit losses divided by average loans.

During 2022, 2023, the total risk-adjusted margin decreased 11 223 bps primarily driven by higher net credit losses, lower net interest margin fee income and lower fee income, partially offset by lower net credit losses, interest margin. Total credit card purchase volumes increased \$45.0 billion\$6.5 billion to \$356.6 billion\$363.1 billion and debit card purchase volumes increased \$29.8 billion\$23.5 billion to \$503.6 billion\$527.1 billion, reflecting higher levels of consumer spending.

Key Statistics – Loan

Production ⁽¹⁾

Key Statistics – Loan
Production (1)

Key Statistics – Loan Production (1)				
(Dollars in millions)	(Dollars in millions)	2022	2021	
(Dollars in millions)				
(Dollars in millions)				
2023				
2022				
Consumer Banking:	Consumer Banking:			
First mortgage				
First mortgage				
First mortgage	First mortgage	\$20,981	\$45,976	
Home equity	Home equity	7,988	3,996	
Total (2):	Total (2):			
First mortgage	First mortgage	\$44,765	\$79,692	
First mortgage				
First mortgage				
Home equity	Home equity	9,591	4,895	

(1) The loan production amounts represent the unpaid principal balance of loans and, in the case of home equity, the principal amount of the total line of credit.
(2) In addition to loan production in Consumer Banking, there is also first mortgage and home equity loan production in GWIM.

First mortgage loan originations for Consumer Banking and the total Corporation decreased \$25.0 billion \$11.8 billion and \$34.9 billion \$25.4 billion during 2022 2023 primarily driven by changes higher interest rates, resulting in lower customer demand.
Home equity production in Consumer Banking and the total Corporation increased \$4.0 billion \$340 million and \$4.7 billion \$223 million during 2022 2023 primarily driven by higher demand.

Global Wealth & Investment Management

(Dollars in millions)									
(Dollars in millions)									
(Dollars in millions)	(Dollars in millions)	2022	2021	% Change	2023	2022	% Change		
Net interest income	Net interest income	\$ 7,466	\$ 5,664	32 %	Net interest income	\$7,147	\$	7,466	(4) %
Noninterest income:	Noninterest income:								
Investment and brokerage services	Investment and brokerage services	13,561	14,312	(5)					
Investment and brokerage services									
Investment and brokerage services									
All other income	All other income	721	772	(7)					

Total noninterest income	Total noninterest income	14,282	15,084	(5)
Total revenue, net of interest expense	Total revenue, net of interest expense	21,748	20,748	5
Provision for credit losses				
Provision for credit losses				
Provision for credit losses				
Provision for credit losses				
Provision for credit losses				
Provision for credit losses	Provision for credit losses	66	(241)	(127)
Noninterest expense	Noninterest expense	15,490	15,258	2
Income before income taxes	Income before income taxes	6,192	5,731	8
Income tax expense	Income tax expense	1,517	1,404	8
Net income	Net income	\$ 4,675	\$ 4,327	8
Effective tax rate	Effective tax rate	24.5 %	24.5 %	
Effective tax rate				
Effective tax rate				
Effective tax rate				
Effective tax rate				
Effective tax rate				
Net interest yield				
Net interest yield				
Net interest yield	Net interest yield	1.95	1.51	
Return on average allocated capital	Return on average allocated capital	27	26	
Return on average allocated capital				
Return on average allocated capital				
Efficiency ratio				
Efficiency ratio				
Efficiency ratio	Efficiency ratio	71.23	73.54	
Balance Sheet	Balance Sheet			
Balance Sheet				
Balance Sheet				
Average	Average			
Average				
Average				

Total loans and leases									
Total loans and leases									
Total loans and leases	Total loans and leases	\$219,810	\$196,899	12 %	\$219,503	\$	\$219,810	—	%
Total earning assets									
Total earning assets	Total earning assets	383,352	374,273	2					
Total assets									
Total assets	Total assets	396,167	386,918	2					
Total deposits									
Total deposits	Total deposits	351,329	340,124	3					
Allocated capital									
Allocated capital	Allocated capital	17,500	16,500	6					
Year end									
Year end									
Year end									
Year end									
Year end									
Year end									
Total loans and leases									
Total loans and leases									
Total loans and leases	Total loans and leases	\$223,910	\$208,971	7	\$219,657	\$	\$223,910	(2)	(2) %
Total earning assets									
Total earning assets	Total earning assets	355,461	425,112	(16)					
Total assets									
Total assets	Total assets	368,893	438,275	(16)					
Total deposits									
Total deposits	Total deposits	323,899	390,143	(17)					

GWIM consists of two primary businesses: Merrill Wealth Management and Bank of America Private Bank.

Merrill Wealth Management's advisory business provides a high-touch client experience through a network of financial advisors focused on clients with over \$250,000 in total investable assets. Merrill Wealth Management provides tailored solutions to meet clients' needs through a full set of investment management, brokerage, banking and retirement products.

Bank of America Private Bank, together with Merrill Wealth Management's Private Wealth Management business, provides comprehensive wealth management solutions targeted to high net worth and ultra high net worth clients, as well as customized solutions to meet clients' wealth structuring, investment management, trust and banking needs, including specialty asset management services.

Net income for GWIM increased \$348 million decreased \$728 million to \$4.7 billion driven by \$3.9 billion primarily due to lower revenue and higher revenue, partially offset by higher provision for credit losses and noninterest expense. The operating margin remained unchanged at 28 was 25 percent compared to 28 percent a year ago.

Net interest income increased \$1.8 billion decreased \$319 million to \$7.5 billion due \$7.1 billion primarily driven by lower average deposit balances and a portfolio mix shift to the impacts of higher interest rates, as well as the benefits of higher loan and yielding deposit balances, products.

Noninterest income, which primarily includes investment and brokerage services income, decreased \$802 million \$324 million to \$14.3 billion \$14.0 billion. The decrease was primarily due to the impacts of driven by lower market valuations transactional revenue and asset management fees driven by declines in AUM

pricing as well as lower average market valuations, partially offset by the impact of positive AUM flows.

The provision for credit losses increased \$307 million primarily due to a dampened macroeconomic outlook and loan growth in the current-year period, compared to a benefit in the prior-year period due to an improved macroeconomic outlook. Noninterest expense increased \$232 million \$346 million to \$15.5 billion \$15.8 billion primarily due to continued investments in the business, including strategic hiring and technology, as well as higher FDIC expense, partially offset by lower revenue-related incentives.

The return on average allocated capital was 27 21 percent, up down from 26 27 percent, due to higher lower net income partially offset by an and, to a lesser extent, a small increase in allocated capital. For more information on capital allocated to the business segments, see Business Segment Operations on page 37.

Average loans increased \$22.9 billion to \$219.8 billion primarily due to residential mortgage, securities-based lending and custom lending, totaled \$219.5 billion, relatively unchanged from the same period a year ago. Average deposits increased \$11.2 billion decreased \$53.0 billion to \$351.3 billion \$298.3 billion primarily driven by inflows from new clients moving deposits to higher yielding investment cash alternatives, including offerings on our investment and existing accounts, brokerage platforms.

Merrill Wealth Management revenue of \$18.1 billion increased \$17.5 billion decreased four percent primarily driven by the benefits of higher lower net interest rates, income, lower transactional revenue and asset management fees driven by declines in AUM pricing as well as higher deposit and loan balances, lower average market valuations, partially offset by the impact of lower market valuations and declines in positive AUM pricing flows.

Bank of America Private Bank revenue of \$3.6 billion increased nine one percent primarily driven by the benefits of higher net interest rates, income as well as higher deposit and loan balances, partially offset asset management fees driven by the impact of lower market valuations, positive AUM flows.

37Bank of America40

Key Indicators and Metrics				
Key Indicators and Metrics				
Key Indicators and Metrics	Key Indicators and Metrics			
(Dollars in millions)	(Dollars in millions)	2022	2021	
(Dollars in millions)				
(Dollars in millions)		2023	2022	
Revenue by Business	Revenue by Business			
Merrill Wealth Management	Merrill Wealth Management			
Merrill Wealth Management	Merrill Wealth Management	\$ 18,135	\$ 17,448	
Bank of America Private Bank	Bank of America Private Bank			
Private Bank	Private Bank	3,613	3,300	
Total revenue, net of interest expense	Total revenue, net of interest expense	\$ 21,748	\$ 20,748	
Total revenue, net of interest expense				

Total revenue, net of interest expense			
Client	Client		
Balances by	Balances by		
Business, at	Business, at		
year end	year end		
Client Balances by Business, at year end			
Client Balances by Business, at year end			
Merrill Wealth Management			
Merrill Wealth Management			
Merrill Wealth Management	Merrill Wealth Management	\$2,822,910	\$3,214,881
Bank of America Private Bank	Bank of America Private Bank	563,931	625,453
Total client balances	Total client balances	\$3,386,841	\$3,840,334
Total client balances			
Total client balances			
Client	Client		
Balances by	Balances by		
Type, at year end	Type, at year end		
Client Balances by Type, at year end			
Client Balances by Type, at year end			
Assets under management			
Assets under management			
Assets under management	Assets under management	\$1,401,474	\$1,638,782
Brokerage and other assets	Brokerage and other assets	1,482,025	1,655,021
Deposits	Deposits	323,899	390,143
Deposits			
Deposits			
Loans and leases (1)	Loans and leases (1)	226,973	212,251
Less: Managed deposits in assets under management	Less: Managed deposits in assets under management	(47,530)	(55,863)
Total client balances	Total client balances	\$3,386,841	\$3,840,334
Assets Under Management	Assets Under Management		
Rollforward	Rollforward		
Assets Under Management Rollforward			
Assets Under Management Rollforward			
Assets under management, beginning of year			
Assets under management, beginning of year			

Assets under management, beginning of year	Assets under management, beginning of year	\$1,638,782	\$1,408,465
Net client flows			
Net client flows			
Net client flows	Net client flows	20,785	66,250
Market valuation/other	Market valuation/other	(258,093)	164,067
Total assets under management, end of year	Total assets under management, end of year	\$1,401,474	\$1,638,782
Total wealth advisors, at year end ⁽²⁾			
Total wealth advisors, at year end ⁽²⁾			
Total wealth advisors, at year end ⁽²⁾	Total wealth advisors, at year end ⁽²⁾	19,273	18,846

⁽¹⁾ Includes margin receivables which are classified in customer and other receivables on the Consolidated Balance Sheet.

⁽²⁾ Includes advisors across all wealth management businesses in *GWIM* and *Consumer Banking*.

Client Balances

Client balances managed under advisory and/or discretion of GWIM are AUM and are typically held in diversified portfolios. Fees earned on AUM are calculated as a percentage of clients' AUM balances. The asset management fees charged to clients per year depend on various factors but are commonly driven by the breadth of the client's relationship. The net client AUM flows represent the net change in clients' AUM balances over a

specified period of time, excluding market appreciation/depreciation and other adjustments.

Client balances decreased \$453.5 billion increased \$402.5 billion, or 12 percent, to \$3.4 trillion \$3.8 trillion at December 31, 2022 December 31, 2023 compared to December 31, 2021 December 31, 2022. The decrease increase in client balances was primarily due to the impact of lower higher end-of-period market valuations partially offset by and positive net client flows.

Global Banking

(Dollars in millions)	2023	2022	% Change
Net interest income	\$ 14,645	\$ 12,184	20 %
Noninterest income:			
Service charges	2,952	3,293	(10)
Investment banking fees	2,819	3,004	(6)
All other income	4,380	3,748	17
Total noninterest income	10,151	10,045	1
Total revenue, net of interest expense	24,796	22,229	12
Provision for credit losses	(586)	641	n/m
Noninterest expense	11,344	10,966	3
Income before income taxes	14,038	10,622	32
Income tax expense	3,790	2,815	35
Net income	\$ 10,248	\$ 7,807	31
Effective tax rate	27.0 %	26.5 %	
Net interest yield	2.73	2.26	
Return on average allocated capital	21	18	

Efficiency ratio		45.75		49.34	
Balance Sheet					
Average					
Total loans and leases	\$	378,762	\$	375,271	1 %
Total earning assets		535,500		539,032	(1)
Total assets		602,579		603,273	—
Total deposits		505,627		511,804	(1)
Allocated capital		49,250		44,500	11
Year end					
Total loans and leases	\$	373,891	\$	379,107	(1)%
Total earning assets		552,453		522,539	6
Total assets		621,751		588,466	6
Total deposits		527,060		498,661	6

n/m = not meaningful

(Dollars in millions)		2022		2021	% Change
Net interest income	\$	12,184	\$	8,511	43 %
Noninterest income:					
Service charges		3,293		3,523	(7)
Investment banking fees		3,004		5,107	(41)
All other income		3,748		3,734	—
Total noninterest income		10,045		12,364	(19)
Total revenue, net of interest expense		22,229		20,875	6
Provision for credit losses		641		(3,201)	(120)
Noninterest expense		10,966		10,632	3
Income before income taxes		10,622		13,444	(21)
Income tax expense		2,815		3,630	(22)
Net income	\$	7,807	\$	9,814	(20)
Effective tax rate		26.5 %		27.0 %	
Net interest yield		2.26		1.55	
Return on average allocated capital		18		23	
Efficiency ratio		49.34		50.93	
Balance Sheet					
Average					
Total loans and leases	\$	375,271	\$	329,655	14 %
Total earning assets		539,032		549,749	(2)
Total assets		603,273		611,304	(1)
Total deposits		511,804		522,790	(2)
Allocated capital		44,500		42,500	5
Year end					
Total loans and leases	\$	379,107	\$	352,933	7 %
Total earning assets		522,539		574,583	(9)
Total assets		588,466		638,131	(8)
Total deposits		498,661		551,752	(10)

Global Banking, which includes Global Corporate Banking, Global Commercial Banking, Business Banking and Global Investment Banking, provides a wide range of lending-related products and services, integrated working capital management and treasury solutions, and underwriting and advisory services through our network of offices and client relationship teams. Our lending products and services include commercial loans, leases, commitment facilities, trade finance, commercial real estate lending and asset-based lending. Our treasury solutions business includes treasury management, foreign exchange, short-term investing options and merchant services. We also provide investment banking services to our clients such as debt and equity underwriting and distribution, and merger-related and other advisory services. Underwriting debt and equity issuances, fixed-income and equity research, and certain market-based activities are executed through our global broker-dealer affiliates, which are our primary dealers in several countries. Within *Global Banking*, Global Corporate Banking clients generally include large global corporations, financial institutions and leasing clients. Global Commercial Banking clients generally include middle-market companies, commercial real estate firms and not-for-profit companies. Business Banking clients include mid-sized U.S.-based businesses requiring customized and integrated financial advice and solutions.

Net income for *Global Banking* decreased \$2.0 billion increased \$2.4 billion to \$7.8 billion \$10.2 billion driven by higher revenue and lower provision for credit losses, and noninterest expense, partially offset by higher revenue. noninterest expense.

Net interest income increased \$3.7 billion \$2.5 billion to \$12.2 billion \$14.6 billion primarily due to the benefits benefit of higher interest rates and loan balances. rates.

Noninterest income decreased \$2.3 billion increased \$106 million to \$10.0 billion \$10.2 billion driven by lower investment banking fees and negative valuation adjustments on leveraged loans as well as in the prior year and higher revenue from tax-advantaged investment activities in the current year, partially offset by lower treasury service charges. charges and lower investment banking fees.

The provision for credit losses increased \$3.8 billion to \$641 million primarily driven by a dampened macroeconomic outlook and loan growth, compared improved \$1.2 billion to a benefit in the prior year of \$586 million primarily due to an improved macroeconomic outlook.

Noninterest expense increased \$334 million \$378 million to \$11.0 billion, \$11.3 billion primarily due to continued investments in the business, including technology and strategic hiring in 2022, and technology. higher FDIC expense, partially offset by expenses recognized for certain regulatory matters in the prior-year period.

The return on average allocated capital was 18 21 percent, down up from 23 18 percent, due to lower higher net income, and partially offset by higher allocated capital. For more information on capital allocated to the business segments, see Business Segment Operations on page 37.

Global Corporate, Global Commercial and Business Banking

Global Corporate, Global Commercial and Business Banking each include Business Lending and Global Transaction Services activities. Business Lending includes various lending-related products and services, and related hedging activities, including commercial loans, leases, commitment facilities, trade finance, real estate lending and asset-based lending. Global Transaction Services includes deposits, treasury management, credit card, foreign exchange and short-term investment products.

39 Bank of America

The following table and discussion present a summary of the results, which exclude certain investment banking and PPP other activities in *Global Banking*.

Bank of America 42

Global Corporate, Global Commercial and Business Banking										
(Dollars in millions)	Global Corporate Banking		Global Commercial Banking		Business Banking		Total			
	2022	2021	2022	2021	2022	2021	2022	2021		
Revenue										
Business Lending	\$ 4,325	\$ 3,723	\$ 4,316	\$ 3,675	\$ 251	\$ 224	\$ 8,892	\$ 7,622		
Global Transaction Services (1)	5,002	3,235	4,166	3,341	1,213	941	10,381	7,517		
Total revenue, net of interest expense	\$ 9,327	\$ 6,958	\$ 8,482	\$ 7,016	\$ 1,464	\$ 1,165	\$ 19,273	\$ 15,139		
Balance Sheet										
Average										
Total loans and leases	\$ 174,052	\$ 150,159	\$ 187,597	\$ 161,012	\$ 12,743	\$ 12,763	\$ 374,392	\$ 323,934		
Total deposits (1)	250,648	252,403	204,893	213,999	56,263	56,354	511,804	522,756		
Year end										
Total loans and leases	\$ 174,905	\$ 163,027	\$ 191,051	\$ 175,228	\$ 12,683	\$ 12,822	\$ 378,639	\$ 351,077		
Total deposits (1)	262,033	260,826	186,112	233,007	50,516	57,886	498,661	551,719		

(1) Prior periods have been revised to conform to current-period presentation.

Global Corporate, Global Commercial and Business Banking

(Dollars in millions)	Global Corporate Banking		Global Commercial Banking		Business Banking		Total			
	2023	2022	2023	2022	2023	2022	2023	2022		

Revenue											
Business Lending	\$	4,928	\$	4,325	\$	5,016	\$	4,316	\$	253	\$ 251 \$ 10,197 \$ 8,892
Global Transaction Services		5,746		5,002		4,139		4,166		1,531	1,213 11,416 10,381
Total revenue, net of interest expense	\$	10,674	\$	9,327	\$	9,155	\$	8,482	\$	1,784	\$ 1,464 \$ 21,613 \$ 19,273
Balance Sheet											
Average											
Total loans and leases	\$	171,554	\$	174,052	\$	194,725	\$	187,597	\$	12,285	\$ 12,743 \$ 378,564 \$ 374,392
Total deposits		272,964		250,648		181,905		204,893		50,759	56,263 505,628 511,804
Year end											
Total loans and leases	\$	167,055	\$	174,905	\$	194,565	\$	191,051	\$	12,129	\$ 12,683 \$ 373,749 \$ 378,639
Total deposits		289,961		262,033		188,141		186,112		48,951	50,516 527,053 498,661

Business Lending revenue increased \$1.3 billion in 2022 2023 compared to 2021 2022 primarily due to the benefits of driven by higher interest rates, higher revenue from tax-advantaged investment activities and the impact of higher average loan balances.

Global Transaction Services revenue increased \$2.9 billion \$1.0 billion in 2022 2023 compared to 2021 2022 primarily driven by higher interest rates, partially offset by lower treasury service charges, charges and the impact of lower average deposit balances.

Average loans and leases increased 16 one percent in 2022 2023 compared to 2021 2022 due to higher client demand. Average deposits decreased two one percent in 2023 compared to 2022 due to declines in domestic balances.

Global Investment Banking

Client teams and product specialists underwrite and distribute debt, equity and loan products, and provide advisory services and tailored risk management solutions. The economics of certain investment banking and underwriting activities are shared primarily between Global Banking and Global Markets under an internal revenue-sharing arrangement. Global Banking originates certain deal-related transactions with our corporate and commercial clients that are executed and distributed by Global Markets. To provide a complete discussion of our

consolidated investment banking fees, the table below presents total Corporation investment banking fees and the portion attributable to Global Banking.

Investment Banking Fees	Investment Banking Fees				
Investment Banking Fees					
	Total				
	Global Banking	Corporation			
Investment Banking Fees					
Global Banking					
Global Banking					
Global Banking					
Total Corporation					
(Dollars in millions)	(Dollars in millions)	2022	2021	2022	2021
(Dollars in millions)					
(Dollars in millions)					
2023					
2022					
2023					
2022					
Products	Products				
Advisory					
Advisory					
Advisory	Advisory	\$1,643	\$2,139	\$1,783	\$2,311
Debt issuance	Debt issuance	1,099	1,736	2,523	4,015
Equity issuance	Equity issuance	262	1,232	709	2,784
Gross investment banking fees	Gross investment banking fees	3,004	5,107	5,015	9,110
Self-led deals	Self-led deals	(78)	(93)	(192)	(223)
Total investment banking fees	Total investment banking fees	\$2,926	\$5,014	\$4,823	\$8,887

Total Corporation investment banking fees, which exclude self-led deals and are primarily included within Global Banking and Global Markets, Markets, decreased 46 two percent to \$4.8 billion \$4.7 billion primarily due to lower advisory and debt issuance fees, partially offset by higher equity issuance debt issuance and advisory fees.

Global Markets

(Dollars in millions)	2023	2022	% Change
Net interest income	\$ 1,678	\$ 3,088	(46)%
Noninterest income:			
Investment and brokerage services	1,993	2,002	—
Investment banking fees	1,874	1,820	3
Market making and similar activities	13,430	11,406	18
All other income	552	(178)	n/m
Total noninterest income	17,849	15,050	19
Total revenue, net of interest expense	19,527	18,138	8
Provision for credit losses	(131)	28	n/m
Noninterest expense	13,206	12,420	6
Income before income taxes	6,452	5,690	13
Income tax expense	1,774	1,508	18
Net income	\$ 4,678	\$ 4,182	12
Effective tax rate	27.5 %	26.5 %	
Return on average allocated capital	10	10	
Efficiency ratio	67.63	68.48	
Balance Sheet			
Average			
Trading-related assets:			
Trading account securities	\$ 318,443	\$ 303,587	5 %
Reverse repurchases	133,735	126,324	6
Securities borrowed	121,547	116,764	4
Derivative assets	44,303	54,128	(18)
Total trading-related assets	618,028	600,803	3
Total loans and leases	129,657	116,652	11
Total earning assets	652,352	602,889	8
Total assets	869,756	857,637	1
Total deposits	33,278	40,382	(18)
Allocated capital	45,500	42,500	7
Year end			
Total trading-related assets	\$ 542,544	\$ 564,769	(4)%
Total loans and leases	136,223	127,735	7
Total earning assets	637,955	587,772	9
Total assets	817,588	812,489	1
Total deposits	34,833	39,077	(11)
(Dollars in millions)	2022	2021	% Change
Net interest income	\$ 3,088	\$ 4,011	(23)%
Noninterest income:			
Investment and brokerage services	2,002	1,979	1
Investment banking fees	1,820	3,616	(50)
Market making and similar activities	11,406	8,760	30
All other income	(178)	889	(120)
Total noninterest income	15,050	15,244	(1)
Total revenue, net of interest expense	18,138	19,255	(6)
Provision for credit losses	28	65	(57)
Noninterest expense	12,420	13,032	(5)
Income before income taxes	5,690	6,158	(8)
Income tax expense	1,508	1,601	(6)
Net income	\$ 4,182	\$ 4,557	(8)
Effective tax rate	26.5 %	26.0 %	

Return on average allocated capital		10		12	
Efficiency ratio		68.48		67.68	
Balance Sheet					
Average					
Trading-related assets:					
Trading account securities	\$	303,587	\$	291,505	4 %
Reverse repurchases		126,324		113,989	11
Securities borrowed		116,764		100,292	16
Derivative assets		54,128		43,582	24
Total trading-related assets		600,803		549,368	9
Total loans and leases		116,652		91,339	28
Total earning assets		602,889		541,391	11
Total assets		857,637		785,998	9
Total deposits		40,382		51,833	(22)
Allocated capital		42,500		38,000	12
Year end					
Total trading-related assets	\$	564,769	\$	491,160	15 %
Total loans and leases		127,735		114,846	11
Total earning assets		587,772		561,135	5
Total assets		812,489		747,794	9
Total deposits		39,077		46,374	(16)

n/m = not meaningful

Global Markets offers sales and trading services and research services to institutional clients across fixed-income, credit, currency, commodity and equity businesses. *Global Markets* product coverage includes securities and derivative products in both the primary and secondary markets. *Global Markets* provides market-making, financing, securities clearing, settlement and custody services globally to our institutional investor clients in support of their investing and trading activities. We also work with our commercial and corporate clients to provide risk management products using interest rate, equity, credit, currency and commodity derivatives, foreign exchange, fixed-income and mortgage-related products. As a result of our market-making activities in these products, we may be required to manage risk in a broad range of financial products including government securities, equity and equity-linked securities, high-grade and high-yield corporate debt securities, syndicated loans, MBS, commodities and asset-backed securities. The economics of certain investment banking and underwriting activities are shared primarily between *Global Markets* and *Global Banking* under an internal revenue-sharing arrangement. *Global Banking* originates certain deal-related transactions with our corporate and commercial clients that are executed and distributed by *Global Markets*. For information on investment banking fees on a consolidated basis, see page 43, 40.

The following explanations for year-over-year changes in results for

Global Markets, including those disclosed under Sales and Trading Revenue, are the same for amounts including and excluding net DVA. Amounts excluding net DVA are a non-GAAP financial measure. For more information on net DVA, see Supplemental Financial Data on page 32, 29.

Net income for *Global Markets* decreased \$375 million increased \$496 million to \$4.2 billion. \$4.7 billion in 2023 compared to 2022. Net DVA gains losses were \$20 million \$236 million compared to losses gains of \$54 million \$20 million in 2021, 2022. Excluding net DVA, net income decreased \$431 million increased \$690 million to \$4.2 billion \$4.9 billion. These decreases increases were primarily driven by lower an increase in revenue, partially offset by lower higher noninterest expense.

Revenue decreased \$1.1 billion increased \$1.4 billion to \$18.1 billion \$19.5 billion primarily due to lower investment banking fees, partially offset by higher sales and trading revenue. revenue in the current-year period and negative valuation adjustments on leveraged loans in the prior-year period. Sales and trading revenue increased \$1.3 billion \$887 million, and excluding net DVA, sales and trading revenue increased \$1.2 billion \$1.1 billion. These increases were primarily driven by higher revenue in both FICC and Equities.

FICC. Noninterest expense decreased \$612 million increased \$786 million to \$12.4 billion \$13.2 billion, primarily driven by the realignment of a liquidating business activity from *Global Markets* to *All Other* continued investments in the fourth quarter of 2021 business, including people and an acceleration of technology, partially offset by expenses from incentive compensation award changes recognized for certain regulatory matters in the prior year prior-year period.

Average total assets increased \$71.6 billion \$12.1 billion to \$857.6 billion \$869.8 billion, driven by loan growth and commodities activity in FICC. Period-end total assets higher levels of inventory, increased \$64.7 billion to \$812.5 billion secured

financing activity and loan growth in FICC, partially offset by lower levels of inventory in Equities. Year-end total assets increased \$5.1 billion to \$817.6 billion driven by loan growth, an increase in commodities activity, and higher derivative balances due to higher interest rates, the same factors as average assets.

The return on average allocated capital was 10 percent, down unchanged from 12 percent, reflecting lower net income and an increase in allocated capital, the same period a year ago. For more information on capital allocated to the business segments, see Business Segment Operations on page 37, 34.

Sales and Trading Revenue

Sales and trading revenue includes unrealized and realized gains and losses on trading and other assets which are included in market making and similar activities, net interest income, and fees primarily from commissions on equity securities. Sales and trading revenue is segregated into fixed-income (government debt obligations, investment and non-investment grade corporate debt obligations, commercial MBS, residential mortgage-backed securities, collateralized loan obligations, interest rate and credit derivative contracts), currencies (interest rate and foreign exchange contracts), commodities (primarily futures, forwards, swaps and options) and equities (equity-linked derivatives and cash equity activity). The following table and related discussion present sales and trading revenue, substantially all of which is in *Global Markets*, with the remainder in *Global Banking*. In addition, the following table and related discussion also present sales and trading revenue, excluding net DVA, which is a non-GAAP financial measure. For more information on net DVA, see *Supplemental Financial Data* on page 32, 29.

Sales and Trading Revenue (1, 2, 3)

Sales and Trading Revenue (1, 2, 3)

Sales and Trading Revenue (1, 2, 3)

(Dollars in millions)	(Dollars in millions)	2022	2021
Sales and trading revenue			
Fixed income, currencies and commodities		\$ 9,917	\$ 8,761

(Dollars in millions)

(Dollars in millions)

2023

2022

Sales and trading revenue (2)

Fixed-income, currencies and commodities
Fixed-income, currencies and commodities
Fixed-income, currencies and commodities

Equities	Equities	6,572	6,428

Total sales and trading revenue	Total sales and trading revenue	\$ 16,489	\$ 15,189

Sales and trading revenue, excluding net DVA (4)	Sales and trading revenue, excluding net DVA (4)	\$ 9,898	\$ 8,810

Sales and trading revenue, excluding net DVA (4)	Sales and trading revenue, excluding net DVA (4)	\$ 9,898	\$ 8,810
Fixed-income, currencies and commodities			
Fixed-income, currencies and commodities			
Fixed-income, currencies and commodities			

Equities	Equities	6,571	6,433

Total sales and trading revenue, excluding net DVA	Total sales and trading revenue, excluding net DVA	\$ 16,469	\$ 15,243

(1) For more information on sales and trading revenue, see Note 3 – Derivatives to the Consolidated Financial Statements.

(2) Includes FTE adjustments of \$546 million and \$354 million for 2023 and \$421 million for 2022 and 2021, 2022.

(3) Includes *Global Banking* sales and trading revenue of \$654 million and \$1.0 billion for 2023 and \$510 million for 2022 and 2021, 2022.

(4) FICC and Equities sales and trading revenue, excluding net DVA, is a non-GAAP financial measure. FICC net DVA gains (losses) were \$(226) million and \$19 million for 2023 and \$(49) million for 2022 and 2021, 2022. Equities net DVA gains (losses) were \$(10) million and \$1 million for 2023 and \$(5) million for 2022 and 2021, 2022.

Including and excluding net DVA, FICC revenue increased \$1.2 billion \$979 million and \$1.1 billion \$1.2 billion driven by an improved trading performance across interest rate and currency products, partially offset by a weaker trading environment for credit and mortgage products and an increase in the current-year period and a gain in commodities from a weather-related event in the prior year, secured financing activity. Including and excluding net DVA, Equities revenue increased \$144 million decreased \$92 million and \$138 million \$81 million driven by strong performances weaker trading performance in derivatives, and client financing activities, partially offset by a weaker performance an increase in cash, client financing activities.

All Other

(Dollars in millions)									
(Dollars in millions)									
(Dollars in millions)	(Dollars in millions)	2022	2021	% Change	2023		2022		% Change
Net interest income	Net interest income	\$ 117	\$ 246	(52) %	Net interest income	\$ 339	\$	\$ 117	n/m
Noninterest income (loss)	Noninterest income (loss)	(5,479)	(5,589)	(2)					
Noninterest income (loss)									
Noninterest income (loss)									
Total revenue, net of interest expense	Total revenue, net of interest expense	(5,362)	(5,343)	—					
Provision for credit losses									
Provision for credit losses									
Provision for credit losses									
Provision for credit losses									
Provision for credit losses									
Provision for credit losses									
Provision for credit losses	Provision for credit losses	(172)	(182)	(5)					
Noninterest expense	Noninterest expense	2,485	1,519	64					
Noninterest expense									
Noninterest expense									
Loss before income taxes	Loss before income taxes	(7,675)	(6,680)	15					
Income tax benefit	Income tax benefit	(6,023)	(8,069)	(25)					
Net income (loss)	Net income (loss)	\$ (1,652)	\$ 1,389	n/m					
Net loss									
Balance Sheet									
Balance Sheet									

Balance Sheet												
Average												
Average												
Average												
	Year Ended											
	December 31											
				%								
Average	2022	2021	Change									
Total loans and leases												
Total loans and leases												
Total loans and leases	Total loans and leases	\$ 12,683	\$ 18,447	(31)	\$9,644	\$	\$12,683	(24)		(24)	%	
Total assets												
(1)	(1)	139,466	191,831	(27)								
Total deposits	Total deposits	20,082	16,512	22	Total deposits	57,551	20,082	20,082		n/m		n/m
Year end												
Year end												
	December		December									
	31		31									
Year end	Year end	2022	2021	Change								
Total loans and leases												
Total loans and leases	Total loans and leases	\$ 10,234	\$ 15,863	(35)								
Total assets												
(1)	assets (1)	155,074	214,153	(28)								
Total deposits	Total deposits	19,905	21,182	(6)	Total deposits	92,705	19,905	19,905		n/m		n/m

(1) In segments where the total of liabilities and equity exceeds assets, which are generally deposit-taking segments, we allocate assets from *All Other* to those segments to match liabilities (i.e., deposits) and allocated shareholders' equity. Average allocated assets were \$975.9 billion and \$1.1 trillion for both 2023 and 2022 and 2021, and year-end allocated assets were \$972.9 billion and \$1.0 trillion at December 31, 2023 and \$1.2 trillion at December 31, 2022 and 2021, 2022. n/m = not meaningful

All Other primarily consists of asset and liability management (ALM) activities, liquidating businesses and certain expenses not otherwise allocated to a business segment. ALM activities encompass interest rate and foreign currency risk management activities for which substantially all of the results are allocated to our business segments. For more information on our ALM activities, see *Note 23 – Business Segment Information* to the Consolidated Financial Statements.

The net loss in *All Other* increased \$2.3 billion to \$4.0 billion primarily due to lower noninterest income and higher noninterest expense, partially offset by a higher income tax benefit.

Net Noninterest income decreased \$3.0 billion to a loss of \$1.7 billion \$3.2 billion primarily due to a lower net charge incurred as a result of the impact of BSBY's future cessation, higher partnership losses for tax-advantaged investments and losses on sales of AFS debt securities. The announcement of BSBY's future cessation resulted in a \$1.6 billion net charge due to the Corporation's determination that certain forecasted BSBY-indexed interest payments, which had been designated in cash flow hedges, were no longer expected to occur beyond November 15, 2024 as they will transition to a new reference rate. Accordingly, during the fourth quarter of 2023, the Corporation reclassified the fair value of the interest

rate swaps used in the cash flow hedges related to these forecasted transactions from accumulated other comprehensive income tax benefit and higher (OCI) into noninterest expense, income. The Corporation also recognized subsequent fair value changes of the interest rate swaps into noninterest income until they were re-designated into new cash flow hedges.

Noninterest expense increased \$966 million \$1.6 billion primarily driven by due to an accrual of \$2.1 billion for the realignment estimated amount of the FDIC special assessment resulting from the closure of Silicon Valley Bank and Signature Bank, as well as higher costs related to a liquidating business activity from *Global Markets* to *All Other* in the fourth quarter of 2021, expense associated with the settlement of the legacy monoline insurance litigation and expense related to certain regulatory matters, current year, partially offset by decreases higher litigation expense in other expenses, the prior year.

The income tax benefit was \$8.4 billion in 2023 compared to a benefit of \$6.0 billion in 2022. The income tax benefit in *All Other* resulted from both periods having income tax benefit adjustments to allocate the FTE treatment of certain tax credits to *Global Banking* and *Global Markets*. The increase in the income tax benefit in 2023 was primarily due to the benefit recorded against pretax charges for the FDIC special assessment and impact of BSBY's future cessation, as well as higher income tax credits related to tax-advantaged investment activity.

The income tax benefit was \$6.0 billion in 2022 compared to a benefit of \$8.1 billion in 2021. The decrease in the tax benefit was primarily driven by the impact of the U.K. tax law change in 2021. For more information, see Financial Highlights - Income Tax Expense on page 29. Both periods included income tax benefit adjustments to eliminate the FTE treatment of certain tax credits recorded in *Global Banking* and *Global Markets*.

Managing Risk

Risk is inherent in all our business activities. Sound risk management enables us to serve our customers and deliver for our shareholders. If not managed well, risk can result in financial loss, regulatory sanctions and penalties, and damage to our reputation, each of which may adversely impact our ability to execute our business strategies. We take a comprehensive approach to risk management with a defined Risk Framework and an articulated Risk Appetite Statement, which are approved annually by the **ERC Enterprise Risk Committee (ERC)** and the Board.

The seven key types of risk faced by the Corporation are strategic, credit, market, liquidity, compliance, operational and reputational.

- Strategic risk is the risk to current or projected financial condition arising from incorrect assumptions about external or internal factors, inappropriate business plans, ineffective business strategy execution or failure to respond in a timely manner to changes in the regulatory, macroeconomic or competitive environments in the geographic locations in which we operate.
- Credit risk is the risk of loss arising from the inability or failure of a borrower or counterparty to meet its obligations.
- Market risk is the risk that changes in market conditions adversely impact the value of assets or liabilities or otherwise negatively impact earnings. Market risk is composed of price risk and interest rate risk.
- Liquidity risk is the inability to meet expected or unexpected cash flow and collateral needs while continuing to support our businesses and customers under a range of economic conditions.
- Compliance risk is the risk of legal or regulatory sanctions, material financial loss or damage to the reputation of the Corporation arising from the failure of the Corporation to comply with the requirements of applicable laws, rules and regulations and our internal policies and procedures.
- Operational risk is the risk of loss resulting from inadequate or failed internal processes or systems, people or external events.
- Reputational risk is the risk that negative perception of the Corporation may adversely impact profitability or operations.

The following sections address in more detail the specific procedures, measures and analyses of the major categories of risk. This discussion of managing risk focuses on the current Risk Framework that, as part of its annual review process, was approved by the ERC and the Board.

As set forth in our Risk Framework, a culture of managing risk well is fundamental to our values and our purpose, and how we drive Responsible Growth. It requires us to focus on risk in all activities and encourages the necessary mindset and behavior to enable effective risk management and promote sound risk-taking within our risk appetite. Sustaining a culture of managing risk well throughout the organization is critical to the success of the Corporation and is a clear expectation of our executive management team and the Board.

Executive management assesses, with Board oversight, the risk-adjusted returns of each business. Management reviews and approves the strategic and financial operating plans, as well as the capital plan and Risk Appetite Statement, and recommends them annually to the Board for approval. Our strategic plan takes into consideration return objectives and financial resources, which must align with risk capacity and risk appetite. Management sets financial objectives for each business by allocating capital and setting a target for return on capital for each business. Capital allocations and operating limits are regularly evaluated as part of our overall governance processes as the businesses and the economic environment in which we operate continue to evolve. For more information regarding capital allocations, see Business Segment Operations on page 37, 34.

The Corporation's risk appetite indicates the amount of capital, earnings or liquidity we are willing to put at risk to achieve our strategic objectives and business plans, consistent with applicable regulatory requirements. Our risk appetite provides a common framework that includes a set of measures to assist senior management and the Board in assessing the Corporation's risk profile across all risk types against our risk appetite and risk capacity. Our risk appetite is formally articulated in the Risk Appetite Statement, which includes both qualitative statements and quantitative limits.

Our overall capacity to take risk is limited; therefore, we prioritize the risks we take in order to maintain a strong and flexible financial position so we can withstand weather challenging economic conditions times and take advantage of organic growth opportunities. Therefore, we set objectives and targets for capital and liquidity that are intended to permit us to continue to operate in a safe and sound manner at all times, including during periods of stress. We also maintain operational risk management and operational resiliency capabilities designed to permit us to meet the expectations of our customers and clients through a range of operating conditions.

Our lines of business operate with risk limits that align with the Corporation's risk appetite

Our Risk Framework serves as the foundation for the consistent and effective management of risks facing the Corporation. The Risk Framework sets forth roles and responsibilities for the management of risk and provides a blueprint for how the Board, through delegation of authority to committees and executive officers, establishes risk appetite and associated limits for our activities.

Our lines of business operate with risk limits that align with the Corporation's risk appetite. Senior management is responsible for tracking and reporting performance measurements as well as any exceptions to risk appetite limits. The Board, and its committees when appropriate, oversee financial performance, execution of the strategic and financial operating plans, adherence to risk appetite limits and the adequacy of internal controls.

For a more detailed discussion of our risk management activities, see the discussion below and pages 49 47 through 82.

Risk Management Governance

The Risk Framework describes delegations of authority whereby the Board and its committees may delegate authority to management-level committees or executive officers. Such delegations may authorize certain decision-making and approval functions, which may be evidenced in documents such as committee charters, job descriptions, meeting minutes and resolutions.

The chart below illustrates the interrelationship among the Board, Board committees and management committees that have the majority of risk oversight responsibilities for the Corporation.

 2023 - 10-K - BOD Chart.jpg

Board of Directors and Board Committees

The Board is composed of 15 directors, all but one of whom are independent. The Board authorizes management to maintain an effective Risk Framework and oversees compliance with safe and sound banking practices. In addition, the Board or its committees conduct inquiries of, and receive reports from senior management on, risk-related matters to assess scope or resource limitations that could impede the ability of Global Risk Management (GRM) and/or Corporate Audit to execute its responsibilities. The Board committees discussed below have the principal responsibility for enterprise-wide oversight of our risk management activities. Through these activities, the Board and applicable committees are provided with information on our risk profile and oversee senior management addressing key risks we face. Other Board committees, as described below, provide additional oversight of specific risks.

Each of the committees shown on the above chart regularly reports to the Board on risk-related matters within the committee's responsibilities, which is intended to collectively provide the Board with integrated insight about our management of enterprise-wide risks.

Audit Committee

The Audit Committee oversees the qualifications, performance and independence of the Independent Registered Public Accounting Firm, the performance of our corporate audit function, the integrity of our consolidated financial statements, our compliance with legal and regulatory requirements, and makes inquiries of senior management or the Chief Audit Executive (CAE) to determine whether there are scope or resource limitations that impede the ability of Corporate Audit to execute its responsibilities. The Audit Committee is also responsible for overseeing compliance risks pursuant to the New York Stock Exchange listing standards.

Enterprise Risk Committee

The ERC oversees the Corporation's Risk Framework, risk appetite and senior management's responsibilities for the identification, measurement, monitoring and control of key risks facing the Corporation. The ERC may consult with other Board committees on risk-related matters.

Board and committee succession planning and their formal self-evaluation, and reviews our ESG activities, shareholder input and shareholder engagement process.

Our Compensation and Human Capital Committee oversees establishing, maintaining and administering our compensation programs and employee benefit plans, including approving and recommending our Chief Executive Officer's (CEO) compensation to our Board for further approval by all independent directors; reviewing and approving our executive officers' compensation, as well as compensation for non-management directors; and reviewing certain other human capital management topics, including pay **equity and diversity and inclusion**, **equity**.

Management Committees

Management committees receive their authority from the Board, a Board committee, or another management committee. Our primary management risk committee is the MRC. Subject to Board oversight, the MRC is responsible for management oversight of key risks facing the Corporation, including an integrated evaluation of risk, earnings, capital and liquidity.

Lines of Defense

We have clear ownership and accountability for managing risk across three lines of defense: Front Line Units (FLUs), GRM and Corporate Audit. We also have control functions outside of FLUs and GRM (e.g., Legal and Global Human Resources). The three lines of defense are integrated into our management-level governance structure. Each of these functional roles is further described in this section.

Executive Officers

Executive officers lead various functions representing the functional roles. Authority for functional roles may be delegated to executive officers from the Board, Board committees or management-level committees. Executive officers, in turn, may further delegate responsibilities, as appropriate, to management-level committees, management routines or

Other Board Committees

Our Corporate Governance, ESG, and Sustainability Committee oversees our Board's governance processes, identifies and reviews the qualifications of potential Board members, leads

individuals. Executive officers review our activities for consistency with our Risk Framework, risk appetite, and applicable strategic, capital and financial operating plans, as well as applicable policies and standards. Executive officers and other employees make decisions individually on a day-to-day basis, consistent with the authority they have been delegated. Executive officers and other employees may also serve on committees and participate in committee decisions.

Front Line Units

FLUs, which include the lines of business as well as Global Technology and Global Operations, are responsible for appropriately assessing and effectively managing all of the risks associated with their activities.

Three organizational units that include FLU activities and control function activities, but are not part of GRM are **first, (1)** the Chief Financial Officer Group; **second, (2)** the Chief Administrative Officer Group; and **third, (3)** Global Strategy and Enterprise Platforms.

Global Risk Management

GRM is part of our control functions and operates as our independent risk management function. GRM, led by the Chief Risk Officer (CRO), is responsible for independently assessing and overseeing risks within FLUs and other control functions. GRM establishes written enterprise policies and procedures outlining how aggregate risks are identified, measured, monitored and controlled.

The CRO has the stature, authority and independence needed to develop and implement a meaningful risk management framework and practices to guide the Corporation in managing risk. The CRO has unrestricted access to the Board and reports directly to both the ERC and the CEO. GRM is organized into horizontal risk teams that cover a specific risk area and vertical CRO teams that cover a particular FLU or control function. These teams work collaboratively in executing their respective duties.

Corporate Audit

Corporate Audit and the CAE maintain their independence from the FLUs, GRM and other control functions by reporting directly to the Audit Committee. The CAE administratively reports to the CEO. Corporate Audit provides independent assessment and validation through testing of key processes and controls across the Corporation. Corporate Audit includes Credit Review, which provides an independent assessment of credit lending decisions and the effectiveness of credit processes across the Corporation's credit platform through examinations and monitoring.

Risk Management Processes

The Risk Framework requires that strong risk management practices are integrated in key strategic, capital and financial planning processes and in day-to-day business processes across the Corporation, thereby ensuring risks are appropriately considered, evaluated and responded to in a timely manner. We employ an effective risk management process, referred to as Identify, Measure, Monitor and Control, as part of our daily activities.

Identify – To be effectively managed, risks must be proactively identified and well understood.

Proper risk identification focuses on recognizing and understanding key risks inherent in our business activities or key risks that may arise from external factors. Each employee is expected to identify and escalate risks promptly. Risk identification is an ongoing process that incorporates input from FLUs and control concentrations, portfolio quality and the overall economic environment. Senior management considers how risk exposures might evolve under a variety of stress scenarios.

Monitor – We monitor risk levels regularly to track adherence to risk appetite, policies and standards. We also regularly update risk assessments and review risk exposures. Through our monitoring, we know our level of risk relative to limits and can take action in a timely manner. We also know when risk limits are breached and have processes to appropriately report and escalate exceptions. This includes timely requests for approval to managers and alerts to executive management, management-level committees or the Board (directly or through an appropriate committee).

Control – We establish and communicate risk limits and controls through policies, standards, procedures and processes. The limits and controls can be adjusted by senior management or the Board when conditions or risk tolerances warrant. These limits may be absolute (e.g., loan amount, trading volume, operational loss) or relative (e.g., percentage of loan book in higher-risk categories). Our FLUs are held accountable for performing within the established limits.

The formal processes used to manage risk represent a part of our overall risk management process. We instill a strong and comprehensive culture of managing risk well through communications, training, policies, procedures and organizational roles and responsibilities. Establishing a culture reflective of our purpose to help make our customers' financial lives better and delivering on Responsible Growth is also critical to effective risk management. We are committed to the highest principles of ethical and professional conduct. Conduct risk is the risk of improper actions, behaviors or practices by the Corporation, its employees or representatives that are illegal, unethical and/or contrary to our core values that could result in harm to the Corporation, our shareholders or our customers, damage the integrity of the financial markets, or negatively impact our reputation. We have established protocols and structures so that conduct risk is governed and reported across the Corporation appropriately. All employees are held accountable for adhering to the Code of Conduct, operating within our risk appetite and managing risk in their daily business activities. In addition, our performance management and compensation practices encourage responsible risk-taking that is consistent with our Risk Framework and risk appetite.

Corporation-wide Stress Testing

Integral to our Capital Planning, Financial Planning and Strategic Planning processes, we

functions. It is designed to be forward-looking and to capture relevant risk factors across all of our lines of business.

Measure – Once a risk is identified, it must be prioritized and accurately measured through a systematic process including qualitative statements and quantitative limits. Risk is measured at various levels, including, but not limited to, risk type, FLU and legal entity, and also on an aggregate basis. This risk measurement process helps to capture changes in our risk profile due to changes in strategic direction,

through our capital planning, financial planning and strategic planning processes, we conduct capital scenario management and stress forecasting on a periodic regular basis to better understand balance sheet, earnings and capital sensitivities to certain a wide range of economic and business scenarios, including economic and market conditions that are more severe than anticipated. These stress forecasts provide an understanding of the potential impacts from our risk profile on the balance sheet, earnings and capital, and serve as a key component of our capital and risk management practices. The intent of stress testing is to

Bank of America 46

develop a comprehensive understanding of potential impacts of on- and off-balance sheet risks at the Corporation and certain subsidiaries and how they impact financial resiliency, which provides confidence to management, regulators and our investors.

Contingency Planning

We have developed and maintain comprehensive contingency plans that are designed to prepare us in advance to respond in the event of

Bank of America 48

potential adverse economic, operational, financial or market stress conditions. These contingency plans include our Capital Contingency Plan and Financial Contingency and Recovery Plan, which provide monitoring, escalation, actions and routines designed to enable us to increase capital and/or liquidity, access funding sources and reduce risk through consideration of potential options that include asset sales, business sales, capital or debt issuances, and other de-risking strategies, risk reducing strategies at various levels of capital or liquidity depletion during a period of stress. We also maintain a Resolution Plan to limit adverse systemic impacts that could be associated with a potential resolution of Bank of America.

Strategic Risk Management

Strategic risk is embedded in every business and is one of the major risk categories along with credit, market, liquidity, compliance, operational and reputational risks. This risk results from incorrect assumptions about external or internal factors, inappropriate business plans, ineffective business strategy execution, or failure to respond in a timely manner to changes in the regulatory, macroeconomic or competitive environments in the geographic locations in which we operate, such as competitor actions, changing customer preferences, product obsolescence and technology developments.

An aspect of strategic risk is the risk that the Corporation's capital levels are not adequate to meet minimum regulatory requirements and support execution of business activities or absorb losses from risks during normal or adverse economic and market conditions. As such, capital risk is managed in parallel to strategic risk.

We manage strategic risk through the Strategic Risk Enterprise Policy and integration into the strategic planning process, among other activities. Our strategic plan is consistent with our risk appetite, capital plan and liquidity requirements, and specifically addresses strategic risks impacting each business.

On an annual basis, the Board reviews and approves the strategic plan, capital plan, financial operating plan and Risk Appetite Statement. With oversight by the Board, senior management directs the lines of business to execute our strategic plan consistent with our core operating principles and risk appetite. The executive management team monitors business performance throughout the year and provides the Board with regular progress reports on whether strategic objectives and timelines are being met, including reports on strategic risks and if additional or alternative actions need to be considered or implemented. The regular executive reviews focus on assessing forecasted earnings and returns on capital, the current risk profile, current capital and liquidity requirements, staffing levels and changes required to support the strategic plan, stress testing results, and other qualitative factors such as market growth rates and peer analysis.

Significant strategic actions, such as capital actions, material acquisitions or divestitures, and resolution plans are reviewed and approved by the Board. At the business level, processes are in place to discuss the strategic risk implications of new, expanded or modified businesses, products or services,

is based on its unique risk profile. With oversight by the Board, executive management assesses the risk-adjusted returns of each business in approving strategic and financial operating plans. The businesses use allocated capital to define business strategies, and price products and transactions.

Capital Management

The Corporation manages its capital position so that its capital is more than adequate to support its business activities and aligns with risk, risk appetite and strategic planning. Additionally, we seek to maintain safety and soundness at all times, even under adverse scenarios, take advantage of organic growth opportunities, meet obligations to creditors and counterparties, maintain ready access to financial markets, continue to serve as a credit intermediary, remain a source of strength for our subsidiaries, and satisfy current and future regulatory capital requirements. Capital management is integrated into our risk and governance processes, as capital is a key consideration in the development of our strategic plan, risk appetite and risk limits.

We conduct an Internal Capital Adequacy Assessment Process (ICAAP) on a periodic basis. The ICAAP is a forward-looking assessment of our projected capital needs and resources, incorporating earnings, balance sheet and risk forecasts under baseline and adverse economic and market conditions. We utilize periodic stress tests to assess the potential impacts to our balance sheet, earnings, regulatory capital and liquidity under a variety of stress scenarios. We perform qualitative risk assessments to identify and assess material risks not fully captured in our forecasts or stress tests. We assess the potential capital impacts of proposed changes to regulatory capital requirements. Management assesses ICAAP results and provides documented quarterly assessments of the adequacy of our capital guidelines and capital position to the Board or its committees.

We periodically review capital allocated to our businesses and allocate capital annually during the strategic and capital planning processes. For more information, see Business Segment Operations on page 37, 34.

CCAR and Capital Planning

The Federal Reserve requires BHCs to submit a capital plan and planned capital actions on an annual basis, consistent with the rules governing the Comprehensive Capital Analysis and Review (CCAR) capital plan, plan, which includes supervisory stress testing by the Federal Reserve. Based on the results of our 2022 CCAR 2023 stress test results, our stress capital buffer (SCB) increased to 3.4 percent from 2.5 percent effective October 1, 2022 October 1, 2023 through September 30, 2023 September 30, 2024.

In October 2021, the Board authorized the Corporation's \$25 billion common stock repurchase program. program (October 2021 Authorization). Additionally, the Board authorized common stock

regulatory change and other strategic initiatives, and to provide formal review and approval where required. With oversight by the Board and the ERC, executive management performs similar analyses throughout the year, and evaluates changes to the financial forecast or the risk, capital or liquidity positions as deemed appropriate to balance and optimize achieving the targeted risk appetite, shareholder returns and maintaining the targeted financial strength. Proprietary models are used to measure the capital requirements for credit, country, market, operational and strategic risks. The allocated capital assigned to each business

repurchases to offset shares awarded under the Corporation's equity-based compensation plans.
In September 2023, the Board modified the October 2021 Authorization, effective

47 Bank of America

October 1, 2023, to include repurchases to offset shares awarded under equity-based compensation plans when determining the remaining repurchase authority. Pursuant to the Board's authorizations, during 2022, 2023, we repurchased \$5.1 billion \$4.6 billion of common stock, including repurchases to offset shares awarded under equity-based compensation plans. As of December 31, 2023, the remaining repurchase authority was approximately \$12.7 billion (including repurchases to offset shares awarded under equity-based compensation plans).

The timing and amount of common stock repurchases are subject to various factors, including the Corporation's capital position, liquidity, financial performance and alternative uses of capital, stock trading price, regulatory requirements and general market conditions, and may be suspended at any time. Such repurchases may be effected through open market purchases or privately negotiated transactions, including repurchase plans that satisfy the conditions of Rule 10b5-1 of the Securities Exchange Act of 1934, as amended (Exchange Act).

49 Bank of America

Regulatory Capital

As a financial services holding company, BHC, we are subject to regulatory capital rules, including Basel 3, issued by U.S. banking regulators. Basel 3 established minimum capital ratios and buffer requirements and outlined two methods of calculating risk-weighted assets (RWA), the Standardized approach and the Advanced approaches. The Standardized approach relies primarily on supervisory risk weights based on exposure type, and the Advanced approaches determine risk weights based on internal models.

The Corporation's depository institution subsidiaries are also subject to the Prompt Corrective Action (PCA) framework. The Corporation and its primary affiliated banking entity, BANA, are Advanced approaches institutions under Basel 3 and are required to report regulatory risk-based capital ratios and RWA under both the Standardized and Advanced approaches. The lower of the capital ratios under Standardized or Advanced approaches compared to their respective regulatory capital ratio requirements are is used to assess capital adequacy, including under the PCA framework. As of December 31, 2022 December 31, 2023, the common equity tier 1 (CET1), capital, Tier 1 capital and Total capital ratios under the Standardized approach were the binding ratios.

Minimum Capital Requirements

In order to avoid restrictions on capital distributions and discretionary bonus payments to executive officers, the Corporation must meet risk-based capital ratio requirements that include a capital conservation buffer of 2.5 percent (under the Advanced approaches only), an SCB (under the Standardized approach only), plus any applicable countercyclical capital buffer remains unchanged at 9.5 percent.

The Corporation is required to calculate its G-SIB surcharge on an annual basis under two methods and is subject to the higher of the resulting two surcharges. Method 1 is consistent with the approach prescribed by the Basel Committee's assessment methodology and is calculated using specified indicators of systemic importance. Method 2 modifies the Method 1 approach by, among other factors, including a measure of the Corporation's reliance on short-term wholesale funding. The Effective January 1, 2024, the Corporation's G-SIB surcharge, which is higher under Method 2, is expected to increased 50 bps, resulting in an increase to 3.0 percent from 2.5 percent on January 1, 2024, which will increase in our minimum CET1 capital ratio requirement. requirement to 10.0 percent from 9.5 percent. At December 31, 2022 December 31, 2023, the Corporation's CET1 capital ratio of 11.2 11.8 percent under the Standardized approach exceeded its current CET1 capital ratio requirement as well as the new minimum requirement expected to be in place as of January 1, 2024 due to an anticipated increase in our G-SIB surcharge.

The Corporation is also required to maintain a minimum supplementary leverage ratio (SLR) of 3.0 percent plus a leverage buffer of 2.0 percent in order to avoid certain restrictions on capital distributions and discretionary bonus payments. Our payments to executive officers. At December 31, 2023, our insured depository institution subsidiaries are required exceeded their requirement to maintain a minimum 6.0 percent SLR to be considered well capitalized under the PCA framework. The numerator of the SLR is quarter-end Basel 3 Tier 1 capital. The denominator is total leverage exposure based on the daily average of the sum of on-balance sheet exposures less permitted deductions and applicable temporary exclusions, as well as the simple average of certain off-balance sheet exposures, as of the end of each month in a quarter.

Capital Composition and Ratios

Table 10 presents Bank of America Corporation's capital ratios and related information in accordance with Basel 3 Standardized and Advanced approaches as measured at December 31, 2022 December 31, 2023 and 2021, 2022. For the periods presented herein, the Corporation met the definition of well capitalized under current regulatory requirements.

and a global systemically important bank (G-SIB) surcharge. The buffers and surcharge must be comprised solely of CET1 capital. For the period from October 1, 2021 October 1, 2022 through September 30, 2022 September 30, 2023, the Corporation's minimum CET1 capital ratio requirements were 10.4 percent under the Standardized approach and 9.5 percent under the Advanced approaches. Effective October 1, 2023 through December 31, 2023, our CET1 minimum requirement was 9.5 percent under both the Standardized and Advanced approaches. Based on the results of our 2022 CCAR stress test, the Corporation's SCB increased to 3.4 percent, resulting in a minimum CET1 capital ratio requirement of 10.4 percent under the Standardized approach for the period from October 1, 2022 through September 30, 2023. Our minimum CET1 capital ratio requirement under the Advanced approaches

Table 10	Bank of America Corporation Regulatory Capital under Basel 3		
	Table 10		
	Table 10		
	Table 10		
	Advanced	Regulatory	
	Standardized	Approaches	Minimum
	Approach (1)	(1)	(2)

Standardized Approach ⁽¹⁾				
Standardized Approach ⁽¹⁾				
Standardized Approach ⁽¹⁾				
(Dollars in millions, except as noted)				
(Dollars in millions, except as noted)				
(Dollars in millions, except as noted)	(Dollars in millions, except as noted)	December 31, 2022		
Risk-based capital metrics:	Risk-based capital metrics:			
Risk-based capital metrics:				
Common equity tier 1 capital				
Common equity tier 1 capital				
Common equity tier 1 capital	Common equity tier 1 capital	\$ 180,060	\$ 180,060	
Tier 1 capital	Tier 1 capital	208,446	208,446	
Tier 1 capital				
Tier 1 capital				
Total capital ⁽³⁾				
Total capital ⁽³⁾				
Total capital ⁽³⁾	Total capital ⁽³⁾	238,773	230,916	
Risk-weighted assets (in billions)	Risk-weighted assets (in billions)			
billions)	billions)	1,605	1,411	
Risk-weighted assets (in billions)				
Risk-weighted assets (in billions)				
Common equity tier 1 capital ratio				
Common equity tier 1 capital ratio				
Common equity tier 1 capital ratio	Common equity tier 1 capital ratio	11.2 %	12.8 %	10.4 %
Tier 1 capital ratio	Tier 1 capital ratio	13.0	14.8	11.9
Tier 1 capital ratio				
Tier 1 capital ratio				
Total capital ratio				
Total capital ratio				
Total capital ratio	Total capital ratio	14.9	16.4	13.9
Leverage-based metrics:	Leverage-based metrics:			
Leverage-based metrics:				
Leverage-based metrics:				
Adjusted quarterly average assets (in billions) ⁽⁴⁾	Adjusted quarterly average assets (in billions) ⁽⁴⁾	\$ 2,997	\$ 2,997	

Adjusted quarterly average assets (in billions) ⁽⁴⁾				
Adjusted quarterly average assets (in billions) ⁽⁴⁾				
Tier 1 leverage ratio				
Tier 1 leverage ratio				
Tier 1 leverage ratio	Tier 1 leverage ratio	7.0 %	7.0 %	4.0
Supplementary leverage exposure (in billions)	Supplementary leverage exposure (in billions)	\$ 3,523		
Supplementary leverage exposure (in billions)				
Supplementary leverage exposure (in billions)				
Supplementary leverage ratio				
Supplementary leverage ratio				
Supplementary leverage ratio	Supplementary leverage ratio	5.9 %	5.0	
December 31, 2022				
	December 31, 2021			
December 31, 2022				
December 31, 2022				
Risk-based capital metrics:				
Risk-based capital metrics:				
Risk-based capital metrics:	Risk-based capital metrics:			
Common equity tier 1 capital	Common equity tier 1 capital	\$ 171,759	\$ 171,759	
Common equity tier 1 capital				
Common equity tier 1 capital				
Tier 1 capital				
Tier 1 capital				
Tier 1 capital	Tier 1 capital	196,465	196,465	
Total capital ⁽³⁾	Total capital ⁽³⁾	227,592	220,616	
Total capital ⁽³⁾				
Total capital ⁽³⁾				
Risk-weighted assets (in billions)				
Risk-weighted assets (in billions)				
Risk-weighted assets (in billions)	Risk-weighted assets (in billions)	1,618	1,399	
Common equity tier 1 capital ratio	Common equity tier 1 capital ratio	10.6 %	12.3 %	9.5 %
Common equity tier 1 capital ratio				
Common equity tier 1 capital ratio				
Tier 1 capital ratio	Tier 1 capital ratio	12.1	14.0	11.0
Tier 1 capital ratio				

Tier 1 capital ratio				
Total capital ratio				
Total capital ratio				
Total capital ratio	Total capital ratio	14.1	15.8	13.0
Leverage-based metrics:				
Leverage-based metrics:				
Leverage-based metrics:				
Adjusted quarterly average assets (in billions) ⁽⁴⁾	Adjusted quarterly average assets (in billions) ⁽⁴⁾	\$ 3,087	\$ 3,087	
Adjusted quarterly average assets (in billions) ⁽⁴⁾				
Adjusted quarterly average assets (in billions) ⁽⁴⁾				
Tier 1 leverage ratio				
Tier 1 leverage ratio				
Tier 1 leverage ratio	Tier 1 leverage ratio	6.4 %	6.4 %	4.0
Supplementary leverage exposure (in billions)				
Supplementary leverage exposure (in billions)				
Supplementary leverage ratio				
Supplementary leverage ratio				
Supplementary leverage ratio	Supplementary leverage ratio	5.5 %	5.0	

⁽³⁾ Capital ratios as of **December 31, 2022**, **December 31, 2023** and **2021** **2022** are calculated using the regulatory capital rule that allows a five-year transition period related to the adoption of the current expected credit losses (CECL) accounting standard on January 1, 2020.

⁽²⁾ The capital conservation buffer and G-SIB surcharge were 2.5 percent at both **December 31, 2022** and **2021**. The Corporation's SCB applied in place of the capital conservation buffer under the Standardized approach was 3.4 percent at **December 31, 2022** and 2.5 percent at **December 31, 2021**. The countercyclical capital buffer for both periods was zero. The CET1 capital regulatory minimum is the sum of the CET1 capital ratio minimum of 4.5 percent, our G-SIB surcharge of 2.5 percent and our capital conservation buffer of 2.5 percent (under the Advanced approaches) or the SCB as applicable, of 2.5 percent at **December 31, 2023** and 3.4 percent at **December 31, 2022** and 2.5 percent at **December 31, 2021** (under the Standardized approach), as applicable. The countercyclical capital buffer was zero for both periods. The SLR regulatory minimum includes a leverage buffer of 2.0 percent.

⁽³⁾ Total capital under the Advanced approaches differs from the Standardized approach due to differences in the amount permitted in Tier 2 capital related to the qualifying allowance for credit losses.

⁽⁴⁾ Reflects total average assets adjusted for certain Tier 1 capital deductions.

At **December 31, 2022**, **December 31, 2023**, CET1 capital was **\$180.1 billion** **\$194.9 billion**, an increase of **\$8.3 billion** **\$14.9 billion** from **December 31, 2021**, **December 31, 2022**, primarily due to earnings, partially offset by dividends, common stock repurchases and higher net unrealized losses on available-for-sale debt securities included in accumulated other comprehensive income (OCI), capital distributions. Tier 1 capital increased **\$12.0 billion** **\$14.9 billion** primarily driven by the same factors as CET1 capital as well as non-cumulative perpetual preferred stock issuances, capital. Total capital under the Standardized approach increased **\$11.2 billion** **\$12.6 billion** primarily due to the same factors driving the increase in

under the Standardized approach, which yielded the lower CET1 capital ratio at **December 31, 2022**, **December 31, 2023**, decreased **\$13.0 billion** increased **\$46.4 billion** during **2022** **2023** to **\$1.605 billion** **\$1.651 billion** primarily due to lower higher counterparty and market risk exposures in *Global Markets* and a decrease in debt securities in the Treasury portfolio, partially offset by consumer loan growth. Supplementary leverage exposure at **December 31, 2022** decreased **\$80.3 billion** **December 31, 2023** increased **\$152.9 billion** primarily due to higher cash held at central banks, partially offset by lower debt securities driven by lower deposits, partially offset by loan growth, balances.

Tier 1 capital and an increase in the adjusted allowance for credit losses included in Tier 2 capital, partially offset by a decrease in subordinated debt. RWA

Table 11 shows the capital composition at December 31, 2022 December 31, 2023 and 2021, 2022.

Capital Composition Table under Basel				
Table 11 3				
Table 11				
Table 11				
December 31				
December 31				
December 31				
December 31				
(Dollars in millions)				
(Dollars in millions)				
(Dollars in millions)	(Dollars in millions)	2022	2021	2023
Total common shareholders' equity	Total common shareholders' equity	\$244,800	\$245,358	
CECL transitional amount (1)	CECL transitional amount (1)	1,881	2,508	
Goodwill, net of related deferred tax liabilities	Goodwill, net of related deferred tax liabilities	(68,644)	(68,641)	
Deferred tax assets arising from net operating loss and tax credit carryforwards	Deferred tax assets arising from net operating loss and tax credit carryforwards	(7,776)	(7,743)	
Intangibles, other than mortgage servicing rights, net of related deferred tax liabilities	Intangibles, other than mortgage servicing rights, net of related deferred tax liabilities	(1,554)	(1,605)	
Defined benefit pension plan net assets	Defined benefit pension plan net assets	(867)	(1,261)	

Cumulative unrealized net (gain) loss related to changes in fair value of financial liabilities attributable to own creditworthiness, net-of-tax	Cumulative unrealized net (gain) loss related to changes in fair value of financial liabilities attributable to own creditworthiness, net-of-tax	496	1,400
Accumulated net (gain) loss on certain cash flow hedges ⁽²⁾	Accumulated net (gain) loss on certain cash flow hedges	11,925	1,870
Other	Other	(201)	(127)
Common equity tier 1 capital	Common equity tier 1 capital	180,060	171,759
Qualifying preferred stock, net of issuance cost	Qualifying preferred stock, net of issuance cost	28,396	24,707
Other	Other	(10)	(1)
Tier 1 capital	Tier 1 capital	208,446	196,465
Tier 2 capital instruments	Tier 2 capital instruments	18,751	20,750
Qualifying allowance for credit losses ⁽³⁾	Qualifying allowance for credit losses ⁽³⁾	11,739	10,534
Other	Other	(163)	(157)
Total capital under the Standardized approach	Total capital under the Standardized approach	238,773	227,592
Adjustment in qualifying allowance for credit losses under the Advanced approaches ⁽³⁾	Adjustment in qualifying allowance for credit losses under the Advanced approaches ⁽³⁾	(7,857)	(6,976)
Total capital under the Advanced approaches	Total capital under the Advanced approaches	\$230,916	\$220,616

⁽¹⁾ Includes the impact of the Corporation's adoption December 31, 2023 and 2022 include 50 percent and 75 percent of the CECL accounting standard on January 1, 2020 and 25 percent transition provision's impact as of the increase in reserves since the initial adoption, December 31, 2021.

⁽²⁾ Includes amounts in accumulated other comprehensive income (OCI) related to the hedging of items that are not recognized at fair value on the Consolidated Balance Sheet.

⁽³⁾ Includes the impact of transition provisions related to the CECL accounting standard.

Table 12 shows the components of RWA as measured under Basel 3 at December 31, 2022 December 31, 2023 and 2021, 2022.

Table 12 Risk-weighted Assets under Basel 3					
(Dollars in billions)		Standardized			
		Approach	Advanced Approaches	Standardized Approach	Advanced Approaches
		December 31			
		2022		2021	

Credit risk	\$	1,538	\$	939	\$	1,549	\$	913
Market risk		67		67		69		69
Operational risk ⁽¹⁾		n/a		364		n/a		378
Risks related to credit valuation adjustments		n/a		41		n/a		39
Total risk-weighted assets	\$	1,605	\$	1,411	\$	1,618	\$	1,399

⁽¹⁾ December 31, 2022 includes the effects of an update made to our operational risk RWA model during the fourth quarter of 2022.

Table 12 Risk-weighted Assets under Basel 3		Standardized			
		Approach	Advanced Approaches	Standardized Approach	Advanced Approaches
		December 31			
		2023		2022	
(Dollars in billions)					
Credit risk	\$	1,580	\$ 983	\$ 1,538	\$ 939
Market risk		71	71	67	67
Operational risk		n/a	361	n/a	364
Risks related to credit valuation adjustments		n/a	44	n/a	41
Total risk-weighted assets	\$	1,651	\$ 1,459	\$ 1,605	\$ 1,411

n/a = not applicable

Bank of America, N.A. Regulatory Capital

Table 13 presents regulatory capital information for BANA in accordance with Basel 3 Standardized and Advanced approaches as measured at **December 31, 2022** **December 31, 2023** and **2021, 2022**. BANA met the definition of well capitalized under the PCA framework for both periods.

Table 13		Bank of America, N.A. Regulatory Capital under Basel 3					
		Standardized		Advanced		Regulatory	
		Approach ⁽¹⁾		Approaches ⁽¹⁾		Bank of America 50 Minimum ⁽²⁾	
(Dollars in millions, except as noted)		December 31, 2022					
Risk-based capital metrics:							
Common equity tier 1 capital		\$	181,089	\$	181,089		
Tier 1 capital			181,089		181,089		
Total capital ⁽³⁾			194,254		186,648		
Risk-weighted assets (in billions)			1,386		1,087		
Common equity tier 1 capital ratio			Standardized Approach ⁽¹⁾ 13.1 %		Advanced Approaches ⁽¹⁾ 16.7 %	Regulatory Minimum ⁽²⁾ 7.0 %	
Tier 1 capital ratio			13.1		16.7	8.5	
(Dollars in millions, except as noted)			December 31, 2023				
Total capital ratio			14.0		17.2	10.5	
Risk-based capital metrics:							
Common equity tier 1 capital		\$	187,621	\$	187,621		
Tier 1 capital			187,621		187,621		
Adjusted quarterly average assets (in billions) ⁽⁴⁾		\$	2,338	\$	2,338		
Total capital ratio			201.92 %		192.17 %	5.0	
Tier 1 leverage ratio			7.7 %		7.7 %		
Risk-weighted assets (in billions)			1,395		1,114		
Supplementary leverage exposure (in billions)				\$	2,785		
Common equity tier 1 capital ratio			13.5 %		16.8 %	7.0 %	
Supplementary leverage ratio					6.5 %	6.0	
Tier 1 capital ratio			13.5		16.8	8.5	
Total capital ratio			14.5		17.2	10.5	
			December 31, 2021				
Risk-based capital metrics:							
Common equity tier 1 capital		\$	182,474	\$	182,474		
Adjusted quarterly average assets (in billions) ⁽⁴⁾		\$	182,474	\$	182,474		

(Dollars in millions)	(Dollars in millions)	December 31, 2022				(Dollars in millions)	December 31, 2023			
Total eligible balance	Total eligible balance	\$465,451		\$243,833						
Percentage of risk-weighted assets ⁽⁴⁾	Percentage of risk-weighted assets ⁽⁴⁾	29.0 %	22.0 %	15.2 %	8.5 %					
Percentage of risk-weighted assets ⁽⁴⁾										
Percentage of risk-weighted assets ⁽⁴⁾										
Percentage of risk-weighted assets ⁽⁴⁾										
Percentage of risk-weighted assets ⁽⁴⁾										
Percentage of risk-weighted assets ⁽⁴⁾										
Percentage of risk-weighted assets ⁽⁴⁾										
Percentage of supplementary leverage exposure	Percentage of supplementary leverage exposure	13.2	9.5	6.9	4.5					
December 31, 2021										
December 31, 2022										
December 31, 2022										
December 31, 2022										
December 31, 2022										
December 31, 2022										
December 31, 2022										
Total eligible balance	Total eligible balance	\$435,904		\$227,714						
Percentage of risk-weighted assets ⁽⁴⁾	Percentage of risk-weighted assets ⁽⁴⁾	26.9 %	22.0 %	14.1 %	8.5 %					
Percentage of risk-weighted assets ⁽⁴⁾										
Percentage of risk-weighted assets ⁽⁴⁾										
Percentage of risk-weighted assets ⁽⁴⁾										
Percentage of risk-weighted assets ⁽⁴⁾										
Percentage of risk-weighted assets ⁽⁴⁾										
Percentage of supplementary leverage exposure	Percentage of supplementary leverage exposure	12.1	9.5	6.3	4.5					

- ⁽¹⁾ As of December 31, 2022, December 31, 2023 and 2021, 2022, TLAC ratios are calculated using the regulatory capital rule that allows a five-year transition period related to the adoption of CECL, the CECL accounting standard on January 1, 2020.
- ⁽²⁾ The TLAC RWA regulatory minimum consists of 18.0 percent plus a TLAC RWA buffer comprised of 2.5 percent plus the Method 1 G-SIB surcharge of 1.5 percent. The countercyclical buffer is zero for both periods. The TLAC supplementary leverage exposure regulatory minimum consists of 7.5 percent plus a 2.0 percent TLAC leverage buffer. The TLAC RWA and leverage buffers must be comprised solely of CET1 capital and Tier 1 capital, respectively.
- ⁽³⁾ The long-term debt RWA regulatory minimum is comprised of 6.0 percent plus an additional 2.5 percent requirement based on the Corporation's Method 2 G-SIB surcharge. The long-term debt leverage exposure regulatory minimum is 4.5 percent. Effective January 1, 2024, the Corporation's G-SIB surcharge, which is higher under Method 2, increased 50 bps, resulting in an increase in our long-term debt RWA regulatory minimum requirement to 9.0 percent from 8.5 percent.
- ⁽⁴⁾ The approach that yields the higher RWA is used to calculate TLAC and long-term debt ratios, which was the Standardized approach as of December 31, 2022, December 31, 2023 and 2021, 2022.

Regulatory Developments

On July 27, 2023, U.S. banking regulators issued proposed rules that would update future U.S. regulatory capital requirements. Under the capital proposal, the Advanced approaches would be replaced with a new standardized approach, referred to as the expanded risk-based approach, which would be phased in over a three-year period beginning July 1, 2025. U.S. banking regulators also issued proposed rules to revise the risk-based capital surcharge for G-SIBs, which would be effective two calendar quarters after finalization. On August 29, 2023, U.S. banking regulators issued proposed rules that would change the criteria for debt instruments included in the Corporation's eligible long-term debt and TLAC. Any final rules issued are subject to change from the current proposals. The Corporation is evaluating the potential impact of the proposed rules on its regulatory capital, eligible long-term debt and TLAC requirements.

Regulatory Capital and Securities Regulation

The Corporation's principal U.S. broker-dealer subsidiaries are BofA Securities, Inc. (BofAS), Merrill Lynch Professional Clearing Corp. (MLPCC) and Merrill Lynch, Pierce, Fenner & Smith Incorporated (MLPF&S). On August 13, 2023, Merrill Lynch Professional Clearing Corp. (MLPCC) merged into its immediate parent, BofAS. Prior to that date, MLPCC was a fully-guaranteed subsidiary of BofAS and provided clearing and settlement services as well as prime brokerage and arranged financing services for institutional clients. Following the merger, client services previously provided by MLPCC are now being provided by or through BofAS.

The Corporation's principal European subsidiaries undertaking broker-dealer subsidiaries activities are Merrill Lynch International (MLI) and BofA Securities Europe SA (BofASE).

The U.S. broker-dealer subsidiaries are subject to the net capital requirements of Rule 15c3-1 under the Exchange Act. BofAS computes its minimum capital requirements as an alternative net capital broker-dealer under Rule 15c3-1e, and MLPCC and MLPF&S compute their minimum computes its capital requirements in accordance with the alternative standard under Rule 15c3-1. BofAS and MLPCC are also is registered as a futures commission merchants merchant and are is subject to Commodity Futures Trading Commission (CFTC) Regulation 1.17. The U.S. broker-dealer subsidiaries are also registered with the Financial Industry Regulatory Authority, Inc. (FINRA). Pursuant to FINRA Rule 4110, FINRA may impose higher net capital requirements than Rule 15c3-1 under the Exchange Act with respect to each of the broker-dealers.

Financial Conduct Authority and is subject to certain regulatory capital requirements. At December 31, 2022 December 31, 2023, MLI's capital resources were \$33.4 billion \$33.9 billion, which exceeded the minimum Pillar 1 requirement of \$11.6 billion \$11.4 billion.

BofASE, is an authorized credit institution with its head office located in France. Previously, BofASE had been authorized as an investment firm, but following the European Union's adoption of the harmonized Investment Firm Directive and Investment Firm Regulation prudential regime, it was required to apply for reauthorization as a credit institution. The application was approved in November 2022 and became effective on December 8, 2022. BofASE France, is authorized and regulated by the Autorité de Contrôle Prudentiel et de Résolution and the Autorité des Marchés Financiers, and supervised under the Single Supervisory Mechanism by the European Central Bank. At December 31, 2022 December 31, 2023, BofASE's capital resources were \$9.0 billion \$9.6 billion, which exceeded the minimum Pillar 1 requirement of \$3.0 billion \$3.6 billion.

In addition, MLI and BofASE became conditionally registered with the SEC as security-based swap dealers in the fourth quarter of 2021, and maintained net liquid assets at December 31, 2022 December 31, 2023 that exceeded the applicable minimum requirements under the Exchange Act.

Liquidity Risk

Funding and Liquidity Risk Management

Our primary liquidity risk management objective is to meet expected or unexpected cash flow and collateral requirements, including payments under long-term debt agreements, commitments to extend credit and customer deposit withdrawals, while continuing to support our businesses and

BofAS provides institutional services, and in accordance with the alternative net capital requirements, is required to maintain tentative net capital in excess of \$5.0 billion and net capital in excess of the greater of \$1.0 billion or a certain percentage of its reserve requirement in addition to a certain percentage of securities-based swap risk margin. BofAS must also notify the SEC in the event its tentative net capital is less than \$6.0 billion. BofAS is also required to hold a certain percentage of its customers' and affiliates' risk-based margin in order to meet its CFTC minimum net capital requirement. At December 31, 2022 December 31, 2023, BofAS had tentative net capital of \$20.9 billion \$21.4 billion. BofAS also had regulatory net capital of \$17.5 billion \$19.4 billion, which exceeded the minimum requirement of \$4.1 billion.

MLPCC is a fully-guaranteed subsidiary of BofAS and provides clearing and settlement services as well as prime brokerage and arranged financing services for institutional clients. At December 31, 2022, MLPCC's regulatory net capital of \$7.5 billion exceeded the minimum requirement of \$1.4 billion \$4.6 billion.

MLPF&S provides retail services. At December 31, 2022 December 31, 2023, MLPF&S' regulatory net capital was \$6.0 billion \$5.8 billion, which exceeded the minimum requirement of \$137 million \$134 million.

Our European broker-dealers are subject to requirements from U.S. and non-U.S. regulators. MLI, a U.K. investment firm, is regulated by the Prudential Regulation Authority and the

customers under a range of economic conditions. To achieve that objective, we analyze and monitor our liquidity risk under expected and stressed conditions, maintain liquidity and access to diverse funding sources, including our stable deposit base, and seek to align liquidity-related incentives and risks. These liquidity risk management practices have allowed us to effectively manage the market **fluctuation stress from increased volatility due to the failure of certain financial institutions in the first half of 2023**. Our practices have also allowed us to effectively manage **market fluctuations** from the rising interest rate environment, inflationary pressures and **changes in the macroeconomic environment**.

We define liquidity as readily available assets, limited to cash and high-quality, liquid, unencumbered securities that we can use to meet our contractual and contingent financial obligations as they arise. We manage our liquidity position through line-of-business and ALM activities, as well as through our legal entity funding strategy, on both a forward and current

The Board approves our liquidity risk policy and the Financial Contingency and Recovery Plan. The ERC establishes our liquidity risk tolerance levels. The MRC is responsible for overseeing liquidity risks and directing management to maintain exposures within the established tolerance levels. The MRC reviews and monitors our liquidity position and stress testing results, approves certain liquidity risk limits and reviews the impact of strategic decisions on our liquidity. For more information, see Managing Risk on page 46, 44. Under this governance framework, we developed certain funding and liquidity risk management practices which include: maintaining liquidity at Bank of America Corporation (Parent) and selected subsidiaries, including our bank subsidiaries and other regulated entities; determining what amounts of liquidity are appropriate for these entities based on analysis of debt maturities and other potential cash outflows, including those that we may experience during stressed market conditions; diversifying funding sources, considering our asset profile and legal entity structure; and performing contingency planning.

The Parent, which is a separate and distinct legal entity from our bank and nonbank subsidiaries, has an intercompany arrangement with our wholly-owned holding company subsidiary, NB Holdings Corporation (NB Holdings). We have transferred, and agreed to transfer, additional Parent assets not required to satisfy anticipated near-term expenditures to NB Holdings. The Parent is expected to continue to have access to the same flow of dividends, interest and other amounts of cash necessary to service its debt, pay dividends and perform other obligations as it would have had it not entered into these arrangements and transferred any assets. These arrangements support our preferred single point of entry resolution strategy, under which only the Parent would be resolved under the U.S. Bankruptcy Code.

In consideration for the transfer of assets, NB Holdings issued a subordinated note to the Parent in a principal amount equal to the value of the transferred assets. The aggregate principal amount of the note will increase by the amount of any future asset transfers. NB Holdings also provided the Parent with a committed line of credit that allows the Parent to draw

assets that are readily available to the Parent and selected subsidiaries, including holding company, bank and broker-dealer subsidiaries, even during stressed market conditions. Our cash is primarily on deposit with the Federal Reserve Bank and, to a lesser extent, central banks outside of the U.S. We limit the composition of high-quality, liquid, unencumbered securities to U.S. government securities, U.S. agency securities, U.S. agency MBS and other investment-grade securities, and a select group of non-U.S. government securities. We can obtain cash for these securities, even in stressed conditions, through repurchase agreements or outright sales. We hold our GLS in legal entities that allow us to meet the liquidity requirements of our global businesses, and we consider the impact of potential regulatory, tax, legal and other restrictions that could limit the transferability of funds among entities.

Table 15 presents average GLS for the three months ended December 31, 2022, December 31, 2023 and 2021, 2022.

funds necessary to service near-term cash needs. These arrangements support our preferred single point of entry resolution strategy, under which only the Parent would be resolved under the U.S. Bankruptcy Code. These arrangements include provisions to terminate the line of credit, forgive the subordinated note and require the Parent to transfer its remaining financial assets to NB Holdings if our projected liquidity resources deteriorate so severely that resolution of the Parent becomes imminent.

We maintain liquidity available to the Corporation, including the Parent and selected subsidiaries, in the form of cash and high-quality, liquid, unencumbered securities. Our liquidity buffer, referred to as Global Liquidity Sources (GLS), is comprised of

Bank entities			
Bank entities			
Nonbank and other entities (1)	Nonbank and other entities (1)	174	152
Total Average Global Liquidity Sources	Total Average Global Liquidity Sources	\$868	\$1,158

(1) Nonbank includes Parent, NB Holdings and other regulated entities.

Our bank subsidiaries' liquidity is primarily driven by deposit and lending activity, as well as securities valuation and net debt activity. Bank subsidiaries can also generate incremental liquidity by pledging a range of unencumbered loans and securities to certain FHLBs and the Federal Reserve Discount Window. The cash we could have obtained by borrowing against this pool of specifically-identified eligible assets was \$312 billion and \$348 billion at December 31, 2023 and \$322 billion at December 31, 2022 and 2021, 2022. We have established operational procedures to enable us to borrow against these assets, including regularly monitoring our total pool of eligible loans and securities collateral. Eligibility is defined in guidelines from the FHLBs and the Federal Reserve and is subject to change at their discretion. Due to regulatory restrictions, liquidity generated by the bank subsidiaries can generally be used only to fund obligations within the bank subsidiaries, and transfers to the Parent or nonbank subsidiaries may be subject to prior regulatory approval.

Liquidity is also held in nonbank entities, including the Parent, NB Holdings and other regulated entities. The Parent and NB Holdings liquidity is typically in the form of cash deposited at BANA, which is excluded from the liquidity at bank subsidiaries, and high-quality, liquid, unencumbered securities. Liquidity held in other regulated entities, comprised primarily of

53 Bank of America

broker-dealer subsidiaries, is primarily available to meet the obligations of that entity, and 2022. transfers to the Parent or to any other subsidiary may be subject to prior regulatory approval due to regulatory restrictions and minimum requirements. Our other regulated entities also hold unencumbered investment-grade securities and equities that we believe could be used to generate additional liquidity.

Table 16 presents the composition of average GLS for the three months ended December 31, 2022 December 31, 2023 and December 31, 2021.

55 Bank of America

maintain businesses and finance customer activities. Changes in certain market factors, including, but not limited to, credit rating downgrades, could negatively impact potential contractual and contingent outflows and the related financial instruments, and in some cases these impacts could be material to our financial results.

We consider all sources of funds that we could access during each stress scenario and focus particularly on matching available sources with corresponding liquidity requirements by legal entity. We also use the stress modeling results to manage our asset and liability profile and establish limits and guidelines on certain funding sources and businesses.

Net Stable Funding Ratio

The Net Stable Funding Ratio (NSFR) is a liquidity requirement for large banks to maintain a minimum level of stable funding over a one-year period. The requirement is intended to support the ability of banks to lend to households and businesses in both normal and adverse economic conditions and is complementary to the LCR, which focuses on short-term liquidity risks. The U.S. NSFR applies to the Corporation on a consolidated basis and to our insured depository institutions. At December 31, 2022 For the three months ended September 30, 2023 and December 31, 2023, the Corporation average consolidated NSFR was 119 percent and its insured depository institutions were in compliance with this requirement. 120 percent.

Diversified Funding Sources

We fund our assets primarily with a mix of deposits, and secured and unsecured liabilities through a centralized, globally coordinated funding approach diversified across products, programs, markets, currencies and investor groups.

The primary benefits of our centralized funding approach include greater control, reduced funding costs, wider name recognition by investors and greater flexibility to meet the variable funding requirements of subsidiaries. Where regulations, time zone differences or other business considerations make Parent funding impractical, certain other subsidiaries may issue their own debt.

We fund a substantial portion of our lending activities through our deposits, which were \$1.92 trillion and \$1.93 trillion at December 31, 2023 and \$2.1 trillion at December 31, 2022 and 2021. 2022. Deposits are primarily generated by our Consumer Banking, GWIM and Global Banking segments. These deposits are diversified by clients, product type and geography, and the majority of our U.S. deposits are insured by the FDIC.

At December 31, 2023, 50 percent of our deposits were in Consumer Banking, 16 percent in GWIM and 27 percent in Global Banking. As of the same period, approximately 68 percent of consumer and small business deposits and 79 percent of U.S. deposits in Global Banking were held by clients who have had accounts with us for 10 or more years. In addition, at December 31, 2023 and 2022, 28 percent and 34 percent of our deposits were noninterest-bearing and included operating accounts of our consumer and commercial clients.

We consider a substantial portion of our deposits to be a stable, low-cost and consistent source of funding. We believe this deposit funding is generally less sensitive to interest rate changes, market volatility or changes in our credit ratings than wholesale funding sources. Our lending activities may also be financed through secured borrowings, including credit card securitizations and securitizations with government-sponsored enterprises (GSE), the Federal Housing Administration (FHA) and private-label investors, as well as FHLB loans.

Our trading activities in other regulated entities are primarily funded on a secured basis through securities lending and repurchase agreements, and these amounts will vary based on customer activity and market conditions. We believe funding these activities in the secured financing markets is more cost-efficient and less sensitive to changes in our credit ratings than unsecured financing. Repurchase agreements are generally short-term and often overnight. Disruptions in secured financing

markets for financial institutions have occurred in prior market cycles which resulted in adverse changes in terms or significant reductions in the availability of such financing. We manage the liquidity risks arising from secured funding by sourcing funding globally from a diverse group of counterparties, providing a range of securities collateral and pursuing longer durations, when appropriate. For more information on secured financing agreements, see *Note 10 – Securities Financing Agreements, Short-term Borrowings, Collateral and Restricted Cash* to the Consolidated Financial *Statements, Statements*.

Total long-term debt decreased \$4.1 billion increased \$26.2 billion to \$276.0 billion \$302.2 billion during 2022 2023, primarily due to debt maturities, redemptions issuances and valuation adjustments, partially offset by debt issuances, maturities and redemptions. We may, from time to time, purchase outstanding debt instruments in various transactions, depending on market conditions, liquidity and other factors. Our other regulated entities may also make markets in our debt instruments to provide liquidity for investors.

During 2023, we issued \$62.0 billion of long-term debt consisting of \$24.0 billion of notes issued by Bank of America Corporation, substantially all of which were TLAC compliant, \$25.1 billion of notes issued by Bank of America, N.A. and \$12.9 billion of other debt. During 2022, we issued \$66.0 billion of long-term debt consisting of \$44.2 billion of notes issued by Bank of America Corporation, substantially all of which were TLAC compliant,

Bank of America 56

\$10.0 billion \$10.0 billion of notes issued by Bank of America, N.A. and \$11.8 billion of other debt.

During 2021 2023, we issued \$76.7 billion of had total long-term debt maturities and redemptions in the aggregate of \$42.7 billion consisting of \$56.2 billion of notes issued by \$25.3 billion for Bank of America Corporation, substantially all of which were TLAC compliant, \$8 billion of notes issued by \$10.5 billion for Bank of America, N.A. and \$12.5 billion \$6.9 billion of other debt.

During 2022, we had total long-term debt maturities and redemptions in the aggregate of \$33.3 billion consisting of \$19.8 billion for Bank of America Corporation, \$9.9 billion for Bank of America, N.A. and \$3.6 billion of other debt. During 2021, we had total long-term debt maturities and redemptions in the aggregate of \$46.4 billion consisting of \$24.4 billion for Bank of America Corporation, \$10.4 billion for Bank of America, N.A. and \$11.6 billion of other debt.

At December 31, 2022 December 31, 2023, Bank of America Corporation's senior notes of \$205.9 billion \$208.4 billion included \$179.1 billion \$187.7 billion of outstanding notes that are both TLAC eligible and callable at least one year before their stated maturities. Of these senior notes, \$16.6 billion \$22.1 billion will be callable and become TLAC ineligible during 2023, 2024, and \$22.0 billion, \$21.4 billion, \$21.3 billion, \$16.0 billion \$25.0 billion and \$24.4 billion \$19.9 billion will do so during each of 2024 2025 through 2027 2028, respectively, and \$79.4 billion \$77.3 billion thereafter.

We issue long-term unsecured debt in a variety of maturities and currencies to achieve cost-efficient funding and to maintain an appropriate maturity profile. While the cost and availability of unsecured funding may be negatively impacted by general market conditions or by matters specific to the financial services industry or the Corporation, we seek to mitigate refinancing risk by actively managing the amount of our borrowings that we anticipate will mature within any month or quarter. We may issue unsecured debt in the form of structured notes for client purposes, certain of which qualify as TLAC-eligible TLAC-eligible debt. During 2022 2023, we issued \$12.5 billion \$15.7 billion of structured notes, which are debt obligations that pay investors returns linked to other debt or equity securities, indices, currencies or commodities. We typically hedge the returns we are obligated to pay on these liabilities with derivatives and/or investments in the underlying instruments, so that from a funding perspective, the cost is similar to our other unsecured long-term debt. We could be required to settle certain structured note obligations for cash or other securities prior to maturity under certain circumstances, which we consider for liquidity planning purposes. We believe, however, that a portion of such

insurance limits are uninsured. At December 31, 2023, the Corporation's deposits totaled \$1.92 trillion, of which total estimated uninsured U.S. and non-U.S. deposits were \$606.8 billion and \$116.6 billion. At December 31, 2022, the Corporation's deposits totaled \$1.9 \$1.93 trillion, of which total estimated uninsured U.S. and non-U.S. deposits were \$617.6 billion and \$102.8 billion. At December 31, 2021, Deposit balances exclude \$14.8 billion and \$15.2 billion of collateral received on certain derivative contracts that are netted against the Corporation's derivative asset in the Consolidated Balance Sheet at December 31, 2023 and 2022. Estimated uninsured deposits totaled \$2.1 trillion, of which total estimated uninsured U.S. presented in this section reflect amounts disclosed in our regulatory reports, adjusted to exclude related accrued interest and non-U.S. deposits were \$701.4 billion and \$111.9

borrowings will remain outstanding beyond the earliest put or redemption date.

Substantially all of our senior and subordinated debt obligations contain no provisions that could trigger a requirement for an early repayment, require additional collateral support, result in changes to terms, accelerate maturity or create additional financial obligations upon an adverse change in our credit ratings, financial ratios, earnings, cash flows or stock price. For more information on long-term debt funding, including issuances and maturities and redemptions, see *Note 11 – Long-term Debt* to the Consolidated Financial *Statements, Statements*.

We use derivative transactions to manage the duration, interest rate and currency risks of our borrowings, considering the characteristics of the assets they are funding. For more information on our ALM activities, see Interest Rate Risk Management for the Banking Book on page 79 77.

Uninsured Deposits

The FDIC insures the Corporation's U.S. deposits up to \$250,000 per depositor, per insured bank for each account ownership category, and various country-specific funds insure non-U.S. deposits up to specified limits. Deposits that exceed

Table 17 presents information about the Corporation's total estimated uninsured time deposits. For more information on our liquidity sources, see Global Liquidity Sources and Other Unencumbered Assets, and for more information on deposits, see Diversified Funding Sources in this section. For more information on contractual time deposit maturities, see *Note 9 – Deposits* to the Consolidated Financial Statements.

(3) Amounts are estimated based on the regulatory methodologies defined by each local jurisdiction

Contingency Planning

We maintain contingency funding plans that outline our potential responses to liquidity stress events at various levels of severity. These policies and plans are based on stress scenarios and include potential funding strategies and communication and notification procedures that we would implement in the event we experienced stressed liquidity conditions. We periodically review and test the contingency funding plans to validate efficacy and

55 Bank of America

assess readiness.

Our U.S. bank subsidiaries can access contingency funding through the Federal Reserve Discount Window. Certain non-U.S. subsidiaries have access to central bank facilities in the jurisdictions in which they operate. While we do not rely on these sources in our liquidity modeling, we maintain the policies, procedures and governance processes that would enable us to access these sources if necessary.

Credit Ratings

Our borrowing costs and ability to raise funds are impacted by our credit ratings. In addition, credit ratings may be important to customers or counterparties when we compete in certain markets and when we seek to engage in certain transactions, including over-the-counter (OTC) derivatives. Thus, it is our objective to maintain high-quality credit ratings, and management maintains an active dialogue with the major rating agencies.

Credit ratings and outlooks are opinions expressed by rating agencies on our creditworthiness and that of our obligations or securities, including long-term debt, short-term borrowings, preferred stock and other securities, including asset securitizations. Our credit ratings are subject to ongoing review by the rating agencies, and they consider a number of factors, including our own financial strength, performance, prospects prospects and operations as well as factors not under our control. The rating agencies could make adjustments to our ratings at any

57 Bank of America

time, and they provide no assurances that they will maintain our ratings at current **levels, levels.**

Other factors that influence our credit ratings include changes to the rating agencies' methodologies for our industry or certain security types; the rating agencies' assessment of the general operating environment for financial services companies; our relative positions in the markets in which we compete; our various risk exposures and risk management policies and activities; pending litigation and other contingencies or potential tail risks; our reputation; our liquidity position, diversity of

On January 23, 2023, Moody's Investors Service (Moody's) placed the long-term rating of the Corporation as well as the long-term rating of its rated subsidiaries, including BANA, on review for upgrade. The agency and BANA. Moody's cited the Corporation's strengthened capital, ratios, improved earnings profile and continued ongoing commitment to maintaining a restrained risk appetite as drivers of rationale for the review. A upgrade. These actions concluded the review for upgrade indicates that those Moody's initiated on January 23, 2023. Separately, on November 13, 2023, Moody's placed its ratings are under consideration for BANA on negative outlook, reflecting the agency's recent move to a change in negative outlook on its ratings for the near term government of the United States of America and typically concludes within 90 days. Moody's concurrently the potentially weaker capacity for the government to support systemically important U.S. banks. The Corporation's ratings and stable outlook were not affected by this action.

On March 31, 2023, Standard & Poor's Global Ratings (S&P) affirmed all Prime-1 short-term the current ratings of the Corporation and rated subsidiaries, its subsidiaries, while at the same time revising its rating outlook to Stable from Positive. S&P concurrently changed its outlooks on three other large U.S. bank holding companies to Stable from Positive, noting that the agency has reduced its upside expectations for bank ratings in the near term.

The current ratings and outlooks from Fitch Ratings for the Corporation and its subsidiaries from Standard & Poor's Global Ratings (S&P) were have not the subject of any rating actions changed during 2022 or through February 22, 2023, 2023.

Table 18 presents the Corporation's current long-term/short-term senior debt ratings and outlooks expressed by the rating agencies.

funding sources and funding costs; the current and expected level and volatility of our earnings; our capital position and capital management practices; our corporate governance; the sovereign credit ratings of the U.S. government; current or future regulatory and legislative initiatives; and the agencies' views on whether the U.S. government would provide meaningful support to the Corporation or its subsidiaries in a crisis.

On September 19, 2022 May 3, 2023, Fitch Ratings (Fitch) affirmed the Moody's Investors Service (Moody's) upgraded its long-term and short-term senior debt ratings of the Corporation. Fitch Corporation by one notch to A1 from A2, and also affirmed and withdrew upgraded the long-term and senior debt ratings of BANA to Aa1 from Aa2. Moody's concurrently affirmed its Prime-1 short-term ratings on certain subsidiaries, as they are no longer considered relevant to the agency's coverage.

Table 18 Senior Debt Ratings

	Moody's Investors Service			Standard & Poor's Global Ratings			Fitch Ratings		
	Long-term	Short-term	Outlook	Long-term	Short-term	Outlook	Long-term	Short-term	Outlook
			Review for						
Bank of America Corporation	A2 A1	P-1	Upgrade Stable	A-	A-2	Positive Stable	AA-	F1+	Stable
			Review for						
Bank of America, N.A.	Aa2 Aa1	P-1	Upgrade Negative	A+	A-1	Positive Stable	AA	F1+	Stable
Bank of America Europe Designated Activity Company	NR	NR	NR	A+	A-1	Positive Stable	AA	F1+	Stable
Merrill Lynch, Pierce, Fenner & Smith Incorporated	NR	NR	NR	A+	A-1	Positive Stable	AA	F1+	Stable
BofA Securities, Inc.	NR	NR	NR	A+	A-1	Positive Stable	AA	F1+	Stable
Merrill Lynch International	NR	NR	NR	A+	A-1	Positive Stable	AA	F1+	Stable
BofA Securities Europe SA	NR	NR	NR	A+	A-1	Positive Stable	AA	F1+	Stable

NR = not rated

A reduction in certain of our credit ratings or the ratings of certain asset-backed securitizations may have a material adverse effect on our liquidity, potential loss of access to credit markets, the related cost of funds, our businesses and on certain revenues, particularly in those businesses where counterparty creditworthiness is critical. In addition, under the terms of certain OTC derivative contracts and other trading agreements, in the event of downgrades of our or our rated subsidiaries' credit ratings, the counterparties to those agreements may require us to provide additional collateral, or to terminate these contracts or agreements, which could cause us to sustain losses and/or adversely impact our liquidity. If the short-term credit ratings of our Parent, bank or broker-dealer

subsidiaries were downgraded by one or more levels, the potential loss of access to short-term funding sources such as repo financing and the effect on our incremental cost of funds could be material.

While certain potential impacts are contractual and quantifiable, the full scope of the consequences of a credit rating downgrade to a financial institution is inherently uncertain, as it depends upon numerous dynamic, complex and inter-related factors and assumptions, including whether any downgrade of a company's long-term credit ratings precipitates downgrades to its short-term credit ratings, and assumptions about the potential behaviors of various customers, investors and counterparties. For more information on potential impacts

Bank of America 56

of credit rating downgrades, see Liquidity Risk – Liquidity Stress

Analysis on page 56, 54.

For more information on additional collateral and termination payments that could be required in connection with certain over-the-counter derivative contracts and other trading agreements in the event of a credit rating downgrade, see Note 3 – Derivatives to the Consolidated Financial Statements herein and Item 1A, Risk Factors.

Common Stock Dividends

For a summary of our declared quarterly cash dividends on common stock during 2022 2023 and through February 22, 2023 February 20, 2024, see Note 13 – Shareholders' Equity to the Consolidated Financial Statements. Statements.

Finance Subsidiary Issuers and Parent Guarantor

BofA Finance LLC, a Delaware limited liability company (BofA Finance), is a consolidated finance subsidiary of the Corporation that has issued and sold, and is expected to continue to issue and sell, its senior unsecured debt securities (Guaranteed Notes) that are fully and unconditionally guaranteed by the Corporation. The Corporation guarantees the due and punctual payment, on demand, of amounts payable on the Guaranteed Notes if not paid by BofA Finance. In addition, each of BAC Capital Trust XIII, BAC Capital Trust XIV and BAC Capital Trust XV, Delaware statutory trusts (collectively, the Trusts) is a 100 percent owned finance subsidiary of the Corporation that has issued and sold trust preferred securities (the Trust Preferred

Bank of America 58

Securities) or capital securities (the Capital Securities and, together with the Guaranteed Notes and the Trust Preferred Securities, the Guaranteed Securities), as applicable, that remained outstanding at **December 31, 2022** **December 31, 2023**. The Corporation guarantees the payment of amounts and distributions with respect to the Trust Preferred Securities and Capital Securities if not paid by the Trusts, to the extent of funds held by the **Trusts, and this Trusts**. This guarantee, together with the Corporation's other obligations with respect to the Trust Preferred Securities and Capital Securities, effectively constitutes a full and unconditional guarantee of the Trusts' payment obligations on the Trust Preferred Securities or Capital Securities, as applicable. No other subsidiary of the Corporation guarantees the Guaranteed Securities.

BoFA Finance and each of the Trusts are finance subsidiaries, have no independent assets, revenues or operations and are dependent upon the Corporation and/or the Corporation's other subsidiaries to meet their respective obligations under the Guaranteed Securities in the ordinary course. If holders of the Guaranteed Securities make claims on their Guaranteed Securities in a bankruptcy, resolution or similar proceeding, any recoveries on those claims will be limited to those available under the applicable guarantee by the Corporation, as described above.

The Corporation is a holding company and depends upon its subsidiaries for liquidity. Applicable laws and regulations and intercompany arrangements entered into in connection with the Corporation's resolution plan could restrict the availability of funds from subsidiaries to the Corporation, which could adversely affect the Corporation's ability to make payments under its guarantees. In addition, the obligations of the Corporation under the guarantees of the Guaranteed Securities will be structurally subordinated to all existing and future liabilities of its subsidiaries, and claimants should look only to assets of the Corporation for payments. If the Corporation, as guarantor of the Guaranteed Notes, transfers all or substantially all of its assets to one or more direct or indirect majority-owned

fair value. Certain loans and unfunded commitments are accounted for under the fair value option. Credit risk for categories of assets carried at fair value is not accounted for as part of the allowance for credit losses but as part of the fair value adjustments recorded in earnings. For derivative positions, our credit risk is measured as the net cost in the event the counterparties with contracts in which we are in a gain position fail to perform under the terms of those contracts. We use the current fair value to represent credit exposure without giving consideration to future mark-to-market changes. The credit risk amounts take into consideration the effects of legally enforceable master netting agreements and cash collateral. Our consumer and commercial credit extension and review procedures encompass funded and unfunded credit exposures. For more information on derivatives and credit extension commitments, see *Note 3 – Derivatives* and *Note 12 – Commitments and Contingencies* to the Consolidated Financial Statements.

We manage credit risk based on the risk profile of the borrower or counterparty, repayment sources, the nature of underlying collateral and other support given current events, conditions and expectations. We classify our portfolios as either consumer or commercial and monitor credit risk in each as discussed below.

We refine our underwriting and credit risk management practices as well as credit standards to meet the changing economic environment. To mitigate losses and enhance customer support in our consumer businesses, we have in place collection programs and loan modification and customer assistance infrastructures. We utilize a number of actions to mitigate losses in the commercial businesses including increasing the frequency and intensity of portfolio monitoring, hedging activity and our practice of transferring management of deteriorating commercial exposures to independent special asset officers as credits enter criticized categories.

During 2022, asset quality generally improved compared to 2021. Our 2022 net charge-off ratio remained near historic lows, and nonperforming loans and commercial reservable criticized utilized exposure decreased compared to 2021, which was partially offset by an increase in reservable criticized exposure associated with our direct exposure to Russia as a result of the Russia/Ukraine conflict. While uncertainty around the pandemic has diminished, uncertainty remains regarding broader economic impacts as a result of inflationary pressures, rising rates and the current geopolitical situation and could lead to adverse impacts to credit quality metrics in future periods.

For information on our credit risk management activities, see **the following**: Consumer Portfolio Credit Risk Management **below, on**

subsidiaries, under the indenture governing the Guaranteed Notes, the subsidiary or subsidiaries will not be required to assume the Corporation's obligations under its guarantee of the Guaranteed Notes.

For more information on factors that may affect payments to holders of the Guaranteed Securities, see *Liquidity Risk – NB Holdings Corporation* in this section, Item 1. Business – Insolvency and the Orderly Liquidation Authority **on On** page 6 and Part I. Item 1A. Risk Factors – Liquidity on page 9.

Representations and Warranties Obligations

For information on representations and warranties obligations in connection with the sale of mortgage loans, see *Note 12 – Commitments and Contingencies* to the Consolidated Financial Statements.

Credit Risk Management

Credit risk is the risk of loss arising from the inability or failure of a borrower or counterparty to meet its obligations. Credit risk can also arise from operational failures that result in an erroneous advance, commitment or investment of funds. We define the credit exposure to a borrower or counterparty as the loss potential arising from all product classifications including loans and leases, deposit overdrafts, derivatives, assets held-for-sale and unfunded lending commitments, which include loan commitments, letters of credit and financial guarantees. Derivative positions are recorded at fair value, and assets held-for-sale are recorded at either fair value or the lower of cost or

During 2023, our asset quality remained relatively stable. Our net charge-off ratio increased primarily driven by credit card loans, as delinquency trends continued to slowly increase off of historic lows. Nonperforming loans increased compared to 2022 driven by the commercial real estate office property type, while commercial reservable criticized exposure increased driven by both office as well as other industries that have been impacted by the current environment. Uncertainty remains regarding broader economic impacts as a result of inflationary pressures, elevated rates and the current geopolitical environment and could lead to adverse impacts to credit quality metrics in future periods.

Credit risk management for the consumer portfolio begins with initial underwriting and continues throughout a borrower's credit cycle. Statistical techniques in conjunction with experiential judgment are used in all aspects of portfolio management including underwriting, product pricing, risk appetite, setting

credit limits, and establishing operating processes and metrics to quantify and balance risks and returns. Statistical models are built using detailed behavioral information from external

decreases from consumer real estate loan sales, partially offset by increases from late-stage delinquent credit card loans whose prior-period deferrals expired and that were modified in troubled debt restructurings (TDRs) during the first quarter of 2022, charged off.

The consumer allowance for loan and lease losses increased **\$204 million** **\$1.3 billion** during **2022** **2023** to **\$7.2 billion** **\$8.5 billion**. For more information, see Allowance for Credit Losses on page **73** **71**.

For more information on our accounting policies regarding delinquencies, nonperforming status, charge-offs and **TDRs/loan modifications** for the consumer portfolio, see *Note 1 – Summary of Significant Accounting Principles* and *Note 5 – Outstanding Loans and Leases and Allowance for Credit Losses* to the Consolidated Financial Statements.

Table 19 presents our outstanding consumer loans and leases, consumer nonperforming loans and accruing consumer loans past due 90 days or more.

During 2022, 2023, the U.S. unemployment rate continued to decline remained relatively stable and home prices increased compared to 2021, although they began 2022. Net charge-offs increased \$1.2 billion to decline \$3.1 billion in the second half of 2022 as inflationary pressures continued to persist. During 2022, net charge-offs were \$1.9 billion, relatively unchanged compared to 2021. During 2022, nonperforming loans declined 2023 primarily due to

[illegible]

Direct/Indirect consumer (2)	Direct/Indirect consumer (2)	106,236	103,560	77	75	2	11
Other consumer	Other consumer	156	190	—	—	—	—
Consumer loans excluding loans accounted for under the fair value option	Consumer loans excluding loans accounted for under the fair value option	\$456,046	\$435,086	\$2,754	\$2,989	\$1,087	\$1,132
Loans accounted for under the fair value option (3)	Loans accounted for under the fair value option (3)	339	618				
Total consumer loans and leases	Total consumer loans and leases	\$456,385	\$435,704				
Total consumer loans and leases							
Total consumer loans and leases							
Percentage of outstanding consumer loans and leases (4)							
Percentage of outstanding consumer loans and leases (4)							
Percentage of outstanding consumer loans and leases (4)	Percentage of outstanding consumer loans and leases (4)	n/a	n/a	0.60 %	0.69 %	0.24 %	0.26 %
Percentage of outstanding consumer loans and leases, excluding fully-insured loan portfolios (4)	Percentage of outstanding consumer loans and leases, excluding fully-insured loan portfolios (4)	n/a	n/a	0.62	0.71	0.16	0.12

(2) Residential mortgage loans accruing past due 90 days or more are fully-insured loans. At December 31, 2022, December 31, 2023 and 2021, 2022, residential mortgage included \$260 million \$156 million and \$444 million \$260 million of loans on which interest had been curtailed by the FHA, and therefore were no longer accruing interest, although principal was still insured, and \$108 million \$96 million and \$190 million \$108 million of loans on which interest was still accruing.

(3) Outstandings primarily includes auto and specialty lending loans and leases of \$51.8 billion \$53.9 billion and \$48.5 billion \$51.8 billion, U.S. securities-based lending loans of \$46.0 billion and \$50.4 billion at December 31, 2023 and \$51.1 billion at December 31, 2022 and 2021, 2022, and non-U.S. consumer loans of \$2.8 billion and \$3.0 billion as of both period ends, at December 31, 2023 and 2022.

(4) For more information on the fair value option, see Note 21 – Fair Value Option to the Consolidated Financial Statements.

(4) Excludes consumer loans accounted for under the fair value option. At December 31, 2022, December 31, 2023 and 2021, 2022, \$4 million and \$7 million and \$21 million of loans accounted for under the fair value option were past due 90 days or more and not accruing interest. n/a = not applicable

Table 20 presents net charge-offs and related ratios for consumer loans and leases.

	Consumer Net Charge-offs and Related Ratios												
Table 20	Table 20 Ratios												
Table 20													
Table 20													
Net Charge-offs													
Net Charge-offs													
Net Charge-offs												Net Charge-off Ratios ⁽¹⁾	
	Net Charge-offs		Net Charge-off Ratios ⁽¹⁾										
(Dollars in millions)													
(Dollars in millions)													
(Dollars in millions)	(Dollars in millions)	2022	2021	2022	2021	2023	2022		2023		2022		
Residential mortgage	Residential mortgage	\$ 72	\$ (28)	0.03 %	(0.01) %	Residential mortgage	\$ 16	\$ 72	0.01	0.01	%	0.03	%
Home equity	Home equity	(90)	(119)	(0.33)	(0.39)								
Credit card	Credit card	1,334	1,723	1.60	2.29								
Direct/Indirect consumer	Direct/Indirect consumer	18	1	0.02	—								
Direct/Indirect consumer													
Direct/Indirect consumer													
Other consumer	Other consumer	521	270	n/m	n/m	Other consumer	480	521	n/m	n/m	n/m	n/m	n/m
Total	Total	\$ 1,855	\$ 1,847	0.42	0.44								

⁽¹⁾ Net charge-off ratios are calculated as net charge-offs divided by average outstanding loans and leases, excluding loans accounted for under the fair value option.
n/m = not meaningful

We believe that the presentation of information adjusted to exclude the impact of the fully-insured loan portfolio and loans accounted for under the fair value option is more representative of the ongoing operations and credit quality of the business. As a result, in the following tables and discussions of the residential mortgage and home equity portfolios, we exclude loans accounted for under the fair value option and provide information that excludes the impact of the fully-insured loan portfolio in certain credit quality statistics.

Residential Mortgage

The residential mortgage portfolio made up the largest percentage of our consumer loan portfolio at 50 percent of consumer loans and leases in 2022, 2023. Approximately 51 percent of the residential mortgage portfolio was in Consumer Banking, and 45 46 percent was in GWIM, GWIM. The and the remaining portion was in All Other.

Outstanding balances in the residential mortgage portfolio increased \$7.7 billion decreased \$1.3 billion in 2022 2023, as originations were partially offset by paydowns and loan sales, payoffs outpaced new originations.

At December 31, 2022 December 31, 2023 and 2021, 2022, the residential mortgage portfolio included \$11.7 billion \$11.0 billion and \$12.7 billion \$11.7 billion of outstanding fully-insured loans, of which \$2.2 billion for both periods had \$2.2 billion of FHA insurance, with the remainder protected by Fannie Mae long-term standby agreements.

Table 21 presents certain residential mortgage key credit statistics on both a reported basis and excluding the fully-insured loan portfolio. The following discussion presents the residential mortgage portfolio excluding the fully-insured loan portfolio.

Residential Mortgage – Key Credit	
Table 21 Statistics	
Table 21	

	Excluding Fully-insured										
	Reported Basis ⁽¹⁾		Loans ⁽¹⁾								
Table 21											
	December 31										
	Reported Basis ⁽¹⁾										
	Reported Basis ⁽¹⁾										
	Reported Basis ⁽¹⁾										
	Excluding Fully-insured Loans ⁽¹⁾										
	December 31										
(Dollars in millions)	(Dollars in millions)	2022	2021	2022	2021	(Dollars in millions)	2023		2022	2023	2022
Outstandings											
Outstandings											
Outstandings	Outstandings	\$229,670	\$221,963	\$217,976	\$209,259						
Accruing past due 30 days or more	Accruing past due 30 days or more	1,471	1,753	844	866						
Accruing past due 90 days or more	Accruing past due 90 days or more	368	634	—	—						
Nonperforming loans ⁽²⁾	Nonperforming loans ⁽²⁾	2,167	2,284	2,167	2,284						
Percent of portfolio	Percent of portfolio					Percent of portfolio					
Refreshed LTV greater than 90 but less than or equal to 100	Refreshed LTV greater than 90 but less than or equal to 100	1 %	1 %	1 %	1 %	Refreshed LTV greater than 90 but less than or equal to 100	1 %	1 %	1 %	1 %	1 %
Refreshed LTV greater than 100	Refreshed LTV greater than 100	—	—	—	—						
Refreshed FICO below 620	Refreshed FICO below 620	1	2	1	1						

⁽¹⁾ Outstandings, accruing past due, nonperforming loans and percentages of portfolio exclude loans accounted for under the fair value option.

⁽²⁾ Includes loans that are contractually current which primarily consist of collateral-dependent TDRs, including those that have been discharged in Chapter 7 bankruptcy and loans that have not yet demonstrated a sustained period of payment performance following a TDR modification.

Nonperforming outstanding balances in the residential mortgage portfolio decreased \$117 million \$53 million in 2022 2023 primarily due to decreases from consumer real estate payoffs and paydowns, returns to performing and loan sales in the second quarter of 2022, partially offset by increases from loans whose prior-period deferrals expired and were modified in TDRs during the first quarter of 2022, outpacing new additions. Of the nonperforming residential mortgage loans at December 31, 2022 December 31, 2023, \$1.4 billion \$1.3 billion, or 63 62 percent, were current on contractual payments. Loans Excluding fully-insured loans, loans accruing past due 30 days or more decreased \$22 million.

Net charge-offs of \$72 million for 2022 increased \$100 million compared to 2021 primarily due to loan sales that occurred in the second quarter of 2022. \$142 million.

Of the \$218.0 billion \$217.4 billion in total residential mortgage loans outstanding at December 31, 2022 December 31, 2023, 28 \$63.1 billion, or 29 percent, of loans were originated as interest-only loans; interest-only. The outstanding balance of interest-only residential mortgage loans that had entered the amortization period was \$3.4 billion \$3.6 billion, or six percent, at December 31, 2022 December 31, 2023. Residential mortgage loans that have entered the amortization period generally experience a higher rate of early stage delinquencies and nonperforming status compared to the residential mortgage portfolio as a

residential mortgages that had entered the amortization period were accruing past due 30 days or more compared to \$844 million \$986 million, or less than one percent, for the entire residential mortgage portfolio. In addition, at December 31, 2022 December 31, 2023, \$204 million \$180 million, or six five percent, of outstanding interest-only residential mortgage loans that had entered the amortization period were nonperforming, of which \$79 million \$61 million were contractually current. Loans that have yet to enter the amortization period in our interest-only residential mortgage portfolio are primarily well-collateralized loans to our wealth management clients and have an interest-only period of three years to ten 10 years. Approximately 96 percent Substantially all of these loans that have yet to enter the amortization period will not be required to make a fully-amortizing payment until 2025 or later.

whole. At December 31, 2022 December 31, 2023, \$64 million \$80 million, or two percent, of outstanding interest-only

59 Bank of America

Table 22 presents outstandings, nonperforming loans and net charge-offs by certain state concentrations for the residential mortgage portfolio. The Los Angeles-Long Beach-Santa Ana Metropolitan Statistical Area (MSA) within California represented 14 percent and 15 percent of outstandings at December 31, 2022 and 2021. In the New York area, the New York-Northern New Jersey-Long Island MSA Metropolitan Statistical Area (MSA) made up 15 percent of outstandings at both December 31, 2022 December 31, 2023 and 2021. 2022. The Los Angeles-Long Beach-Santa Ana MSA within California represented 14 percent of outstandings at both December 31, 2023 and 2022.

		Residential Mortgage State Concentrations					
Table 22							
Table 22							
Table 22							
		Outstandings (1)					
		Outstandings (1)					
		Outstandings (1)					
		Outstandings (1)		Nonperforming (1)			
		December 31					
						Net Charge-offs	
		December 31					
		December 31					
		December 31					
(Dollars in millions)							
(Dollars in millions)							
		December 31	December 31	December 31	December 31		
(Dollars in millions)	(Dollars in millions)	2022	2021	2022	2021	2022	2021
California	California	\$ 80,878	\$ 77,819	\$ 656	\$ 693	\$ 37	\$(14)
California							
California							
New York							

New York								
New York	New York	26,228	24,975	328	358	7	3	
Florida	Florida	15,225	13,883	145	158	(2)	(8)	
Florida								
Florida								
Texas								
Texas								
Texas	Texas	9,399	9,002	88	86	—	—	
New Jersey	New Jersey	8,810	8,723	96	117	3	—	
New Jersey								
New Jersey								
Other								
Other								
Other	Other	77,436	74,857	854	872	27	(9)	
Residential mortgage loans	Residential mortgage loans	\$ 217,976	\$209,259	\$ 2,167	\$ 2,284	\$72	\$(28)	
Residential mortgage loans								
Residential mortgage loans								
Fully-insured loan portfolio								
Fully-insured loan portfolio								
Fully-insured loan portfolio	Fully-insured loan portfolio	11,694	12,704					
Total residential mortgage loan portfolio	Total residential mortgage loan portfolio	\$ 229,670	\$221,963					
Total residential mortgage loan portfolio								
Total residential mortgage loan portfolio								

(1) Outstandings and nonperforming loans exclude loans accounted for under the fair value option.

Home Equity

At December 31, 2022 December 31, 2023, the home equity portfolio made up six percent of the consumer portfolio and was comprised of home equity lines of credit (HELOCs), home equity loans and reverse mortgages. HELOCs generally have an initial draw period of 10

years, and after the initial draw period ends, the loans generally convert to 15- or 20-year amortizing loans. We no longer originate home equity loans or reverse mortgages.

At December 31, 2022 December 31, 2023, 82 84 percent of the home equity portfolio was in Consumer Banking, nine seven percent was in All Other and the remainder of the portfolio was primarily in GWIM.

61 Bank of America

Outstanding balances in the home equity portfolio decreased \$1.4 billion \$1.0 billion in 2022 2023 primarily due to paydowns outpacing draws

on existing lines and new originations. Of the total home equity portfolio at December 31, 2022 December 31, 2023 and 2021, 2022, \$10.1 billion and \$11.1 billion and \$12.2 billion, or 42 39 percent and 44 42 percent, were in first-lien positions. At December 31, 2022 December 31, 2023, outstanding balances in the home equity portfolio that were in a second-lien or more junior-

lien junior-lien position and where we also held the first-lien loan totaled \$4.5 billion \$4.4 billion, or 17 percent, of our total home equity portfolio.

Unused HELOCs totaled \$45.1 billion and \$42.4 billion at December 31, 2023 and \$40.5 billion at December 31, 2022 and 2021, 2022. The HELOC utilization rate was 35 percent and 38 percent at December 31, 2023 and 39 percent at December 31, 2022 and 2021, 2022.

Table 23 presents certain home equity portfolio key credit statistics.

Home Equity – Key Credit Table 23 Statistics (1)

Table 23

Table 23 Home Equity – Key Credit Statistics ⁽¹⁾

	December 31		
December 31			
December 31			
December 31			
(Dollars in millions)			
(Dollars in millions)			
(Dollars in millions)	(Dollars in millions)	2022	2021
Outstandings	Outstandings	\$26,563	\$27,935
Outstandings			
Outstandings			
Accruing past due 30 days or more			
Accruing past due 30 days or more			
Accruing past due 30 days or more	Accruing past due 30 days or more	96	157
Nonperforming loans (2)	Nonperforming loans (2)	510	630
Nonperforming loans (2)			
Nonperforming loans (2)			
Percent of portfolio			
Percent of portfolio			
Percent of portfolio	Percent of portfolio		
Refreshed CLTV greater than 90 but less than or equal to 100	Refreshed CLTV greater than 90 but less than or equal to 100	— %	— %
Refreshed CLTV greater than 90 but less than or equal to 100			
Refreshed CLTV greater than 90 but less than or equal to 100			
Refreshed CLTV greater than 100	Refreshed CLTV greater than 100	—	1
Refreshed CLTV greater than 100			
Refreshed CLTV greater than 100			
Refreshed FICO below 620			
Refreshed FICO below 620			
Refreshed FICO below 620	Refreshed FICO below 620	2	3

⁽¹⁾ Outstandings, accruing past due, nonperforming loans and percentages of the portfolio exclude loans accounted for under the fair value option.

(2) Includes loans that are contractually current which primarily consist of collateral-dependent TDRs, including those that have been discharged in Chapter 7 bankruptcy, junior-lien loans where the underlying first lien is 90 days or more past due, as well as loans that have not yet demonstrated a sustained period of payment performance following a TDR modification.

Nonperforming outstanding balances in the home equity portfolio decreased \$120 million \$60 million to \$510 million \$450 million at December 31, 2022 December 31, 2023, primarily driven by loan sales, sales, payoffs and returns to performing status outpacing new additions. Of the nonperforming home equity loans at December 31, 2022 December 31, 2023, \$275 million \$256 million, or 54 57 percent, were current on contractual payments. In addition, \$167 million \$113 million, or 33 25 percent, of nonperforming home equity loans were 180 days or more past due and had been written down to the estimated fair value of the collateral, less costs to sell. Accruing loans that were 30 days or more past due decreased \$61 million remained relatively unchanged in 2022.

Net recoveries decreased \$29 million to \$90 million in 2022 2023 compared to 2021, 2022. Of the \$26.6 billion \$25.5 billion in total home equity portfolio outstandings at December 31, 2022 December 31, 2023, as shown in Table 23, 13 11 percent require interest-only payments. The outstanding balance of HELOCs that had reached the end of their draw period and entered the amortization period was \$5.2 billion \$4.0 billion at December 31, 2022. had entered the amortization period were accruing past due 30 days or more. In addition, at December 31, 2022 December 31, 2023, \$354 million \$283 million, or seven percent, were nonperforming.

For our interest-only HELOC portfolio, we do not actively track how many of our home equity customers pay only the minimum amount due on their home equity loans and lines; however, we can infer some of this information through a review of our HELOC portfolio that we service and is still in its revolving period. During 2022, 10 2023, 13 percent of these customers with an outstanding balance did not pay any principal on their HELOCs.

December 31, 2023. The HELOCs that have entered the amortization period have experienced a higher percentage of early stage delinquencies and nonperforming status when compared to the HELOC portfolio as a whole. At December 31, 2022 December 31, 2023, \$53 million \$41 million, or one percent, of outstanding HELOCs that

Table 24 presents outstandings, nonperforming balances and net recoveries by certain state concentrations for the home equity portfolio. In the New York area, the New York-Northern New Jersey-Long Island MSA made up 12 11 percent and 13 12 percent of the outstanding home equity portfolio at December 31, 2022 December 31, 2023 and 2021, 2022. The Los Angeles-Long Beach-Santa Ana MSA within California made up 11 10 percent and 10 11 percent of the outstanding home equity portfolio at December 31, 2022 December 31, 2023 and 2021, 2022.

Table 24	Table 24	Home Equity State Concentrations											
Table 24													
Table 24													
Outstandings ⁽¹⁾													
Outstandings ⁽¹⁾													
Outstandings ⁽¹⁾													
December 31													
December 31													
December 31													
Net Charge-offs													
(Dollars in millions)							(Dollars in millions)	2023	2022	2023	2022	2023	2022
Nonperforming													
Outstandings ⁽¹⁾ ⁽¹⁾													
Net Charge-offs													
December 31													
(Dollars in millions)	2022	2021	2022	2021	2022	2021							
California													
California													
California	California	\$ 7,406	\$ 7,600	\$ 119	\$ 140	\$(20)	\$(40)						
Florida	Florida	2,743	2,977	63	78	(21)	(21)						
New Jersey	New Jersey	2,047	2,259	53	69	(3)	(4)						
New York	New York	1,806	2,072	80	96	(4)	(1)						

Massachusetts		1,347	1,422	23	32	(2)	(3)
Texas							
Other	Other	11,214	11,605	172	215	(40)	(50)
Total	Total						
home	home						
equity	equity						
loan	loan						
portfolio	portfolio	\$26,563	\$27,935	\$ 510	\$ 630	\$(90)	\$(119)

(2) Outstandings and nonperforming loans exclude loans accounted for under the fair value option.

Credit Card

At December 31, 2022 December 31, 2023, 97 percent of the credit card portfolio was managed in Consumer Banking with the remainder in GWIM. Outstandings in the credit card portfolio increased \$12.0 billion \$8.8 billion during 2022 2023 to \$93.4 billion primarily driven by increased \$102.2 billion as purchase volumes, partially volume and card transfers more than offset by the sale of a \$1.6 billion affinity card loan portfolio. payments. Net charge-offs decreased \$389

accruing interest increased \$508 million \$914 million, and 90 days or more past due and still accruing interest increased \$230 million \$507 million at December 31, 2023.

Unused lines of credit for credit card increased to \$390.2 billion at December 31, 2023 from \$370.1 billion

million increased \$1.2 billion to \$1.3 \$2.6 billion in 2022 2023 compared to 2021, as loss rates remained near historic lows. In addition, the prior year included charge-offs associated with deferrals 2022, primarily due to late-stage delinquent credit card loans that expired in 2020. were charged off. Credit card loans 30 days or more past due and still

Bank of America 62

at December 31, 2022 from \$361.2 billion at December 31, 2021.

Table 25 presents certain state concentrations for the credit card portfolio.

Table 25	Table 25	Credit Card State Concentrations					
Table 25							
Table 25							
		Outstandings					
		Outstandings					
		Outstandings					
		December 31					
		December 31					
		December 31					
		Net Charge-offs					
(Dollars in millions)		(Dollars in millions)					
		2023	2022	2023	2022	2023	2022
		Accruing Past Due 90 Days or More					
		Outstandings					
		December 31					
		Net Charge-offs					
(Dollars in millions)		2022	2021	2022	2021	2022	2021
California	California	\$15,363	\$13,076	\$126	\$ 82	\$ 232	\$ 322
Florida	Florida	9,512	8,046	100	71	183	245
Texas	Texas	8,125	6,894	72	47	123	158
New York	New York	5,381	4,725	56	35	99	135
Washington	Washington	4,844	4,080	21	13	36	39
Other	Other	50,196	44,617	342	239	661	824

Total	Total
credit	credit
card	card
portfolio	portfolio
	\$93,421 \$81,438 \$717 \$487 \$1,334 \$1,723

Direct/Indirect Consumer

At December 31, 2022 December 31, 2023, 49 52 percent of the direct/indirect portfolio was included in Consumer Banking (consumer auto and recreational vehicle lending) and 51 48 percent was included in GWIM (principally securities-based lending loans). Outstandings \$103.5 billion driven by declines in securities-based lending stemming from higher paydown activity due to higher interest rates, partially offset by growth in our auto portfolio.

Table 26 presents certain state concentrations for the direct/indirect consumer loan portfolio.

in the direct/indirect portfolio increased \$2.7 billion decreased \$2.8 billion in 2022 2023 to \$106.2 billion

Table 26

Table 26

Table 26

Table 26

Direct/Indirect State Concentrations											
		Outstandings		Accruing Past Due 90 Days or More				Net Charge-offs			
		December 31									
		Outstandings									
		Outstandings									
		Outstandings									
		December 31									
		December 31									
		December 31									
								Net Charge-offs			
(Dollars in millions)	(Dollars in millions)	2022	2021	2022	2021	2022	2021				
California	California	\$ 15,516	\$ 15,061	\$ 1	\$ 2	\$ 6	\$ 3				
California											
California											
Florida											
Florida											
Florida	Florida	13,783	13,352	—	1	4	1				
Texas	Texas	9,837	9,505	—	2	3	2				
Texas											
Texas											
New York											
New York											
New York	New York	7,891	7,802	—	1	2	3				
New Jersey	New Jersey	4,456	4,228	—	—	1	(3)				
New Jersey											
New Jersey											
Other											
Other											
Other	Other	54,753	53,612	1	5	2	(5)				
Total direct/indirect loan portfolio	Total direct/indirect loan portfolio	\$106,236	\$103,560	\$ 2	\$11	\$18	\$ 1				
Total direct/indirect loan portfolio											
Total direct/indirect loan portfolio											

Other Consumer

Other consumer primarily consists of deposit overdraft balances. Net charge-offs increased \$605 million \$531 million, or 22 20 percent, of \$251 million decreased \$41 million in 2022 2023 to \$521 million \$480 million, primarily driven by lower overdraft losses due to higher payment activity related to checking accounts.

losses.

Nonperforming Consumer Loans, Leases and Foreclosed Properties Activity

Table 27 presents nonperforming consumer loans, leases and foreclosed properties activity during 2022 2023 and 2021 2022. During 2022 2023, nonperforming consumer loans decreased \$235 million \$42 million to \$2.8 billion primarily due to decreases from loan sales, partially offset by increases from loans whose prior-period deferrals expired and were modified in TDRs during the first quarter of 2022 \$2.7 billion.

At December 31, 2022 December 31, 2023, nonperforming loans were 180 days or more past due and had been written down to their estimated property value less costs to sell. In addition, at December 31, 2022 December 31, 2023, \$1.7 billion \$1.6 billion, or 61 60 percent, of nonperforming consumer loans were modified current and are now current after successful trial periods, or are current loans classified as nonperforming loans in accordance with applicable policies.

Foreclosed properties increased \$20 million decreased \$18 million in 2022 2023 to \$121 million \$103 million. Nonperforming loans also include certain loans that have been modified in TDRs where economic concessions have been granted to borrowers experiencing financial difficulties.

Nonperforming Consumer Loans, Leases and Foreclosed Properties Activity				
Table 27	Table 27	Table 27	Table 27	Table 27
Table 27	Table 27	Table 27	Table 27	Table 27
Table 27	Table 27	Table 27	Table 27	Table 27
(Dollars in millions)	(Dollars in millions)	(Dollars in millions)	(Dollars in millions)	(Dollars in millions)
(Dollars in millions)	(Dollars in millions)	2022	2021	2023
2022	2021	2023	2022	2021
Nonperforming	Nonperforming	Nonperforming	Nonperforming	Nonperforming
loans and leases,	loans and leases,	loans and leases,	loans and leases,	loans and leases,
January 1	January 1	January 1	January 1	January 1
Nonperforming	Nonperforming	\$2,989	\$2,725	
loans and leases,	loans and leases,			
January 1	January 1			
Additions	Additions	1,453	2,006	
Reductions:	Reductions:			
Paydowns and	Paydowns and			
payoffs	payoffs	(535)	(625)	
Paydowns and payoffs	Paydowns and payoffs			
Paydowns and payoffs	Paydowns and payoffs			
Sales	Sales	(402)	(4)	
Returns to	Returns to			
performing status	performing status			
(1)	(1)	(661)	(1,037)	

Charge-offs	Charge-offs	(56)	(64)
Transfers to foreclosed properties	Transfers to foreclosed properties	(34)	(12)
Total net additions/(reductions) to nonperforming loans and leases		(235)	264
Total net reductions to nonperforming loans and leases			
Total net reductions to nonperforming loans and leases			
Total net reductions to nonperforming loans and leases			
Total nonperforming loans and leases, December 31	Total nonperforming loans and leases, December 31	2,754	2,989
Foreclosed properties, December 31 ⁽²⁾		121	101
Nonperforming consumer loans, leases and foreclosed properties, December 31		\$2,875	\$3,090
Foreclosed properties, December 31			
Nonperforming consumer loans, leases and foreclosed properties, December 31 ⁽²⁾			
Nonperforming consumer loans and leases as a percentage of outstanding consumer loans and leases ⁽³⁾	Nonperforming consumer loans and leases as a percentage of outstanding consumer loans and leases ⁽³⁾	0.60 %	0.69 %
	Nonperforming consumer loans and leases as a percentage of outstanding consumer loans and leases ⁽³⁾	0.59 %	0.60 %
Nonperforming consumer loans, leases and foreclosed properties as a percentage of outstanding consumer loans, leases and foreclosed properties ⁽³⁾	Nonperforming consumer loans, leases and foreclosed properties as a percentage of outstanding consumer loans, leases and foreclosed properties ⁽³⁾	0.63	0.71
	Nonperforming consumer loans, leases and foreclosed properties as a percentage of outstanding consumer loans, leases and foreclosed properties ⁽³⁾		

⁽¹⁾ Consumer loans may be returned to performing status when all principal and interest is current and full repayment of the remaining contractual principal and interest is expected, or when the loan otherwise becomes well-secured and is in the process of collection.

⁽²⁾ Foreclosed property balances do not include properties insured by certain government-guaranteed loans, principally FHA-insured. Includes reposessed non-real estate assets of \$60 million \$20 million and \$52 million \$0 at December 31, 2022 December 31, 2023 and 2021 2022.

⁽³⁾ Outstanding consumer loans and leases exclude loans accounted for under the fair value option.

Table 28 presents TDRs for the consumer real estate portfolio. Performing TDR balances are excluded from nonperforming loans and leases in Table 27.

Table 28 Consumer Real Estate Troubled Debt Restructurings							
(Dollars in millions)	December 31, 2022			December 31, 2021			
	Nonperforming	Performing	Total	Nonperforming	Performing	Total	
Residential mortgage ^(1, 2)	\$ 1,726	\$ 1,548	\$ 3,274	\$ 1,498	\$ 2,278	\$ 3,776	
Home equity ⁽³⁾	324	544	868	254	652	906	
Total consumer real estate troubled debt restructurings	\$ 2,050	\$ 2,092	\$ 4,142	\$ 1,752	\$ 2,930	\$ 4,682	

- At December 31, 2022 and 2021, residential mortgage TDRs deemed collateral dependent totaled \$1.8 billion and \$1.6 billion, and included \$1.6 billion and \$1.4 billion of loans classified as nonperforming and \$183 million and \$279 million of loans classified as performing.
- At December 31, 2022 and 2021, residential mortgage performing TDRs included \$1.1 billion and \$1.2 billion of loans that were fully-insured.
- At December 31, 2022 and 2021, home equity TDRs deemed collateral dependent totaled \$411 million and \$370 million, and included \$293 million and \$222 million of loans classified as nonperforming and \$118 million and \$148 million of loans classified as performing.

In addition to modifying consumer real estate loans, we work with customers who are experiencing financial difficulty by modifying credit card and other consumer loans. Credit card and other consumer loan modifications generally involve a reduction in the customer's interest rate on the account and placing the customer on a fixed payment plan not exceeding 60 months.

Modifications of credit card and other consumer loans are made through programs utilizing direct customer contact, but may also utilize external programs. At December 31, 2022 and 2021, our credit card and other consumer TDR portfolio was \$624 million and \$672 million, of which \$540 million and \$599 million were current or less than 30 days past due under the modified terms.

Commercial Portfolio Credit Risk Management

Credit risk management for the commercial portfolio begins with an assessment of the credit risk profile of the borrower or counterparty based on an analysis of its financial position. As part of the overall credit risk assessment, our commercial credit exposures are assigned a risk rating and are subject to approval based on defined credit approval standards. Subsequent to loan origination, risk ratings are monitored on an ongoing basis, and if necessary, adjusted to reflect changes in the financial condition, cash flow, risk profile or outlook of a borrower or counterparty. In making credit decisions, we consider risk rating, collateral, country, industry and single-name concentration limits while also balancing these considerations with the total borrower or counterparty relationship. We use a variety of tools to continuously monitor the ability of a borrower or counterparty to perform under its obligations. We use risk rating aggregations

concentrations of credit exposure by industry, product, geography, customer relationship and loan size. We also review, measure and manage commercial real estate loans by geographic location and property type. In addition, within our non-U.S. portfolio, we evaluate exposures by region and by country. Tables 33, 36 32, 34 and 39 37 summarize our concentrations. We also utilize syndications of exposure to third parties, loan sales, hedging and other risk mitigation techniques to manage the size and risk profile of the commercial credit portfolio. For more information on our industry concentrations, see Table 36

to measure and evaluate concentrations within portfolios. In addition, risk ratings are a factor in determining the level of allocated capital and the allowance for credit losses.

As part of our ongoing risk mitigation initiatives, we attempt to work with clients experiencing financial difficulty to modify their loans to terms that better align with their current ability to pay. In situations where an economic concession has been granted to a borrower experiencing financial difficulty, we identify these loans as TDRs. For more information on our accounting policies regarding delinquencies, nonperforming status and net charge-offs for the commercial portfolio, see Note 1 – Summary of Significant Accounting Principles to the Consolidated Financial Statements.

Management of Commercial Credit Risk Concentrations

Commercial credit risk is evaluated and managed with the goal that concentrations of credit exposure continue to be aligned with our risk appetite. We review, measure and manage

Bank of America 64

34 and Commercial Portfolio Credit Risk Management – Industry Concentrations on page 68, 66.

We account for certain large corporate loans and loan commitments, including issued but unfunded letters of credit which are considered utilized for credit risk management purposes, that exceed our single-name credit risk concentration guidelines under the fair value option. Lending commitments, both funded and unfunded, are actively managed and monitored, and as appropriate, credit risk for these lending relationships may be mitigated through the use of credit derivatives, with our credit view and market perspectives determining the size and timing of the hedging activity. In addition, we purchase credit protection to cover the funded portion as well as the unfunded portion of certain other credit exposures. To lessen the cost of obtaining our desired credit protection levels, credit exposure may be added within an industry, borrower or counterparty group by selling protection. These credit derivatives do not meet the requirements for treatment as accounting hedges. They are carried at fair value with changes in fair value recorded in other income.

In addition, we are a member of various securities and derivative exchanges and clearinghouses, both in the U.S. and

Bank of America 62

other countries. As a member, we may be required to pay a pro-rata share of the losses incurred by some of these organizations as a result of another member default and under other loss scenarios. For more information, see *Note 12 – Commitments and Contingencies* to the Consolidated Financial Statements.

Commercial Credit Portfolio

Outstanding commercial loans and leases increased \$4.4 billion during 2023 due to growth in commercial real estate, primarily in *Global Banking*, and U.S. small business commercial. During 2022, 2023, commercial credit quality improved deteriorated as charge-offs, nonperforming commercial loans and reservable criticized utilized exposure declined. Due to increased primarily driven by the ongoing Russia/Ukraine conflict, all direct exposure to Russian counterparties was downgraded and reported as reservable criticized exposure, and expected credit losses (ECL) have been incorporated into our estimate commercial real estate office property type; however, the commercial net charge-off ratio of 0.12 percent during 2023 remained low.

With the exception of the allowance for office property type, which is further discussed in the Commercial Real Estate section herein, credit losses. Outstanding

companies evaluate space needs with employment models that utilize a mix of remote and conventional office use.

The commercial allowance for loan and lease losses remained relatively unchanged at \$5.4 billion at December 31, 2022 decreased \$623 million during 2023 to \$4.8 billion, as loan growth and a dampened primarily driven by improved macroeconomic outlook were offset by asset quality improvement and a reserve release for reduced pandemic uncertainties conditions. For more information, see Allowance for Credit Losses on page 73, 71.

Total commercial utilized credit exposure increased \$51.3 billion decreased \$8.6 billion during 2022 2023 to \$704.9 billion \$696.3 billion primarily driven by higher loans and leases and lower derivative assets. The utilization rate for loans and leases, standby letters of credit (SBLCs) and financial guarantees, and commercial letters of credit, in the aggregate, was 55 percent and 56 percent at both December 31, 2022 December 31, 2023 and 2021 2022.

Table 29 28 presents commercial credit exposure by type for utilized, unfunded and total binding committed credit exposure. Commercial utilized credit exposure includes SBLCs and financial guarantees and commercial letters of credit that have been issued and for which we are legally bound to advance funds under prescribed conditions during a specified time period, and excludes exposure related to trading account assets. Although funds have not yet been advanced, these exposure types are considered utilized for credit risk management purposes.

Table 29 Commercial Credit Exposure by Type

Table 28

Table 28

Table 28

Commercial Credit Exposure by Type

	Commercial Utilized ⁽¹⁾		Commercial Unfunded ^(2, 3, 4)		Total Commercial Committed																						
	December 31																										
	Commercial Utilized ⁽¹⁾		Commercial Unfunded ^(2, 3, 4)				Total Commercial Committed																				
December 31																		December 31									
(Dollars in millions)																											
(Dollars in millions)																											
(Dollars in millions)	(Dollars in millions)	2022	2021	2022	2021	2022	2021	2023	2022		2023		2022		2023		2022										
Loans and leases	Loans and leases	\$589,362	\$543,420	\$487,772	\$ 454,256	\$1,077,134	\$ 997,676																				
Derivative assets ⁽⁵⁾	Derivative assets ⁽⁵⁾	48,642	35,344	—	—	48,642	35,344																				
Standby letters of credit and financial guarantees	Standby letters of credit and financial guarantees	33,376	34,389	1,266	639	34,642	35,028																				
Debt securities and other investments	Debt securities and other investments	20,195	19,427	2,551	4,638	22,746	24,065																				

Loans held-	Loans held-						
for-sale	for-sale	6,112	13,185	3,729	16,581	9,841	29,766
Operating	Operating						
leases	leases	5,509	5,935	—	—	5,509	5,935
Commercial	Commercial						
letters of	letters of						
credit	credit	973	1,176	28	247	1,001	1,423
Other	Other	698	652	—	—	698	652
Total	Total	\$704,867	\$653,528	\$495,346	\$ 476,361	\$1,200,213	\$1,129,889

(1) Commercial utilized exposure includes loans of \$5.4 billion \$3.3 billion and \$7.2 billion \$5.4 billion accounted for under the fair value option at December 31, 2022 December 31, 2023 and 2021, 2022.

(2) Commercial unfunded exposure includes commitments accounted for under the fair value option with a notional amount of \$2.6 billion and \$3.0 billion at December 31, 2023 and \$4.8 billion at December 31, 2022 and 2021, 2022.

(3) Excludes unused business card lines, which are not legally binding.

(4) Includes the notional amount of unfunded legally binding lending commitments, net of amounts distributed (i.e., syndicated or participated) to other financial institutions. The distributed amounts were \$10.3 billion and \$10.4 billion at December 31, 2023 and \$10.7 billion at December 31, 2022 and 2021, 2022.

(5) Derivative assets are carried at fair value, reflect the effects of legally enforceable master netting agreements and have been reduced by cash collateral of \$29.4 billion and \$33.8 billion at December 31, 2023 and \$30.8 billion at December 31, 2022 and 2021, 2022. Not reflected in utilized and committed exposure is additional non-cash derivative collateral held of \$56.1 billion and \$51.6 billion at December 31, 2023 and \$44.8 billion at December 31, 2022 and 2021, 2022, which consists primarily of other marketable securities.

65 Bank of America

Nonperforming commercial loans decreased \$524 million across all product types, increased \$1.7 billion during 2023, primarily in commercial real estate. Table 30 29 presents our commercial loans and leases portfolio and related credit quality information at December 31, 2022 December 31, 2023 and 2021, 2022.

Table 30 Commercial Credit Quality

63 Bank of America		Outstandings		Nonperforming		Accruing Past Due	
		90 Days or More					
		December 31					
(Dollars in millions)		2022	2021	2022	2021	2022	2021
Commercial and industrial:							
U.S. commercial	\$	358,481	\$ 325,936	\$ 553	\$ 825	\$ 190	\$ 171
Non-U.S. commercial		124,479	113,266	212	268	25	19
Total commercial and industrial		482,960	439,202	765	1,093	215	190
Commercial real estate		69,766	63,009	271	382	46	40
Commercial lease financing		13,644	14,825	4	80	8	8
(Dollars in millions)		2023	2022	2023	2022	2023	2022
Commercial and industrial:		566,370	517,036	1,040	1,555	269	238
U.S. small business commercial (1)		17,560	19,183	14	23	355	87
U.S. commercial	\$	358,931	\$ 358,481	\$ 636	\$ 553	\$ 51	\$ 190
Commercial loans excluding loans accounted for under the fair value option	\$	583,930	\$ 536,219	\$ 1,054	\$ 1,578	\$ 624	\$ 325
Non-U.S. commercial		124,581	124,479	175	212	4	25
Loans accounted for under the fair value option (2)		5,432	7,201				
Total commercial and industrial		483,512	482,960	811	765	55	215
Total commercial loans and leases	\$	589,362	\$ 543,420				
Commercial real estate		72,878	69,766	1,927	271	32	46
Commercial lease financing		14,854	13,644	19	4	7	8
		571,244	566,370	2,757	1,040	94	269
U.S. small business commercial (1)		19,197	17,560	16	14	184	355
Commercial loans excluding loans accounted for under the fair value option	\$	590,441	\$ 583,930	\$ 2,773	\$ 1,054	\$ 278	\$ 624
Loans accounted for under the fair value option (2)		3,326	5,432				
Total commercial loans and leases	\$	593,767	\$ 589,362				

(1) Includes card-related products.

(2) Commercial loans accounted for under the fair value option includes U.S. commercial of \$2.9 billion \$2.2 billion and \$4.6 billion \$2.9 billion and non-U.S. commercial of \$1.2 billion and \$2.5 billion at December 31, 2023 and \$2.6 billion at December 31, 2022 and 2021, 2022. For more information on the fair value option, see Note 21 – Fair Value Option to the Consolidated Financial Statements.

Table 31 30 presents net charge-offs and related ratios for our commercial loans and leases for 2022 2023 and 2021, 2022.

		Commercial Net Charge-offs and Related Ratios			
Table 31					
Table 30					
Table 30					
		Net Charge-offs		Net Charge-off Ratios ⁽¹⁾	
Table 30					
Commercial Net Charge-offs and Related Ratios					
		Net Charge-offs			
		Net Charge-offs			
		Net Charge-offs			
		Net Charge-off Ratios ⁽¹⁾			
(Dollars in millions)	(Dollars in millions)	2022	2021	2022	2021
(Dollars in millions)					
(Dollars in millions)					
(Dollars in millions)					
Commercial and industrial:	Commercial and industrial:				
U.S. commercial					
U.S. commercial					
U.S. commercial	U.S. commercial	\$ 71	\$ (23)	0.02 %	(0.01 %) %
Non-U.S. commercial	Non-U.S. commercial	21	35	0.02	0.04
Total commercial and industrial	Total commercial and industrial	92	12	0.02	—
Commercial real estate	Commercial real estate	66	34	0.10	0.06
Commercial lease financing	Commercial lease financing	5	(1)	0.03	—
		163	45	0.03	0.01
390					
U.S. small business commercial	U.S. small business commercial	154	351	0.86	1.19
Total commercial	Total commercial	\$317	\$396	0.06	0.08

Table 31
Table 31
Table 31

Commercial Reservable Criticized Utilized Exposure (1, 2)

December 31											
December 31											
December 31											
December 31											
(Dollars in millions)	(Dollars in millions)	2022	2021	(Dollars in millions)	2023	2022					
Commercial and industrial:											
U.S. commercial	U.S. commercial	\$10,724	2.78 %	\$11,327	3.20 %	U.S. commercial	\$	12,006	3.12	3.12	% \$ 10,724 2.78 2.78 %
Non-U.S. commercial	Non-U.S. commercial	2,665	2.04	2,582	2.17						
Total commercial and industrial	Total commercial and industrial	13,389	2.59	13,909	2.94						
Commercial real estate	Commercial real estate	5,201	7.30	7,572	11.72						
Commercial lease financing	Commercial lease financing	240	1.76	387	2.61						
		18,830	3.13	21,868	3.96						
22,708											
U.S. small business commercial	U.S. small business commercial	444	2.53	513	2.67						
Total commercial reservable criticized utilized exposure	Total commercial reservable criticized utilized exposure	\$19,274	3.12	\$22,381	3.91						

(1) Total commercial reservable criticized utilized exposure includes loans and leases of \$18.5 billion \$22.5 billion and \$21.2 billion \$18.5 billion and commercial letters of credit of \$795 million and \$817 million at December 31, 2023 and \$1.2 billion at December 31, 2022 and 2021, 2022.

(2) Percentages are calculated as commercial reservable criticized utilized exposure divided by total commercial reservable utilized exposure for each exposure category.

Commercial and Industrial

Commercial and industrial loans include U.S. commercial and non-U.S. commercial portfolios.

portfolio, excluding small business, was managed in Global Banking, 21 22 percent in Global Markets, 15 14 percent in GWIM (loans

U.S. Commercial

At December 31, 2022 December 31, 2023, 63 62 percent of the U.S. commercial loan

(loans that provide financing for asset purchases, business investments and other liquidity needs for high net worth clients) and the remainder primarily in Consumer Banking. U.S. commercial loans remained largely unchanged during 2023. Reservable criticized utilized exposure increased \$32.5 billion \$1.3 billion, or 10 12 percent, during driven by a broad range of industries.

2022 primarily driven by Global Banking. Reservable criticized utilized exposure decreased \$603 million, or five percent, driven by decreases across a broad range of industries.

Non-U.S. Commercial

At December 31, 2022 December 31, 2023, 64 62 percent of the non-U.S. commercial loan portfolio was managed in Global Banking and 35 38 percent in Global Markets Markets and the remainder in GWIM. Non-U.S. commercial loans increased \$11.2 billion, or 10 percent, remained largely unchanged during 2022 due to loan growth in Global Markets; 2023. Reservable criticized utilized exposure increased \$83 million decreased \$878 million, or three 33 percent, due to downgrades for direct exposure to upgrades and sales of Russian counterparties exposure. For information on the non-U.S. commercial portfolio, see Non-U.S. Portfolio on page 70. For more information on the Russia/Ukraine conflict, see Recent Developments on page 27. 68.

Commercial Real Estate

Commercial real estate primarily includes commercial loans secured by non-owner-occupied real estate and is dependent on the sale or lease of the real estate as the primary source of repayment. Outstanding loans increased \$6.8 billion \$3.1 billion, or 11 four percent, during 2022 2023 to \$69.8 billion due to new originations outpacing paydowns and increased utilizations under existing

Office loans represented the largest property type concentration at 25 percent of the commercial real estate portfolio at December 31, 2023, but only represented approximately two percent of total loans for the Corporation. This property type is roughly 75 percent Class A and had an origination loan-to-value of approximately 55 percent. Although we have seen collateral value declines in this property type, the majority of these loans remained adequately secured as of December 31, 2023.

Reservable criticized exposure for the office property type was \$5.5 billion at December 31, 2023, and approximately \$7.6 billion of office loans are scheduled to mature by the end of 2024.

During 2023 and 2022, we continued to see relatively low default rates and varying degrees of improvement in certain geographic regions and property types of the portfolio rates. We use a number of proactive risk mitigation initiatives to reduce adversely rated exposure in the commercial real estate portfolio, including transfers of deteriorating exposures for management by independent special asset officers and the pursuit of loan restructurings or asset sales to achieve the best results for our customers and the Corporation.

Table 33 32 presents outstanding commercial real estate loans by geographic region, based on the geographic location of the collateral, and by property type.

Table 33		Outstanding Commercial Real Estate Loans		
Table 32				
Table 32				
	December 31			
Table 32				
	December 31			
	December 31			
	December 31			
(Dollars in millions)				
(Dollars in millions)				
(Dollars in millions)	(Dollars in millions)	2022	2021	
By Geographic Region	By Geographic Region			
Region	Region			
By Geographic Region				
By Geographic Region				
Northeast				
Northeast				
Northeast	Northeast	\$15,601	\$14,318	
California	California	13,360	13,145	
California				
California				
Southwest				
Southwest				
Southwest	Southwest	8,723	7,510	
Southeast	Southeast	7,713	6,758	

credit facilities. Reservable criticized utilized exposure decreased \$2.4 billion, or 31 percent, primarily driven by Hotels due to improving vacancy rates and reduced travel restrictions. The portfolio remains diversified \$72.9 billion with increases across multiple property types and geographic regions. California represented the largest state concentration at 19 percent and 21 percent of the commercial real estate portfolio at December 31, 2022 and 2021, types. The commercial real estate portfolio is predominantly primarily managed in Global Banking and consists of loans made primarily to public and private developers, and commercial real estate firms. The portfolio remains diversified across property types and geographic regions. California represented the largest state concentration at 20 percent and 19 percent of commercial real estate at December 31, 2023 and 2022.

Reservable criticized utilized exposure increased \$3.5 billion, or 68 percent, during 2023, primarily driven by office loans.

Southeast			
Southeast			
Florida	Florida	5,374	4,367
Florida			
Florida			
Illinois			
Illinois			
Illinois			
Midwest	Midwest	3,419	3,221
Illinois		3,327	2,878
Midwest			
Midwest			
Midsouth			
Midsouth			
Midsouth	Midsouth	2,716	2,289
Northwest	Northwest	1,959	1,709
Northwest			
Northwest			
Non-U.S.			
Non-U.S.			
Non-U.S.	Non-U.S.	5,518	4,760
Other	Other	2,056	2,054
Other			
Other			
Total outstanding commercial real estate loans			
Total outstanding commercial real estate loans			
Total outstanding commercial real estate loans	Total outstanding commercial real estate loans	\$69,766	\$63,009
By Property Type	By Property Type		
Type	Type		
By Property Type			
By Property Type			
Non-residential			
Non-residential			
Non-residential	Non-residential		
Office	Office	\$18,230	\$18,309
Office			
Office			
Industrial / Warehouse			
Industrial / Warehouse			
Industrial / Warehouse	Industrial / Warehouse	13,775	10,749
Multi-family rental	Multi-family rental	10,412	8,173
Shopping centers /Retail		5,830	6,502
Multi-family rental			
Multi-family rental			
Shopping centers / Retail			
Shopping centers / Retail			
Shopping centers / Retail			

Hotel / Motels	Hotel / Motels	5,696	5,932
Unsecured		3,195	3,178
Hotel / Motels			
Hotel / Motels			
Multi-use			
Multi-use			
Multi-use	Multi-use	2,403	1,835
Other	Other	9,046	7,238
Other			
Other			
Total non-residential			
Total non-residential			
Total non-residential	Total non-residential	68,587	61,916
Residential	Residential	1,179	1,093
Residential			
Residential			
Total outstanding commercial real estate loans	Total outstanding commercial real estate loans	\$69,766	\$63,009
Total outstanding commercial real estate loans			
Total outstanding commercial real estate loans			

65 Bank of America

U.S. Small Business Commercial

The U.S. small business commercial loan portfolio is comprised of small business card loans and small business loans primarily managed in *Consumer Banking*, and included \$329 million and \$1.0 billion and \$4.7 billion of PPP Paycheck Protection Program (PPP) loans outstanding at December 31, 2022 December 31, 2023 and 2021. The decline of \$3.7 billion in 2022. PPP loans during 2022 was decreased \$679 million primarily due to repayment of the loans by the SBA Small Business Administration (SBA) under

the terms of the program. Excluding PPP, credit card-related products were 53 54 percent and 50 53 percent of the U.S. small business commercial portfolio at December 31, 2022 December 31, 2023 and 2021 2022 and represented all 99 percent of the net charge-offs in 2022 compared to 95 100 percent in 2021. The increase of \$268 million in accruing for 2022. Accruing past due 90 days or more decreased \$171 million in 2022 was 2023 driven by the repayment of PPP loans, which are fully guaranteed by the SBA.

67 Bank of America

Nonperforming Commercial Loans, Leases and Foreclosed Properties Activity

Table 34 33 presents the nonperforming commercial loans, leases and foreclosed properties activity during 2022 2023 and 2021, 2022. Nonperforming loans do not include loans accounted for under the fair value option. During 2022, 2023, nonperforming commercial loans and leases decreased \$524 million increased \$1.7 billion to \$1.1 billion \$2.8 billion. At

December 31, 2022, 97 December 31, 2023, 96 percent of commercial nonperforming loans, leases and foreclosed properties were secured, and 65 62 percent were contractually current. Commercial nonperforming loans were carried at 85 89 percent of their unpaid principal balance, as the carrying value of these loans has been reduced to the estimated collateral value less costs to sell.

Nonperforming
Commercial Loans,
Leases and
Foreclosed
Properties Activity

Table 34

(1, 2)

Table 33

Table 33

Table 33

Nonperforming Commercial Loans, Leases and Foreclosed Properties Activity (1, 2)

(Dollars in millions)

(Dollars in millions)

(Dollars in millions) (Dollars in millions) 2022 2021 2023 2022

Nonperforming Nonperforming
loans and leases, loans and leases,
January 1 January 1 \$1,578 \$2,227

Additions Additions 952 1,622

Reductions: Reductions:

Reductions:

Reductions:

Paydowns Paydowns (825) (1,163)

Sales Sales (57) (199)

Returns to Returns to
performing status performing status

(3) (3) (334) (264)

Charge-offs Charge-offs (221) (254)

Transfers to

foreclosed

properties

Transfers to loans Transfers to loans

held-for-sale held-for-sale (39) (391)

Total net reductions to nonperforming
loans and leases (524) (649)

Total net
additions /
(reductions) to
nonperforming
loans and
leases

Total Total
nonperforming nonperforming
loans and loans and
leases, leases,
December 31 December 31 1,054 1,578

Foreclosed properties, December 31

Foreclosed properties, December 31

Foreclosed Foreclosed
properties, properties,
December 31 December 31 49 29

Nonperforming Nonperforming
commercial commercial
loans, leases loans, leases
and foreclosed and foreclosed
properties, properties,
December 31 December 31 \$1,103 \$1,607

Nonperforming commercial loans and leases as a percentage of outstanding commercial loans and leases ⁽⁴⁾	Nonperforming commercial loans and leases as a percentage of outstanding commercial loans and leases ⁽⁴⁾	0.18 %	0.29 %	Nonperforming commercial loans and leases as a percentage of outstanding commercial loans and leases ⁽⁴⁾	0.47 %	0.18	%
Nonperforming commercial loans, leases and foreclosed properties as a percentage of outstanding commercial loans, leases and foreclosed properties ⁽⁴⁾	Nonperforming commercial loans, leases and foreclosed properties as a percentage of outstanding commercial loans, leases and foreclosed properties ⁽⁴⁾	0.19	0.30				

⁽¹⁾ Balances do not include nonperforming loans held-for-sale of \$161 million and \$219 million at December 31, 2023 and \$264 million at December 31, 2022 and 2021, 2022.

⁽²⁾ Includes U.S. small business commercial activity. Small business card loans are excluded as they are not classified as nonperforming.

⁽³⁾ Commercial loans and leases may be returned to performing status when all principal and interest is current and full repayment of the remaining contractual principal and interest is expected, or when the loan otherwise becomes well-secured and is in the process of collection. TDRs are generally classified as performing after collection, or when a modified loan demonstrates a sustained period of demonstrated payment performance.

⁽⁴⁾ Outstanding commercial loans exclude loans accounted for under the fair value option.

Table 35 presents our commercial TDRs by product type and performing status. U.S. small business commercial TDRs are comprised of renegotiated small business card loans and small business loans. The renegotiated small business card loans are not classified as nonperforming as they are charged off no later than the end of the month in which the loan becomes 180 days past due. Commercial TDRs increased \$957 million, or 50 percent, during 2022 primarily due to commercial real estate loans that were modified as TDRs during the first half of the year.

Table 35 Commercial Troubled Debt Restructurings							
(Dollars in millions)	December 31, 2022			December 31, 2021			
	Nonperforming	Performing	Total	Nonperforming	Performing	Total	
Commercial and industrial:							
U.S. commercial	\$ 305	\$ 985	\$ 1,290	\$ 359	\$ 685	\$ 1,044	
Non-U.S. commercial	69	238	307	72	8	80	
Total commercial and industrial	374	1,223	1,597	431	693	1,124	
Commercial real estate	59	1,131	1,190	244	437	681	
Commercial lease financing	3	16	19	50	7	57	
	436	2,370	2,806	725	1,137	1,862	
U.S. small business commercial	—	51	51	—	38	38	
Total commercial troubled debt restructurings	\$ 436	\$ 2,421	\$ 2,857	\$ 725	\$ 1,175	\$ 1,900	

Industry Concentrations

Table 36 34 presents commercial committed and utilized credit exposure by industry. Our commercial For information on net notional credit protection purchased to hedge funded and unfunded exposures for which we elected the fair value option, as well as certain other credit exposures, see Commercial Portfolio Credit Risk Management – Risk Mitigation.

Commercial credit exposure is diversified across a broad range of industries. Total commercial committed exposure increased \$70.3 billion, or six percent, \$13.9 billion during 2022 2023 to \$1.2 trillion. The increase in commercial committed exposure was concentrated in Capital goods, Finance companies and Asset managers and funds, Global commercial banks and Pharmaceuticals and biotechnology funds.

Industry limits are used internally to manage industry concentrations and are based on committed exposure that is determined on an industry-by-industry basis. A risk management framework is in place to set and approve industry limits as well as to provide ongoing monitoring.

Asset managers and funds, our largest industry concentration with committed exposure of \$165.1 billion \$169.3 billion.

Real estate, our second largest industry concentration with committed exposure of \$99.7 billion, increased \$3.5 billion, or four percent, \$100.3 billion remained relatively unchanged during 2022, 2023. For more information on the commercial real estate and related portfolios, see Commercial Portfolio Credit Risk Management – Commercial Real Estate on page 67, 65.

Capital goods, our third largest industry concentration with committed exposure of \$87.3 billion \$97.0 billion, increased \$3.0 billion \$9.7 billion, or four 11 percent, during 2022, 2023. The increase in committed exposure occurred primarily as a result of increases in the Electrical equipment and Trading companies and distributors as well as Machinery, partially offset by a decrease in Building products, Industrial conglomerates.

While The impact of various macroeconomic challenges, including geopolitical tensions, inflationary pressures and elevated interest rates, may lead to uncertainty in the U.S. and global economies, have shown signs of relief from the pandemic, uncertainty remains as a result of

increased \$28.2 billion \$4.2 billion, or 21 percent, during 2022 primarily driven by investment-grade exposures. exposure to the Capital markets industry group during 2023.

Bank of America 68

geopolitical and inflationary pressures, and may adversely impact a number of industries will likely continue to be adversely impacted due to these conditions. industries. We continue to monitor all industries,

particularly higher risk industries that are experiencing or could experience a more significant impact to their financial condition.

Table 36 Commercial Credit Exposure by Industry ⁽¹⁾		Commercial				Total Commercial	
		Utilized		Committed ⁽²⁾			
		December 31					
(Dollars in millions)		2022	2021	2022	2021		
Asset managers & funds		\$ 106,842	\$ 89,786	\$ 165,087	\$ 136,914		
Real estate ⁽³⁾		72,180	69,384	99,722	96,202		
Capital goods		45,580	42,784	87,314	84,293		
Finance companies		55,248	59,327	79,546	86,009		
Healthcare equipment and services		33,554	32,003	58,251	58,195		
Materials		26,304	25,133	55,589	53,652		
Retailing (Dollars in millions)		24,785	24,514	53,714	50,816		
Government & public education		34,861	37,597	48,134	50,066		
Asset managers and funds		\$ 103,138	\$ 106,842	\$ 169,318	\$ 165,087		
Food, beverage and tobacco		23,232	21,584	47,486	45,419		
Real estate ⁽³⁾		73,150	72,180	100,269	99,722		
Consumer services		26,980	28,172	47,372	48,052		
Capital goods		49,698	45,580	97,044	87,314		
Individuals and trusts		34,897	29,752	45,572	39,869		
Finance companies		62,906	55,248	89,119	79,546		
Commercial services and supplies		23,628	22,390	41,596	42,451		
Healthcare equipment and services		35,037	33,554	61,766	58,761		
Utilities		20,292	17,082	40,164	36,855		
Materials		25,223	26,304	55,296	53,589		
Energy		15,132	14,217	35,043	34,136		
Retailing		24,561	24,785	54,523	53,714		
Transportation		22,273	21,079	33,858	32,015		
Food, beverage and tobacco		23,565	23,232	49,426	47,496		
Technology hardware and equipment		11,441	10,158	29,825	26,910		
Consumer services		17,355	26,980	48,105	47,372		
Global commercial banks		27,217	20,062	29,293	21,390		
Government and public education		31,061	34,897	45,873	48,134		
Media		14,781	12,495	28,216	26,318		
Individuals and trusts		32,481	34,897	43,938	45,572		

Pharmaceuticals and biotechnology	22,642	23,608	24,498	19,896
Software and services	18,860	20,883	25,483	20,463
Consumer durables and apparel	10,080	19,730	26,986	26,026
Vehicles and parts	21,900	22,030	26,882	35,858
Technology hardware and equipment	10,951	15,443	29,460	28,825
Global communication services	29,839	20,056	23,880	23,290
Automobiles and components	18,023	18,286	24,982	28,056
Food and staples retailing	16,283	18,909	22,906	20,626
Financial markets infrastructure (clearinghouses)	9,830	12,866	22,282	26,028
Religious and social organizations	8,862	3,567	21,689	26,208
Total commercial credit exposure by industry	\$ 708,867	\$ 659,028	\$ 1,200,233	\$ 1,129,889
Insurance	9,371	10,224	19,322	19,444
Telecommunication services	9,224	9,679	17,269	17,349
Automobiles and components	7,049	8,774	16,459	16,911
Food and staples retailing	7,423	7,157	12,496	11,908
Financial markets infrastructure (clearinghouses)	4,229	3,913	6,503	8,752
Religious and social organizations	2,754	2,467	4,565	4,689
Total commercial credit exposure by industry	\$ 696,299	\$ 704,867	\$ 1,214,112	\$ 1,200,213

(1) Includes U.S. small business commercial exposure.

(2) Includes the notional amount of unfunded legally binding lending commitments, net of amounts distributed (i.e., syndicated or participated) to other financial institutions. The distributed amounts were \$10.3 billion and \$10.4 billion at December 31, 2023 and \$10.7 billion at December 31, 2022 and 2021, 2022.

(3) Industries are viewed from a variety of perspectives to best isolate the perceived risks. For purposes of this table, the real estate industry is defined based on the primary business activity of the borrowers or counterparties using operating cash flows and primary source of repayment as key factors.

Risk Mitigation

We purchase credit protection to cover the funded portion as well as the unfunded portion of certain credit exposures. To lower the cost of obtaining our desired credit protection levels, we may add credit exposure within an industry, borrower or counterparty group by selling protection.

At December 31, 2022 December 31, 2023 and 2021, 2022, net notional credit default protection purchased in our credit derivatives portfolio to hedge our funded and unfunded exposures for which we elected the fair value option, as well as certain other credit exposures, was \$9.0 billion \$10.9 billion and \$2.6 billion \$9.0 billion. We recorded net losses of \$37 million \$185 million in 2022 2023 compared to net losses \$91 million of \$37 million in 2021, 2022. The gains and losses on these instruments were largely offset by gains and losses on the related exposures. The Value-at-Risk (VaR) results for these exposures are included in the fair value option portfolio information in Table 43, 41. For more information, see Trading Risk Management on page 76.

74.

Tables 37 35 and 88 36 present the maturity profiles and the credit exposure debt ratings of the net credit default protection portfolio at December 31, 2022 December 31, 2023 and 2021, 2022.

Net Credit Default Protection by Maturity			
Table 37			
Table 35			
Table 35			
December 31			
Table 35			
2022 2021			
December 31			
December 31			
December 31			
2023			
2023			
2023			
Less than or equal to one year			
Less than or equal to one year			
Less than or equal to one year			
Less than or equal to one year	Less than or equal to one year	14 %	34 %
Greater than one year and less than or equal to five years	Greater than one year and less than or equal to five years	85	62
Greater than one year and less than or equal to five years			
Greater than one year and less than or equal to five years			
Greater than five years			
Greater than five years			
Greater than five years	Greater than five years	1	4
Total net credit default protection	Total net credit default protection	100 %	100 %
Total net credit default protection			
Total net credit default protection			

trades. For more information on credit derivatives and counterparty credit risk valuation adjustments, see *Note 3 – Derivatives* to the Consolidated Financial **Statements**. **Statements**.

Non-U.S. Portfolio

Our non-U.S. credit and trading portfolios are subject to country risk. We define country risk as the risk of loss from unfavorable economic and political conditions, currency fluctuations, social instability and changes in government policies. A risk management framework is in place to measure, monitor and manage non-U.S. risk and exposures. In addition to the direct risk of doing business in a country, we also are exposed to indirect country risks (e.g., related to the collateral received on secured financing transactions or related to client clearing activities). These indirect exposures are managed in the normal course of business through credit, market and operational risk governance rather than through country risk governance.

Table 39 presents our 20 largest non-U.S. country exposures at **December 31, 2022** **December 31, 2023**. These exposures accounted for 89 percent of our total non-U.S. exposure at **both December 31, 2022** **December 31, 2023** and **2021, 2022**. Net country exposure for these 20 countries **increased \$24.0 billion** **decreased \$13.1 billion** in **2022** **2023** primarily driven by **increases** **decreases** in Germany Japan, Ireland, India and Switzerland, partially offset by **decreases** in China, Belgium, Australia and Singapore. Japan.

Non-U.S. exposure is presented on an internal risk management basis and includes sovereign and non-sovereign credit exposure, securities and other investments issued by or domiciled in countries other than the U.S.

Funded loans and loan equivalents include loans, leases, and other extensions of credit and funds, including letters of credit and due from placements. Unfunded commitments are the undrawn portion of legally binding commitments related to loans and loan equivalents. Net counterparty exposure includes the fair value of derivatives, including the counterparty risk associated with credit default swaps (CDS), and secured financing transactions. Securities and other investments are carried at fair value and long securities exposures are netted against short exposures with the same underlying issuer to, but not below, zero. Net country exposure represents country exposure less hedges and credit default protection purchased, net of credit default protection sold.

Table 39 **Top 20 Non-U.S. Countries Exposure**

Table 37

Table 37

Table 37

(Dollars in millions)

(Dollars in millions)

		Country									Country									Increase	
		Funded				Country Exposure		Hedges and Credit		Net Country Exposure		Increase		Funded	Unfunded	Net	Securities/	Country Exposure at	Hedges and Credit Default	Net Country Exposure at	Increase (Decrease)
		Loans	Unfunded	Net	Securities/	at	and	at	from	at	from	at	from								
(Dollars in millions)	(Dollars in millions)	and Loan	Loan	Counterparty	Other	December 31	Default	December 31	December 31	December 31	December 31	December 31	December 31	and Loan	Loan	Counterparty	Other	December 31	Credit Default	December 31	December 31
		Equivalents	Commitments	Exposure	Investments	2022	Protection	2022	2021	2022	2021	2022	2021	Equivalents	Commitments	Exposure	Investments	2023	Protection	2023	2022
United Kingdom	United Kingdom	\$ 29,965	\$ 16,601	\$ 7,243	\$ 2,570	\$ 56,379	\$ (1,034)	\$ 55,345	\$ 376												
Germany	Germany	32,248	9,431	2,190	2,742	46,611	(885)	45,726	11,901												
Canada																					
France	France	13,888	8,064	2,023	3,604	27,579	(986)	26,593	1,686												
Canada		10,992	10,094	1,472	3,383	25,941	(368)	25,573	(738)												
Australia																					
Japan	Japan	19,239	1,806	1,366	1,502	23,913	(826)	23,087	5,825												
Australia		14,412	4,013	568	1,510	20,503	(286)	20,217	(1,087)												
Brazil	Brazil	6,175	1,413	741	4,199	12,528	(28)	12,500	(250)												
India																					
Singapore																					

Ireland									
Switzerland									
Mexico									
China	China	6,489	294	1,378	2,932	11,093	(285)	10,808	(1,774)
India		6,805	589	614	2,841	10,849	(80)	10,769	2,138
Switzerland		7,039	3,063	469	438	11,009	(321)	10,688	2,113
Singapore		4,017	627	126	4,874	9,644	(37)	9,607	(1,058)
South Korea									
Netherlands	Netherlands	3,169	4,892	617	1,402	10,080	(797)	9,283	(313)
South Korea		6,103	927	504	1,664	9,198	(72)	9,126	974
Ireland		7,678	1,157	151	230	9,216	(126)	9,090	3,551
Mexico		4,444	1,753	514	743	7,454	(62)	7,392	930
Italy									
Hong Kong	Hong Kong	5,123	523	466	1,181	7,293	(22)	7,271	(56)
Spain	Spain	2,433	2,170	398	1,067	6,068	(227)	5,841	(79)
Italy		3,883	1,777	184	426	6,270	(602)	5,668	464
Saudi Arabia		2,428	1,465	219	15	4,127	(109)	4,018	545
Belgium	Belgium	1,433	1,489	184	910	4,016	(153)	3,863	(1,168)
Sweden									
Total top 20 non-U.S. countries exposure	Total top 20 non-U.S. countries exposure	\$ 187,963	\$ 72,148	\$ 21,427	\$ 38,233	\$ 319,771	\$ (7,306)	\$ 312,465	\$ 23,980

Our largest non-U.S. country exposure at **December 31, 2022** **December 31, 2023** was the **77**. United Kingdom with net exposure of **\$55.3 billion** **\$55.9 billion**, which represents an increase of **\$376 million** **\$590 million** from **December 31, 2021** **December 31, 2022**. The increase was primarily driven by net counterparty exposure with financial institutions, partially offset by a reduction in deposits with the central bank, higher corporate exposure. Our second largest non-U.S. country exposure was Germany with net exposure of **\$45.7 billion** **\$35.7 billion** at **December 31, 2022** **December 31, 2023**, an increase a decrease of **\$11.9 billion** **\$10.1 billion** from **December 31, 2021** **December 31, 2022**. The increase decrease was primarily driven by higher lower deposits with the central bank and increased exposure with financial institutions and corporates. bank.

69 Bank of America

Loan and Lease Contractual Maturities

Table 40 38 disaggregates total outstanding loans and leases by remaining scheduled principal due dates and interest rates. The amounts provided do not reflect prepayment assumptions or hedging activities related to the loan portfolio. For information on the asset sensitivity of our total banking book balance sheet, see Interest Rate Risk Management for the Banking Book on page 79.

71 Bank of America

Loan and Lease Contractual Maturities	
Table 40	(1)
Table 38	

Table 38

Table 38

(Dollars in millions)		December 31, 2022						(Dollars in millions)	Due in One Year or Less	Due After One Year Through Five Years	December 31, 2023				(Dollars in millions)	Due After Five Years Through 15 Years	(Dollars in millions)	Due After 15 Years	Total
		Due After One Year		Due After Five Years															
		Through	Five Years	Due in One Year or Less	Due After Five Years Through 15 Years								Due After 15 Years	Total					
		Due in One Year or Less	Five Years																
Residential mortgage	Residential mortgage	\$	5,660	\$	32,546	\$	94,544	\$	96,991	\$	229,741								
Home equity	Home equity		251		1,195		5,076		20,309		26,831								
Credit card	Credit card		93,421		—		—		—		93,421								
Direct/Indirect consumer	Direct/Indirect consumer		65,877		35,066		4,464		829		106,236								
Other consumer	Other consumer		156		—		—		—		156								
Total consumer loans	Total consumer loans		165,365		68,807		104,084		118,129		456,385								
U.S. commercial	U.S. commercial		97,153		242,313		20,343		1,584		361,393								
Non-U.S. commercial	Non-U.S. commercial		49,662		52,826		22,436		2,075		126,999								
Commercial real estate	Commercial real estate		19,199		48,051		1,650		866		69,766								
Commercial lease financing	Commercial lease financing		2,737		8,214		1,026		1,667		13,644								
U.S. small business commercial	U.S. small business commercial		10,615		4,474		2,407		64		17,560								
Total commercial loans	Total commercial loans		179,366		355,878		47,862		6,256		589,362								
Total loans and leases	Total loans and leases	\$	344,731	\$	424,685	\$	151,946	\$	124,385	\$	1,045,747								
		Amount due in one year or less at:		Amount due after one year at:															
		Amount due in one year or less at:		Amount due in one year or less at:															
		Amount due in one year or less at:		Amount due in one year or less at:															
		Amount due in one year or less at:		Amount due in one year or less at:															
(Dollars in millions)																			
(Dollars in millions)																			
(Dollars in millions)		Variable Interest Rates	Fixed Interest Rates	Variable Interest Rates	Fixed Interest Rates	Total	Variable Interest Rates	Fixed Interest Rates		Variable Interest Rates		Fixed Interest Rates		Total					
Residential mortgage	Residential mortgage	\$	1,007	\$	4,653	\$	83,441	\$	140,640	\$	229,741								
Home equity	Home equity		203		48		22,438		4,142		26,831								
Credit card	Credit card		88,113		5,308		—		—		93,421								
Direct/Indirect consumer	Direct/Indirect consumer		47,240		18,637		2,857		37,502		106,236								
Other consumer	Other consumer		—		156		—		—		156								

Total consumer loans	Total consumer loans					
		136,563	28,802	108,736	182,284	456,385
U.S. commercial	U.S. commercial	73,593	23,560	223,099	41,141	361,393
Non-U.S. commercial	Non-U.S. commercial	42,692	6,970	75,355	1,982	126,999
Commercial real estate	Commercial real estate	18,361	838	49,247	1,320	69,766
Commercial lease financing	Commercial lease financing	229	2,508	3,696	7,211	13,644
U.S. small business commercial	U.S. small business commercial	6,363	4,252	109	6,836	17,560
Total commercial loans	Total commercial loans	141,238	38,128	351,506	58,490	589,362
Total loans and leases	Total loans and leases	\$ 277,801	\$ 66,930	\$ 460,242	\$ 240,774	\$ 1,045,747

(3) Includes loans accounted for under the fair value option.

Allowance for Credit Losses

The allowance for credit losses increased \$379 million \$329 million from December 31, 2021 December 31, 2022 to \$14.2 billion \$14.6 billion at December 31, 2022 December 31, 2023, which included a \$202 million \$1.3 billion reserve increase related to the consumer portfolio and a \$177 \$942 million reserve increase decrease related to the commercial portfolio. The increase in the allowance was

commercial portfolio. The allowance also includes the impact of the accounting change to remove the recognition and measurement guidance on troubled debt restructurings, which reduced the allowance for reduced pandemic uncertainties, credit losses by \$243 million on January 1, 2023. For more information on this change in accounting guidance, see Note 1 – Summary of Significant Accounting Principles to the Consolidated Financial Statements.

Table 41 39 presents an allocation of the allowance for credit losses by product type at December 31, 2022 December 31, 2023 and 2021, 2022.

reflected a reserve build in our consumer portfolio primarily driven by due to credit card loan growth and a dampened macroeconomic outlook, asset quality, partially offset by a reserve release in our commercial portfolio primarily driven by improved macroeconomic conditions applicable to the

Allocation of the Allowance for Credit Losses by Product Type									
Table 41									
Table 39									
Table 39									
Table 39									
Amount									
		Percent	Percent of Loans and Leases of Outstanding	Percent	Percent of Loans and Leases of Outstanding				
	Amount	Total	(1)	Amount	Total	(1)			
Amount									
		Percent	Percent of Loans and Leases of Outstanding	Percent	Percent of Loans and Leases of Outstanding				
	Amount	Total	(1)	Amount	Total	(1)			
Amount									
		Percent	Percent of Loans and Leases of Outstanding	Percent	Percent of Loans and Leases of Outstanding				
	Amount	Total	(1)	Amount	Total	(1)			
(Dollars in millions)	(Dollars in millions)	December 31, 2022		December 31, 2021	(Dollars in millions)	December 31, 2023		December 31, 2022	

Allowance for loan and lease losses	Allowance for loan and lease losses							Allowance for loan and lease losses											
Residential mortgage	Residential mortgage	\$ 328	2.59 %	0.14 %	\$ 351	2.83 %	0.16 %	Residential mortgage	\$339	2.54	2.54	%	0.15 %		\$328	2.59	2.59	%	0.14 %
Home equity	Home equity	92	0.73	0.35	206	1.66	0.74												
Credit card	Credit card	6,136	48.38	6.57	5,907	47.70	7.25												
Direct/Indirect consumer																			
Direct/Indirect consumer																			
Direct/Indirect consumer	Direct/Indirect consumer	585	4.61	0.55	523	4.22	0.51												
Other consumer	Other consumer	96	0.76	n/m	46	0.37	n/m	Other consumer	73	0.55	0.55	n/m	n/m		96	0.76	0.76	n/m	n/m
Total consumer	Total consumer	7,237	57.07	1.59	7,033	56.78	1.62												
U.S. commercial (2)	U.S. commercial (2)	3,007	23.71	0.80	3,019	24.37	0.87												
Non-U.S. commercial	Non-U.S. commercial	1,194	9.41	0.96	975	7.87	0.86												
Commercial real estate	Commercial real estate	1,192	9.40	1.71	1,292	10.43	2.05												
Commercial lease financing	Commercial lease financing	52	0.41	0.38	68	0.55	0.46												
Total commercial	Total commercial	5,445	42.93	0.93	5,354	43.22	1.00												
Allowance for loan and lease losses	Allowance for loan and lease losses	12,682	100.00 %	1.22	12,387	100.00 %	1.28												
Reserve for unfunded lending commitments																			
Reserve for unfunded lending commitments																			
Reserve for unfunded lending commitments	Reserve for unfunded lending commitments	1,540			1,456			1,209		1,540					1,540				
Allowance for credit losses	Allowance for credit losses	\$14,222			\$13,843														

⁽²⁾ Ratios are calculated as allowance for loan and lease losses as a percentage of loans and leases outstanding excluding loans accounted for under the fair value option.

⁽²⁾ Includes allowance for loan and lease losses for U.S. small business commercial loans of \$1.0 billion and \$844 million at December 31, 2023 and \$1.2 billion at December 31, 2022 and 2021. 2022.

n/m = not meaningful

Net charge-offs for both 2023 were \$3.8 billion compared to \$2.2 billion in 2022 and 2021 were \$2.2 billion as primarily due to late-stage delinquent credit card losses, which remained near historic lows, loans that were partially offset by higher overdrafts charged off in other consumer due to payment activity related to checking accounts, off. The provision for credit losses increased \$7.1 billion \$1.9 billion to an expense of \$2.5 billion \$4.4 billion during 2022 2023 compared to 2021, 2022. The provision for credit losses in 2022 2023 was primarily driven by our consumer portfolio primarily due to credit card loan growth and a dampened macroeconomic outlook, asset quality, partially offset by a reserve release for reduced pandemic uncertainties, improved macroeconomic conditions that primarily benefited our commercial portfolio. The provision for credit losses for the consumer portfolio, including unfunded lending commitments, increased \$3.2 billion \$2.5 billion to an expense of \$2.0 billion \$4.5 billion during 2022 2023 compared to 2021, 2022. The commitments, increased \$3.9 billion decreased \$628 million to a \$133 million benefit for 2023 compared to 2022. The decline was due primarily to an expense of \$495 million for 2022 compared to 2021, improved macroeconomic outlook.

provision for credit losses for the commercial portfolio, including unfunded lending

Table 42 40 presents a rollforward of the allowance for credit losses, including certain loan and allowance ratios for 2022 2023 and 2021, 2022. For more information on the Corporation's credit loss accounting policies and activity related to the allowance for credit losses, see Note 1 – Summary of Significant Accounting Principles and Note 5 – Outstanding Loans and Leases and Allowance for Credit Losses to the Consolidated Financial Statements.

73 71 Bank of America

Table 42 Allowance for Credit Losses			
Table 40			
Table 40			
Table 40			
(Dollars in millions)	(Dollars in millions)	2022	2021
(Dollars in millions)			
(Dollars in millions)			
(Dollars in millions)			
2023 2022			
Allowance for loan and lease losses, December 31			
January 1, 2023			
adoption of credit loss standard			
January 1, 2023 adoption of credit loss standard			
(243) n/a			
Allowance for loan and lease losses, January 1	Allowance for loan and lease losses, January 1	\$ 12,387	\$ 18,802
Loans and leases charged off	Loans and leases charged off		
Residential mortgage			
Residential mortgage			
Residential mortgage	Residential mortgage	(161)	(34)
Home equity	Home equity	(45)	(44)
Credit card	Credit card	(1,985)	(2,411)
Direct/Indirect consumer	Direct/Indirect consumer	(232)	(297)
Other consumer	Other consumer	(538)	(292)

Total consumer charge-offs	Total consumer charge-offs	(2,961)	(3,078)
U.S. commercial (1)	U.S. commercial (1)	(354)	(626)
Non-U.S. commercial	Non-U.S. commercial	(41)	(47)
Commercial real estate	Commercial real estate	(75)	(46)
Commercial lease financing	Commercial lease financing	(8)	—
Total commercial charge-offs	Total commercial charge-offs	(478)	(719)
Total loans and leases charged off	Total loans and leases charged off	(3,439)	(3,797)
Recoveries of loans and leases previously charged off	Recoveries of loans and leases previously charged off		
Residential mortgage			
Residential mortgage			
Residential mortgage	Residential mortgage	89	62
Home equity	Home equity	135	163
Credit card	Credit card	651	688
Direct/Indirect consumer	Direct/Indirect consumer	214	296
Other consumer	Other consumer	17	22
Total consumer recoveries	Total consumer recoveries	1,106	1,231
U.S. commercial (2)	U.S. commercial (2)	129	298
Non-U.S. commercial	Non-U.S. commercial	20	12
Commercial real estate	Commercial real estate	9	12
Commercial lease financing	Commercial lease financing	3	1
Total commercial recoveries	Total commercial recoveries	161	323
Total recoveries of loans and leases previously charged off	Total recoveries of loans and leases previously charged off	1,267	1,554
Net charge-offs	Net charge-offs	(2,172)	(2,243)
Provision for loan and lease losses	Provision for loan and lease losses	2,460	(4,173)
Provision for loan and lease losses			

Provision for loan and lease losses					
Other	Other	7	1		
Allowance for loan and lease losses, December 31	Allowance for loan and lease losses, December 31	12,682	12,387		
Reserve for unfunded lending commitments, January 1					
Reserve for unfunded lending commitments, January 1					
Reserve for unfunded lending commitments, January 1	Reserve for unfunded lending commitments, January 1	1,456	1,878		
Provision for unfunded lending commitments	Provision for unfunded lending commitments	83	(421)		
Other	Other	1	(1)		
Reserve for unfunded lending commitments, December 31	Reserve for unfunded lending commitments, December 31	1,540	1,456		
Allowance for credit losses, December 31	Allowance for credit losses, December 31	\$ 14,222	\$ 13,843		
Loan and allowance ratios ^(a) :					
Loan and allowance ratios ^(a) :					
Loan and allowance ratios ^(a) :					
Loan and allowance ratios ^(a) :					
Loans and leases outstanding at December 31					
Loans and leases outstanding at December 31					
Loans and leases outstanding at December 31	Loans and leases outstanding at December 31	\$1,039,976	\$971,305		
Allowance for loan and lease losses as a percentage of total loans and leases outstanding at December 31	Allowance for loan and lease losses as a percentage of total loans and leases outstanding at December 31	1.22 %	1.28 %	Allowance for loan and lease losses as a percentage of total loans and leases outstanding at December 31	1.22 %
Consumer allowance for loan and lease losses as a percentage of total consumer loans and leases outstanding at December 31	Consumer allowance for loan and lease losses as a percentage of total consumer loans and leases outstanding at December 31	1.59	1.62		
Commercial allowance for loan and lease losses as a percentage of total commercial loans and leases outstanding at December 31	Commercial allowance for loan and lease losses as a percentage of total commercial loans and leases outstanding at December 31	0.93	1.00		
Average loans and leases outstanding	Average loans and leases outstanding	\$1,010,799	\$913,354		
Net charge-offs as a percentage of average loans and leases outstanding	Net charge-offs as a percentage of average loans and leases outstanding	0.21 %	0.25 %	Net charge-offs as a percentage of average loans and leases outstanding	0.36 %

Allowance for loan and lease losses as a percentage of total nonperforming loans and leases at December 31	Allowance for loan and lease losses as a percentage of total nonperforming loans and leases at December 31	333	271
Allowance for loan and lease losses as a percentage of total nonperforming loans and leases at December 31 Allowance for loan and lease losses as a percentage of total nonperforming loans and leases at December 31			
Ratio of the allowance for loan and lease losses at December 31 to net charge-offs	Ratio of the allowance for loan and lease losses at December 31 to net charge-offs	5.84	5.52
Amounts included in allowance for loan and lease losses for loans and leases that are excluded from nonperforming loans and leases at December 31	Amounts included in allowance for loan and lease losses for loans and leases that are excluded from nonperforming loans and leases at December 31		
(4)	(4)	\$ 6,998	\$ 7,027
Amounts included in allowance for loan and lease losses for loans and leases that are excluded from nonperforming loans and leases at December 31 (4) Amounts included in allowance for loan and lease losses for loans and leases that are excluded from nonperforming loans and leases at December 31 (4)			

Allowance for loan and lease losses as a percentage of total nonperforming loans and leases, excluding the allowance for loan and lease losses for loans and leases that are excluded from nonperforming loans and leases at December 31	Allowance for loan and lease losses as a percentage of total nonperforming loans and leases, excluding the allowance for loan and lease losses for loans and leases that are excluded from nonperforming loans and leases at December 31	Allowance for loan and lease losses as a percentage of total nonperforming loans and leases, excluding the allowance for loan and lease losses for loans and leases that are excluded from nonperforming loans and leases at December 31			
(4)	(4)	(4)			
	149 %	117 %	91 %	149	%

- (1) Includes U.S. small business commercial charge-offs of **\$360 million in 2023 compared to \$203 million in 2022 compared to \$425 million in 2021; 2022.**
- (2) Includes U.S. small business commercial recoveries of **\$41 million in 2023 compared to \$49 million in 2022 compared to \$74 million in 2021; 2022.**
- (3) Ratios are calculated as allowance for loan and lease losses as a percentage of loans and leases outstanding excluding loans accounted for under the fair value option.
- (4) Primarily includes amounts related to credit card and unsecured consumer lending portfolios in *Consumer Banking*.

Market Risk Management

Market risk is the risk that changes in market conditions may adversely impact the value of assets or liabilities, or otherwise negatively impact earnings. This risk is inherent in the financial instruments associated with our operations, primarily within our *Global Markets* segment. We are also exposed to these risks in other areas of the Corporation (e.g., our ALM activities). In the event of market stress, these risks could have a material impact on our results. For more information, see Interest Rate Risk Management for the Banking Book on page 79, 77.

Our traditional banking loan and deposit products are non-trading positions and are generally reported at amortized cost for assets or the amount owed for liabilities (historical cost). However, these positions are still subject to changes in economic value based on varying market conditions, with one of the primary risks being changes in the levels of interest rates. The risk of adverse changes in the economic value of our non-trading positions arising from changes in interest rates is managed through our ALM activities. We have elected to account for certain assets and liabilities under the fair value option.

Our trading positions are reported at fair value with changes reflected in income. Trading positions are subject to various changes in market-based risk factors. The majority of this risk is generated by our activities in the interest rate, foreign exchange, credit, equity and commodities markets. In addition, the values of assets and liabilities could change due to market liquidity, correlations across markets and expectations of market volatility. We seek to manage these risk exposures by using a variety of techniques that encompass a broad range of financial instruments. The key risk management techniques are discussed in more detail in the Trading Risk Management section.

GRM is responsible for providing senior management with a clear and comprehensive understanding of the trading risks to which we are exposed. These responsibilities include ownership of market risk policy, developing and maintaining quantitative risk models, calculating aggregated risk measures, establishing and monitoring position limits consistent with risk appetite, conducting daily reviews and analysis of trading inventory, approving material risk exposures and fulfilling regulatory requirements. Market risks that impact businesses outside of *Global Markets* are monitored and governed by their respective governance functions.

Model risk is the potential for adverse consequences from decisions based on incorrect or misused model outputs and reports. Given that models are used across the Corporation, model risk impacts all risk types including credit, market and operational risks. The Enterprise Model Risk Policy defines model risk standards, consistent with our Risk Framework and risk appetite, prevailing regulatory guidance and industry best practice. All models, including risk management, valuation and regulatory capital models, must meet certain validation criteria, including effective challenge of the conceptual soundness of the model, independent model testing and ongoing monitoring through outcomes analysis and benchmarking. The Enterprise Model Risk Committee, a subcommittee of the MRC, oversees that model standards are consistent with model risk requirements and monitors the effective challenge in the model validation process across the Corporation.

Interest Rate Risk

Interest rate risk represents exposures to instruments whose values vary with the level or volatility of interest rates. These instruments include, but are not limited to, loans, debt

securities, certain trading-related assets and liabilities, deposits, borrowings and derivatives. Hedging instruments used to mitigate these risks include derivatives such as options, futures, forwards and swaps.

Foreign Exchange Risk

Foreign exchange risk represents exposures to changes in the values of current holdings and future cash flows denominated in currencies other than the U.S. dollar. The types of instruments exposed to this risk include investments in non-U.S. subsidiaries, foreign currency-denominated loans and securities, future cash flows in foreign currencies arising from foreign exchange transactions, foreign currency-denominated debt and various foreign exchange derivatives whose values fluctuate with changes in the level or volatility of currency exchange rates or non-U.S. interest rates. Hedging instruments used to mitigate this risk include foreign exchange options, currency swaps, futures, forwards, and foreign currency-denominated debt and deposits.

Mortgage Risk

Mortgage risk represents exposures to changes in the values of mortgage-related instruments. The values of these instruments are sensitive to prepayment rates, mortgage rates, agency debt ratings, default, market liquidity, government participation and interest rate volatility. Our exposure to these instruments takes several forms. For example, we trade and engage in market-making activities in a variety of mortgage securities including whole loans, pass-through certificates, commercial mortgages and collateralized mortgage obligations including collateralized debt obligations using mortgages as underlying collateral. In addition, we originate a variety of MBS, which involves the accumulation of mortgage-related loans in anticipation of eventual securitization, and we may hold positions in mortgage securities and residential mortgage loans as part of the ALM portfolio. We also record MSRs as part of our mortgage origination activities. Hedging instruments used to mitigate this risk include derivatives such as options, swaps, futures and forwards as well as securities including MBS and U.S. Treasury securities. For more information, see Mortgage Banking Risk Management on page 80, 79.

Equity Market Risk

Equity market risk represents exposures to securities that represent an ownership interest in a corporation in the form of domestic and foreign common stock or other equity-linked instruments. Instruments that would lead to this exposure include, but are not limited to, the following: common stock, exchange-traded funds, American Depositary Receipts, convertible bonds, listed equity options (puts and calls), OTC equity options, equity total return swaps, equity index futures and other equity derivative products. Hedging instruments used to mitigate this risk include options, futures, swaps, convertible bonds and cash positions.

Commodity Risk

Commodity risk represents exposures to instruments traded in the petroleum, natural gas, power and metals markets. These instruments consist primarily of futures, forwards, swaps and options. Hedging instruments used to mitigate this risk include options, futures and swaps in the same or similar commodity product, as well as cash positions.

Issuer Credit Risk

Issuer credit risk represents exposures to changes in the creditworthiness of individual issuers or groups of issuers. Our portfolio is exposed to issuer credit risk where the value of an asset may be adversely impacted by changes in the levels of credit spreads, by credit migration or by defaults. Hedging instruments used to mitigate this risk include bonds, CDS and other credit fixed-income instruments.

Market Liquidity Risk

Market liquidity risk represents the risk that the level of expected market activity changes dramatically and, in certain cases, may even cease. This exposes us to the risk that we will not be able to transact business and execute trades in an orderly manner which may impact our results. This impact could be further exacerbated if expected hedging or pricing correlations are compromised by disproportionate demand or lack of demand for certain instruments. We utilize various risk mitigating techniques as discussed in more detail in Trading Risk Management.

Trading Risk Management

To evaluate risks in our trading activities, we focus on the actual and potential volatility of revenues generated by individual positions as well as portfolios of positions. Various techniques and procedures are utilized to enable the most complete understanding of these risks. Quantitative measures of market risk are evaluated on a daily basis from a single position to the portfolio of the Corporation. These measures include sensitivities of positions to various market risk factors, such as the potential impact on revenue from a one basis point change in interest rates, and statistical measures utilizing both actual and hypothetical market moves, such as VaR and stress testing. Periods of extreme market stress influence the reliability of these techniques to varying degrees. Qualitative evaluations of market risk utilize the suite of quantitative risk measures while understanding each of their respective limitations. Additionally, risk managers independently evaluate the risk of the portfolios under the current market environment and potential future environments.

VaR is a common statistic used to measure market risk as it allows the aggregation of market risk factors, including the effects of portfolio diversification. A VaR model simulates the value of a portfolio under a range of scenarios in order to generate a distribution of potential gains and losses. VaR represents the loss a portfolio is not expected to exceed more than a certain number of times per period, based on a specified holding period, confidence level and window of historical data. We use one VaR model consistently across the trading portfolios and it uses a historical simulation approach based on a three-year window of historical data. Our primary VaR statistic is equivalent to a 99 percent confidence level, which means that for a VaR with a one-day holding period, there should not be losses in excess of VaR, on average, 99 out of 100 trading days.

Within any VaR model, there are significant and numerous assumptions that will differ from company to company. The accuracy of a VaR model depends on the availability and quality of historical data for each of the risk factors in the portfolio. A VaR model may require additional modeling assumptions for new products that do not have the necessary historical market data or for less liquid positions for which accurate daily prices are not consistently available. For positions with insufficient historical data for the VaR calculation, the process for establishing an appropriate proxy is based on fundamental and

statistical analysis of the new product or less liquid position. This analysis identifies reasonable alternatives that replicate both the expected volatility and correlation to other market risk factors that the missing data would be expected to experience.

VaR may not be indicative of realized revenue volatility as changes in market conditions or in the composition of the portfolio can have a material impact on the results. In particular, the historical data used for the VaR calculation might indicate higher or lower levels of portfolio diversification than will be experienced. In order for the VaR model to reflect current market conditions, we update the historical data underlying our VaR model on a weekly basis, or more frequently during periods of market stress, and regularly review the assumptions underlying the model. A minor portion of risks related to our trading positions is not included in VaR. These risks are reviewed as part of our ICAAP. For more information regarding ICAAP, see Capital Management on page 49, 47.

GRM continually reviews, evaluates and enhances our VaR model so that it reflects the material risks in our trading portfolio. Changes to the VaR model are reviewed and approved prior to implementation and any material changes are reported to management through the appropriate management committees.

Trading limits on quantitative risk measures, including VaR, are independently set by *Global Markets* Risk Management and reviewed on a regular basis so that trading limits remain relevant and within our overall risk appetite for market risks. Trading limits are reviewed in the context of market liquidity, volatility and strategic business priorities. Trading limits are set at both a granular level to allow for extensive coverage of risks as well as at aggregated portfolios to account for correlations among risk factors. All trading limits are approved at least annually. Approved trading limits are stored and tracked in a centralized limits management system. Trading limit excesses are communicated to management for review. Certain quantitative market risk measures and corresponding limits have been identified as critical in the Corporation's Risk Appetite Statement. These risk appetite limits are reported on a daily basis and are approved at least annually by the ERC and the Board.

In periods of market stress, *Global Markets* senior leadership communicates daily to discuss losses, key risk positions and any limit excesses. As a result of this process, the businesses may selectively reduce risk.

Table 43.41 presents the total market-based portfolio VaR, which is the combination of the total covered positions (and less liquid trading positions) portfolio and the fair value option portfolio. Covered positions are defined by regulatory standards as trading assets and liabilities, both on- and off-balance sheet, that meet a defined set of specifications. These specifications identify the most liquid trading positions which are intended to be held for a short-term horizon and where we are able to hedge the material risk elements in a two-way market. Positions in less liquid markets, or where there are restrictions on the ability to trade the positions, typically do not qualify as covered positions. Foreign exchange and commodity positions are always considered covered positions, except for structural foreign currency positions that are excluded with prior regulatory approval.

In addition, Table 43.41 presents our the VaR for the fair value option portfolio, which includes substantially all of the funded and unfunded exposures for which we elect the fair value option, and their corresponding hedges. Additionally, marketMarket risk VaR for trading activities, as presented in Table 43.41, differs from VaR used for regulatory capital calculations due to the holding period being used.

Bank of America 76 74

used. The holding period for VaR used for regulatory capital calculations is 10 days, while for the market risk VaR presented below, it is one day. Both measures utilize the same process and methodology.

The total market-based portfolio VaR results in Table 43.41 include market risk to which we are exposed from all business segments, excluding credit valuation adjustment (CVA), DVA and related hedges. The majority of this portfolio is within the *Global Markets* segment.

Table 43.41 presents year-end, average, high and low daily trading VaR for 2022 2023 and 2021 2022 using a 99 percent confidence

the view of covered positions used in the Basel 3 capital calculations. Foreign exchange and commodity positions are always considered covered positions, regardless of trading or banking treatment for the trade, except for structural foreign currency positions that are excluded with prior regulatory approval.

The annual average of total covered positions and less liquid trading positions portfolio VaR increased for 2022 2023 decreased compared to 2021 driven by heightened 2022, primarily due to the roll off of March 2020 market volatility and reduced diversification across asset classes, from the window of historical data used in the calibration of the VaR model.

level. The amounts disclosed in Table 43.41 and Table 44.42 align to

Market Risk VaR for											
Table 43 Trading Activities											
Table 41											
Table 41											
Table 41											
2023											
20222021											
2023											
2023											
(Dollars in millions)											
(Dollars in millions)											
(Dollars in millions)	(Dollars in millions)	Year				Year					
		End	Average	High (1)	Low (1)	End	Average	High (1)	Low (1)		
Foreign exchange	Foreign exchange	\$ 38	\$ 21	\$ 39	\$ 12	\$ 11	\$ 12	\$ 21	\$ 5		
Foreign exchange											
Foreign exchange											
Interest rate											
Interest rate											
Interest rate	Interest rate	36	36	56	24	54	40	80	16		
Credit	Credit	76	71	106	52	73	69	84	53		
Credit											
Credit											
Equity											
Equity											
Equity	Equity	18	20	33	12	21	24	35	19		
Commodities	Commodities	8	13	27	7	6	8	28	4		
Commodities											
Commodities											
Portfolio diversification											
Portfolio diversification											
Portfolio diversification	Portfolio diversification	(81)	(91)	n/a	n/a	(114)	(100)	n/a	n/a		
Total covered positions portfolio	Total covered positions portfolio										
95	70	140	42	51	53	85	34				
Total covered positions portfolio											
Total covered positions portfolio											
Impact from less liquid exposures (2)											
Impact from less liquid exposures (2)											
Impact from less liquid exposures (2)	Impact from less liquid exposures (2)	35	38	n/a	n/a	8	20	n/a	n/a		
Total covered positions and less liquid trading positions portfolio	Total covered positions and less liquid trading positions portfolio	130	108	236	61	59	73	125	46		

Total covered positions and less liquid trading positions portfolio										
Total covered positions and less liquid trading positions portfolio										
Fair value option loans										
Fair value option loans										
Fair value	Fair value									
option loans	option loans	48	51	65	37	51	50	65	31	
Fair value	Fair value									
option	option									
hedges	hedges	16	17	24	13	15	16	20	11	
Fair value option hedges										
Fair value option hedges										
Fair value option portfolio										
diversification										
Fair value option portfolio										
diversification										
Fair value	Fair value									
option	option									
portfolio	portfolio									
diversification	diversification	(38)	(36)	n/a	n/a	(27)	(32)	n/a	n/a	
Total fair value option portfolio	Total fair value option portfolio	26	32	44	23	39	34	53	23	
Total fair value option portfolio										
Total fair value option portfolio										
Portfolio diversification										
Portfolio diversification										
Portfolio	Portfolio									
diversification	diversification	9	(11)	n/a	n/a	(24)	(10)	n/a	n/a	
Total market-based portfolio	Total market-based portfolio	\$165	\$ 129	287	70	\$ 74	\$ 97	169	54	
Total market-based portfolio										
Total market-based portfolio										

(3) The high and low for each portfolio may have occurred on different trading days than the high and low for the components. Therefore the impact from less liquid exposures and the amount of portfolio diversification, which is the difference between the total portfolio and the sum of the individual components, is not relevant.

(4) Impact is net of diversification effects between the covered positions and less liquid trading positions portfolios.

n/a = not applicable

The following graph presents the daily covered positions and less liquid trading positions portfolio VaR for 2022, 2023, corresponding to the data in Table 43, 41.

 Updated Chart for 10K - Final (002).jpg

Additional VaR statistics produced within our single VaR model are provided in Table 44.42 at the same level of detail as in Table 43.41. Evaluating VaR with additional statistics allows for an increased understanding of the risks in the portfolio, as the historical market data used in the VaR calculation does not necessarily follow a predefined statistical distribution. Table 44.42 presents average trading VaR statistics at 99 percent and 95 percent confidence levels for 2022, 2023 and 2021, 2022.

77 Bank of America

Average Market Risk VaR for Trading Activities – 99 percent and 95 percent VaR Statistics										
Table 42										
Table 42										
Table 42										
Average Market Risk VaR for Trading Activities – 99 percent and 95 percent VaR Statistics										
December 31, 2023										
2022 2021										
December 31, 2023										
December 31, 2023										
December 31, 2023										
December 31, 2022										
(Dollars in millions)	(Dollars in millions)	99 percent	95 percent	99 percent	95 percent	(Dollars in millions)	99 percent	95 percent	(Dollars in millions)	99 percent
Foreign exchange	Foreign exchange	\$ 21	\$ 12	\$ 12	\$ 8					
Interest rate	Interest rate	36	17	40	20					
Credit	Credit	71	28	69	21					
Equity	Equity	20	11	24	12					
Commodities	Commodities	13	7	8	4					
Portfolio diversification	Portfolio diversification	(91)	(46)	(100)	(39)					
Total covered positions portfolio	Total covered positions portfolio	70	29	53	26					
Impact from less liquid exposures	Impact from less liquid exposures	38	7	20	2					
Total covered positions and less liquid trading positions portfolio	Total covered positions and less liquid trading positions portfolio	108	36	73	28					
Fair value option loans	Fair value option loans	51	14	50	12					
Fair value option hedges	Fair value option hedges	17	10	16	9					
Fair value option portfolio diversification	Fair value option portfolio diversification	(36)	(13)	(32)	(9)					

Total fair value option portfolio	Total fair value option portfolio	32	11	34	12
Portfolio diversification	Portfolio diversification	(11)	(7)	(10)	(7)
Total market-based portfolio	Total market-based portfolio	\$ 129	\$ 40	\$ 97	\$ 33

Backtesting

The accuracy of the VaR methodology is evaluated by backtesting, which compares the daily VaR results, utilizing a one-day holding period, against a comparable subset of trading revenue. A backtesting excess occurs when a trading loss exceeds the VaR for the corresponding day. These excesses are evaluated to understand the positions and market moves that produced the trading loss with a goal to help confirm that the VaR methodology accurately represents those losses. We expect the frequency of trading losses in excess of VaR to be in line with the confidence level of the VaR statistic being tested. For example, with a 99 percent confidence level, we expect one trading loss in excess of VaR every 100 days or between two to three trading losses in excess of VaR over the course of a year. The number of backtesting excesses observed can differ from the statistically expected number of excesses if the current level of market volatility is materially different than the level of market volatility that existed during the three years of historical data used in the VaR calculation.

The trading revenue used for backtesting is defined by regulatory agencies in order to most closely align with the VaR component of the regulatory capital calculation. This revenue differs from total trading-related revenue in that it excludes revenue from trading activities that either do not generate market risk or the market risk cannot be included in VaR. Some examples of the types of revenue excluded for backtesting are fees, commissions, reserves, net interest income and intra-day trading revenues.

We conduct daily backtesting on the VaR results used for regulatory capital calculations as well as the VaR results for key legal entities, regions and risk factors. These results are

reported to senior market risk management. Senior management regularly reviews and evaluates the results of these tests.

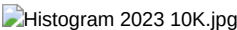
During 2022, 2023, there was one day where no days where this subset of trading revenue had losses that exceeded our total covered portfolio VaR, utilizing a one-day holding period.

Total Trading-related Revenue

Total trading-related revenue, excluding brokerage fees, and CVA, DVA and funding valuation adjustment gains (losses), represents the total amount earned from trading positions, including market-based net interest income, which are taken in a diverse range of financial instruments and markets. For more information on fair value, see Note 20 – Fair Value Measurements to the Consolidated Financial Statements.

Trading-related revenue can be volatile and is largely driven by general market conditions and customer demand. Also, trading-related revenue is dependent on the volume and type of transactions, the level of risk assumed, and the volatility of price and rate movements at any given time within the ever-changing market environment. Significant daily revenue by business is monitored and the primary drivers of these are reviewed.

The following histogram is a graphic depiction of trading volatility and illustrates the daily level of trading-related revenue for 2023 and 2022. During 2023, positive trading-related revenue was recorded for 100 percent of the trading days, of which 93 percent were daily trading gains of over \$25 million. This compares to 2022 and 2021. During 2022, where positive trading-related revenue was recorded for 99 percent of the trading days, of which 90 percent were daily trading gains of over \$25 million, \$25 million, and the largest loss was \$9 million. This compares to 2021 where positive trading-related revenue was recorded for 97 percent of the trading days, of which 80 percent were daily trading gains of over \$25 million, and the largest loss was \$45 million.



Trading Portfolio Stress Testing

Because the very nature of a VaR model suggests results can exceed our estimates and it is dependent on a limited historical window, we also stress test our portfolio using scenario analysis. This analysis estimates the change in the value of our trading portfolio that may result from abnormal market movements.

A set of scenarios, categorized as either historical or hypothetical, are computed daily for the overall trading portfolio and individual businesses. These scenarios include shocks to underlying market risk factors that may be well beyond the shocks found in the historical data used to calculate VaR.

Historical scenarios simulate the impact of the market moves that occurred during a period of extended historical market stress. Generally, a multi-week period representing the most severe point during a crisis is selected for each historical scenario. Hypothetical scenarios provide estimated portfolio impacts from potential future market stress events. Scenarios are reviewed and updated in response to changing positions and new economic or political information. In addition, new or ad hoc scenarios are developed to address specific potential market events or particular vulnerabilities in the portfolio. The stress tests are reviewed on a regular basis and the results are presented to senior management.

Stress testing for the trading portfolio is integrated with enterprise-wide stress testing and incorporated into the limits framework. The macroeconomic scenarios used for enterprise-wide stress testing purposes differ from the typical trading portfolio scenarios in that they have a longer time horizon and the results are forecasted over multiple periods for use in consolidated capital and liquidity planning. For more information, see Managing Risk on page 46, 44.

Interest Rate Risk Management for the Banking Book

The following discussion presents net interest income for banking book activities.

Interest rate risk represents the most significant market risk exposure to our banking book balance sheet. Interest rate risk is measured as the potential change in net interest income caused by movements in market interest rates. Client-facing

activities, primarily lending and deposit-taking, create interest rate sensitive positions on our balance sheet.

We prepare forward-looking forecasts of net interest income. The baseline forecast takes into consideration expected future business growth, ALM positioning and the future direction of interest rate movements as implied by market-based forward curves.

We then measure and evaluate the impact that alternative interest rate scenarios have on the baseline forecast in order to assess interest rate sensitivity under varied conditions. The net interest income forecast is frequently updated for changing assumptions and differing outlooks based on economic trends, market conditions and business strategies. Thus, we continually monitor our banking book balance sheet position in order to maintain an acceptable level of exposure to interest rate changes.

The interest rate scenarios that we analyze incorporate balance sheet assumptions such as loan and deposit growth and pricing, changes in funding mix, product repricing, maturity characteristics and investment securities premium amortization. Our overall goal is to manage interest rate risk so that movements in interest rates do not significantly adversely affect earnings and capital.

Table 45 43 presents the spot and 12-month forward rates used in developing the forward curve used in our baseline forecasts at December 31, 2022 December 31, 2023 and 2021. 2022.

Table 43		Forward Rates			
		December 31, 2023			
		Federal Funds	SOFR ⁽¹⁾	10-Year SOFR ⁽¹⁾	
Spot rates		5.50 %	5.38 %		3.47 %
12-month forward rates		3.89	3.93		3.32
		December 31, 2022			
		Federal Funds	Three-month LIBOR	10-Year Swap	
Spot rates		4.50 %	4.77 %		3.84 %
12-month forward rates		4.75	4.78		3.62

Table 45		Forward Rates			
		December 31, 2022			
		Federal Funds	Three-month LIBOR	10-Year Swap	
Spot rates		4.50 %	4.77 %		3.84 %
12-month forward rates		4.75	4.78		3.62
		December 31, 2021			
Spot rates		0.25 %	0.21 %		1.58 %
12-month forward rates		1.00	1.07		1.84

⁽¹⁾ The Corporation uses SOFR in its baseline forecast as one of the primary alternative reference rates used as a result of the cessation of LIBOR in 2023.

Table 46 44 shows the pretax impact to forecasted net interest income over the next 12 months from December 31, 2022 December 31, 2023 and 2021

2022 resulting from instantaneous parallel and non-parallel shocks to the market-based forward curve. Periodically, we evaluate the scenarios presented so that they are meaningful in the context of the current rate environment. The interest rate scenarios also assume U.S. dollar interest rates are floored at zero. Depending on

The overall decrease in asset sensitivity as shown in the following table, of our balance sheet to Up-rate higher and lower rate scenarios was primarily due to an increase changes in long-end deposit product mix and short-end rates. ALM portfolio activity. We continue to be asset sensitive to a parallel upward move in interest rates with the majority of that impact coming from the short end of the yield curve. Additionally, higher interest rates negatively impact the fair value of our debt securities classified as available for sale and adversely affect accumulated OCI and thus capital levels under the Basel 3 capital rules. Under instantaneous upward parallel shifts, the near-term adverse impact to Basel 3 capital would be reduced over time by offsetting positive impacts to net interest income generated from the banking book activities. For more information on Basel 3, see Capital Management – Regulatory Capital on page 50, 48.

Estimated Banking Book Net Interest Income Sensitivity to Curve Changes

Steepeners	Steepeners	Steepeners	Steepeners
Short-end instantaneous changes	Short-end instantaneous changes	100	(4.120)

Change	Change	-100	—	(4,920)	100
Short-end instantaneous change					
Short-end instantaneous change					
Long-end instantaneous change	Long-end instantaneous change	—	+100	131	1,646

n/m = not meaningful

The sensitivity analysis in Table 46.44 assumes that we take no action in response to these rate shocks and does not assume any change in other macroeconomic variables normally correlated with changes in interest rates. As part of our ALM activities, we use securities, certain residential mortgages, and interest rate and foreign exchange derivatives in managing interest rate sensitivity.

The behavior of our deposit portfolio in the baseline forecast and in alternate interest rate scenarios is a key assumption in our projected estimates of net interest income. The sensitivity analysis in Table 46.44 assumes no change in deposit portfolio size or mix from the baseline forecast in alternate rate environments. In higher rate scenarios, the increase in net interest income would be impacted by any customer activity resulting in the replacement of low-cost or noninterest-bearing deposits with higher yielding deposits or market-based funding, would reduce as our benefit in those scenarios would be reduced. Conversely, in lower-rate scenarios, any customer activity that results in the replacement of higher yielding deposits or market-based funding with low-cost or noninterest-bearing deposits would reduce our exposure in those scenarios.

For interest rate scenarios larger than 100 bps shifts, it is expected that the interest rate sensitivity will illustrate non-linear behaviors as there are numerous estimates and

assumptions, which require a high degree of judgment and are often interrelated, that could impact the outcome. Pertaining to the mortgage-backed securities and residential mortgage portfolio, if long-end interest rates were to significantly decrease over the next twelve months, for example over 200 bps, there would generally be an increase in customer prepayment behaviors with an incremental reduction to net interest income, noting that the extent of changes in customer prepayment activity can be impacted by multiple factors and is not necessarily limited to long-end interest rates. Conversely, if long-end interest rates were to significantly increase over the next twelve months, for example, over 200 bps, customer prepayments would likely modestly decrease and result in an incremental increase to net interest income. In addition, deposit pricing will have non-linear impacts to larger short-end rate movements. In decreasing interest rate scenarios, and particularly where interest rates have decreased to small amounts, the ability to further reduce rates paid is reduced as customer rates near zero. In higher short-end rate scenarios, deposit pricing will likely increase at a faster rate, leading to incremental interest expense and reducing asset sensitivity. While the impact related to the above assumptions used in the asset sensitivity analysis can provide directional analysis on how net interest income will be impacted in changing environments, the ultimate impact is dependent upon the interrelationship of the assumptions and factors, which vary in different macroeconomic scenarios.

Interest Rate and Foreign Exchange Derivative Contracts

We use interest rate and foreign exchange derivative contracts in our ALM activities to manage our interest rate and foreign exchange risks. Specifically, we use those derivatives to manage both the variability in cash flows and changes in fair value of various assets and liabilities arising from those risks. Our interest rate derivative contracts are generally non-leveraged swaps tied to various benchmark interest rates and foreign exchange basis swaps, options, futures and forwards, and our foreign exchange contracts include cross-currency interest rate swaps, foreign currency futures contracts, foreign currency forward contracts and options.

The derivatives used in our ALM activities can be split into two broad categories: designated accounting hedges and other risk management derivatives. Designated accounting hedges are primarily used to manage our exposure to interest rates as described in the Interest Rate Risk Management for the Banking Book section and are included in the sensitivities presented in Table 46.44. The Corporation also uses foreign currency derivatives in accounting hedges to manage substantially all of the foreign exchange risk of our foreign operations. By hedging the foreign exchange risk of our foreign operations, the Corporation's market risk exposure in this area is not significant.

Risk management derivatives are predominantly used to hedge foreign exchange risks related to various foreign currency-denominated assets and liabilities and eliminate substantially all foreign currency exposures in the cash flows of the Corporation's non-trading foreign currency-denominated financial instruments. These foreign exchange derivatives are sensitive to other market risk exposures such as cross-currency basis spreads and interest rate risk. However, as these features are not a significant component of these foreign exchange derivatives, the market risk related to this exposure is not significant. For more information on the accounting for derivatives, see Note 3 – Derivatives to the Consolidated Financial Statements.

Mortgage Banking Risk Management

We originate, fund and service mortgage loans, which subject us to credit, liquidity and interest rate risks, among others. We determine whether loans will be held for investment or held for sale at the time of commitment and manage credit and liquidity risks by selling or securitizing a portion of the loans we originate.

Interest rate risk and market risk can be substantial in the mortgage business. Changes in interest rates and other market factors impact the volume of mortgage originations. Changes in

interest rates also impact the value of interest rate lock commitments (IRLCs) and the related residential first mortgage **LHFS loans held-for-sale** between the date of the IRLC and the date the loans are sold to the secondary market. An increase in mortgage interest rates typically leads to a decrease in the value of these instruments. Conversely, when there is an increase in interest rates, the value of the MSRs will increase driven by lower prepayment expectations. Because the interest rate risks of these hedged items offset, we combine them into one overall hedged item with one combined economic hedge portfolio consisting of derivative contracts and securities.

During 2023, 2022, 2021 and 2020, 2021 we recorded gains of \$78 million \$127 million, \$39 million \$78 million and \$321 million \$39 million. For more information on MSRs, see Note 20 – Fair Value Measurements to the Consolidated Financial Statements.

Compliance and Operational Risk Management

Compliance risk is the risk of legal or regulatory sanctions, material financial loss or damage to the reputation of the Corporation arising from the failure of the Corporation to comply with the requirements of applicable laws, rules, regulations and our internal policies and procedures (collectively, applicable laws, rules and regulations). We are subject to comprehensive regulation under federal and state laws, rules and regulations in the U.S. and the laws of the various jurisdictions in which we operate, including those related to financial crimes and anti-money laundering, market conduct, trading activities, fair lending, privacy, data protection and unfair, deceptive or abusive acts or practices.

Operational risk is the risk of loss resulting from inadequate or failed processes or systems, people or external events, and includes legal risk. Operational risk may occur anywhere in the Corporation, including third-party business processes, and is not limited to operations functions. The Corporation faces a number of key operational risks including third-party risk, model risk, conduct risk, technology risk, information security risk and data risk. Operational risk can result in financial losses and reputational impacts and is a component in the calculation of total RWA used in the Basel 3 capital calculation. For more information on Basel 3 calculations, see Capital Management on page 49, 47.

FLUs and control functions are first and foremost responsible for managing all aspects of their businesses, including their compliance and operational risk. FLUs and control functions are required to understand their business processes and related risks and controls, including third-party dependencies and the related regulatory requirements, and monitor and report on the effectiveness of the control environment. In order to actively monitor and assess the performance of their processes and controls, they must conduct comprehensive quality assurance activities and identify issues and risks to remediate control gaps and weaknesses. FLUs and control functions must also adhere to compliance and operational risk appetite limits to meet strategic, capital and

financial planning objectives. Finally, FLUs and control functions are responsible for the proactive identification, management and escalation of compliance and operational risks across the Corporation. Collectively, these efforts are important to strengthen their compliance and operational resiliency, which is the ability to deliver critical operations through disruption.

Global Compliance and Operational Risk teams independently assess compliance and operational risk, monitor business activities and processes and evaluate FLUs and control functions for adherence to applicable laws, rules and regulations, including identifying issues and risks, and reporting

Bank of America 80

on the state of the control environment. Corporate Audit provides an independent assessment and validation through testing of key compliance and operational risk processes and controls across the Corporation.

The Corporation's Global Compliance – Enterprise Policy and Operational Risk Management – Enterprise Policy set the requirements for reporting compliance and operational risk information to executive management as well as the Board or appropriate Board-level committees and reflect Global Compliance and Operational Risk's responsibilities for conducting independent oversight of the Corporation's compliance and operational risk management activities. The Board provides oversight of compliance risk through its Audit Committee and the ERC, and operational risk through its ERC.

A Cybersecurity

Risk Management and Strategy

Cybersecurity is a key operational risk facing the Corporation. We, our employees, customers, regulators and third parties are ongoing targets of an increasing number of cybersecurity threats and cyberattacks and, accordingly, the Corporation devotes considerable resources to the establishment and maintenance of processes for assessing, identifying and managing cybersecurity risk through its global workforce and 24/7 cyber operations centers around the world. The Corporation takes a cross-functional approach to addressing cybersecurity risk, with our Global Technology, Global Risk Management, Legal and Corporate Audit functions playing key roles. In addition, the Corporation's processes related to cybersecurity risk are an element of and integrated with the Corporation's comprehensive risk program, including our risk framework. For more information on the Corporation's Cybersecurity risk, see Item 1A. Risk Factors – Business Operations beginning on page 14. For more information on our approach to risk management, including our risk management governance framework, see Managing Risk on page 44.

As part of the Corporation's overall risk management program, the Corporation's Global Information Security (GIS) Program is information security, supported by three lines of defense. As the first line of defense, the GIS team is responsible for the day-to-day management of the GIS Program, which includes cybersecurity. Cybersecurity defining policies and procedures designed to safeguard the Corporation's information systems and the information those systems collect, process, maintain, use, share, disseminate and dispose of. As the second line of defense, Global Compliance and Operational Risk independently assesses, monitors and tests cybersecurity risk includes exposure to failures or interruptions across the Corporation, as well as the effectiveness of service or security breaches resulting from malicious technological attacks that impact the confidentiality, integrity or availability GIS Program. As the third line of our or third parties' operations, systems or data. defense, Corporate Audit conducts additional independent review and validation of the first-line and second-line processes and functions.

The Corporation seeks to mitigate information security cybersecurity risk and associated legal, financial, reputational, and compliance risk operational and/or regulatory risks by employing a multi-layered multi-faceted GIS Program.

through various policies, procedures and intelligence-led Global Information Security Program playbooks, that are focused on governing, preparing for, identifying, preventing, detecting, mitigating, responding to and recovering from cyber cybersecurity threats and cybersecurity incidents suffered by the Corporation and its third-party service providers, as well as effectively operating the Corporation's processes. Additionally, our Our business continuity policy, standards and procedures are designed to maintain the availability of business functions and enable impacted units within the Corporation and third parties its third-party service providers to achieve strategic objectives in the event of a cybersecurity incident.

The Global Information Security Program is supported by three lines of defense. The Global Information Security Team within the first line of defense is responsible for the day-to-day management of the Global Information Security Program, which includes defining policies and procedures to safeguard In accordance with the Corporation's information systems cyber incident response framework, GIS, including its incident response team, tracks, documents, responds to and data, conducting vulnerability analyzes cybersecurity threats and third-party information security assessments, information security event management (e.g., responding to ransomware and distributed denial of service attacks), evaluation of external cyber intelligence, supporting industry cybersecurity efforts and working with governmental agencies, and developing employee training to support adherence to incidents, including those experienced by the Corporation's policies and procedures. As third-party service providers that may impact the second line of defense, Global Compliance and Operational Risk independently assesses, monitors and tests information security risk across Corporation. Additionally, the Corporation as well as the effectiveness of the Global Information Security Program. Corporate Audit serves as the third line of defense, conducting additional independent review has a process for assembling multi-stakeholder executive response teams to monitor and validation of the first-line processes and functions, coordinate cross-functional responses to certain cybersecurity incidents.

As part of our Global Information Security the GIS Program, we leverage the Corporation leverages both internal and external assessments and partnerships with industry leaders leaders. The Corporation engages third-party assessors, consultants, auditors and other third-party professionals to help approach evaluate and test its cybersecurity program and provide guidance on operating and improving the GIS Program, including the design and operational effectiveness of the security and resiliency of our information security holistically. Additionally systems.

The Corporation focuses on and has processes to oversee cybersecurity risk associated with its third-party service providers. As part of its cybersecurity risk management processes, the Corporation maintains a comprehensive an enterprise-wide program that defines standards for the planning, sourcing, management, and oversight of third-party relationships and third-party access to its information system, facilities, and/or confidential or proprietary data for data. The Corporation has established security requirements applicable to third-party service providers, and where permitted by contract, cybersecurity diligence is conducted to assess the alignment of third-party service providers' cybersecurity programs with the Corporation's cybersecurity requirements.

While we and our third parties have experienced cybersecurity incidents, as well as adverse impacts from such incidents, we have not experienced material losses or other material consequences relating to cybersecurity incidents experienced by us or our third parties. However, we expect to continue to experience cybersecurity incidents resulting in adverse impacts with increased frequency and severity due to the evolving threat environment, and there can be no assurance that future cybersecurity incidents, including incidents experienced by our third parties, will not have a material adverse impact on the Corporation, including its business purpose strategy, results of operations and/or supervisory function, financial condition.

Governance

Through established governance structures, we have the Corporation has policies, processes and practices to help facilitate appropriate and effective oversight of information security cybersecurity risk. These routines enable our In accordance with these policies, processes and practices, the Corporation's three lines of defense, and management, strive to debate information security risks prepare for, identify, prevent, detect, mitigate, respond to and recover from cybersecurity threats and incidents, monitor control performance, to allow for further escalation and escalate to executive management, management and

and potential disclosure, which includes the consideration of relevant quantitative and qualitative factors.

The Board is actively engaged in the oversight of Bank of America's Global Information Security the GIS Program and devotes significant considerable time and attention to the oversight and mitigation of cybersecurity and information security risk. The Board, regularly discusses which includes members with technology and cybersecurity experience, oversees management's approach to staffing, policies, processes and information security risks with practices to address cybersecurity risk. The Board and its ERC, which is responsible for reviewing cybersecurity risk, each receive regular presentations, memoranda and reports throughout the year from our Chief Technology and Information Officer (CTIO) and the our Chief Information Security Officer, Officer (CISO) on internal and external cybersecurity developments, threats and risks. On a quarterly basis, GIS sends the Board a memorandum highlighting relevant cybersecurity developments and a document detailing the performance metrics for the GIS Program.

The Board receives prompt and timely information from management on cybersecurity incidents, including cybersecurity incidents experienced by the Corporation's third-party service providers, that may pose significant risk to the Corporation, and continues to receive regular reports on any such incidents until their conclusion. Additionally, the Board receives quarterly reports on the performance of the Corporation's cybersecurity risk appetite metrics, including metrics on vulnerabilities and third-party cybersecurity risks and incidents and is notified promptly

Board-level the committees of the Corporation's Board and/or to the Board, as appropriate. Additionally, GIS reports cybersecurity incidents that meet certain criteria to the Legal Department for further escalation and evaluation for materiality

measures on vulnerabilities and third party cybersecurity risks and incidents and is notified promptly if a Board-level cybersecurity risk limit is breached.

Our ERC receives regular reporting, and also annually reviews and approves the our GIS Program and our Information Security Program Policy, which establish administrative, technical, and Policy physical safeguards designed to protect the security, confidentiality and integrity of customer records and information in accordance with the Gramm-Leach-Bliley Act and the interagency guidelines issued thereunder, and applicable laws globally.

Under the Board's oversight, management works closely with key stakeholders, including regulators, government agencies, law enforcement, peer institutions and industry groups, and develops and invests in talent and innovative technology in order to better manage cybersecurity risk.

Our most senior cybersecurity employees are the CTIO and CISO, who are primarily responsible for managing and assessing cybersecurity risk. The CISO oversees a team of more than 3,000 information security professionals spanning the globe. The CISO and the GIS senior leadership team of ten individuals have deep cybersecurity expertise, with over 100 years of collective experience working in the cybersecurity field, both at the Corporation and other companies in various industries. Additionally, certain members of the GIS leadership team hold leadership roles in sector-specific information and infrastructure security organizations, including the Financial Services Information Sharing and Analysis Center and the Financial Services Sector Coordinating Council. Employees across the Corporation also play a role in protecting the Corporation from cybersecurity threats and receive periodic training and education on an annual basis, cybersecurity-related topics.

Reputational Risk Management

Reputational risk is the risk that negative perception of the Corporation may adversely impact profitability or operations. Reputational risk may result from many of the Corporation's activities, including those related to the management of our strategic, operational, compliance, liquidity, market (price and interest rate) and credit risks.

The Corporation manages reputational risk through established policies and controls embedded throughout its

business and risk management processes. We proactively monitor and identify potential reputational risk events and have processes established to mitigate reputational risks in a timely manner. If reputational risk events occur, we focus on remediating the underlying issue and taking action to minimize damage to the Corporation's reputation. The Corporation has processes and procedures in place to respond to events that give rise to reputational risk, including educating individuals and organizations that influence public opinion, and implementing external communication strategies to mitigate the risk, and informing key stakeholders of potential reputational risks. The Corporation's organization and governance structure provides oversight of reputational risks. Reputational risk reporting is provided regularly and directly to senior management and the ERC, which provides primary oversight of reputational risk. In addition, each FLU has a committee, which includes representatives from Legal and Risk, that is responsible for the oversight of reputational risk, including approval for business activities that present elevated levels of reputational risks.

Climate Risk

Climate Risk Management

Climate risk is the risk that climate change or actions taken to mitigate climate change expose the Corporation to economic, operational or reputational harm. Climate-related risks are divided into two major categories: categories, both of which span across the seven key risk types discussed in Managing Risk on page 44: (1) Physical Risk: risks related to the physical impacts of climate change, driven by extreme weather events such as hurricanes and floods, as well as chronic longer-term shifts such as rising average global temperatures and sea levels, and (2) Transition Risk: risks related to the transition to a low-carbon economy, which may entail extensive policy, legal, technology and market changes. These changes

Physical risks of climate change, such as more frequent and severe extreme weather events, may have broad impacts on operations, supply chains, distribution networks, customers and markets and are otherwise referred to, respectively, as physical risk and transition risk. These can increase the Corporation's risks, may impact both financial and nonfinancial risk types. Physical risk may lead to increased including credit risk by diminishing borrowers' repayment capacity or impacting the value of collateral. Physical risk may also increase collateral values, and operational risk by negatively impacting the Corporation's facilities, employees, customers or vendors. Transition risks of climate change may amplify credit risk risks through the financial impacts of changes in policy, technology or the market on the Corporation or its our counterparties. Unanticipated market changes can lead to sudden price adjustments and give rise to heightened market risk. In addition, reputational Reputational risk may can arise including from our climate-related practices and disclosures and if we do not meet our climate-related commitments, commitments and/or goals, or are perceived to be inadequately responsive to climate change or otherwise.

Effective management of Our approach to managing climate risk requires coordinated is consistent with our risk management governance clearly defined roles structure, from senior management to our Board and responsibilities its committees, including the ERC and well.

developed processes to identify, measure, monitor the Corporate Governance, ESG and control risks. As Sustainability Committee (CGESC) of the Board, which regularly discuss climate-related topics. The ERC oversees climate risk spans all key risk types, we have developed and continue to enhance processes to embed climate risk considerations into as set forth in our Risk Framework and Risk Appetite Statement. The CGESC is responsible for overseeing the Corporation's environmental and social sustainability-related activities and practices, and regularly reviews the Corporation's climate-related work and policies. The Climate Risk Council consists of leaders across risk, management programs established for strategic, credit, market, liquidity, compliance, operational FLU and reputational risks. Our Environmental control functions, and Social Risk Policy Framework aligns with our Risk Framework and provides additional clarity and transparency regarding meets routinely to discuss our approach to environmental and social risks, inclusive of climate risk.

Our governance framework establishes oversight of climate risk practices and strategies by the Board, supported by its ERC, as well as the MRC and the Responsible Growth Committee, both of which are management-level committees comprised of senior leaders across every major FLU and control function. The Responsible Growth Committee is supported by the ESG Disclosure sub-committee, which is responsible for reviewing and providing oversight of the Corporation's climate and ESG-related public disclosures, managing climate-related risks.

Our climate risk management efforts are overseen by an executive officer who reports to the CRO. The Corporation has a Climate and Environmental Risk Management function that is responsible for overseeing climate risk management. They are

responsible for establishing the Climate Risk Council, Framework and governance structure, and providing independent assessment and challenge of enterprise-wide climate risks.

Based on the Corporation's Risk Framework, in 2023 we created our internal Climate Risk Framework, which consists addresses how the Corporation identifies, measures, monitors and controls climate risk by enhancing existing risk management processes and also includes examples of leaders how it manifests across the seven risk FLU types. It details the roles and control functions, meets routinely to discuss responsibilities for climate risk management across our approach to managing climate-related risks in line with three lines of defense as noted above.

For more information on our governance framework, see Managing Risk Framework, on page 44. For more information on climate risk, see Item 1A. Risk Factors on page 8.

Climate-related Goals and Targets

In 2021, we publicly announced our commitment the Corporation committed to achieve achieving net zero greenhouse gas emissions before 2050 in our financing activities, operations and supply chain before 2050 (Net Zero Goal) goal, and in 2022, we released our Approach to Zero™, a framework for how we plan to achieve our Net Zero goal. In line with this approach, we have set interim 2030 emissions targets for across our financing activities (2030 Financing Activity Emissions Targets), operations and supply chain, all of which are further supported and complemented by our \$1.5 trillion sustainable finance goal (which is aligned with the 17 UN Sustainable Development Goals) of which \$1 trillion is dedicated to supporting the transition toward a low-carbon economy, including capital mobilized across clean energy sectors and tailored financial solutions for emerging areas of the low-carbon economy. In connection with our Net Zero Goal, in 2022, particular, we announced a target to reduce emissions by 2030 associated with our financing activities related to Financing Activity Emissions Targets for auto manufacturing, aviation, cement, energy, and power generation (2030 Targets). In our September 2022 Task Force on Climate-related Financial Disclosures Report, we disclosed our 2019 sectors and 2020 financed emissions and emissions intensity metrics for these sectors, with 2019 serving as the baseline for our 2030 Targets.

We plan expect to disclose the financed emissions for additional portions of our business loan portfolio in 2023, and we plan continue to set financing activity emission reduction targets for other key sectors that are significant contributors to global greenhouse gas emissions and therefore prioritized by April 2024, us.

Achieving our climate-related goals and targets, including our Net Zero Goal goal and 2030 Financing Activity Emissions Targets, may require technological advances, clearly defined roadmaps for industry sectors, better emissions data reporting, new standards and public policies, including those that improve the cost of capital for the transition to a low-carbon economy, and better emissions data reporting, as well as ongoing, strong and active engagement with customers, suppliers, investors, government officials and other stakeholders.

Given the extended period of these and other climate-related goals we have established, our initiatives have not resulted in a significant effect on our results of operations or financial position in the relevant periods presented herein.

For more information about on climate-related matters including how the Corporation manages climate risk, and the Corporation's climate-related goals and commitments, including our plans to achieve our its Net Zero Goal goal and 2030 Financing Activity Emissions Targets and progress on our its sustainable finance goals, see the Corporation's website, including our 2022 its 2023 Task Force on Climate-related Financial Disclosures Report and the 2022

Annual Report to shareholders available on the Investor Relations portion of our website in March 2023. (TCFD) Report. The contents of the Corporation's website, and 2022 Annual including the 2023 TCFD Report to shareholders are is not incorporated by reference into this Annual Report on Form 10-K. For more information on climate-related risks, see Item 1A. Risk Factors on page 8.

The foregoing discussion and our discussion the statements on the Corporations' website, including in the 2022 Annual 2023 TCFD Report to shareholders regarding our its goals and commitments with respect to climate risk management, including such as environmental transition considerations, include contain "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are not guarantees of future results or performance and involve certain known and unknown risks, uncertainties and assumptions that are difficult to predict and

are often beyond the Corporation's control. Actual outcomes and results may differ materially from those expressed in, or implied by, any of these forward-looking statements.

Complex Accounting Estimates

Our significant accounting principles, as described in *Note 1 – Summary of Significant Accounting Principles* to the Consolidated Financial Statements, are essential in understanding the MD&A. Many of our significant accounting principles require complex judgments to estimate the values of assets and liabilities. We have procedures and processes in place to facilitate making these judgments.

The more judgmental estimates are summarized in the following discussion. We have identified and described the development of the variables most important in the estimation processes that involve mathematical models to derive the estimates. In many cases, there are numerous alternative judgments that could be used in the process of determining the inputs to the models. Where alternatives exist, we have used the factors that we believe represent the most reasonable value in developing the inputs. Actual performance that differs from our estimates of the key variables could materially impact our results of operations. Separate from the possible future impact to our results of operations from input and model variables, the value of our lending portfolio and market-sensitive assets and liabilities may change subsequent to the balance sheet date, often significantly, due to the nature and magnitude of future credit and market conditions. Such credit and market conditions may change quickly and in unforeseen ways and the resulting volatility could have a significant, negative effect on future operating results. These fluctuations would not be indicative of deficiencies in our models or inputs.

Allowance for Credit Losses

The allowance for credit losses includes the allowance for loan and lease losses and the reserve for unfunded lending commitments. Our process for determining the allowance for credit losses is discussed in *Note 1 – Summary of Significant Accounting Principles* and *Note 5 – Outstanding Loans and Leases and Allowance for Credit Losses* to the Consolidated Financial Statements.

The determination of the allowance for credit losses is based on numerous estimates and assumptions, which require

a high degree of judgment and are often interrelated. A critical judgment in the process is the weighting of our forward-looking macroeconomic scenarios that are incorporated into our quantitative models. As any one economic outlook is inherently uncertain, the Corporation uses multiple macroeconomic scenarios in its ECL calculation, which have included a baseline

scenario derived from consensus estimates, an adverse scenario reflecting an extended moderate recession, a downside scenario reflecting persistent inflation and interest rates above the baseline scenario, a tail risk scenario similar to the severely adverse scenario used in stress testing and an upside scenario that considers the potential for improvement above the baseline scenario. The overall economic outlook is weighted 95 percent towards a recessionary environment in 2023, the first half of 2024, with continued inflationary pressures leading to lower gross domestic product (GDP) growth and higher unemployment rate expectations as compared to what we experienced in the prior year. Generally, as the consensus estimates improve or deteriorate, the allowance for credit losses will change in a similar direction. There are multiple variables that drive the macroeconomic scenarios with the key variables including, but not limited to, U.S. GDP and unemployment rates. As of December 31, 2021, the weighted macroeconomic outlook for the U.S. average unemployment rate was forecasted at 5.2 percent, 4.7 percent and 4.3 percent in the fourth quarters of 2022, 2023 and 2024, respectively, and the weighted macroeconomic outlook for U.S. GDP was forecasted to grow at 2.1 percent, 1.9 percent and 1.9 percent year-over-year in the fourth quarters of 2022, 2023 and 2024, respectively. As of December 31, 2022, the latest consensus estimates for the U.S. average unemployment rate for the fourth quarter of 2022 was 3.7 percent and U.S. GDP was forecasted to grow 0.4 percent year-over-year in the fourth quarter of 2022, reflecting a tighter labor market and depressed growth expectations compared to our macroeconomic outlook as of December 31, 2021, and were factored into our allowance for credit losses estimate as of December 31, 2022. In addition, as of December 31, 2022, the weighted macroeconomic outlook for the U.S. average unemployment rate was forecasted at 5.6 percent, 5.0 percent and 5.0 4.5 percent in the fourth quarters of 2023, 2024 and 2024, 2025, respectively, and the weighted macroeconomic outlook for U.S. GDP was forecasted to contract 0.4 percent and grow 1.2 percent and 1.9 percent year-over-year in the fourth quarters of 2023, 2024 and 2024, 2025, respectively. As of December 31, 2023, the latest consensus estimates for the U.S. average unemployment rate for the fourth quarter of 2023 was 3.9 percent and U.S. GDP was forecasted to grow 2.6 percent year-over-year in the fourth quarter of 2023, reflecting a tighter labor market and healthy growth compared to our macroeconomic outlook as of December 31, 2022, and were factored into our allowance for credit losses estimate as of December 31, 2023. In addition, as of December 31, 2023, the weighted macroeconomic outlook for the U.S. average unemployment rate was forecasted at 4.9 percent in the fourth quarters of both 2024 and 2025, and the weighted macroeconomic outlook for U.S. GDP was forecasted to grow 0.3 percent and 1.4 percent year-over-year in the fourth quarters of 2024 and 2025.

In addition to the above judgments and estimates, the allowance for credit losses can also be impacted by unanticipated changes in asset quality of the portfolio, such as increases or decreases in credit and/or internal risk ratings in our commercial portfolio, improvement or deterioration in borrower delinquencies or credit scores in our credit card portfolio and increases or decreases in home prices, which is a primary driver of LTVs, in our consumer real estate portfolio, all of which have some degree of uncertainty. The allowance for credit losses increased to \$14.6 billion from \$14.2 billion from \$13.8 billion at December 31, 2021 December 31, 2022, primarily due to a reserve build in our

Bank of America 82

consumer portfolio driven by credit card loan growth and asset quality, partially offset by a dampened reserve release in our commercial portfolio primarily driven by improved macroeconomic outlook in 2022, conditions applicable to the commercial portfolio.

To provide an illustration of the sensitivity of the macroeconomic scenarios and other assumptions on the estimate of our allowance for credit losses, the Corporation compared the December 31, 2022 December 31, 2023 modeled ECL from the baseline scenario and our adverse scenario. Relative to the baseline scenario, the adverse scenario assumed a peak U.S. unemployment rate of nearly three over two percentage points higher than the baseline scenario, a decline in U.S. GDP followed by a prolonged recovery and a lower home price outlook with a difference of approximately eight 16 percent at the trough. This

sensitivity analysis resulted in a hypothetical increase in the allowance for credit losses of approximately \$4 billion \$3.8 billion.

While the sensitivity analysis may be useful to understand how changes in macroeconomic assumptions could impact our modeled ECLs, it is not meant to forecast how our allowance for credit losses is expected to change in a different macroeconomic outlook. Importantly, the analysis does not incorporate a variety of factors, including qualitative reserves and the weighting of alternate scenarios, which could have offsetting effects on the estimate. Considering the variety of factors contemplated when developing and weighting macroeconomic outlooks such as recent economic events, leading economic indicators, views of internal and third-party economists and industry trends, in addition to other qualitative factors, the Corporation believes the allowance for credit losses at December 31, 2022 December 31, 2023 is appropriate.

Fair Value of Financial Instruments

Under applicable accounting standards, we are required to maximize the use of observable inputs and minimize the use of unobservable inputs in measuring fair value. We classify fair value measurements of financial instruments and MSRs based on the three-level fair value hierarchy in the accounting standards.

The fair values of assets and liabilities may include adjustments, such as market liquidity and credit quality, where appropriate. Valuations of products using models or other techniques are sensitive to assumptions used for the significant inputs. Where market data is available, the inputs used for valuation reflect that information as of our valuation date. Inputs to valuation models are considered unobservable if they are supported by little or no market activity. In periods of extreme

volatility, lessened liquidity or in illiquid markets, there may be more variability in market pricing or a lack of market data to use in the valuation process. In keeping with the prudent application of estimates and management judgment in determining the fair value of assets and liabilities, we have in place various processes and controls that include: a model validation policy that requires review and approval of quantitative models used for deal pricing, financial statement fair value determination and risk quantification; a trading product valuation policy that requires verification of all traded product valuations; and a periodic review and substantiation of daily profit and loss reporting for all traded products. Primarily through validation controls, we utilize both broker and pricing service inputs which can and do include both market-observable and internally-modeled values and/or valuation inputs. Our reliance on this information is affected by our understanding of how the broker and/or pricing service develops its data with a higher degree of reliance applied to those that are more directly observable and lesser reliance applied to those developed through their own internal modeling. For example, broker quotes in less active markets may only be indicative and therefore less reliable. These processes and controls are performed independently of the business. For more information, see Note 20 – Fair Value Measurements and Note 21 – Fair Value Option to the Consolidated Financial Statements.

Level 3 Assets and Liabilities

Financial assets and liabilities, and MSRs, where values are based on valuation techniques that require inputs that are both unobservable and are significant to the overall fair value measurement are classified as Level 3 under the fair value hierarchy established in applicable accounting standards. The fair value of these Level 3 financial assets and liabilities and

83 Bank of America

MSRs is determined using pricing models, discounted cash flow methodologies or similar techniques for which the determination of fair value requires significant management judgment or estimation.

Level 3 financial instruments may be hedged with derivatives classified as Level 1 or 2; therefore, gains or losses associated with Level 3 financial instruments may be offset by gains or losses associated with financial instruments classified in other levels of the fair value hierarchy. The Level 3 gains and losses recorded in earnings did not have a significant impact on our liquidity or capital. We conduct a review of our fair value hierarchy classifications on a quarterly basis. Transfers into or out of Level 3 are made if the significant inputs used in the

83 Bank of America

financial models measuring the fair values of the assets and liabilities became unobservable or observable, respectively, in the current marketplace. For more information on transfers into and out of Level 3 during 2023, 2022 2021 and 2020, 2021, see Note 20 – Fair Value Measurements to the Consolidated Financial Statements.

Accrued Income Taxes and Deferred Tax Assets

Accrued income taxes, reported as a component of either other assets or accrued expenses and other liabilities on the Consolidated Balance Sheet, represent the net amount of current income taxes we expect to pay to or receive from various taxing jurisdictions attributable to our operations to date. We currently file income tax returns in more than 100 jurisdictions and consider many factors, including statutory, judicial and regulatory guidance, in estimating the appropriate accrued income taxes for each jurisdiction.

Net deferred tax assets, reported as a component of other assets on the Consolidated Balance Sheet, represent the net decrease in taxes expected to be paid in the future because of net operating loss (NOL) and tax credit carryforwards and

Goodwill and Intangible Assets

The nature of and accounting for goodwill and intangible assets are discussed in Note 1 – Summary of Significant Accounting Principles, and Note 7 – Goodwill and Intangible Assets to the Consolidated Financial Statements.

The Corporation tests its goodwill for impairment on June 30 of each year or more frequently if events or circumstances indicate a potential impairment. We completed our annual goodwill impairment test as of June 30, 2022, June 30, 2023, by performing a quantitative assessment to compare the fair value of each reporting unit to its carrying value as measured by allocated equity. Based on our assessment, we have concluded that goodwill was not impaired.

The Corporation chose to perform the quantitative assessment as compared to a qualitative assessment that was performed in the prior year due to the level of interest rates and other market conditions existing at June 30, 2023. The quantitative assessment used a combination of an income approach (which utilizes the present value of cash flows to estimate fair value) and a market multiplier approach (which utilizes observable market prices and metrics of peer companies to estimate fair value). The main assumptions used in the income approach are the Corporation's three-year internal forecasts along with long-term terminal growth values. The main assumptions used in the market multiplier approach are primarily enterprise value and equity multiples from comparable publicly traded companies in industries similar to the reporting unit.

Certain Contingent Liabilities

For more information on the complex judgments associated with certain contingent liabilities, see Note 12 – Commitments and Contingencies to the Consolidated Financial Statements.

because of future reversals of temporary differences in the bases of assets and liabilities as measured by tax laws and their bases as reported in the financial statements. NOL and tax credit carryforwards result in reductions to future tax liabilities, and many of these attributes can expire if not utilized within certain periods. We consider the need for valuation allowances to reduce net deferred tax assets to the amounts that we estimate are more likely than not to be realized.

Consistent with the applicable accounting guidance, we monitor relevant tax authorities and change our estimates of accrued income taxes and/or net deferred tax assets due to changes in income tax laws and their interpretation by the courts and regulatory authorities. These revisions of our estimates, which also may result from our income tax planning and from the resolution of income tax audit matters, may be material to our operating results for any given period.

See Note 19 – Income Taxes to the Consolidated Financial Statements for a table of significant tax attributes and additional information. For more information, see page 17 under Item 1A. Risk Factors – Regulatory, Compliance and Legal.

Non-GAAP Reconciliations

Tables 47 45 and 48 46 provide reconciliations of certain non-GAAP financial measures to GAAP financial measures.

Annual Reconciliations to GAAP				
Table 47 Financial Measures (1)				
Table 45				
Table 45				
Table 45				
(Dollars in millions, shares in thousands)				
(Dollars in millions, shares in thousands)				
(Dollars in millions, shares in thousands)	(Dollars in millions, shares in thousands)	2022	2021	2020
Reconciliation of average shareholders' equity to average tangible shareholders' equity and average tangible common shareholders' equity	Reconciliation of average shareholders' equity to average tangible shareholders' equity and average tangible common shareholders' equity			

Reconciliation of average shareholders' equity to average tangible shareholders' equity and average tangible common shareholders' equity				
Reconciliation of average shareholders' equity to average tangible shareholders' equity and average tangible common shareholders' equity				
Shareholders' equity				
Shareholders' equity				
Shareholders' equity	Shareholders' equity	\$ 270,299	\$ 273,757	\$ 267,309
Goodwill	Goodwill	(69,022)	(69,005)	(68,951)
Goodwill				
Goodwill				
Intangible assets (excluding MSRs)				
Intangible assets (excluding MSRs)				
Intangible assets (excluding MSRs)	Intangible assets (excluding MSRs)	(2,117)	(2,177)	(1,862)
Related deferred tax liabilities	Related deferred tax liabilities	922	916	821
Related deferred tax liabilities				
Related deferred tax liabilities				
Tangible shareholders' equity				
Tangible shareholders' equity				
Tangible shareholders' equity	Tangible shareholders' equity	\$ 200,082	\$ 203,491	\$ 197,317
Preferred stock	Preferred stock	(28,318)	(23,970)	(23,624)
Preferred stock				
Preferred stock				
Tangible common shareholders' equity				
Tangible common shareholders' equity				
Tangible common shareholders' equity	Tangible common shareholders' equity	\$ 171,764	\$ 179,521	\$ 173,693
Reconciliation of year-end shareholders' equity to year-end tangible shareholders' equity and year-end tangible common shareholders' equity	Reconciliation of year-end shareholders' equity to year-end tangible shareholders' equity and year-end tangible common shareholders' equity			
Reconciliation of year-end shareholders' equity to year-end tangible shareholders' equity and year-end tangible common shareholders' equity				
Shareholders' equity				
Shareholders' equity				

Shareholders' equity	Shareholders' equity	\$ 273,197	\$ 270,066	\$ 272,924
Goodwill	Goodwill	(69,022)	(69,022)	(68,951)

Goodwill
Goodwill
Intangible assets (excluding MSRs)
Intangible assets (excluding MSRs)

Intangible assets (excluding MSRs)	Intangible assets (excluding MSRs)	(2,075)	(2,153)	(2,151)
Related deferred tax liabilities	Related deferred tax liabilities	899	929	920

Related deferred tax liabilities

Related deferred tax liabilities

Tangible shareholders' equity

Tangible shareholders' equity

Tangible shareholders' equity	Tangible shareholders' equity	\$ 202,999	\$ 199,820	\$ 202,742
Preferred stock	Preferred stock	(28,397)	(24,708)	(24,510)

Preferred stock

Preferred stock

Tangible common shareholders' equity

Tangible common shareholders' equity

Tangible common shareholders' equity	Tangible common shareholders' equity	\$ 174,602	\$ 175,112	\$ 178,232

Reconciliation of year-end assets to year-end tangible assets	Reconciliation of year-end assets to year-end tangible assets			

Reconciliation of year-end assets to year-end tangible assets

Reconciliation of year-end assets to year-end tangible assets

Assets
Assets

Assets	Assets	\$ 3,051,375	\$ 3,169,495	\$ 2,819,627
Goodwill	Goodwill	(69,022)	(69,022)	(68,951)

Goodwill
Goodwill
Intangible assets (excluding MSRs)
Intangible assets (excluding MSRs)

Intangible assets (excluding MSRs)	Intangible assets (excluding MSRs)	(2,075)	(2,153)	(2,151)
Related deferred tax liabilities	Related deferred tax liabilities	899	929	920

Related deferred tax liabilities

Related deferred tax liabilities

Tangible assets

Tangible assets

Tangible assets	Tangible assets			
		\$2,981,177	\$3,099,249	\$2,749,445

(3) Presents reconciliations of non-GAAP financial measures to GAAP financial measures. For more information on non-GAAP financial measures and ratios we use in assessing the results of the Corporation, see Supplemental Financial Data on page 32 29.

Table 48 Quarterly Reconciliations to GAAP Financial Measures (1)

Table 46

Table 46

Quarterly Reconciliations to GAAP Financial Measures (1)							
Table 46	2023 Quarters						
	2023 Quarters						
	2023 Quarters						
							2022 Quarters
(Dollars in millions)	(Dollars in millions)						
	Fourth	Third	Second	First	Fourth	Third	Second

(Dollars in millions)	2022 Quarters				2021 Quarters			
	Fourth	Third	Second	First	Fourth	Third	Second	First

Reconciliation of average shareholders' equity to average tangible shareholders' equity and average tangible common shareholders' equity								

Reconciliation of average shareholders' equity to average tangible shareholders' equity and average tangible common shareholders' equity								

Reconciliation of average shareholders' equity to average tangible shareholders' equity and average tangible common shareholders' equity	Reconciliation of average shareholders' equity to average tangible shareholders' equity and average tangible common shareholders' equity								
Shareholders' equity	Shareholders' equity	\$ 272,629	\$ 271,017	\$ 268,197	\$ 269,309	\$ 270,883	\$ 275,484	\$ 274,632	\$ 274,047
Goodwill	Goodwill	(69,022)	(69,022)	(69,022)	(69,022)	(69,022)	(69,023)	(69,023)	(68,951)
Intangible assets (excluding MSRs)	Intangible assets (excluding MSRs)	(2,088)	(2,107)	(2,127)	(2,146)	(2,166)	(2,185)	(2,212)	(2,146)
Related deferred tax liabilities	Related deferred tax liabilities	914	920	926	929	913	915	915	920

Tangible shareholders' equity	Tangible shareholders' equity	\$ 202,433	\$ 200,808	\$ 197,974	\$ 199,070	\$ 200,608	\$ 205,191	\$ 204,312	\$ 203,870
Preferred stock	Preferred stock	(28,982)	(29,134)	(28,674)	(26,444)	(24,364)	(23,441)	(23,684)	(24,399)

Tangible common shareholders' equity	Tangible common shareholders' equity	\$ 173,451	\$ 171,674	\$ 169,300	\$ 172,626	\$ 176,244	\$ 181,750	\$ 180,628	\$ 179,471

Reconciliation of period-end shareholders' equity to period-end tangible shareholders' equity and period-end tangible common shareholders' equity	Reconciliation of period-end shareholders' equity to period-end tangible shareholders' equity and period-end tangible common shareholders' equity									
Reconciliation of period-end shareholders' equity to period-end tangible shareholders' equity and period-end tangible common shareholders' equity										
Reconciliation of period-end shareholders' equity to period-end tangible shareholders' equity and period-end tangible common shareholders' equity										
Shareholders' equity	Shareholders' equity	\$ 273,197	\$ 269,524	\$ 269,118	\$ 266,617	\$ 270,066	\$ 272,464	\$ 277,119	\$ 274,000	
Goodwill	Goodwill	(69,022)	(69,022)	(69,022)	(69,022)	(69,022)	(69,023)	(69,023)	(68,951)	
Intangible assets (excluding MSRs)	Intangible assets (excluding MSRs)	(2,075)	(2,094)	(2,114)	(2,133)	(2,153)	(2,172)	(2,192)	(2,134)	
Related deferred tax liabilities	Related deferred tax liabilities	899	915	920	926	929	913	915	915	
Tangible shareholders' equity	Tangible shareholders' equity	\$ 202,999	\$ 199,323	\$ 198,902	\$ 196,388	\$ 199,820	\$ 202,182	\$ 206,819	\$ 203,830	
Preferred stock	Preferred stock	(28,397)	(29,134)	(29,134)	(27,137)	(24,708)	(23,441)	(23,441)	(24,319)	
Tangible common shareholders' equity	Tangible common shareholders' equity	\$ 174,602	\$ 170,189	\$ 169,768	\$ 169,251	\$ 175,112	\$ 178,741	\$ 183,378	\$ 179,511	
Reconciliation of period-end assets to period-end tangible assets	Reconciliation of period-end assets to period-end tangible assets									Reconciliation of period-end assets to period-end tangible assets
Assets	Assets	\$3,051,375	\$3,072,953	\$3,111,606	\$3,238,223	\$3,169,495	\$3,085,446	\$3,029,894	\$2,969,992	
Goodwill	Goodwill	(69,022)	(69,022)	(69,022)	(69,022)	(69,022)	(69,023)	(69,023)	(68,951)	
Intangible assets (excluding MSRs)	Intangible assets (excluding MSRs)	(2,075)	(2,094)	(2,114)	(2,133)	(2,153)	(2,172)	(2,192)	(2,134)	
Related deferred tax liabilities	Related deferred tax liabilities	899	915	920	926	929	913	915	915	
Tangible assets	Tangible assets	\$2,981,177	\$3,002,752	\$3,041,390	\$3,167,994	\$3,099,249	\$3,015,164	\$2,959,594	\$2,899,822	

(1) Presents reconciliations of non-GAAP financial measures to GAAP financial measures. For more information on non-GAAP financial measures and ratios we use in assessing the results of the Corporation, see Supplemental Financial Data on page 32 29.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

See Market Risk Management on page 75 73 in the MD&A and the sections referenced therein for Quantitative and Qualitative Disclosures about Market Risk.

Item 8. Financial Statements and Supplementary Data

Table of Contents

	Page
Consolidated Statement of Income	90
Consolidated Statement of Comprehensive Income	90
Consolidated Balance Sheet	91
Consolidated Statement of Changes in Shareholders' Equity	92
Consolidated Statement of Cash Flows	93
Note 1 – Summary of Significant Accounting Principles	94
Note 2 – Net Interest Income and Noninterest Income	103 102
Note 3 – Derivatives	104 103
Note 4 – Securities	111
Note 5 – Outstanding Loans and Leases and Allowance for Credit Losses	114
Note 6 – Securitizations and Other Variable Interest Entities	124 126
Note 7 – Goodwill and Intangible Assets	128 130
Note 8 – Leases	129 130
Note 9 – Deposits	130 131
Note 10 – Securities Financing Agreements, Short-term Borrowings, Collateral and Restricted Cash	130 132
Note 11 – Long-term Debt	132 134
Note 12 – Commitments and Contingencies	133 135
Note 13 – Shareholders' Equity	137 140
Note 14 – Accumulated Other Comprehensive Income	139 142
Note 15 – Earnings Per Common Share	139 143
Note 16 – Regulatory Requirements and Restrictions	140 143
Note 17 – Employee Benefit Plans	141 145
Note 18 – Stock-based Compensation Plans	146 149
Note 19 – Income Taxes	146 149
Note 20 – Fair Value Measurements	148 151
Note 21 – Fair Value Option	157 160
Note 22 – Fair Value of Financial Instruments	159 162
Note 23 – Business Segment Information	160 163
Note 24 – Parent Company Information	163 166
Note 25 – Performance by Geographical Area	165 168
Glossary	166 169
Acronyms	168 171

Report of Management on Internal Control Over Financial Reporting

The management of Bank of America Corporation is responsible for establishing and maintaining adequate internal control over financial reporting.

The Corporation's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America. The Corporation's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Corporation; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States of America, and that receipts and expenditures of the Corporation are being made only in accordance with authorizations of management and directors of the Corporation; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Corporation's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of the Corporation's internal control over financial reporting as of **December 31, 2022** **December 31, 2023** based on the framework set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control – Integrated Framework (2013)*. Based on that assessment, management concluded that, as of **December 31, 2022** **December 31, 2023**, the Corporation's internal control over financial reporting is effective.

The Corporation's internal control over financial reporting as of **December 31, 2022** **December 31, 2023** has been audited by PricewaterhouseCoopers, LLP, an independent registered public accounting firm, as stated in their accompanying report which expresses an unqualified opinion on the effectiveness of the Corporation's internal control over financial reporting as of **December 31, 2022** **December 31, 2023**.

 ceosignature4q23.jpg

Brian T. Moynihan
Chair, Chief Executive Officer and President

 CFO Signature.jpg

Alastair M. Borthwick
Chief Financial Officer

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Bank of America Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Bank of America Corporation and its subsidiaries (the "Corporation") as of **December 31, 2022** **December 31, 2023** and **2021, 2022**, and the related consolidated statements of income, comprehensive income, changes in shareholders' equity and cash flows for each of the three years in the period ended **December 31, 2022** **December 31, 2023**, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Corporation's internal control over financial reporting as of **December 31, 2022** **December 31, 2023**, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Corporation as of **December 31, 2022** **December 31, 2023** and **2021, 2022**, and the results of its operations and its cash flows for each of the three years in the period ended **December 31, 2022** **December 31, 2023** in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Corporation maintained, in all material respects, effective internal control over financial reporting as of **December 31, 2022** **December 31, 2023**, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Change in Accounting Principle

As discussed in Note 1 to the consolidated financial statements, the Corporation changed the manner in which it accounts for credit losses on certain financial instruments in 2020.

Basis for Opinions

The Corporation's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Report of Management on Internal Control Over Financial Reporting. Our responsibility is to express opinions on the Corporation's consolidated financial statements and on the Corporation's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Corporation in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence

understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to

regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an

the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Allowance for Loan and Lease Losses - Commercial and Consumer Card Loans

As described in Notes 1 and 5 to the consolidated financial statements, the allowance for loan and lease losses represents management's estimate of the expected credit losses in the Corporation's loan and lease portfolio, excluding loans and unfunded lending commitments accounted for under the fair

Bank of America 88

value option. As of December 31, 2022 December 31, 2023, the allowance for loan and lease losses was \$12.7 billion \$13.3 billion on total loans and leases of \$1,040.0 billion \$1,050.2 billion, which excludes loans accounted for under the fair value option. For commercial and consumer card loans, the expected credit loss is typically estimated using quantitative methods that consider a variety of factors such as historical

Bank of America 88

loss experience, the current credit quality of the portfolio as well as an economic outlook over the life of the loan. In its loss forecasting framework, the Corporation incorporates forward looking information through the use of macroeconomic scenarios applied over the forecasted life of the assets. These macroeconomic scenarios include variables that have historically been key drivers of increases and decreases in credit losses. These variables include, but are not limited to, unemployment rates, real estate prices, gross domestic product levels and corporate bond spreads. The scenarios that are chosen and the weighting given to each scenario depend on a variety of factors including recent economic events, leading economic indicators, views of internal as well as third-party economists and industry trends. Also included in the allowance for loan and lease losses are qualitative reserves to cover losses that are expected but, in the Corporation's assessment, may not be adequately reflected in the quantitative methods or the economic assumptions. Factors that the Corporation considers include changes in lending policies and procedures, business conditions, the nature and size of the portfolio, portfolio concentrations, the volume and severity of past due loans and nonaccrual loans, the effect of external factors such as competition, and legal and regulatory requirements, among others. Further, the Corporation considers the inherent uncertainty in quantitative models that are built on historical data.

The principal considerations for our determination that performing procedures relating to the allowance for loan and lease losses for the commercial and consumer card portfolios is a critical audit matter are (i) the significant judgment and estimation by management in developing lifetime economic forecast scenarios and related weightings to each scenario, and certain qualitative reserves, which in turn led to a high degree of auditor judgment, subjectivity and effort in performing procedures and in evaluating audit evidence obtained, and (ii) the audit effort involved professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the allowance for loan and lease losses, including controls over the evaluation and approval of models, forecast scenarios and related weightings, and qualitative reserves. These procedures also included, among others, testing management's process for estimating the allowance for loan and lease losses, including (i) evaluating the appropriateness of the loss forecast models and methodology, (ii) evaluating the reasonableness of certain macroeconomic variables, (iii) evaluating the reasonableness of management's development, selection and weighting of lifetime economic forecast scenarios used in the loss forecast models, (iv) testing the completeness and accuracy of data used in the estimate, and (v) evaluating the reasonableness of certain qualitative reserves made to the model output results to determine the overall allowance for loan and related weightings and the reasonableness of certain qualitative reserves.

Valuation of Certain Level 3 Financial Instruments

As described in Notes 1 and 20 to the consolidated financial statements, the Corporation carries certain financial instruments at fair value, which includes \$10.7 billion \$9.3 billion of assets and \$7.1 billion \$6.6 billion of liabilities classified as Level 3 fair value measurements that are valued on a recurring basis and \$3.4 billion \$3.9 billion of assets classified as Level 3 fair value measurements that are valued on a nonrecurring basis, for which the determination of fair value requires significant management judgment or estimation. The Corporation determines the fair value of Level 3 financial instruments using pricing models, discounted cash flow methodologies, or similar techniques that require inputs that are both unobservable and are significant to the overall fair value measurement. Unobservable inputs, such as volatility or implied yield, may be determined using quantitative-based extrapolations, pricing models or other internal methodologies which incorporate management estimates and available market information.

The principal considerations for our determination that performing procedures relating to the valuation of certain Level 3 financial instruments is a critical audit matter are the significant judgment and estimation used by management to determine the fair value of these financial instruments, which in turn led to a high degree of auditor judgment, subjectivity and effort in performing procedures and in evaluating audit evidence obtained, including the involvement of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the valuation of financial instruments, including controls related to valuation models, significant unobservable inputs, and data. These procedures also included, among others, the involvement of professionals with specialized skill and knowledge to assist in developing an independent estimate of fair value for a sample of these certain financial instruments and comparison of management's estimate to the independently developed estimate of fair value. Developing the independent estimate involved testing the completeness and accuracy of data provided by management and evaluating the reasonableness of management's significant unobservable inputs.

pwcsignature.jpg

Charlotte, North Carolina
February 22, 2023 20, 2024

We have served as the Corporation's auditor since 1958.

and lease losses. The procedures also included the involvement of professionals with specialized skill and knowledge to assist in evaluating the appropriateness of certain loss forecast models, the reasonableness of economic forecast scenarios

Bank of America Corporation and Subsidiaries

Consolidated Statement of Income

(In millions, except per share information)

	2023	2022	2021
Net interest income			
Interest income	\$ 130,262	\$ 72,565	\$ 47,672
Interest expense	73,331	20,103	4,738
Net interest income	56,931	52,462	42,934
Noninterest income			
Fees and commissions	32,009	33,212	39,299
Market making and similar activities	12,732	12,075	8,691
Other income	(3,091)	(2,799)	(1,811)
Total noninterest income	41,650	42,488	46,179
Total revenue, net of interest expense	98,581	94,950	89,113
Provision for credit losses	4,394	2,543	(4,594)
Noninterest expense			
Compensation and benefits	38,330	36,447	36,140
Occupancy and equipment	7,164	7,071	7,138
Information processing and communications	6,707	6,279	5,769
Product delivery and transaction related	3,608	3,653	3,881
Professional fees	2,159	2,142	1,775
Marketing	1,927	1,825	1,939
Other general operating	5,950	4,021	3,089
Total noninterest expense	65,845	61,438	59,731
Income before income taxes	28,342	30,969	33,976
Income tax expense	1,827	3,441	1,998
Net income	\$ 26,515	\$ 27,528	\$ 31,978
Preferred stock dividends and other	1,649	1,513	1,421
Net income applicable to common shareholders	\$ 24,866	\$ 26,015	\$ 30,557
Per common share information			
Earnings	\$ 3.10	\$ 3.21	\$ 3.60
Diluted earnings	3.08	3.19	3.57
Average common shares issued and outstanding	8,028.6	8,113.7	8,493.3
Average diluted common shares issued and outstanding	8,080.5	8,167.5	8,558.4

Consolidated Statement of Comprehensive Income

(Dollars in millions)

	2023	2022	2021
Net income	\$ 26,515	\$ 27,528	\$ 31,978
Other comprehensive income (loss), net-of-tax:			
Net change in debt securities	573	(6,028)	(2,077)

Net change in debit valuation adjustments	(686)	755	356
Net change in derivatives	3,919	(10,055)	(2,306)
Employee benefit plan adjustments	(439)	(667)	624
Net change in foreign currency translation adjustments	1	(57)	(45)
Other comprehensive income (loss)	3,368	(16,052)	(3,448)
Comprehensive income (loss)	\$ 29,883	\$ 11,476	\$ 28,530

See accompanying Notes to Consolidated Financial Statements.

Bank of America 90

Bank of America Corporation and Subsidiaries

Consolidated Statement of Income

(In millions, except per share information)

	2022	2021	2020
Net interest income			
Interest income	\$ 72,565	\$ 47,672	\$ 51,585
Interest expense	20,103	4,738	8,225
Net interest income	52,462	42,934	43,360
Noninterest income			
Fees and commissions	33,212	39,299	34,551
Market making and similar activities	12,075	8,691	8,355
Other income	(2,799)	(1,811)	(738)
Total noninterest income	42,488	46,179	42,168
Total revenue, net of interest expense	94,950	89,113	85,528
Provision for credit losses	2,543	(4,594)	11,320
Noninterest expense			
Compensation and benefits	36,447	36,140	32,725
Occupancy and equipment	7,071	7,138	7,141
Information processing and communications	6,279	5,769	5,222
Product delivery and transaction related	3,653	3,881	3,433
Professional fees	2,142	1,775	1,694
Marketing	1,825	1,939	1,701
Other general operating	4,021	3,089	3,297
Total noninterest expense	61,438	59,731	55,213
Income before income taxes	30,969	33,976	18,995
Income tax expense	3,441	1,998	1,101
Net income	\$ 27,528	\$ 31,978	\$ 17,894
Preferred stock dividends and other	1,513	1,421	1,421
Net income applicable to common shareholders	\$ 26,015	\$ 30,557	\$ 16,473
Per common share information			
Earnings	\$ 3.21	\$ 3.60	\$ 1.88
Diluted earnings	3.19	3.57	1.87
Average common shares issued and outstanding	8,113.7	8,493.3	8,753.2
Average diluted common shares issued and outstanding	8,167.5	8,558.4	8,796.9

Consolidated Balance Sheet

	December 31	
	2023	2022
(Dollars in millions)		
Assets		
Cash and due from banks	\$ 27,892	\$ 30,334
Interest-bearing deposits with the Federal Reserve, non-U.S. central banks and other banks	305,181	199,869
Cash and cash equivalents	333,073	230,203
Time deposits placed and other short-term investments	8,346	7,259
Federal funds sold and securities borrowed or purchased under agreements to resell (includes \$133,053 and \$146,999 measured at fair value)	280,624	267,574
Trading account assets (includes \$130,815 and \$115,505 pledged as collateral)	277,354	296,108
Derivative assets	39,323	48,642
Debt securities:		
Carried at fair value	276,852	229,994
Held-to-maturity, at cost (fair value \$496,597 and \$524,267)	594,555	632,825
Total debt securities	871,407	862,819
Loans and leases (includes \$3,569 and \$5,771 measured at fair value)	1,053,732	1,045,747
Allowance for loan and lease losses	(13,342)	(12,682)
Loans and leases, net of allowance	1,040,390	1,033,065
Premises and equipment, net	11,855	11,510
Goodwill	69,021	69,022
Loans held-for-sale (includes \$2,059 and \$1,115 measured at fair value)	6,002	6,871
Customer and other receivables	81,881	67,543
Other assets (includes \$11,861 and \$9,594 measured at fair value)	160,875	150,759
Total assets	\$ 3,180,151	\$ 3,051,375
Liabilities		
Deposits in U.S. offices:		
Noninterest-bearing	\$ 530,619	\$ 640,745
Interest-bearing (includes \$284 and \$311 measured at fair value)	1,273,904	1,182,590
Deposits in non-U.S. offices:		
Noninterest-bearing	16,427	20,480
Interest-bearing	102,877	86,526
Total deposits	1,923,827	1,930,341
Federal funds purchased and securities loaned or sold under agreements to repurchase (includes \$178,609 and \$151,708 measured at fair value)	283,887	195,635
Trading account liabilities	95,530	80,399
Derivative liabilities	43,432	44,816
Short-term borrowings (includes \$4,690 and \$832 measured at fair value)	32,098	26,932
Accrued expenses and other liabilities (includes \$11,473 and \$9,752 measured at fair value and \$1,209 and \$1,540 of reserve for unfunded lending commitments)	207,527	224,073
Long-term debt (includes \$42,809 and \$33,070 measured at fair value)	302,204	275,982
Total liabilities	2,888,505	2,778,178
Commitments and contingencies (Note 6 – Securitizations and Other Variable Interest Entities and Note 12 – Commitments and Contingencies)		
Shareholders' equity		
Preferred stock, \$0.01 par value; authorized – 100,000,000 shares; issued and outstanding – 4,088,099 and 4,088,101 shares	28,397	28,397
Common stock and additional paid-in capital, \$0.01 par value; authorized – 12,800,000,000 shares; issued and outstanding – 7,895,457,665 and 7,996,777,943 shares	56,365	58,953
Retained earnings	224,672	207,003
Accumulated other comprehensive income (loss)	(17,788)	(21,156)

Total shareholders' equity		291,646		273,197
Total liabilities and shareholders' equity	\$	3,180,151	\$	3,051,375
Assets of consolidated variable interest entities included in total assets above (isolated to settle the liabilities of the variable interest entities)				
Trading account assets	\$	6,054	\$	2,816
Loans and leases		18,276		16,738
Allowance for loan and lease losses		(826)		(797)
Loans and leases, net of allowance		17,450		15,941
All other assets		269		116
Total assets of consolidated variable interest entities	\$	23,773	\$	18,873
Liabilities of consolidated variable interest entities included in total liabilities above				
Short-term borrowings (includes \$23 and \$42 of non-recourse short-term borrowings)	\$	2,957	\$	42
Long-term debt (includes \$8,456 and \$4,581 of non-recourse debt)		8,456		4,581
All other liabilities (includes \$19 and \$13 of non-recourse liabilities)		19		13
Total liabilities of consolidated variable interest entities	\$	11,432	\$	4,636

Consolidated Statement of Comprehensive Income

(Dollars in millions)	2022	2021	2020
Net income	\$ 27,528	\$ 31,978	\$ 17,894
Other comprehensive income (loss), net-of-tax:			
Net change in debt securities	(6,028)	(2,077)	4,799
Net change in debit valuation adjustments	755	356	(498)
Net change in derivatives	(10,055)	(2,306)	826
Employee benefit plan adjustments	(667)	624	(98)
Net change in foreign currency translation adjustments	(57)	(45)	(52)
Other comprehensive income (loss)	(16,052)	(3,448)	4,977
Comprehensive income (loss)	\$ 11,476	\$ 28,530	\$ 22,871

See accompanying Notes to Consolidated Financial Statements.

91 Bank of America

Bank of America Corporation and Subsidiaries

Consolidated Statement of Changes in Shareholders' Equity

	Preferred	Common Stock and Additional Paid-in Capital		Retained	Accumulated Other Comprehensive	Total
(In millions)	Stock	Shares	Amount	Earnings	Income (Loss)	Shareholders' Equity
Balance, December 31, 2020	\$ 24,510	8,650.8	\$ 85,982	\$ 164,088	\$ (1,656)	\$ 272,924
Net income				31,978		31,978
Net change in debt securities					(2,077)	(2,077)
Net change in debit valuation adjustments					356	356
Net change in derivatives					(2,306)	(2,306)
Employee benefit plan adjustments					624	624
Net change in foreign currency translation adjustments					(45)	(45)
Dividends declared:						
Common				(6,575)		(6,575)
Preferred				(1,421)		(1,421)

Issuance of preferred stock		2,169								2,169	
Redemption of preferred stock		(1,971)								(1,971)	
Common stock issued under employee plans, net, and other			42.3		1,542		(6)			1,536	
Common stock repurchased			(615.3)		(25,126)					(25,126)	
Balance, December 31, 2021	\$	24,708	8,077.8	\$	62,398	\$	188,064	\$	(5,104)	\$	270,066
Net income							27,528				27,528
Net change in debt securities									(6,028)		(6,028)
Net change in debit valuation adjustments									755		755
Net change in derivatives									(10,055)		(10,055)
Employee benefit plan adjustments									(667)		(667)
Net change in foreign currency translation adjustments									(57)		(57)
Dividends declared:											
Common							(6,963)				(6,963)
Preferred							(1,596)				(1,596)
Issuance of preferred stock		4,426									4,426
Redemption of preferred stock		(737)			83						(654)
Common stock issued under employee plans, net, and other			44.9		1,545		(30)				1,515
Common stock repurchased			(125.9)		(5,073)						(5,073)
Balance, December 31, 2022	\$	28,397	7,996.8	\$	58,953	\$	207,003	\$	(21,156)	\$	273,197
Cumulative adjustment for adoption of credit loss accounting standard							184				184
Net income							26,515				26,515
Net change in debt securities									573		573
Net change in debit valuation adjustments									(686)		(686)
Net change in derivatives									3,919		3,919
Employee benefit plan adjustments									(439)		(439)
Net change in foreign currency translation adjustments									1		1
Dividends declared:											
Common							(7,374)				(7,374)
Preferred							(1,649)				(1,649)
Common stock issued under employee plans, net, and other			45.4		1,988		(7)				1,981
Common stock repurchased			(146.7)		(4,576)						(4,576)
Balance, December 31, 2023	\$	28,397	7,895.5	\$	56,365	\$	224,672	\$	(17,788)	\$	291,646

See accompanying Notes to Consolidated Financial Statements.

Bank of America 90

Bank of America Corporation and Subsidiaries

Consolidated Balance Sheet

(Dollars in millions)	December 31	
	2022	2021
Assets		
Cash and due from banks	\$ 30,334	\$ 29,222
Interest-bearing deposits with the Federal Reserve, non-U.S. central banks and other banks	199,869	318,999
Cash and cash equivalents	230,203	348,221
Time deposits placed and other short-term investments	7,259	7,144

Federal funds sold and securities borrowed or purchased under agreements to resell (includes \$146,999 and \$150,665 measured at fair value)	267,574	250,720
Trading account assets (includes \$115,505 and \$103,434 pledged as collateral)	296,108	247,080
Derivative assets	48,642	35,344
Debt securities:		
Carried at fair value	229,994	308,073
Held-to-maturity, at cost (fair value – \$524,267 and \$665,890)	632,825	674,554
Total debt securities	862,819	982,627
Loans and leases (includes \$5,771 and \$7,819 measured at fair value)	1,045,747	979,124
Allowance for loan and lease losses	(12,682)	(12,387)
Loans and leases, net of allowance	1,033,065	966,737
Premises and equipment, net	11,510	10,833
Goodwill	69,022	69,022
Loans held-for-sale (includes \$1,115 and \$4,455 measured at fair value)	6,871	15,635
Customer and other receivables	67,543	72,263
Other assets (includes \$9,594 and \$12,144 measured at fair value)	150,759	163,869
Total assets	\$ 3,051,375	\$ 3,169,495
Liabilities		
Deposits in U.S. offices:		
Noninterest-bearing	\$ 640,745	\$ 784,189
Interest-bearing (includes \$311 and \$408 measured at fair value)	1,182,590	1,165,914
Deposits in non-U.S. offices:		
Noninterest-bearing	20,480	27,457
Interest-bearing	86,526	86,886
Total deposits	1,930,341	2,064,446
Federal funds purchased and securities loaned or sold under agreements to repurchase (includes \$151,708 and \$139,641 measured at fair value)	195,635	192,329
Trading account liabilities	80,399	100,690
Derivative liabilities	44,816	37,675
Short-term borrowings (includes \$832 and \$4,279 measured at fair value)	26,932	23,753
Accrued expenses and other liabilities (includes \$9,752 and \$11,489 measured at fair value and \$1,540 and \$1,456 of reserve for unfunded lending commitments)	224,073	200,419
Long-term debt (includes \$33,070 and \$29,708 measured at fair value)	275,982	280,117
Total liabilities	2,778,178	2,899,429
Commitments and contingencies (Note 6 – Securitizations and Other Variable Interest Entities and Note 12 – Commitments and Contingencies)		
Shareholders' equity		
Preferred stock, \$0.01 par value; authorized – 100,000,000 shares; issued and outstanding – 4,088,101 and 3,939,686 shares	28,397	24,708
Common stock and additional paid-in capital, \$0.01 par value; authorized – 12,800,000,000 shares; issued and outstanding – 7,996,777,943 and 8,077,831,463 shares	58,953	62,398
Retained earnings	207,003	188,064
Accumulated other comprehensive income (loss)	(21,156)	(5,104)
Total shareholders' equity	273,197	270,066
Total liabilities and shareholders' equity	\$ 3,051,375	\$ 3,169,495
Assets of consolidated variable interest entities included in total assets above (isolated to settle the liabilities of the variable interest entities)		
Trading account assets	\$ 2,816	\$ 5,004
Loans and leases	16,738	17,135
Allowance for loan and lease losses	(797)	(958)
Loans and leases, net of allowance	15,941	16,177
All other assets	116	189
Total assets of consolidated variable interest entities	\$ 18,873	\$ 21,370

Liabilities of consolidated variable interest entities included in total liabilities above			
Short-term borrowings (includes \$42 and \$51 of non-recourse short-term borrowings)	\$	42	\$ 247
Long-term debt (includes \$4,581 and \$3,587 of non-recourse debt)		4,581	3,587
All other liabilities (includes \$13 and \$7 of non-recourse liabilities)		13	7
Total liabilities of consolidated variable interest entities	\$	4,636	\$ 3,841

See accompanying Notes to Consolidated Financial Statements.

91 Bank of America

Bank of America Corporation and Subsidiaries

Consolidated Statement of Changes in Shareholders' Equity						
(In millions)	Preferred Stock	Common Stock and Additional Paid-in Capital		Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total Shareholders' Equity
		Shares	Amount			
Balance, December 31, 2019	\$ 23,401	8,836.1	\$ 91,723	\$ 156,319	\$ (6,633)	\$ 264,810
Cumulative adjustment for adoption of credit loss accounting standard				(2,406)		(2,406)
Net income				17,894		17,894
Net change in debt securities					4,799	4,799
Net change in debit valuation adjustments					(498)	(498)
Net change in derivatives					826	826
Employee benefit plan adjustments					(98)	(98)
Net change in foreign currency translation adjustments					(52)	(52)
Dividends declared:						
Common				(6,289)		(6,289)
Preferred				(1,421)		(1,421)
Issuance of preferred stock	2,181					2,181
Redemption of preferred stock	(1,072)					(1,072)
Common stock issued under employee plans, net, and other		41.7	1,284	(9)		1,275
Common stock repurchased		(227.0)	(7,025)			(7,025)
Balance, December 31, 2020	\$ 24,510	8,650.8	\$ 85,982	\$ 164,088	\$ (1,656)	\$ 272,924
Net income				31,978		31,978
Net change in debt securities					(2,077)	(2,077)
Net change in debit valuation adjustments					356	356
Net change in derivatives					(2,306)	(2,306)
Employee benefit plan adjustments					624	624
Net change in foreign currency translation adjustments					(45)	(45)
Dividends declared:						
Common				(6,575)		(6,575)
Preferred				(1,421)		(1,421)
Issuance of preferred stock	2,169					2,169
Redemption of preferred stock	(1,971)					(1,971)
Common stock issued under employee plans, net, and other		42.3	1,542	(6)		1,536
Common stock repurchased		(615.3)	(25,126)			(25,126)
Balance, December 31, 2021	\$ 24,708	8,077.8	\$ 62,398	\$ 188,064	\$ (5,104)	\$ 270,066

Net income						27,528				27,528
Net change in debt securities								(6,028)		(6,028)
Net change in debt valuation adjustments								755		755
Net change in derivatives								(10,055)		(10,055)
Employee benefit plan adjustments								(667)		(667)
Net change in foreign currency translation adjustments								(57)		(57)
Dividends declared:										
Common								(6,963)		(6,963)
Preferred								(1,596)		(1,596)
Issuance of preferred stock			4,426							4,426
Redemption of preferred stock			(737)			83				(654)
Common stock issued under employee plans, net, and other					44.9	1,545		(30)		1,515
Common stock repurchased					(125.9)	(5,073)				(5,073)
Balance, December 31, 2022	\$		28,397		7,996.8	\$	58,953	\$	207,003	\$ (21,156) \$ 273,197

See accompanying Notes to Consolidated Financial Statements.

Bank of America Corporation and Subsidiaries

Consolidated Statement of Cash Flows					
Consolidated Statement of Cash Flows					
Consolidated Statement of Cash Flows	Consolidated Statement of Cash Flows				
(Dollars in millions)	(Dollars in millions)	2022	2021	2020	
(Dollars in millions)					
(Dollars in millions)					
Operating activities					
Operating activities					
Operating activities	Operating activities				
Net income	Net income	\$ 27,528	\$ 31,978	\$ 17,894	
Net income					
Net income					
Adjustments to reconcile net income to net cash provided by operating activities:					
Adjustments to reconcile net income to net cash provided by operating activities:					
Adjustments to reconcile net income to net cash provided by operating activities:	Adjustments to reconcile net income to net cash provided by operating activities:				
Provision for credit losses	Provision for credit losses	2,543	(4,594)	11,320	
Gains on sales of debt securities		(32)	(22)	(411)	
Provision for credit losses					

Provision for credit losses				
(Gains) losses on sales of debt securities				
(Gains) losses on sales of debt securities				
(Gains) losses on sales of debt securities				
Depreciation and amortization				
Depreciation and amortization				
Depreciation and amortization	Depreciation and amortization	1,978	1,898	1,843
Net amortization of premium/discount on debt securities	Net amortization of			
	premium/discount on debt securities	2,072	5,837	4,101
Net amortization of premium/discount on debt securities				
Net amortization of premium/discount on debt securities				
Deferred income taxes	Deferred income taxes	739	(838)	(1,737)
Deferred income taxes				
Deferred income taxes				
Stock-based compensation				
Stock-based compensation				
Stock-based compensation	Stock-based compensation	2,862	2,768	2,031
Loans held-for-sale:				
Loans held-for-sale:				
Loans held-for-sale:				
Originations and purchases				
Originations and purchases				
Originations and purchases	Originations and purchases	(24,862)	(43,635)	(19,657)
Proceeds from sales and paydowns of loans originally classified as held for sale and instruments from related securitization activities	Proceeds from sales and paydowns of loans originally classified as held for sale and instruments from related securitization activities			
		31,567	34,684	19,049
Proceeds from sales and paydowns of loans originally classified as held for sale and instruments from related securitization activities				
Proceeds from sales and paydowns of loans originally classified as held for sale and instruments from related securitization activities				
Net change in:				
Net change in:				
Net change in:	Net change in:			
Trading and derivative assets/liabilities	Trading and derivative			
	assets/liabilities	(95,772)	(22,104)	16,942
Trading and derivative assets/liabilities				
Trading and derivative assets/liabilities				
Other assets				
Other assets				
Other assets	Other assets	20,799	(34,455)	(12,883)

Accrued expenses and other liabilities	Accrued expenses and other liabilities	23,029	16,639	(4,385)
Accrued expenses and other liabilities				
Accrued expenses and other liabilities				
Other operating activities, net				
Other operating activities, net				
Other operating activities, net	Other operating activities, net	1,222	4,651	3,886
Net cash provided by (used in) operating activities				
Net cash provided by (used in) operating activities	Net cash provided by (used in) operating activities	(6,327)	(7,193)	37,993
Net cash provided by (used in) operating activities				
Net cash provided by (used in) operating activities				
Investing activities				
Investing activities				
Investing activities	Investing activities			
Net change in:	Net change in:			
Net change in:				
Net change in:				
Time deposits placed and other short-term investments				
Time deposits placed and other short-term investments				
Time deposits placed and other short-term investments	Time deposits placed and other short-term investments	(115)	(598)	561
Federal funds sold and securities borrowed or purchased under agreements to resell				
Federal funds sold and securities borrowed or purchased under agreements to resell	Federal funds sold and securities borrowed or purchased under agreements to resell	(16,854)	53,338	(29,461)
Federal funds sold and securities borrowed or purchased under agreements to resell				
Federal funds sold and securities borrowed or purchased under agreements to resell				
Debt securities carried at fair value:				
Debt securities carried at fair value:				
Debt securities carried at fair value:	Debt securities carried at fair value:			
Proceeds from sales	Proceeds from sales	69,114	6,893	77,524
Proceeds from sales				
Proceeds from sales				
Proceeds from paydowns and maturities				
Proceeds from paydowns and maturities				

Proceeds from paydowns and maturities	Proceeds from paydowns and maturities	110,195	159,616	91,084
Purchases	Purchases	(134,962)	(238,398)	(194,877)

Purchases
Purchases
Held-to-maturity debt securities:
Held-to-maturity debt securities:

Held-to-maturity debt securities:	Held-to-maturity debt securities:			
Proceeds from paydowns and maturities	Proceeds from paydowns and maturities	63,852	124,880	93,835

Proceeds from paydowns and maturities
Proceeds from paydowns and maturities
Purchases
Purchases

Purchases	Purchases	(24,096)	(362,736)	(257,535)
Loans and leases:	Loans and leases:			

Loans and leases:
Loans and leases:
Proceeds from sales of loans originally classified as held for investment and instruments from related securitization activities
Proceeds from sales of loans originally classified as held for investment and instruments from related securitization activities

Proceeds from sales of loans originally classified as held for investment and instruments from related securitization activities	Proceeds from sales of loans originally classified as held for investment and instruments from related securitization activities	26,757	10,396	13,351
Purchases	Purchases	(5,798)	(5,164)	(5,229)

Purchases
Purchases
Other changes in loans and leases, net
Other changes in loans and leases, net

Other changes in loans and leases, net	Other changes in loans and leases, net	(86,010)	(58,039)	36,571
Other investing activities, net	Other investing activities, net	(4,612)	(3,479)	(3,489)

Other investing activities, net
Other investing activities, net
Net cash used in investing activities
Net cash used in investing activities

Net cash used in investing activities	Net cash used in investing activities	(2,529)	(313,291)	(177,665)

Financing activities
Financing activities
Financing activities
Net change in:

Net change in:				
Net change in:	Net change in:			
Deposits	Deposits	(134,190)	268,966	360,677
Deposits				
Deposits				
Federal funds purchased and securities loaned or sold under agreements to repurchase				
Federal funds purchased and securities loaned or sold under agreements to repurchase				
Federal funds purchased and securities loaned or sold under agreements to repurchase	Federal funds purchased and securities loaned or sold under agreements to repurchase	3,306	22,006	5,214
Short-term borrowings	Short-term borrowings	3,179	4,432	(4,893)
Short-term borrowings				
Short-term borrowings				
Long-term debt:				
Long-term debt:				
Long-term debt:	Long-term debt:			
Proceeds from issuance	Proceeds from issuance	65,910	76,675	57,013
Proceeds from issuance				
Proceeds from issuance				
Retirement				
Retirement				
Retirement	Retirement	(34,055)	(46,826)	(47,948)
Preferred stock:				
Preferred stock:				
Preferred stock:				
Preferred stock:				
Proceeds from issuance				
Proceeds from issuance				
Proceeds from issuance	Proceeds from issuance	4,426	2,169	2,181
Redemption	Redemption	(654)	(1,971)	(1,072)
Redemption				
Redemption				
Common stock repurchased				
Common stock repurchased				
Common stock repurchased	Common stock repurchased	(5,073)	(25,126)	(7,025)
Cash dividends paid	Cash dividends paid	(8,576)	(8,055)	(7,727)
Cash dividends paid				
Cash dividends paid				
Other financing activities, net				
Other financing activities, net				
Other financing activities, net	Other financing activities, net	(312)	(620)	(601)

	Net cash provided by (used in) financing activities			
Net cash provided by (used in) financing activities		(106,039)	291,650	355,819

Net cash provided by (used in) financing activities

Net cash provided by (used in) financing activities

Effect of exchange rate changes on cash and cash equivalents

Effect of exchange rate changes on cash and cash equivalents

	Effect of exchange rate changes on cash and cash equivalents			
Effect of exchange rate changes on cash and cash equivalents		(3,123)	(3,408)	2,756

	Net increase (decrease) in cash and cash equivalents			
Net increase (decrease) in cash and cash equivalents		(118,018)	(32,242)	218,903

Net increase (decrease) in cash and cash equivalents

Net increase (decrease) in cash and cash equivalents

Cash and cash equivalents at January 1

Cash and cash equivalents at January 1

	Cash and cash equivalents at January 1			
Cash and cash equivalents at January 1		348,221	380,463	161,560

	Cash and cash equivalents at December 31			
Cash and cash equivalents at December 31		\$230,203	\$348,221	\$380,463

Cash and cash equivalents at December 31

Cash and cash equivalents at December 31

Supplemental cash flow disclosures

Supplemental cash flow disclosures

	Supplemental cash flow disclosures			
Supplemental cash flow disclosures				
Interest paid	Interest paid	\$ 18,526	\$ 4,506	\$ 8,662

Interest paid

Interest paid

Income taxes paid, net

Income taxes paid, net

	Income taxes paid, net			
Income taxes paid, net		2,288	2,760	2,894

See accompanying Notes to Consolidated Financial Statements.

Bank of America Corporation and Subsidiaries

Notes to Consolidated Financial Statements

NOTE 1 Summary of Significant Accounting Principles

Bank of America Corporation, a bank holding company and a financial holding company, provides a diverse range of financial services and products throughout the U.S. and in certain international markets. The term "the Corporation" as used herein may refer to Bank of America Corporation, individually, Bank of America Corporation and its subsidiaries, or certain of Bank of America Corporation's subsidiaries or affiliates.

Principles of Consolidation and Basis of Presentation

The Consolidated Financial Statements include the accounts of the Corporation and its majority-owned subsidiaries and those variable interest entities (VIEs) where the Corporation is the primary beneficiary. Intercompany accounts and transactions have been eliminated. Results of operations of acquired companies are included from the dates of acquisition, and for VIEs, from the dates that the Corporation became the primary beneficiary. Assets held in an agency or fiduciary capacity are not included in the Consolidated Financial Statements. The Corporation accounts for investments in companies for which it owns a voting interest and for which it has the ability to exercise significant influence over operating and financing decisions using the equity method of accounting. These investments, which include the Corporation's interests in affordable housing and renewable energy partnerships, are recorded in other assets. Equity method investments are subject to impairment testing, and the Corporation's proportionate share of income or loss is included in other income.

The preparation of the Consolidated Financial Statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect reported amounts and disclosures. Actual results could materially differ from those estimates and assumptions. **Certain prior-period amounts have been reclassified to conform to current period presentation.**

New Accounting Standards Issued

Hedge Accounting Segment Reporting

The FASB issued amended the segment reporting requirements to add disclosures of incremental segment expense categories. The amended disclosures are effective for the fiscal year December 31, 2024, and interim periods thereafter, on a new accounting standard that makes targeted improvements retrospective basis.

Income Taxes

The FASB expanded the income tax disclosure requirements related to the application of the fair value hedge accounting guidance for closed portfolios of financial assets, rate reconciliation and income taxes paid information. The targeted improvements were amended disclosures are effective January 1, 2023 January 1, 2025, on a prospective basis.

New Accounting Standard Adopted

Financial Instruments – Credit Losses

The FASB amended On January 1, 2023, the Corporation adopted the new accounting and disclosure requirements for expected credit losses (ECL) by removing that removed the recognition and measurement guidance on troubled debt restructurings (TDRs) and adding added disclosures on the financial effect and subsequent performance of certain types of modifications made to borrowers experiencing financial difficulties. **The effects**

Significant Accounting Principles

Cash and Cash Equivalents

Cash and cash equivalents include cash on hand, cash items in the process of collection, cash segregated under federal and other brokerage regulations, and amounts due from correspondent banks, the Federal Reserve Bank and certain non-U.S. central banks. Certain cash balances are restricted as to withdrawal or usage by legally binding contractual agreements or regulatory requirements.

Securities Financing Agreements

Securities borrowed or purchased under agreements to resell and securities loaned or sold under agreements to repurchase (securities financing agreements) are treated as collateralized financing transactions except in instances where the transaction is required to be accounted for as individual sale and purchase transactions. Generally, these agreements are recorded at acquisition or sale price plus accrued interest. In instances where the interest is negative, the Corporation's policy is to present negative interest on financial assets as interest income and negative interest on financial liabilities as interest expense. For securities financing agreements that are accounted for under the fair value option, the changes in the fair value of these securities financing agreements are recorded in market making and similar activities in the Consolidated Statement of Income.

The Corporation's policy is to monitor the market value of the principal amount loaned under resale agreements and obtain collateral from or return collateral pledged to counterparties when appropriate. Securities financing agreements do not create material credit risk due to these collateral provisions; therefore, **an any** allowance for loan losses is **not necessary, insignificant.**

In transactions where the Corporation acts as the lender in a securities lending agreement and receives securities that can be pledged or sold as collateral, it recognizes an asset on the

Upon adoption of these changes on the Corporation's consolidated financial position, **results standard**, the Corporation recorded a reduction of **operations or disclosures** \$243 million in the **Notes** allowance for credit losses for the impact of changes in the methodology used to estimate the allowance for credit losses for non-collateral dependent consumer and commercial TDRs. There was no impact to the **Consolidated Financial Statements** are not significant. **The amendments were effective on January 1, 2023, which** valuation of loans previously classified as collateral-dependent TDRs. After adjusting for deferred taxes, the Corporation **adopted using** recorded an increase of \$184 million in retained earnings through a cumulative-effect adjustment.

The additional disclosures are included in **Note 5 – Outstanding Loans and Leases and Allowance for Credit Losses** on a prospective basis and include loan modifications where the contractual payment terms of the borrower's loan agreement were modified **retrospective approach**, through a refinancing or restructuring.

Consolidated Balance Sheet at fair value, representing the securities received, and a liability, representing the obligation to return those securities.

Trading Instruments

Financial instruments utilized in trading activities are carried at fair value. Fair value is generally based on quoted market prices for the same or similar assets and liabilities. If these market prices are not available, fair values are estimated based on dealer quotes, pricing models, discounted cash flow methodologies, or similar techniques where the determination of fair value may require significant management judgment or estimation. Realized gains and losses are recorded on a ~~trade-date~~ trade-

Bank of America 94

date basis. Realized and unrealized gains and losses are recognized in market making and similar activities.

Derivatives and Hedging Activities

Derivatives are entered into on behalf of customers, for trading or to support risk management activities. Derivatives used in risk management activities include derivatives that are both designated in qualifying accounting hedge relationships and derivatives used to hedge market risks in relationships that are not designated in qualifying accounting hedge relationships (referred to as other risk management activities). The Corporation manages interest rate and foreign currency exchange rate sensitivity predominantly through the use of derivatives. Derivatives utilized by the Corporation include swaps, futures and forward settlement contracts, and option contracts.

Bank of America 94

All derivatives are recorded on the Consolidated Balance Sheet at fair value, taking into consideration the effects of legally enforceable master netting agreements that allow the Corporation to settle positive and negative positions and offset cash collateral held with the same counterparty on a net basis. For exchange-traded contracts, fair value is based on quoted market prices in active or inactive markets or is derived from observable market-based pricing parameters, similar to those applied to over-the-counter (OTC) derivatives. For non-exchange traded contracts, fair value is based on dealer quotes, pricing models, discounted cash flow methodologies or similar techniques for which the determination of fair value may require significant management judgment or estimation.

Valuations of derivative assets and liabilities reflect the value of the instrument including counterparty credit risk. These values also take into account the Corporation's own credit standing.

Trading Derivatives and Other Risk Management Activities

Derivatives held for trading purposes are included in derivative assets or derivative liabilities on the Consolidated Balance Sheet with changes in fair value included in market making and similar activities.

Derivatives used for other risk management activities are included in derivative assets or derivative liabilities. Derivatives used in other risk management activities have not been designated in qualifying accounting hedge relationships because they did not qualify or the risk that is being mitigated pertains to an item that is reported at fair value through earnings so that the effect of measuring the derivative instrument and the asset or liability to which the risk exposure pertains will offset in the Consolidated Statement of Income to the extent effective. The changes in the fair value of derivatives that serve to mitigate certain risks associated with mortgage servicing rights (MSRs), interest rate lock commitments (IRLCs) and first-lien mortgage loans held-for-sale (LHFS) that are originated by the Corporation are recorded in other income. Changes in the fair value of derivatives that serve to mitigate interest rate risk and foreign currency risk are included in market making and similar activities. Credit derivatives are also used by the Corporation to mitigate the risk associated with various credit exposures. The changes in the fair value of these derivatives are included in market making and similar activities and other income.

Derivatives Used For Hedge Accounting Purposes (Accounting (Accounting Hedges))

For accounting hedges, the Corporation formally documents at inception all relationships between hedging instruments and hedged items, as well as the risk management objectives and

hedges are recorded in earnings, together and in the same income statement line item with changes in the fair value of the related hedged item. If a derivative instrument in a fair value hedge is terminated or the hedge designation removed, the previous adjustments to the carrying value of the hedged asset or liability are subsequently accounted for in the same manner as other components of the carrying value of that asset or liability. For interest-earning assets and interest-bearing liabilities, such adjustments are amortized to earnings over the remaining life of the respective asset or liability.

Cash flow hedges are used primarily to minimize the variability in cash flows of assets and liabilities or forecasted transactions caused by interest rate or foreign exchange rate fluctuations. The Corporation also uses cash flow hedges to hedge the price risk associated with deferred compensation. Changes in the fair value of derivatives used in cash flow hedges are recorded in accumulated other comprehensive income (OCI) and are reclassified into the line item in the income statement in which the hedged item is recorded in the same period the hedged item affects earnings. Components of a derivative that are excluded in assessing hedge effectiveness are recorded in the same income statement line item as the hedged item.

Net investment hedges are used to manage the foreign exchange rate sensitivity arising from a net investment in a foreign operation. Changes in the spot prices of derivatives that are designated as net investment hedges of foreign operations are recorded as a component of accumulated OCI. The remaining components of these derivatives are excluded in assessing hedge effectiveness and are recorded in market making and similar activities.

Securities

Debt securities are reported on the Consolidated Balance Sheet at their trade date. Their classification is dependent on the purpose for which the securities were acquired. Debt securities purchased for use in the Corporation's trading activities are reported in trading account assets at fair value with unrealized gains and losses included in market making and similar activities. Substantially all other debt securities purchased are used in the Corporation's asset and liability management (ALM) activities and are reported on the Consolidated Balance Sheet as either debt securities carried at fair value or as held-to-maturity (HTM) debt securities. Debt securities carried at fair value are either available-for-sale (AFS) securities with unrealized gains and losses net-of-tax included in accumulated OCI or carried at fair value with unrealized gains and losses reported in market making and similar activities. HTM debt securities are debt securities that management has the intent and ability to hold to maturity and are reported at amortized cost. **If more than 85 percent of the principal has been collected**

strategies for undertaking various accounting hedges. Additionally, the Corporation primarily uses regression analysis at the inception of a hedge and for each reporting period thereafter to assess whether the derivative used in an accounting hedge transaction is expected to be and has been highly effective in offsetting changes in the fair value or cash flows of a hedged item or forecasted transaction. The Corporation discontinues hedge accounting when it is determined that a derivative is not expected to be or has ceased to be highly effective as a hedge, and then reflects changes in fair value of the derivative in earnings after termination of the hedge relationship, hedge.

Fair value hedges are used to protect against changes in the fair value of the Corporation's assets and liabilities that are attributable to interest rate or foreign exchange volatility. Changes in the fair value of derivatives designated as fair value

on level-payment mortgage-backed HTM debt securities since their acquisition, the debt securities, if disposed, are treated as matured for classification purposes.

The Corporation evaluates each AFS security where the value has declined below amortized cost. If the Corporation intends to sell or believes it is more likely than not that it will be required to sell the debt security, it is written down to fair value through earnings. For AFS debt securities the Corporation intends to hold, the Corporation evaluates the debt securities for ECL, except for debt securities that are guaranteed by the U.S. Treasury, U.S. government agencies or sovereign entities of high credit quality where the Corporation applies a zero credit loss assumption. For the remaining AFS debt securities, the Corporation considers qualitative parameters such as internal and external credit ratings and the value of underlying collateral. If an AFS debt security fails any of the qualitative parameters, a discounted cash flow analysis is used by the Corporation to

95 Bank of America

determine if a portion of the unrealized loss is a result of an ECL. The Corporation will then recognize either credit loss expense or a reversal of credit loss expense in other income for the amount necessary to adjust the debt securities valuation allowance to its current estimate of expected credit losses. Cash flows expected to be collected are estimated using all relevant information available such as remaining payment terms, prepayment speeds, the financial condition of the issuer, expected defaults and the value of the underlying collateral. If any of the decline in fair value is related to market factors, that amount is recognized in accumulated OCI. In certain instances, the credit loss may exceed the total decline in fair value, in which case, the allowance recorded is limited to the difference between the amortized cost and the fair value of the asset.

The Corporation separately evaluates its HTM debt securities for any credit losses, of which substantially all qualify for the zero loss assumption. For the remaining securities, the Corporation performs a discounted cash flow analysis to estimate any credit losses which are then recognized as part of the allowance for credit losses.

Interest on debt securities, including amortization of premiums and accretion of discounts, is included in interest income. Premiums and discounts are amortized or accreted to interest income at a constant effective yield over the contractual lives of the securities. Realized gains and losses from the sales or dispositions of debt securities are determined using the specific identification method.

Equity securities with readily determinable fair values that are not held for trading purposes are carried at fair value with unrealized gains and losses included in other income. Equity securities that do not have readily determinable fair values are recorded at cost less impairment, if any, plus or minus qualifying observable price changes. These securities are reported in other assets.

Loans and Leases

Loans, with the exception of loans accounted for under the fair value option, are measured at historical cost and reported at their outstanding principal balances net of any unearned income, charge-offs, unamortized deferred fees and costs on originated loans, and for purchased loans, net of any unamortized premiums or discounts. Loan origination fees and certain direct origination costs are deferred and recognized as adjustments to interest income over the lives of the related loans. Unearned income, discounts and premiums are amortized to interest income using a level yield methodology. The Corporation elects to account for certain consumer and commercial loans under the fair value option with interest

consumer. The classes within the Commercial portfolio segment are U.S. commercial, non-U.S. commercial, commercial real estate, commercial lease financing and U.S. small business commercial.

Leases

The Corporation provides equipment financing to its customers through a variety of lessor arrangements. Direct financing leases and sales-type leases are carried at the aggregate of lease payments receivable plus the estimated residual value of the leased property less unearned income, which is accreted to interest income over the lease terms using methods that approximate the interest method. Operating lease income is recognized on a straight-line basis. The Corporation's lease arrangements generally do not contain non-lease components.

Allowance for Credit Losses

On January 1, 2020, the Corporation adopted the new accounting standard that requires the measurement of the allowance for credit losses, which includes both the allowance for loan and lease losses and the reserve for unfunded lending commitments, to be based on management's best estimate of the ECL in the Corporation's loan and lease portfolio, excluding loans and unfunded lending commitments accounted for under the fair value option. Upon adoption, a \$3.3 billion, or 32 percent, increase in the allowance for credit losses was recorded on January 1, 2020, which was comprised of a net increase of \$2.9 billion in the allowance for loan and lease losses and a \$310 million increase in the reserve for unfunded lending commitments. The ECL on funded consumer and commercial loans and leases is referred to as the allowance for loan and lease losses and is reported separately as a contra-asset to loans and leases on the Consolidated Balance Sheet. The ECL for unfunded lending commitments, including home equity lines of credit (HELOCs), standby letters of credit (SBLCs) and binding unfunded loan commitments is reported on the Consolidated Balance Sheet in accrued expenses and other liabilities. The provision for credit losses related to the loan and lease portfolio and unfunded lending commitments is reported in the Consolidated Statement of Income at the amount necessary to adjust the allowance for credit losses to the current estimate of ECL.

For loans and leases, the ECL is typically estimated using quantitative methods that consider a variety of factors such as historical loss experience, the current credit quality of the portfolio as well as an economic outlook over the life of the loan. The life of the loan for closed-ended products is based on the contractual maturity of the loan adjusted for any expected prepayments. The contractual maturity includes any extension options that are at the sole discretion of the borrower. For open-ended products (e.g., lines of credit), the ECL is determined based on the maximum repayment term associated with future draws from credit lines unless those lines of credit are unconditionally cancellable (e.g., credit cards) in which case the Corporation does not record any allowance.

In its loss forecasting framework, the Corporation incorporates forward-looking information through the use of macroeconomic scenarios applied over the forecasted life of the assets. These macroeconomic scenarios include variables that have historically been key drivers of increases and decreases in credit losses. These variables include, but are not limited to,

reported in interest income and changes in fair value reported in market making and similar activities or other income.

Under applicable accounting guidance, for reporting purposes, the loan and lease portfolio is categorized by portfolio segment and, within each portfolio segment, by class of financing receivable. A portfolio segment is defined as the level at which an entity develops and documents a systematic methodology to determine the allowance for credit losses, and a class of financing receivable is defined as the level of disaggregation of portfolio segments based on the initial measurement attribute, risk characteristics and methods for assessing risk. The Corporation's three portfolio segments are Consumer Real Estate, Credit Card and Other Consumer, and Commercial. The classes within the Consumer Real Estate portfolio segment are residential mortgage and home equity. The classes within the Credit Card and Other Consumer portfolio segment are credit card, direct/indirect consumer and other

unemployment rates, real estate prices, gross domestic product levels and corporate bond spreads. As any one economic outlook is inherently uncertain, the Corporation leverages multiple scenarios. The scenarios that are chosen each quarter

and the weighting given to each scenario depend on a variety of factors including recent economic events, leading economic indicators, views of internal and third-party economists and industry trends.

The estimate of credit losses includes expected recoveries of amounts previously charged off (i.e., negative allowance). If a loan has been charged off, the expected cash flows on the loan are not limited by the current amortized cost balance. Instead, expected cash flows can be assumed up to the unpaid principal balance immediately prior to the charge-off.

The allowance for loan and lease losses for TDRs is measured based on the present value of projected future lifetime principal and interest cash flows discounted at the loan's original effective interest rate, or in cases where foreclosure is probable or the loan is collateral dependent, at the loan's collateral value or its observable market price, if available. The measurement of ECL for the renegotiated consumer credit card TDR portfolio is based on the present value of projected cash flows discounted using the average TDR portfolio contractual interest rate, excluding promotionally priced loans, in effect prior to restructuring. Projected cash flows for TDRs use the same economic outlook as discussed above. For purposes of computing this specific loss component of the allowance, larger impaired loans are evaluated individually and smaller impaired loans are evaluated as a pool.

Also included in the allowance for loan and lease losses are qualitative reserves to cover losses that are expected but, in the Corporation's assessment, may not be adequately reflected in the quantitative methods or the economic assumptions described above. For example, factors that the Corporation considers include changes in lending policies and procedures, business conditions, the nature and size of the portfolio, portfolio concentrations, the volume and severity of past due loans and nonaccrual loans, the effect of external factors such as competition, and legal and regulatory requirements, among others. Further, the Corporation considers the inherent uncertainty in quantitative models that are built on historical data.

With the exception of the Corporation's credit card portfolio, the Corporation does not include reserves for interest receivable in the measurement of the allowance for credit losses as the Corporation generally classifies consumer loans as nonperforming at 90 days past due and reverses interest income for these loans at that time. For credit card loans, the Corporation reserves for interest and fees as part of the allowance for loan and lease losses. Upon charge-off of a credit card loan, the Corporation reverses the interest and fee income against the income statement line item where it was originally recorded.

The Corporation has identified the following three portfolio segments and measures the allowance for credit losses using the following methods.

Consumer Real Estate

To estimate ECL for consumer loans secured by residential real estate, the Corporation estimates the number of loans that will default over the life of the existing portfolio, after factoring in estimated prepayments, using quantitative modeling methodologies. The attributes that are most significant in estimating the Corporation's ECL include refreshed loan-to-value (LTV) or, in the case of a subordinated lien, refreshed combined LTV (CLTV), borrower credit score, months since origination and geography, all of which are further broken down by present collection status (whether the loan is current, delinquent, in default, or in bankruptcy). The estimates are based on the

The ECL associated with these unfunded lending commitments is calculated using the same models and methodologies noted above and incorporate utilization assumptions at time of default.

For loans that are more than 180 days past due, and collateral-dependent TDRs, the Corporation bases the allowance on the estimated fair value of the underlying collateral as of the reporting date less costs to sell. The fair value of the collateral securing these loans is generally determined using an automated valuation model (AVM) that estimates the value of a property by reference to market data including sales of comparable properties and price trends specific to the Metropolitan Statistical Area in which the property being valued is located. In the event that an AVM value is not available, the Corporation utilizes publicized indices or if these methods provide less reliable valuations, the Corporation uses appraisals or broker price opinions to estimate the fair value of the collateral. While there is inherent imprecision in these valuations, the Corporation believes that they are representative of this portfolio in the aggregate.

For loans that are more than 180 days past due, and collateral-dependent TDRs, with the exception of the Corporation's fully insured portfolio, the outstanding balance of loans that is in excess of the estimated property value after adjusting for costs to sell is charged off. If the estimated property value decreases in periods subsequent to the initial charge-off, the Corporation will record an additional charge-off; however, if the value increases in periods subsequent to the charge-off, the Corporation will adjust the allowance to account for the increase but not to a level above the cumulative charge-off amount.

Credit Cards and Other Consumer

Credit cards are revolving lines of credit without a defined maturity date. The estimated life of a credit card receivable is determined by estimating the amount and timing of expected future payments (e.g., borrowers making full payments, minimum payments or somewhere in between) that it will take for a receivable balance to pay off. The ECL on the future payments incorporates the spending behavior of a borrower through time using key borrower-specific factors and the economic outlook described above. The Corporation applies all expected payments in accordance with the Credit Card Accountability Responsibility and Disclosure Act of 2009 (i.e., paying down the highest interest rate bucket first). Then forecasted future payments are prioritized to pay off the oldest balance until it is brought to zero or an expected charge-off amount. Unemployment rate outlook, borrower credit score, delinquency status and historical payment behavior are all key inputs into the credit card receivable loss forecasting model. Future

Corporation's historical experience with the loan portfolio, adjusted to reflect the economic outlook. The outlook on the unemployment rate and consumer real estate prices are key factors that impact the frequency and severity of loss estimates. The Corporation does not reserve for credit losses on the unpaid principal balance of loans insured by the Federal Housing Administration (FHA) and long-term standby loans, as these loans are fully insured. The Corporation records a reserve for unfunded lending commitments for the ECL associated with the undrawn portion of the Corporation's HELOCs, which can only be canceled by the Corporation if certain criteria are met.

draws on the credit card lines are excluded from the ECL as they are unconditionally cancellable.

The ECL for the consumer vehicle lending portfolio is also determined using quantitative methods supplemented with

97 Bank of America

qualitative analysis. The quantitative model estimates ECL giving consideration to key borrower and loan characteristics such as delinquency status, borrower credit score, LTV ratio, underlying collateral type and collateral value.

Commercial

The ECL on commercial loans is forecasted using models that estimate credit losses over the loan's contractual life at an individual loan level. The models use the contractual terms to forecast future principal cash flows while also considering expected prepayments. For open-ended commitments such as revolving lines of credit, changes in funded balance are captured by forecasting a borrower's draw and payment behavior over the

97 Bank of America

remaining life of the commitment. For loans collateralized with commercial real estate and for which the underlying asset is the primary source of repayment, the loss forecasting models consider key loan and customer attributes such as LTV ratio, net operating income and debt service coverage, and captures variations in behavior according to property type and region. The outlook on the unemployment rate, gross domestic product, and forecasted real estate prices are utilized to determine indicators such as rent levels and vacancy rates, which impact the ECL estimate. For all other commercial loans and leases, the loss forecasting model determines the probabilities of transition to different credit risk ratings or default at each point over the life of the asset based on the borrower's current credit risk rating, industry sector, size of the exposure and the geographic market. The severity of loss is determined based on the type of collateral securing the exposure, the size of the exposure, the borrower's industry sector, any guarantors and the geographic market. Assumptions of expected loss are conditioned to the economic outlook, and the model considers key economic variables such as unemployment rate, gross domestic product, corporate bond spreads, real estate and other asset prices and equity market returns.

In addition to the allowance for loan and lease losses, the Corporation also estimates ECL related to unfunded lending commitments such as letters of credit, financial guarantees, unfunded bankers acceptances and binding loan commitments, excluding commitments accounted for under the fair value option. Reserves are estimated for the unfunded exposure using the same models and methodologies as the funded exposure and are reported as reserves for unfunded lending commitments.

Nonperforming Loans and Leases, Charge-offs and Delinquencies

Nonperforming loans and leases generally include loans and leases that have been placed on nonaccrual status. Loans accounted for under the fair value option and LHFS are not reported as nonperforming. When a nonaccrual loan is deemed uncollectible, it is charged off against the allowance for credit losses. If the charged-off amount is later recovered, the amount is reversed through the allowance for credit losses at the recovery date. Charge-offs are reported net of recoveries (net charge-offs). If recoveries for the period are greater than charge-offs, charge-offs, net charge-offs are reported as a negative amount.

In accordance with the Corporation's policies, consumer real estate-secured loans, including residential mortgages and home equity loans, are generally placed on nonaccrual status and classified as nonperforming at 90 days past due unless repayment of the loan is insured by the FHA or through individually insured long-term standby agreements with Fannie Mae (FNMA) or Freddie Mac (FHLMC) (the fully-insured portfolio). Residential mortgage loans in the fully-insured portfolio are not

60 days after receipt of notification of death or bankruptcy or upon confirmation confirmation of fraud. These loans continue to accrue interest until they are charged off and, therefore, are not reported as nonperforming loans. Consumer vehicle loans are placed on nonaccrual status when they become 90 days past due, within 60 days after receipt of notification of bankruptcy or death or upon confirmation of fraud. These loans are charged off to their collateral values when the loans become 120 days past due, upon repossession of the collateral, within 60 days after receipt of notification of bankruptcy or death or upon confirmation of fraud. If repossession of the collateral is not expected, the loans are fully charged off.

Commercial loans and leases, excluding business card loans, that are past due 90 days or more as to principal or interest, or where reasonable doubt exists as to timely collection, including loans that are individually identified as being impaired, are generally placed on nonaccrual status and classified as nonperforming unless well-secured and in the process of collection.

Business card loans are charged off in the same manner as consumer credit card loans. Other commercial loans and leases are generally charged off when all or a portion of the principal amount is determined to be uncollectible.

The entire balance of a consumer loan or commercial loan or lease is contractually delinquent if the minimum payment is not received by the specified due date on the customer's billing statement. Interest and fees continue to accrue on past due loans and leases until the date the loan is placed on nonaccrual status, if applicable. Accrued interest receivable is reversed when loans and leases are placed on nonaccrual status. Interest collections on nonaccruing loans and leases for which the ultimate collectability of principal is uncertain are applied as principal reductions; otherwise, such collections are credited to income when received. Loans and leases may be restored to accrual status when all principal and interest is current and full repayment of the remaining contractual principal and interest is expected.

Troubled Debt Restructurings

Consumer and commercial loans and leases whose contractual terms have been restructured in a manner that grants a concession to a borrower experiencing financial difficulties are classified as TDRs. Concessions could include a reduction in the interest rate to a rate that is below market on the loan, payment extensions, forgiveness of principal, forbearance or other actions designed to maximize collections. Loans that are carried at fair value and LHFS are not classified as TDRs.

Loans and leases whose contractual terms have been modified in a TDR and are current at the time of restructuring may remain on accrual status if there is demonstrated performance prior to the restructuring and payment in full under the restructured terms is expected. Otherwise, the loans are

placed on nonaccrual status and, therefore, are not reported as nonperforming. Junior-lien home equity loans are placed on nonaccrual status and classified as nonperforming when the underlying first-lien mortgage loan becomes 90 days past due even if the junior-lien loan is current. The outstanding balance of real estate-secured loans that is in excess of the estimated property value less costs to sell is charged off no later than the end of the month in which the loan becomes 180 days past due unless the loan is fully insured, or for loans in bankruptcy, within 60 days of receipt of notification of filing, with the remaining balance classified as nonperforming.

Credit card and other unsecured consumer loans are charged charged off when the loan becomes 180 days past due, within

placed on nonaccrual status and reported as nonperforming, except for fully-insured consumer real estate loans, until there is sustained repayment performance for a reasonable period, generally six months. If accruing TDRs cease to perform in accordance with their modified contractual terms, they are placed on nonaccrual status and reported as nonperforming TDRs.

Secured consumer loans that have been discharged in Chapter 7 bankruptcy and have not been reaffirmed by the borrower are classified as TDRs at the time of discharge. Such loans are placed on nonaccrual status and written down to the estimated collateral value less costs to sell no later than at the time of discharge. If these loans are contractually current, interest collections are generally recorded in interest income on a cash basis. Consumer real estate-secured loans for which a binding offer to restructure has been extended are also classified as TDRs. Credit card and other unsecured consumer loans that have been renegotiated in a TDR generally remain on accrual status until the loan is either paid in full or charged off, which occurs no later than the end of the month in which the loan becomes 180 days past due or, for loans that have been placed on a fixed payment plan, 120 days past due.

A loan that had previously been modified in a TDR and is subsequently refinanced under current underwriting standards at a market rate with no concessionary terms is accounted for as a new loan and is no longer reported as a TDR.

Loans Held-for-sale

Loans that the Corporation intends to sell in the foreseeable future, including residential mortgages, loan syndications, and to a lesser degree, commercial real estate, consumer finance and other loans, are reported as LHFS and are carried at the lower of aggregate cost or fair value. The Corporation accounts for certain LHFS, including residential mortgage LHFS, under the fair value option. Loan origination costs for LHFS carried at the lower of cost or fair value are capitalized as part of the carrying value of the loans and, upon the sale of a loan, are recognized as part of the gain or loss in noninterest income. LHFS that are on nonaccrual status and are reported as nonperforming, as defined in the policy herein, are reported separately from nonperforming loans and leases.

Premises and Equipment

Premises and equipment are carried at cost less accumulated depreciation and amortization. Depreciation and amortization are recognized using the straight-line method over the estimated useful lives of the assets. Estimated lives range up to 40 years for buildings, up to 12 years for furniture and equipment, and the shorter of lease term or estimated useful life for leasehold improvements.

Other Assets

For the Corporation's financial assets that are measured at amortized cost and are not included in debt securities or loans

and leases on the Consolidated Balance Sheet, the Corporation evaluates these assets for ECL using various techniques. For assets that are subject to collateral maintenance provisions, including federal funds sold and securities borrowed or purchased under agreements to resell, where the collateral consists of daily margining of liquid and marketable assets where the margining is expected to be maintained into the foreseeable future, the expected losses are assumed to be zero. For all other assets, the Corporation performs qualitative analyses, including consideration of historical losses and current economic conditions, to estimate any ECL which are

then included in a valuation account that is recorded as a contra-asset against the amortized cost basis of the financial asset.

Lessee Arrangements

Substantially all of the Corporation's lessee arrangements are operating leases. Under these arrangements, the Corporation records right-of-use assets and lease liabilities at lease commencement. Right-of-use assets are reported in other assets on the Consolidated Balance Sheet, and the related lease liabilities are reported in accrued expenses and other liabilities. All leases are recorded on the Consolidated Balance Sheet except leases with an initial term less than 12 months for which the Corporation made the short-term lease election. Lease expense is recognized on a straight-line basis over the lease term and is recorded in occupancy and equipment expense in the Consolidated Statement of Income.

The Corporation made an accounting policy election not to separate lease and non-lease components of a contract that is or contains a lease for its real estate and equipment leases. As such, lease payments represent payments on both lease and non-lease components. At lease commencement, lease liabilities are recognized based on the present value of the remaining lease payments and discounted using the Corporation's incremental borrowing rate. Right-of-use assets initially equal the lease liability, adjusted for any lease payments made prior to lease commencement and for any lease incentives.

Goodwill and Intangible Assets

Goodwill is the purchase premium after adjusting for the fair value of net assets acquired. Goodwill is not amortized but is reviewed for potential impairment on an annual basis, or when events or circumstances indicate a potential impairment, at the reporting unit level. A reporting unit is a business segment or one level below a business segment.

The Corporation assesses the fair value of each reporting unit against its carrying value, including goodwill, as measured by allocated equity. For purposes of goodwill impairment testing, the Corporation utilizes allocated equity as a proxy for the carrying value of its reporting units. Allocated equity in the reporting units is comprised of allocated capital plus capital for the portion of goodwill and intangibles specifically assigned to the reporting unit.

In performing its goodwill impairment testing, the Corporation first assesses qualitative factors to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. Qualitative factors include, among other things, macroeconomic conditions, industry and market considerations, financial performance of the respective reporting unit and other relevant entity- and reporting-unit specific considerations.

If the Corporation concludes it is more likely than not that the fair value of a reporting unit is less than its carrying value, a

quantitative assessment is performed. The Corporation has an unconditional option to bypass the qualitative assessment for any reporting unit in any period and proceed directly to performing the quantitative goodwill impairment test. The Corporation may resume performing the qualitative assessment in any subsequent period.

When performing the quantitative assessment, if the fair value of the reporting unit exceeds its carrying value, goodwill of the reporting unit would not be considered impaired. If the carrying value of the reporting unit exceeds its fair value, a goodwill impairment loss would be recognized for the amount by

which the reporting unit's allocated equity exceeds its fair value. An impairment loss recognized cannot exceed the amount of goodwill assigned to a reporting unit. An impairment loss establishes a new basis in the goodwill, and subsequent reversals of goodwill impairment losses are not permitted under applicable accounting guidance.

For intangible assets subject to amortization, an impairment loss is recognized if the carrying value of the intangible asset is not recoverable and exceeds fair value. The carrying value of the intangible asset is considered not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use of the asset. Intangible assets deemed to have indefinite useful lives are not subject to amortization. An impairment loss is recognized if the carrying value of the intangible asset with an indefinite life exceeds its fair value.

Variable Interest Entities

A VIE is an entity that lacks equity investors or whose equity investors do not have a controlling financial interest in the entity through their equity investments. The Corporation consolidates a VIE if it has both the power to direct the activities of the VIE that most significantly impact the VIE's economic performance and an obligation to absorb losses or the right to receive benefits that could potentially be significant to the VIE. On a quarterly basis, the Corporation reassesses its involvement with the VIE and evaluates the impact of changes in governing documents and its financial interests in the VIE. The consolidation status of the VIEs with which the Corporation is involved may change as a result of such reassessments.

The Corporation primarily uses VIEs for its securitization activities, in which the Corporation transfers whole loans or debt securities into a trust or other vehicle. When the Corporation is the servicer of whole loans held in a securitization trust, including non-agency residential mortgages, home equity loans, credit cards, and other loans, the Corporation has the power to direct the most significant activities of the trust. The Corporation generally does not have the power to direct the most significant activities of a residential mortgage agency trust except in certain circumstances in which the Corporation holds substantially all of the issued securities and has the unilateral right to liquidate the trust. The power to direct the most significant activities of a commercial mortgage securitization trust is typically held by the special servicer or by the party holding specific subordinate securities which embody certain controlling rights. The Corporation consolidates a whole-loan securitization trust if it has the power to direct the most significant activities and also holds securities issued by the trust or has other contractual arrangements, other than standard representations and warranties, that could potentially be significant to the trust.

The Corporation may also transfer trading account securities and AFS securities into municipal bond or resecuritization trusts. The Corporation consolidates a municipal bond or resecuritization trust if it has control over the ongoing activities of the trust such as the remarketing of the trust's liabilities or, if

99 Bank of America

there are no ongoing activities, sole discretion over the design of the trust, including the identification of securities to be transferred in and the structure of securities to be issued, and also retains securities or has liquidity or other commitments that could potentially be significant to the trust. The Corporation does not consolidate a municipal bond or securitization trust if one or a limited number of third-party investors share responsibility for the design of the trust or have control over the significant activities of the trust through liquidation or other substantive rights.

Other VIEs used by the Corporation include collateralized debt obligations (CDOs), investment vehicles created on behalf of customers and other investment vehicles. The Corporation does not routinely serve as collateral manager for CDOs and, therefore, does not typically have the power to direct the activities that most significantly impact the economic performance of a CDO. However, following an event of default, if the Corporation is a majority holder of senior securities issued by a CDO and acquires the power to manage its assets, the Corporation consolidates the CDO.

The Corporation consolidates a customer or other investment vehicle if it has control over the initial design of the vehicle or manages the assets in the vehicle and also absorbs potentially significant gains or losses through an investment in the vehicle, derivative contracts or other arrangements. The Corporation does not consolidate an investment vehicle if a single investor controlled the initial design of the vehicle or manages the assets in the vehicles or if the Corporation does not have a variable interest that could potentially be significant to the vehicle.

Retained interests in securitized assets are initially recorded at fair value. In addition, the Corporation may invest in debt securities issued by unconsolidated VIEs. Fair values of these debt securities, which are classified as trading account assets, debt securities carried at fair value or HTM securities, are based primarily on quoted market prices in active or inactive markets. Generally, quoted market prices for retained residual interests are not available; therefore, the Corporation estimates fair values based on the present value of the associated expected future cash flows.

Fair Value

The Corporation measures the fair values of its assets and liabilities, where applicable, in accordance with accounting guidance that requires an entity to base fair value on exit price. Under this guidance, an entity is required to maximize the use of observable inputs and minimize the use of unobservable inputs in measuring fair value. Under applicable accounting standards, fair value measurements are categorized into one of three levels based on the inputs to the valuation technique with the highest priority given to unadjusted quoted prices in active markets and the lowest priority given to unobservable inputs. The Corporation categorizes its fair value measurements of financial instruments based on this three-level hierarchy.

Level 1 Unadjusted quoted prices in active markets for identical assets or liabilities. Level 1 assets and liabilities include debt and equity securities and derivative contracts that are traded in an active exchange market, as well as certain U.S. Treasury securities that are highly liquid and are actively traded in OTC markets.

Level 2 Observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs

that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. Level 2 assets and liabilities include debt securities with quoted prices that are traded less frequently than exchange-traded instruments and derivative contracts where fair value is determined using a pricing model with inputs that are observable in the market or can be derived principally from or corroborated by observable market data. This category generally includes U.S. government and

Bank of America 100

agency mortgage-backed (MBS) and asset-backed securities (ABS), corporate debt securities, derivative contracts, certain loans and LHFS.

Level 3 Unobservable inputs that are supported by little or no market activity and that are significant to the overall fair value of the assets or liabilities. Level 3 assets and liabilities include financial instruments for which the determination of fair value requires significant management judgment or estimation. The fair value for such assets and liabilities is generally determined using pricing models, discounted cash flow methodologies or similar techniques that incorporate the assumptions a market participant would use in pricing the asset or liability. This category generally includes retained residual interests in securitizations, consumer MSRs, certain ABS, highly structured, complex or long-dated derivative contracts, certain loans and LHFS, IRLCs and certain CDOs where independent pricing information cannot be obtained for a significant portion of the underlying assets.

Income Taxes

There are two components of income tax expense: current and deferred. Current income tax expense reflects taxes to be paid or refunded for the current period. Deferred income tax expense results from changes in deferred tax assets and liabilities between periods. These gross deferred tax assets and liabilities represent decreases or increases in taxes expected to be paid in the future because of future reversals of temporary differences in the bases of assets and liabilities as measured by tax laws and their bases as reported in the financial statements. Deferred tax assets are also recognized for tax attributes such as net operating loss carryforwards and tax credit carryforwards. Valuation allowances are recorded to reduce deferred tax assets to the amounts management concludes are more likely than not to be realized.

Income tax benefits are recognized and measured based upon a two-step model: first, a tax position must be more likely than not to be sustained based solely on its technical merits in order to be recognized, and second, the benefit is measured as the largest dollar amount of that position that is more likely than not to be sustained upon settlement. The difference between the benefit recognized and the tax benefit claimed on a tax return is referred to as an unrecognized tax benefit. The Corporation records income tax-related interest and penalties, if applicable, within income tax expense.

Revenue Recognition

The following summarizes the Corporation's revenue recognition accounting policies for certain noninterest income activities.

Card Income

Card income includes annual, late and over-limit fees as well as interchange, cash advances and other miscellaneous items from credit and debit card transactions and from processing card transactions for merchants. Card income is presented net

of direct costs. Interchange fees are recognized upon settlement of the credit and debit card payment transactions and are generally determined on a percentage basis for credit cards and fixed rates for debit cards based on the corresponding payment network's rates. Substantially all card fees are recognized at the transaction date, except for certain time-based fees such as annual fees, which are recognized over 12 months. Fees charged to cardholders and merchants that are estimated to be uncollectible are reserved in the allowance

for loan and lease losses. Included in direct cost are rewards and credit card partner payments. Rewards paid to cardholders are related to points earned by the cardholder that can be redeemed for a broad range of rewards including cash, travel and gift cards. The points to be redeemed are estimated based on past redemption behavior, card product type, account transaction activity and other historical card performance. The liability is reduced as the points are redeemed. The Corporation also makes payments to credit card partners. The payments are based on revenue-sharing agreements that are generally driven by cardholder transactions and partner sales volumes. As part of the revenue-sharing agreements, the credit card partner provides the Corporation exclusive rights to market to the credit card partner's members or customers on behalf of the Corporation.

Service Charges

Service charges include deposit and lending-related fees. Deposit-related fees consist of fees earned on consumer and commercial deposit activities and are generally recognized when the transactions occur or as the service is performed. Consumer fees are earned on consumer deposit accounts for account maintenance and various transaction-based services, such as ATM transactions, wire transfer activities, check and money order processing and insufficient funds/overdraft transactions. Commercial deposit-related fees are from the Corporation's Global Transaction Services business and consist of commercial deposit and treasury management services, including account maintenance and other services, such as payroll, sweep account and other cash management services. Lending-related fees generally represent transactional fees earned from certain loan commitments, financial guarantees and SBLCs.

Investment and Brokerage Services

Investment and brokerage services consist of asset management and brokerage fees. Asset management fees are earned from the management of client assets under advisory agreements or the full discretion of the Corporation's financial advisors (collectively referred to as assets under management (AUM)). Asset management fees are earned as a percentage of the client's AUM and generally range from 50basis points (bps) to 150 bps of the AUM. In cases where a third party is used to obtain a client's investment allocation, the fee remitted to the third party is recorded net and is not reflected in the transaction price, as the Corporation is an agent for those services.

Brokerage fees include income earned from transaction-based services that are performed as part of investment management services and are based on a fixed price per unit or as a percentage of the total transaction amount. Brokerage fees also include distribution fees and sales commissions that are primarily in the *Global Wealth & Investment Management (GWIM)* segment and are earned over time. In addition, primarily in the *Global Markets* segment, brokerage fees are earned when the Corporation fills customer orders to buy or sell various financial

products or when it acknowledges, affirms, settles and clears transactions and/or submits trade information to the appropriate clearing broker. Certain customers pay brokerage, clearing and/or exchange fees imposed by relevant regulatory bodies or exchanges in order to execute or clear trades. These fees are recorded net and are not reflected in the transaction price, as the Corporation is an agent for those services.

Investment Banking Income

Investment banking income includes underwriting income and financial advisory services income. Underwriting consists of fees

earned for the placement of a customer's debt or equity securities. The revenue is generally earned based on a percentage of the fixed number of shares or principal placed. Once the number of shares or notes is determined and the service is completed, the underwriting fees are recognized. The Corporation incurs certain out-of-pocket expenses, such as legal costs, in performing these services. These expenses are recovered through the revenue the Corporation earns from the customer and are included in operating expenses. Syndication fees represent fees earned as the agent or lead lender responsible for structuring, arranging and administering a loan syndication.

Financial advisory services consist of fees earned for assisting clients with transactions related to mergers and acquisitions and financial restructurings. Revenue varies depending on the size of the transaction and scope of services performed and is generally contingent on successful completion of the transaction. Revenue is typically recognized once the transaction is completed and all services have been rendered. Additionally, the Corporation may earn a fixed fee in merger and acquisition transactions to provide a fairness opinion, with the fees recognized when the opinion is delivered to the client.

Other Revenue Measurement and Recognition Policies

The Corporation did not disclose the value of any open performance obligations at December 31, 2022 December 31, 2023, as its contracts with customers generally have a fixed term that is less than one year, an open term with a cancellation period that is less than one year, or provisions that allow the Corporation to recognize revenue at the amount it has the right to invoice.

Earnings Per Common Share

Earnings per common share (EPS) is computed by dividing net income allocated to common shareholders by the weighted-average common shares outstanding, excluding unvested

common shares subject to repurchase or cancellation. Net income allocated to common shareholders is net income adjusted for preferred stock dividends including dividends declared, accretion of discounts on preferred stock including accelerated accretion when preferred stock is repaid early, and cumulative dividends related to the current dividend period that have not been declared as of period end, less income allocated to participating securities. Diluted EPS is computed by dividing income allocated to common shareholders plus dividends on dilutive convertible preferred stock and preferred stock that can be tendered to exercise warrants, by the weighted-average common shares outstanding plus amounts representing the dilutive effect of stock options outstanding, restricted stock, restricted stock units (RSUs), outstanding warrants and the dilution resulting from the conversion of convertible preferred stock, if applicable.

101 Bank of America

Foreign Currency Translation

Assets, liabilities and operations of foreign branches and subsidiaries are recorded based on the functional currency of each entity. When the functional currency of a foreign operation is the local currency, the assets, liabilities and operations are translated, for consolidation purposes, from the local currency to the U.S. dollar reporting currency at period-end rates for

assets and liabilities and generally at average rates for results of operations. The resulting unrealized gains and losses are reported as a component of accumulated OCI, net-of-tax. When the foreign entity's functional currency is the U.S. dollar, the resulting remeasurement gains or losses on foreign currency-denominated assets or liabilities are included in earnings.

Bank of America 102

NOTE 2 Net Interest Income and Noninterest Income

The table below presents the Corporation's net interest income and noninterest income disaggregated by revenue source for 2023, 2022 2021 and 2020, 2021. For more information, see Note 1 – Summary of Significant Accounting Principles. For a disaggregation of noninterest income by business segment and All Other, see Note 23 – Business Segment Information. Information.

(Dollars in millions)	(Dollars in millions)	2022	2021	2020
(Dollars in millions)				
(Dollars in millions)				
Net interest income				
Net interest income				
Net interest income	Net interest income			
Interest income	Interest income			
Interest income				
Interest income				
Loans and leases				
Loans and leases				
Loans and leases	Loans and leases	\$37,919	\$29,282	\$34,029
Debt securities	Debt securities	17,127	12,376	9,790
Debt securities				

Debt securities				
Federal funds sold and securities borrowed or purchased under agreements to resell (1)				
Federal funds sold and securities borrowed or purchased under agreements to resell (1)				
Federal funds sold and securities borrowed or purchased under agreements to resell (1)	Federal funds sold and securities borrowed or purchased under agreements to resell (1)	4,560	(90)	903
Trading account assets	Trading account assets	5,521	3,770	4,128
Trading account assets				
Trading account assets				
Other interest income	Other interest income	7,438	2,334	2,735
Other interest income				
Other interest income				
Total interest income				
Total interest income				
Total interest income	Total interest income	72,565	47,672	51,585
Interest expense				
Interest expense				
Interest expense				
Deposits				
Deposits				
Deposits	Deposits	4,718	537	1,943
Short-term borrowings (1)	Short-term borrowings (1)	6,978	(358)	987
Short-term borrowings (1)				
Short-term borrowings (1)				
Trading account liabilities				
Trading account liabilities				
Trading account liabilities	Trading account liabilities	1,538	1,128	974
Long-term debt	Long-term debt	6,869	3,431	4,321
Long-term debt				
Long-term debt				
Total interest expense	Total interest expense	20,103	4,738	8,225
Total interest expense				
Total interest expense				
Net interest income				
Net interest income				
Net interest income	Net interest income	\$52,462	\$42,934	\$43,360
Noninterest income				
Noninterest income				
Noninterest income				
Fees and commissions				
Fees and commissions				

Fees and commissions	Fees and commissions
Card income	Card income
Card income	
Card income	
Interchange fees (2)	
Interchange fees (2)	
Interchange fees (2)	Interchange fees \$ 4,096 \$ 4,560 \$ 3,954
Other card income	Other card income 1,987 1,658 1,702
Other card income	
Other card income	
Total card income	
Total card income	
Total card income	
Total card income	
Total card income	Total card income 6,083 6,218 5,656
Service charges	Service charges
Service charges	
Service charges	
Deposit-related fees	
Deposit-related fees	
Deposit-related fees	Deposit-related fees 5,190 6,271 5,991
Lending-related fees	
Lending-related fees	Lending-related fees 1,215 1,233 1,150
Lending-related fees	
Lending-related fees	
Total service charges	
Total service charges	
Total service charges	
Total service charges	Total service charges 6,405 7,504 7,141
Investment and brokerage services	Investment and brokerage services
Investment and brokerage services	
Investment and brokerage services	
Asset management fees	
Asset management fees	
Asset management fees	Asset management fees 12,152 12,729 10,708
Brokerage fees	Brokerage fees 3,749 3,961 3,866
Brokerage fees	
Brokerage fees	
Total investment and brokerage services	
Total investment and brokerage services	
Total investment and brokerage services	
Total investment and brokerage services	Total investment and brokerage services 15,901 16,690 14,574
Investment banking fees	Investment banking fees
Investment banking fees	

Investment banking fees				
Underwriting income				
Underwriting income				
Underwriting income	Underwriting income	1,970	5,077	4,698
Syndication fees	Syndication fees	1,070	1,499	861
Syndication fees				
Syndication fees				
Financial advisory services				
Financial advisory services				
Financial advisory services	Financial advisory services	1,783	2,311	1,621
Total investment banking fees	Total investment banking fees	4,823	8,887	7,180
Total investment banking fees				
Total investment banking fees				
Total fees and commissions				
Total fees and commissions				
Total fees and commissions	Total fees and commissions	33,212	39,299	34,551
Market making and similar activities	Market making and similar activities	12,075	8,691	8,355
Market making and similar activities				
Market making and similar activities				
Other income (loss)				
Other income (loss)				
Other income (loss)	Other income (loss)	(2,799)	(1,811)	(738)
Total noninterest income	Total noninterest income	\$42,488	\$46,179	\$42,168
Total noninterest income				
Total noninterest income				

(1) For more information on negative interest, see Note 1 – Summary of Significant Accounting Principles, Principles.

(2) Gross interchange fees and merchant income were \$12.9 billion \$13.3 billion, \$12.9 billion and \$11.5 billion for 2023, 2022 and \$9.2 billion for 2022, 2021, and 2020, respectively, and are presented net of \$8.8 billion \$9.3 billion, \$6.9 billion \$8.8 billion and \$5.5 billion \$6.9 billion of expenses for rewards and partner payments as well as certain other card costs for the same periods.

NOTE 3 Derivatives

Derivative Balances

Derivatives are entered into on behalf of customers, for trading or to support risk management activities. Derivatives used in risk management activities include derivatives that may or may not be designated in qualifying hedge accounting relationships. Derivatives that are not designated in qualifying hedge accounting relationships are referred to as other risk management derivatives. For more information on the

Corporation’s derivatives and hedging activities, see Note 1 – Summary of Significant Accounting Principles. The following tables present derivative instruments included on the Consolidated Balance Sheet in derivative assets and liabilities at December 31, 2022 December 31, 2023 and 2021, 2022. Balances are presented on a gross basis, prior to the application of counterparty and cash collateral netting. Total derivative assets and liabilities are adjusted on an aggregate basis to take into consideration the effects of legally enforceable master netting agreements and have been reduced by cash collateral received or paid.

December 31, 2023	
Gross Derivative Assets	Gross Derivative Liabilities

(Dollars in billions)	Trading and Other				Qualifying		Trading and Other		Qualifying					
	Contract/	Risk Management		Accounting		Risk Management	Accounting							
	Notional ⁽¹⁾	Derivatives	Hedges	Total	Derivatives	Hedges	Total							
Interest rate contracts														
Swaps	\$	15,715.2	\$	78.4	\$	7.9	\$	86.3	\$	66.6	\$	18.5	\$	85.1
Futures and forwards		2,803.8		5.1		—		5.1		7.0		—		7.0
Written options ⁽²⁾		1,807.7		—		—		—		31.7		—		31.7
Purchased options ⁽³⁾		1,714.9		32.9		—		32.9		—		—		—
Foreign exchange contracts														
Swaps		1,814.7		41.1		0.2		41.3		38.2		0.5		38.7
Spot, futures and forwards		3,561.7		37.2		6.1		43.3		40.3		6.2		46.5
Written options ⁽²⁾		462.8		—		—		—		6.8		—		6.8
Purchased options ⁽³⁾		405.3		6.2		—		6.2		—		—		—
Equity contracts														
Swaps		427.0		13.3		—		13.3		16.7		—		16.7
Futures and forwards		136.9		2.1		—		2.1		1.6		—		1.6
Written options ⁽²⁾		854.9		—		—		—		50.1		—		50.1
Purchased options ⁽³⁾		716.2		44.1		—		44.1		—		—		—
Commodity contracts														
Swaps		59.0		3.1		—		3.1		4.5		—		4.5
Futures and forwards		187.8		3.8		—		3.8		3.1		0.4		3.5
Written options ⁽²⁾		67.1		—		—		—		3.3		—		3.3
Purchased options ⁽³⁾		70.9		3.0		—		3.0		—		—		—
Credit derivatives ⁽⁴⁾														
Purchased credit derivatives:														
Credit default swaps		312.8		1.7		—		1.7		2.5		—		2.5
Total return swaps/options		69.4		0.8		—		0.8		1.3		—		1.3
Written credit derivatives:														
Credit default swaps		289.1		2.2		—		2.2		1.6		—		1.6
Total return swaps/options		68.6		1.1		—		1.1		0.3		—		0.3
Gross derivative assets/liabilities		\$		276.1	\$	14.2	\$	290.3	\$	275.6	\$	25.6	\$	301.2
Less: Legally enforceable master netting agreements								(221.6)						(221.6)
Less: Cash collateral received/paid								(29.4)						(36.2)
Total derivative assets/liabilities							\$	39.3				\$		43.4

⁽¹⁾ Represents the total contract/notional amount of derivative assets and liabilities outstanding.

⁽²⁾ Includes certain out-of-the-money purchased options that have a liability amount primarily due to the deferral of option premiums to the end of the contract.

⁽³⁾ Includes certain out-of-the-money written options that have an asset amount primarily due to the deferral of option premiums to the end of the contract.

⁽⁴⁾ The net derivative asset (liability) and notional amount of written credit derivatives for which the Corporation held purchased credit derivatives with identical underlying referenced names were \$520 million and \$266.5 billion at December 31, 2023.

103 Bank of America

(1) Represents the total contract/notional amount of derivative assets and liabilities outstanding.

(2) Includes certain out-of-the-money purchased options that have a liability amount primarily due to the deferral of the option premiums to the end of the contract.

(3) Includes certain out-of-the-money written options that have an asset amount primarily due to the deferral of the option premiums to the end of the contract.

(4) The net derivative asset (liability) and notional amount of written credit derivatives for which the Corporation held purchased credit derivatives with identical underlying referenced names were \$(1.2) billion and \$276.9 billion at December 31, 2022.

Swaps	1,420.9	28.6	0.2	28.8	30.5	0.2	30.7													
Spot, futures and forwards	4,087.2	37.1	0.3	37.4	37.7	0.2	37.9													
Written options ⁽²⁾	287.2	—	—	—	4.1	—	4.1													
Purchased options ⁽³⁾	267.6	4.1	—	4.1	—	—	—													
Equity contracts																				
Swaps	443.8	12.3	—	12.3	14.5	—	14.5													
Futures and forwards	113.3	0.5	—	0.5	1.7	—	1.7													
Written options ⁽²⁾	737.7	—	—	—	58.5	—	58.5													
Purchased options ⁽³⁾	657.0	55.9	—	55.9	—	—	—													
Commodity contracts																				
Swaps	47.7	3.1	—	3.1	6.0	—	6.0													
Futures and forwards	101.5	2.3	—	2.3	0.3	1.1	1.4													
Written options ⁽²⁾	44.4	—	—	—	2.6	—	2.6													
Purchased options ⁽³⁾	38.3	3.2	—	3.2	—	—	—													
Credit derivatives ⁽⁴⁾																				
Purchased credit derivatives:																				
Credit default swaps	297.0	1.9	—	1.9	4.3	—	4.3													
Total return swaps/options	85.3	0.2	—	0.2	1.1	—	1.1													
Written credit derivatives:																				
Credit default swaps	279.8	4.2	—	4.2	1.6	—	1.6													
Total return swaps/options	85.3	0.9	—	0.9	0.5	—	0.5													
Gross derivative assets/liabilities	\$	339.0	\$	9.4	\$	348.4	\$	349.6	\$	5.9	\$	355.5								
Less: Legally enforceable master netting agreements					(282.3)				(282.3)											
Less: Cash collateral received/paid					(30.8)				(35.5)											
Total derivative assets/liabilities					\$				35.3				\$				37.7			

⁽¹⁾ Represents the total contract/notional amount of derivative assets and liabilities outstanding.

⁽²⁾ Includes certain out-of-the-money purchased options that have a liability amount primarily due to the deferral of the option premiums to the end of the contract.

⁽³⁾ Includes certain out-of-the-money written options that have an asset amount primarily due to the deferral of the option premiums to the end of the contract.

⁽⁴⁾ The net derivative asset (liability) and notional amount of written credit derivatives for which the Corporation held purchased credit derivatives with identical underlying referenced names were \$2.3 billion and \$258.4 billion at December 31, 2021.

Offsetting of Derivatives

The Corporation enters into International Swaps and Derivatives Association, Inc. (ISDA) master netting agreements or similar agreements with substantially all of the Corporation's derivative counterparties. Where legally enforceable, these master netting agreements give the Corporation, in the event of default by the counterparty, the right to liquidate securities held as collateral and to offset receivables and payables with the same counterparty. For purposes of the Consolidated Balance Sheet, the Corporation offsets derivative assets and liabilities and cash collateral held with the same counterparty where it has such a legally enforceable master netting agreement.

The following table presents derivative instruments included in derivative assets and liabilities on the Consolidated Balance

Sheet at **December 31, 2022** **December 31, 2023** and **2021** **2022** by primary risk (e.g., interest rate risk) and the platform, where applicable, on which these derivatives are transacted. Balances are presented on a gross basis, prior to the application of counterparty and cash collateral netting. Total gross derivative assets and liabilities are adjusted on an aggregate basis to take into consideration the effects of legally enforceable master netting agreements, which include reducing the balance for counterparty netting and cash collateral received or paid.

For more information on offsetting of securities financing agreements, see *Note 10 – Securities Financing Agreements, Short-term Borrowings, Collateral and Restricted Cash*.

Offsetting of Derivatives ⁽¹⁾	Offsetting of Derivatives ⁽¹⁾	
Offsetting of Derivatives ⁽¹⁾		
Offsetting of Derivatives ⁽¹⁾		

		Derivative Assets					
		Derivative Assets	Derivative Liabilities	Derivative Assets	Derivative Liabilities		
		Derivative Assets					
		Derivative Assets				Derivative Liabilities	Derivative Assets
(Dollars in billions)	(Dollars in billions)	December 31, 2022		December 31, 2021		(Dollars in billions)	December 31, 2023
Interest rate contracts	Interest rate contracts					Interest rate contracts	
Over-the-counter	Over-the-counter	\$ 138.4	\$ 132.3	\$ 171.3	\$ 166.3		
Exchange-traded	Exchange-traded	0.4	0.1	0.2	—		
Over-the-counter cleared	Over-the-counter cleared	71.4	71.1	22.6	22.5		
Foreign exchange contracts	Foreign exchange contracts						
Over-the-counter	Over-the-counter	109.7	110.6	67.9	70.5		
Over-the-counter							
Over-the-counter							
Over-the-counter cleared	Over-the-counter cleared	1.3	1.2	1.1	1.1		
Equity contracts	Equity contracts						
Over-the-counter	Over-the-counter	21.5	22.6	29.2	32.9		
Over-the-counter							
Over-the-counter							
Exchange-traded	Exchange-traded	33.0	33.8	38.3	38.4		
Commodity contracts	Commodity contracts						
Over-the-counter							
Over-the-counter							
Over-the-counter	Over-the-counter	8.3	9.3	6.1	7.6		
Exchange-traded	Exchange-traded	2.4	1.9	1.4	1.3		
Over-the-counter cleared	Over-the-counter cleared	0.3	0.3	0.1	0.1		
Credit derivatives	Credit derivatives						
Over-the-counter	Over-the-counter	8.9	7.5	5.2	5.3		
Over-the-counter cleared		—	—	1.8	1.8		
Over-the-counter							
Over-the-counter							
Total gross derivative assets/liabilities, before netting	Total gross derivative assets/liabilities, before netting						

Total gross derivative					
assets/liabilities, before netting					
Total gross derivative					
assets/liabilities, before netting					
Over-the-counter					
Over-the-counter					
Over-the-counter	Over-the-counter	286.8	282.3	279.7	282.6
Exchange-traded	Exchange-traded	35.8	35.8	39.9	39.7
Over-the-counter	Over-the-counter				
cleared	cleared	73.0	72.6	25.6	25.5
Less: Legally enforceable master netting agreements and cash collateral received/paid	Less: Legally enforceable master netting agreements and cash collateral received/paid				
Over-the-counter					
Over-the-counter					
Over-the-counter	Over-the-counter	(243.8)	(248.2)	(250.3)	(254.6)
Exchange-traded	Exchange-traded	(33.5)	(33.5)	(37.8)	(37.8)
Over-the-counter	Over-the-counter				
cleared	cleared	(72.4)	(72.0)	(25.0)	(25.4)
Derivative assets/liabilities, after netting	Derivative assets/liabilities, after netting	45.9	37.0	32.1	30.0
Other gross derivative assets/liabilities	Other gross derivative assets/liabilities				
(2)	(2)	2.7	7.8	3.2	7.7
Total derivative assets/liabilities	Total derivative assets/liabilities	48.6	44.8	35.3	37.7
Less: Financial instruments collateral (3)	Less: Financial instruments collateral (3)	(18.5)	(7.4)	(11.8)	(10.6)
Total net derivative assets/liabilities	Total net derivative assets/liabilities	30.1	37.4	23.5	27.1

(1) Over-the-counter derivatives include bilateral transactions between the Corporation and a particular counterparty. Over-the-counter cleared derivatives include bilateral transactions between the Corporation and a counterparty where the transaction is cleared through a clearinghouse. Exchange-traded derivatives include listed options transacted on an exchange.

(2) Consists of derivatives entered into under master netting agreements where the enforceability of these agreements is uncertain under bankruptcy laws in some countries or industries.

(3) Amounts are limited to the derivative asset/liability balance and, accordingly, do not include excess collateral received/pledged. Financial instruments collateral includes securities collateral received or pledged and cash securities held and posted at third-party custodians that are not offset on the Consolidated Balance Sheet but shown as a reduction to derive net derivative assets and liabilities.

ALM and Risk Management Derivatives

The Corporation's ALM and risk management activities include the use of derivatives to mitigate risk to the Corporation including derivatives designated in qualifying hedge accounting relationships and derivatives used in other risk management activities. Interest rate, foreign exchange, equity, commodity and credit contracts are utilized in the Corporation's ALM and risk management activities.

TheCorporation maintains an overall interest rate risk management strategy that incorporates the use of interest rate contracts, which are generally non-leveraged generic interest rate and basis swaps, options, futures and forwards, to minimize significant fluctuations in earnings caused by interest rate volatility. The Corporation's goal is to manage interest rate sensitivity and volatility so that movements in interest rates do not significantly adversely affect earnings or capital. As a result of interest rate fluctuations, hedged fixed-rate assets and liabilities appreciate or depreciate in fair value. Gains or losses on the derivative instruments that are linked to the hedged fixed-rate assets and liabilities are expected to substantially offset this unrealized appreciation or depreciation.

Market risk, including interest rate risk, can be substantial in the mortgage business. Market risk in the mortgage business is the risk that values of mortgage assets or revenues will be adversely affected by changes in market conditions such as interest rate movements. To mitigate the interest rate risk in mortgage banking production income, the Corporation utilizes

instruments, including purchased options, and certain debt securities. The Corporation also utilizes derivatives such as interest rate options, interest rate swaps, forward settlement contracts and eurodollar futures to hedge certain market risks of MSRs.

The Corporation uses foreign exchange contracts to manage the foreign exchange risk associated with certain foreign currency-denominated assets and liabilities, as well as the Corporation's investments in non-U.S. subsidiaries. Exposure to loss on these contracts will increase or decrease over their respective lives as currency exchange and interest rates fluctuate.

The Corporation purchases credit derivatives to manage credit risk related to certain funded and unfunded credit exposures. Credit derivatives include credit default swaps (CDS), total return swaps and swaptions. These derivatives are recorded on the Consolidated Balance Sheet at fair value with changes in fair value recorded in other income.

Derivatives Designated as Accounting Hedges

The Corporation uses various types of interest rate and foreign exchange derivative contracts to protect against changes in the fair value of its assets and liabilities due to fluctuations in interest rates and foreign exchange rates (fair value hedges). The Corporation also uses these types of contracts to protect against changes in the cash flows of its assets and liabilities,

forward loan sale commitments and other derivative

Bank of America 106

and other forecasted transactions (cash flow hedges). The Corporation hedges its net investment in consolidated non-U.S.

105 Bank of America

operations determined to have functional currencies other than the U.S. dollar using forward exchange contracts and cross-currency basis swaps, and by issuing foreign currency-

denominated debt (net investment hedges).

Fair Value Hedges

The table below summarizes information related to fair value hedges for 2023, 2022 2021 and 2020, 2021.

Gains and Losses on Derivatives Designated as Fair Value Hedges
Gains and Losses on Derivatives Designated as Fair Value Hedges

Gains and Losses on Derivatives Designated as Fair Value Hedges																
Gains and Losses on Derivatives Designated as Fair Value Hedges																
	Derivative															
	Derivative	Hedged Item														
	Derivative															
	Derivative	Hedged Item														
(Dollars in millions)	(Dollars in millions)	2022	2021	2020	2022	2021	2020	(Dollars in millions)	2023	2022	2021	2023	2022	2021		
Interest rate risk on long-term debt (1)	Interest rate risk on long-term debt (1)	\$ (26,654)	\$ (7,018)	\$ 7,091	\$ 26,825	\$ 6,838	\$ (7,220)									
Interest rate and foreign currency risk on long-term debt (2)	Interest rate and foreign currency risk on long-term debt (2)	(120)	(90)	783	119	79	(783)									
Interest rate and foreign currency risk (2)	Interest rate and foreign currency risk (2)															
Interest rate risk on available-for-sale securities (3)	Interest rate risk on available-for-sale securities (3)	21,991	5,203	(44)	(22,280)	(5,167)	49									
Price risk on commodity inventory (4)	Price risk on commodity inventory (4)	674	—	—	(674)	—	—									
Total	Total	\$ (4,109)	\$ (1,905)	\$ 7,830	\$ 3,990	\$ 1,750	\$ (7,954)									

⁽¹⁾ Amounts are recorded in interest expense in the Consolidated Statement of Income.

⁽²⁾ Represents cross-currency interest rate swaps related to available-for-sale debt securities and long-term debt. For 2023, 2022, 2021 and 2020, 2021, the derivative amount includes gains (losses) of \$6 million, \$0 and \$0 in interest income, \$13 million, \$(37) million and \$(73) million and \$701 million in interest expense, \$(51) million, \$(81) million \$0 and \$73 million \$0 in market making and similar activities, and \$15 million, \$(2) million and \$(17) million and \$9 million in accumulated OCI, respectively. Line item totals are in the Consolidated Statement of Income and on the Consolidated Balance Sheet.

⁽³⁾ Amounts are recorded in interest income in the Consolidated Statement of Income.

⁽⁴⁾ Amounts are recorded in market making and similar activities in the Consolidated Statement of Income.

The table below summarizes the carrying value of hedged assets and liabilities that are designated and qualifying in fair value hedging relationships along with the cumulative amount of fair value hedging adjustments included in the carrying value that have been recorded in the current hedging relationships. These fair value hedging adjustments are open basis adjustments that are not subject to amortization as long as the hedging relationship remains designated.

Designated Fair Value Hedged Assets and Liabilities		
Designated Fair Value Hedged Assets and Liabilities		
Designated Fair Value Hedged Assets and Liabilities		
December 31, 2022		
December 31, 2021		
Designated Fair Value Hedged Assets and Liabilities		
December 31, 2023		
December 31, 2023		

December 31, 2023					
(Dollars in millions)					
(Dollars in millions)					
		Cumulative Fair Value		Cumulative Fair Value	
	(Dollars in millions)	Carrying Value	Adjustments (1)	Carrying Value	Adjustments (1)
Long-term debt	Long-term debt				
(2)	(2)	\$ 187,402	\$ (21,372)	\$ 181,745	\$ 3,987
Long-term debt (2)					
Long-term debt (2)					
Available-for-sale debt securities (2)	Available-for-sale debt securities				
3, 4	(2, 3, 4)	167,518	(18,190)	209,038	(2,294)
Available-for-sale debt securities (2, 3, 4)					
Available-for-sale debt securities (2, 3, 4)					
Trading account assets (5)					
Trading account assets (5)					
Trading account assets (5)	Trading account assets	16,119	146	2,067	32

(1) Increase (decrease) to carrying value.

(2) At December 31, 2022, December 31, 2023 and 2021, 2022, the cumulative fair value adjustments remaining on long-term debt and available-for-sale debt securities from discontinued hedging relationships resulted in a decrease of \$10.5 billion and an increase of \$137 million and \$1.5 billion in the related liability and a decrease in the related asset of \$4.9 billion \$5.6 billion and \$1.0 billion \$4.9 billion, which are being amortized over the remaining contractual life of the de-designated hedged items.

(3) These amounts include the amortized cost of the prepayable financial assets in closed portfolios used to designate hedging relationships in which the hedged item is the last a stated layer that is expected to be remaining at the end of the hedging relationship (i.e. last-of-layer portfolio layer hedging relationship). At December 31, 2022, December 31, 2023 and 2021, 2022, the amortized cost of the closed portfolios used in these hedging relationships was \$21.4 billion \$39.1 billion and \$21.1 billion \$21.4 billion, of which \$9.2 billion \$22.5 billion and \$6.8 \$9.2 billion was were designated in the last-of-layer a portfolio layer hedging relationship. At December 31, 2022, December 31, 2023 and 2021, 2022, the cumulative adjustment associated with these hedging relationships was an increase of \$48 million and a decrease of \$451 million and \$172 million.

(4) Carrying value represents amortized cost.

(5) Represents hedging activities related to certain commodities inventory.

Cash Flow and Net Investment Hedges

The following table below summarizes certain information related to cash flow hedges and net investment hedges for 2023, 2022, 2021 and 2020, 2021. Of the \$11.9 billion \$8.0 billion after-tax net loss (\$15.9 \$10.7 billion pretax) on derivatives in accumulated OCI at December 31, 2022, December 31, 2023, losses of \$4.4 billion \$3.4 billion after-tax (\$5.9 \$4.6 billion pretax) related to both open and terminated cash flow hedges are expected to be reclassified into earnings in the next 12 months. These net losses reclassified into earnings are expected recognized in interest income is approximately five years, with the aggregated amount beyond this time period being insignificant.

On November 15, 2023, Bloomberg Index Services Limited announced the permanent cessation of the Bloomberg Short-Term Bank Yield Index (BSBY) and all its tenors effective after final publication on November 15, 2024. The Corporation determined that certain forecasted BSBY-indexed interest payments, which had been designated in cash flow hedges, were no longer expected to occur beyond November 15, 2024 as they will transition to a new reference rate. Accordingly, during the fourth quarter of 2023, the Corporation reclassified \$2.0 billion of pretax loss from accumulated OCI into market making and similar activities for the amount related to these forecasted transactions.

to primarily decrease net interest income related to the respective hedged items. For open cash flow hedges, the maximum length of time over which forecasted transactions are hedged is approximately seven ten years. For terminated cash flow hedges, the time period over which the forecasted transactions will be

Gains and Losses on Derivatives Designated as Cash Flow and Net Investment Hedges

(Dollars in millions, amounts pretax)	Gains (Losses) Recognized in Accumulated OCI on Derivatives			Gains (Losses) in Income Reclassified from Accumulated OCI		
	2022	2021	2020	2022	2021	2020
Cash flow hedges						
Interest rate risk on variable-rate portfolios (1)	\$ (13,492)	\$ (2,686)	\$ 763	\$ (338)	\$ 148	\$ (7)
Price risk on forecasted MBS purchases (1)	(129)	(249)	241	11	26	9
Gains and Losses on Derivatives Designated as Cash Flow and Net Investment Hedges	(88)	93	85	29	55	12
Price risk on certain compensation plans (2)						

Total	\$ (13,709) Gains (Losses) Recognized in Accumulated OCI on Derivatives						1,089	\$ (298) Gains (Losses) in Income						14				
Net investment hedges								Reclassified from Accumulated OCI										
(Dollars in millions, amounts pretax)																		
Foreign exchange risk ⁽¹⁾	\$	2023	1,710	\$	2022	1,451	\$	2021	(834)	\$	2023	3	\$	2022	23	\$	2021	4
Cash flow hedges																		
Interest rate risk on variable-rate portfolios ⁽¹⁾	\$		1,995	\$		(13,492)	\$		(2,686)	\$		(3,176)	\$		(338)	\$		148
Price risk on forecasted MBS purchases ⁽¹⁾			6			(129)			(249)			(2)			11			26
Price risk on certain compensation plans ⁽²⁾			48			(88)			93			25			29			55
Total	\$		2,049	\$		(13,709)	\$		(2,842)	\$		(3,153)	\$		(298)	\$		229
Net investment hedges																		
Foreign exchange risk ⁽³⁾	\$		(808)	\$		1,710	\$		1,451	\$		143	\$		3	\$		23

⁽¹⁾ Amounts reclassified from accumulated OCI are recorded in interest income and market making and similar activities in the Consolidated Statement of Income.

⁽²⁾ Amounts reclassified from accumulated OCI are recorded in compensation and benefits expense in the Consolidated Statement of Income.

⁽³⁾ Amounts reclassified from accumulated OCI are recorded in other income in the Consolidated Statement of Income. Amounts excluded from effectiveness testing and recognized in market making and similar activities were gains of \$195 million and losses of \$38 million, and \$123 million in 2023, 2022 and \$11 million in 2022, 2021, and 2020, respectively.

Other Risk Management Derivatives

Other risk management derivatives are used by the Corporation to reduce certain risk exposures by economically hedging various assets and liabilities. The table below presents gains (losses) on these derivatives for 2023, 2022, 2021 and 2020, 2021. These gains (losses) are largely offset by the income or expense recorded on the hedged item.

Gains and Losses on Other Risk Management Derivatives

Gains and Losses on Other Risk Management Derivatives							
Gains and Losses on Other Risk Management Derivatives							
(Dollars in millions)							
(Dollars in millions)							
(Dollars in millions)	(Dollars in millions)	2022	2021	2020	2023	2022	2021
Interest rate risk on mortgage activities ^(1, 2)	Interest rate risk on mortgage activities ^(1, 2)	\$ (326)	\$ (18)	\$ 611			
Credit risk on loans ⁽²⁾	Credit risk on loans ⁽²⁾	(37)	(25)	(68)			
Interest rate and foreign currency risk on asset and liability management activities ⁽³⁾	Interest rate and foreign currency risk on asset and liability management activities ⁽³⁾	4,713	1,757	(2,971)			
Price risk on certain compensation plans ⁽⁴⁾	Price risk on certain compensation plans ⁽⁴⁾	(1,073)	917	700			

⁽¹⁾ Includes hedges of interest rate risk on MSRs and IRLCs to originate mortgage loans that will be held for sale.

(2) Gains (losses) on these derivatives are recorded in other income.

(3) Gains (losses) on these derivatives are recorded in market making and similar activities. **For 2023, includes \$447 million of positive fair value adjustments related to the interest rate swaps that occurred after de-designation of BSBY hedges and prior to re-designation of the interest rate swaps into new hedges.**

(4) Gains (losses) on these derivatives are recorded in compensation and benefits expense.

Transfers of Financial Assets with Risk Retained through Derivatives

The Corporation enters into certain transactions involving the transfer of financial assets that are accounted for as sales where substantially all of the economic exposure to the transferred financial assets is retained through derivatives (e.g., interest rate and/or credit), but the Corporation does not retain control over the assets transferred. At both December 31, 2022 December 31, 2023 and 2021, 2022, the Corporation had transferred \$4.1 billion and \$4.8 billion of non-U.S. government-guaranteed mortgage-backed securities to a third-party trust and retained economic exposure to the transferred assets through derivative contracts. In connection with these transfers, the Corporation received gross cash proceeds of \$4.9 billion \$4.2 billion and \$4.8 billion \$4.9 billion at the transfer dates. At December 31, 2022 December 31, 2023 and 2021, 2022, the fair value of the transferred securities was \$4.7 billion \$4.1 billion and \$5.0 billion \$4.7 billion.

Sales and Trading Revenue

The Corporation enters into trading derivatives to facilitate client transactions and to manage risk exposures arising from trading account assets and liabilities. It is the Corporation's policy to include these derivative instruments in its trading activities,

which include derivatives and non-derivative cash instruments. The resulting risk from these derivatives is managed on a portfolio basis as part of the Corporation's *Global Markets* business segment. The related sales and trading revenue generated within *Global Markets* is recorded in various income statement line items, including market making and similar activities and net interest income as well as other revenue categories.

Sales and trading revenue includes changes in the fair value and realized gains and losses on the sales of trading and other assets, net interest income, and fees primarily from commissions on equity securities. Revenue is generated by the difference in the client price for an instrument and the price at which the trading desk can execute the trade in the dealer market. For equity securities, commissions related to purchases and sales are recorded in the "Other" column in the Sales and Trading Revenue table. Changes in the fair value of these securities are included in market making and similar activities. For debt securities, revenue, with the exception of interest associated with the debt securities, is typically included in market making and similar activities.

Unlike commissions for equity securities, the initial revenue related to broker-dealer services for debt securities is typically included in the pricing of the instrument rather than being charged through separate fee arrangements. Therefore, this revenue is recorded in market making and similar activities as part of the initial mark to fair value. For derivatives, the majority of revenue is included in market making and similar activities. In transactions where the Corporation acts as agent, which include exchange-traded futures and options, fees are recorded in other income, income.

The following table, below, which includes both derivatives and non-derivative cash instruments, identifies the amounts in the respective income statement line items attributable to the Corporation's sales and trading revenue in *Global Markets*, categorized by primary risk, for 2023, 2022 2021 and 2020, 2021. This table includes debit valuation adjustment (DVA) and funding valuation adjustment (FVA) gains (losses). *Global Markets* results inNote 23 – Business Segment Information are presented on a fully taxable-equivalent (FTE) basis. The following table below is not presented on an FTE basis.

Sales and Trading Revenue							
107 Bank of America	Market making and similar activities		Net Interest		Other (1)		Total
			Income				
(Dollars in millions)	2022						
Interest rate risk	\$	1,919	\$	1,619	\$	392	\$ 3,930
Foreign exchange risk		1,981		46		(44)	1,983
Equity risk		6,077		(1,288)		1,757	6,546
Credit risk		592		2,228		177	2,997
Other risk (2)		835		(171)		15	679
Total sales and trading revenue	\$	11,404	\$	2,434	\$	2,297	\$ 16,135
	2021						
Interest rate risk	\$	523	\$	1,794	\$	217	\$ 2,534
Foreign exchange risk		1,505		(80)		14	1,439
Equity risk		4,581		(5)		1,834	6,410
Credit risk		1,390		1,684		556	3,630
Other risk (2)		759		(128)		124	755
Total sales and trading revenue	\$	8,758	\$	3,265	\$	2,745	\$ 14,768
	2020						

Sales and Trading Revenue								
	Market making and similar activities		Net Interest Income		Other ⁽¹⁾	Total		
(Dollars in millions)	2023							
Interest rate risk	\$	3,192	\$	366	\$	402	\$	3,960
Foreign exchange risk		1,800		149		87		2,036
Equity risk		6,628		(1,955)		1,774		6,447
Credit risk		1,205		2,462		340		4,007
Other risk ⁽²⁾		602		(155)		(67)		380
Total sales and trading revenue	\$	13,427	\$	867	\$	2,536	\$	16,830
	2022							
Interest rate risk	\$	1,919	\$	1,619	\$	392	\$	3,930
Foreign exchange risk		1,981		46		(44)		1,983
Equity risk		6,077		(1,288)		1,757		6,546
Credit risk		592		2,228		177		2,997
Other risk ⁽²⁾		835		(171)		15		679
Total sales and trading revenue	\$	11,404	\$	2,434	\$	2,297	\$	16,135
	2021							
Interest rate risk	\$	523	\$	1,794	\$	217	\$	2,534
Foreign exchange risk		1,505		(80)		14		1,439
Equity risk		4,581		(5)		1,834		6,410
Credit risk		1,390		1,684		556		3,630
Other risk ⁽²⁾		759		(128)		124		755
Total sales and trading revenue	\$	8,758	\$	3,265	\$	2,745	\$	14,768

⁽¹⁾ Represents amounts in investment and brokerage services and other income that are recorded in *Global Markets* and included in the definition of sales and trading revenue. Includes investment and brokerage services revenue of \$2.0 billion, \$2.0 billion, \$1.9 billion and \$1.9 billion in 2023, 2022, 2021 and 2020, 2021, respectively.

⁽²⁾ Includes commodity risk.

Credit Derivatives 2,279 \$ 229 \$ 4,744

The Corporation enters into credit derivatives primarily to facilitate client transactions and to manage credit risk exposures. Credit derivatives derive value based on an underlying third-party referenced obligation or a portfolio of referenced obligations and generally require the Corporation, as the seller of credit protection, to make payments to a buyer upon the occurrence of a predefined credit event. Such credit events generally include bankruptcy of the referenced credit entity and failure to pay under the obligation, as well as acceleration of indebtedness and payment repudiation or moratorium. For credit derivatives based on a portfolio of referenced credits or credit indices, the Corporation may not be required to make payment until a specified amount of loss has

occurred and/or may only be required to make payment up to a specified amount.

Credit derivatives are classified as investment and non-investment grade based on the credit quality of the underlying referenced obligation. The Corporation considers ratings of BBB- or higher as investment grade. Non-investment grade includes non-rated credit derivative instruments. The Corporation

discloses internal categorizations of investment grade and non-investment grade consistent with how risk is managed for these instruments.

Credit derivative instruments where the Corporation is the seller of credit protection and their expiration at December 31, 2022, December 31, 2023 and 2021, 2022 are summarized in the table below, following table.

Credit Derivative Instruments										
		Less than One Year	One to Three Years	Three to Five Years	Over Five Years				Bank of America Total	
		December 31, 2022								
		Carrying Value								
Credit default swaps:										
Investment grade	\$	2	\$	25	\$	133	\$	34	\$	194
Credit Derivative Instruments										
Non-investment grade		120		516		870		697		2,203
Total		122		541		1,003		731		2,397
Total return swaps/options:										
		One Year	Three Years	Five Years	Years				Total	

Investment grade	55	336	December 31, 2023—	—	391
Non-investment grade	332	9	Carrying Value	10	483
Credit default swaps:	387	345	132	10	874
Investment grade	509	886	1,126	740	3,257
Non-investment grade	38	277	601	595	1,511
Total credit derivatives	\$ 509	\$ 886	\$ 1,126	\$ 740	\$ 3,257
Credit related notes:	38	277	601	595	1,511
Investment grade	38	288	629	1,015	1,888
Non-investment grade	—	7	6	1,035	1,048
Total credit related notes	\$ 38	\$ 295	\$ 635	\$ 2,050	\$ 2,936
Non-investment grade	149	69	Maximum Payout/Notional	5	279
Credit default swaps:	208	69	56	5	338
Investment grade	34,870	66,359	93,882	18,620	212,956
Non-investment grade	15,229	29,629	30,891	6,662	82,411
Total credit derivatives	\$ 49,899	\$ 95,988	\$ 124,773	\$ 25,282	\$ 295,367
Credit related notes:	—	5	16	1,103	1,124
Investment grade	38,722	10,405	16	1,962	49,983
Non-investment grade	32,764	500	Maximum Payout/Notional	897	36,215
Credit default swaps:	71,486	10,907	2,054	897	85,344
Investment grade	121,385	106,006	186,182	26,236	380,509
Non-investment grade	18,061	32,155	33,934	5,827	89,977
Total	51,811	97,170	117,247	22,850	289,078
Total return swaps/options:			Carrying Value		
Credit default swaps:					
Investment grade	40,515	1,503	1,561	23	43,602
Non-investment grade	20,694	1,414	1,907	988	25,003
Total	61,209	2,917	3,468	1,011	68,605
Total credit derivatives	\$ 113,020	\$ 100,087	\$ 120,715	\$ 23,861	\$ 357,683
Total return swaps/options:					
Investment grade	35	388	December 31, 2022—	—	423
Non-investment grade	105	—	Carrying Value	16	121
Credit default swaps:	140	388	16	—	544
Investment grade	172	628	540	832	2,183
Non-investment grade	120	516	870	697	2,203
Total credit derivatives	\$ 122	\$ 541	\$ 1,008	\$ 1,529	\$ 2,449
Credit related notes:	5	—	9	1,334	1,348
Investment grade	58	336	45	1,746	1,896
Non-investment grade	332	9	Maximum Payout/Notional	10	483
Credit default swaps:	387	345	132	10	874
Investment grade	34,809	66,804	73,444	17,944	192,225
Non-investment grade	16,119	29,233	34,356	7,961	87,669
Total credit derivatives	\$ 50,622	\$ 95,562	\$ 107,800	\$ 25,905	\$ 279,894
Credit related notes:	—	7	6	1,035	1,048
Investment grade	49,626	11,494	28	2,052	62,888
Non-investment grade	22,621	717	Maximum Payout/Notional	73	24,053
Credit default swaps:	72,247	12,211	720	73	85,251
Investment grade	124,890	106,178	186,230	26,878	385,045
Non-investment grade	15,229	29,629	30,891	6,662	82,411
Total	49,899	95,799	124,128	25,339	295,165
Total return swaps/options:					
Investment grade	38,722	10,407	—	—	49,129
Non-investment grade	32,764	500	2,054	897	36,215
Total	71,486	10,907	2,054	897	85,344
Total credit derivatives	\$ 121,385	\$ 106,706	\$ 126,182	\$ 26,236	\$ 380,509

The notional amount represents the maximum amount payable by the Corporation for most credit derivatives. However, the Corporation does not monitor its exposure to credit derivatives based solely on the notional amount because this measure does not take into consideration the probability of occurrence. As such, the notional amount is not a reliable

indicator of the Corporation's exposure to these contracts. Instead, a risk framework is used to define risk tolerances and establish limits so that certain credit risk-related losses occur within acceptable, predefined limits.

Credit-related notes in the preceding table above include investments in securities issued by CDO, collateralized loan

109 Bank of America

obligation (CLO) and credit-linked note vehicles. These instruments are primarily

classified as trading securities. The carrying value of these instruments equals the Corporation's maximum exposure to loss. The Corporation is not obligated to make any payments to the entities under the terms of the securities owned.

Credit-related Contingent Features and Collateral

The Corporation executes the majority of its derivative contracts in the OTC market with large, international financial institutions, including broker-dealers and, to a lesser degree, with a variety of non-financial nonfinancial companies. A significant majority of the derivative transactions are executed on a daily margin basis. Therefore, events such as a credit rating downgrade (depending on the ultimate rating level) or a breach of credit covenants would typically require an increase in the amount of collateral

109 Bank of America

required of the counterparty, where applicable, and/or allow the Corporation to take additional protective measures such as early termination of all trades. Further, as previously discussed on page 105, the Corporation enters into legally enforceable master netting agreements that reduce risk by permitting closeout and netting of transactions with the same counterparty upon the occurrence of certain events.

Certain of the Corporation's derivative contracts contain credit risk-related contingent features, primarily in the form of ISDA master netting agreements and credit support documentation that enhance the creditworthiness of these instruments compared to other obligations of the respective counterparty with whom the Corporation has transacted. These contingent features may be for the benefit of the Corporation as well as its counterparties with respect to changes in the Corporation's creditworthiness and the mark-to-market exposure under the derivative transactions. At December 31, 2022, December 31, 2023 and 2021, 2022, the Corporation held cash and securities collateral of \$101.3 billion, \$104.1 billion and \$91.4 billion, \$101.3 billion and posted cash and securities collateral of \$81.2 billion, \$93.4 billion and \$79.3 billion, \$81.2 billion in the normal course of business under derivative agreements, excluding cross-product margining agreements where clients are permitted to margin on a net basis for both derivative and secured financing arrangements.

In connection with certain OTC derivative contracts and other trading agreements, the Corporation can be required to provide additional collateral or to terminate transactions with certain counterparties in the event of a downgrade of the senior debt ratings of the Corporation or certain subsidiaries. The amount of additional collateral required depends on the contract and is usually a fixed incremental amount and/or the market value of the exposure.

At December 31, 2022, December 31, 2023, the amount of collateral, calculated based on the terms of the contracts, that the Corporation and certain subsidiaries could be required to post to counterparties but had not yet posted to counterparties was \$3.2 billion, \$2.5 billion, including \$1.6 billion, \$1.1 billion for Bank of America, National Association (BANA).

Some counterparties are currently able to unilaterally terminate certain contracts, or the Corporation or certain subsidiaries may be required to take other action such as find a suitable replacement or obtain a guarantee. At December 31, 2022, December 31, 2023 and 2021, 2022, the liability recorded for these derivative contracts was not significant.

The following table presents the amount of additional collateral that would have been contractually required by

derivative contracts and other trading agreements at December 31, 2022, December 31, 2023 if the rating agencies had downgraded their long-term senior debt ratings for the Corporation or certain subsidiaries by one incremental notch and by an additional second incremental notch. The table also presents derivative liabilities that would be subject to unilateral termination by counterparties upon downgrade of the Corporation's or certain subsidiaries' long-term senior debt ratings.

Additional Collateral Required to be Posted and Derivative Liabilities Subject to Unilateral Termination Upon Downgrade at December 31, 2023				
		One		Second
		Incremental		Incremental
(Dollars in millions)		Notch		Notch
Additional collateral required to be posted upon downgrade				
Bank of America Corporation	\$	134	\$	902
Bank of America, N.A. and subsidiaries (1)		45		729
Derivative liabilities subject to unilateral termination upon downgrade				
Derivative liabilities	\$	7	\$	36
Collateral posted		6		23
Bank of America Corporation included in Bank of America Corporation collateral requirements in this table.				
Valuation Adjustments on Derivatives				
The Corporation records credit risk valuation adjustments on derivatives in order to properly reflect the credit quality of the counterparties and its own credit quality. The Corporation calculates valuation adjustments on derivatives based on a modeled expected exposure that incorporates current market risk factors. The exposure also takes into consideration credit mitigants such as enforceable master netting agreements and collateral. CDS spread data is used to estimate the default probabilities and severities that are applied to the exposures. Where no observable credit default data is available for counterparties, the Corporation uses proxies and other market data to estimate default probabilities and severity.				
The table below presents credit valuation adjustment (CVA), DVA and FVA gains (losses) on derivatives (excluding the effect of any related hedge activities), which are recorded in market making and similar activities, for 2023, 2022, 2021 and 2020, 2021. CVA gains reduce the cumulative CVA thereby increasing the derivative assets balance. DVA gains increase the cumulative DVA thereby decreasing the derivative liabilities balance. CVA and DVA losses have the opposite impact. FVA gains related to derivative assets reduce the cumulative FVA thereby increasing the derivative assets balance. FVA gains related to derivative liabilities increase the cumulative FVA thereby decreasing the derivative liabilities balance. FVA losses have the opposite impact.				
	\$	1,073		
Valuation Adjustments Gains (Losses) on Derivatives (1)				
	77	300		

(Dollars in millions)	(Dollars in millions)	2022	2021	2020	2023	2022	2021
Derivative assets (CVA)	Derivative assets (CVA)	\$(80)	\$208	\$(118)			
Derivative assets/liabilities (FVA)	Derivative assets/liabilities (FVA)	125	(2)	(24)			
Derivative liabilities (DVA)	Derivative liabilities (DVA)	194	3	24			

Bank of America 110

Debt Securities		Debt Securities												
Debt Securities														
Debt Securities														
Amortized Cost														
Gross Amortized Cost Gross Unrealized Gains Gross Unrealized Losses Fair Value														
Gross Amortized Cost Gross Unrealized Gains Gross Unrealized Losses Fair Value														
Amortized Cost														
Amortized Cost														
Gross Unrealized Gains Gross Unrealized Losses Fair Value														
Gross Amortized Cost Gross Unrealized Gains Gross Unrealized Losses Fair Value														
Amortized Cost														
Amortized Cost														
Gross Unrealized Gains Gross Unrealized Losses Fair Value														
Gross Amortized Cost Gross Unrealized Gains Gross Unrealized Losses Fair Value														
(Dollars in millions)	(Dollars in millions)	December 31, 2022				December 31, 2021				(Dollars in millions)	December 31, 2023		December 31, 2022	
Available-for-sale debt securities	Available-for-sale debt securities													
Mortgage-backed securities:	Mortgage-backed securities:													
Mortgage-backed securities:														
Mortgage-backed securities:														
Agency														
Agency														
Agency	Agency	\$ 25,204	\$ 5	\$ (1,767)	\$ 23,442	\$ 45,268	\$ 1,257	\$ (186)	\$ 46,339					
Agency-collateralized mortgage obligations	Agency-collateralized mortgage obligations	2,452	—	(231)	2,221	3,331	74	(25)	3,380					

Commercial	Commercial	6,894	28	(515)	6,407	19,036	647	(79)	19,604
Non-agency residential ⁽¹⁾	Non-agency residential ⁽¹⁾	461	15	(90)	386	591	25	(33)	583
Total mortgage-backed securities	Total mortgage-backed securities	35,011	48	(2,603)	32,456	68,226	2,003	(323)	69,906
U.S. Treasury and government agencies	U.S. Treasury and government agencies	160,773	18	(1,769)	159,022	197,853	1,610	(318)	199,145
Non-U.S. securities	Non-U.S. securities	13,455	4	(52)	13,407	11,933	—	—	11,933
Other taxable securities	Other taxable securities	4,728	1	(84)	4,645	2,725	39	(3)	2,761

Other taxable securities
Other taxable securities
Tax-exempt securities
Tax-exempt securities

Tax-exempt securities	Tax-exempt securities	11,518	19	(279)	11,258	15,155	317	(39)	15,433
Total available-for-sale debt securities	Total available-for-sale debt securities	225,485	90	(4,787)	220,788	295,892	3,969	(683)	299,178

Other debt securities carried at fair value ⁽²⁾	Other debt securities carried at fair value ⁽²⁾	8,986	376	(156)	9,206	8,873	105	(83)	8,895

Total debt securities carried at fair value	Total debt securities carried at fair value	234,471	466	(4,943)	229,994	304,765	4,074	(766)	308,073

Held-to-maturity debt securities	Held-to-maturity debt securities								

Agency mortgage-backed securities

Agency mortgage-backed securities

Agency mortgage-backed securities	Agency mortgage-backed securities	503,233	—	(87,319)	415,914	553,721	3,855	(10,366)	547,210
U.S. Treasury and government agencies	U.S. Treasury and government agencies	121,597	—	(20,259)	101,338	111,859	254	(2,395)	109,718

U.S. Treasury and government agencies

U.S. Treasury and government agencies

Other taxable securities	Other taxable securities	8,033	—	(1,018)	7,015	9,011	147	(196)	8,962

Other taxable securities

Other taxable securities

Total held-to-maturity debt securities

Total held-to-maturity debt securities

Total held-to-maturity debt securities	Total held-to-maturity debt securities	632,863	—	(108,596)	524,267	674,591	4,256	(12,957)	665,890	
Total debt securities	Total debt securities	(3,4)	\$ 867,334	\$ 466	\$(113,539)	\$754,261	\$979,356	\$ 8,330	\$(13,723)	\$973,963

(1) At December 31, 2022 both December 31, 2023 and 2021, 2022, the underlying collateral type included approximately 17 percent and 21 percent prime and 83 percent and 79 percent subprime.

(2) Primarily includes non-U.S. securities used to satisfy certain international regulatory requirements. Any changes in value are reported in market making and similar activities. For detail on the components, see Note 20 – Fair Value Measurements.

(3) Includes securities pledged as collateral of \$204.9 billion and \$104.5 billion at December 31, 2023 and \$111.9 billion at December 31, 2022 and 2021, 2022.

(4) The Corporation held debt securities from FNMA and FHLMC that each exceeded 10 percent of shareholders' equity, with an amortized cost of \$272.5 billion and \$171.5 billion, and a fair value of \$226.4 billion and \$142.3 billion at December 31, 2023, and an amortized cost of \$290.5 billion and \$176.7 billion, and a fair value of \$239.6 billion and \$144.6 billion at December 31, 2022, and an amortized cost of \$345.3 billion and \$205.3 billion, and a fair value of \$342.5 billion and \$202.4 billion at December 31, 2021.

At December 31, 2022 December 31, 2023, the accumulated net unrealized loss on AFS debt securities, excluding the amount related to debt securities previously transferred to held to maturity, included in accumulated OCI was \$3.5 billion \$2.8 billion, net of the related income tax benefit of \$1.2 billion \$960 million. At December 31, 2022 December 31, 2023 and 2021, 2022, nonperforming AFS debt securities held by the Corporation were not significant.

At December 31, 2022 December 31, 2023 and 2021, the Corporation had \$191.1 billion 2022, \$824.9 billion and \$268.5 billion in \$826.5 billion of AFS and HTM debt securities, which were primarily predominantly U.S. agency and U.S. Treasury securities, that have a zero credit loss assumption. For the same periods, the ECL on the remaining \$40.2 billion and \$31.8 billion of AFS and HTM debt securities were insignificant. For more information on the zero credit loss assumption, see Note 1 – Summary of Significant Accounting Principles. For the remaining \$29.7 billion and \$30.7 billion in AFS debt securities at December 31, 2022 and 2021, the amount of ECL was not significant. At December 31, 2022 and 2021, the Corporation had \$524.3 billion and \$665.9 billion in HTM debt securities, which were substantially all U.S. agency and U.S. Treasury securities that have a zero credit loss assumption.

At December 31, 2022 December 31, 2023 and 2021, 2022, the Corporation held equity securities at an aggregate fair value of \$581 million measurement alternative, at a carrying value of \$340 million \$377 million and \$266 million \$340 million, both of which are included in other assets. At December 31, 2022 December 31, 2023 and 2021, 2022, the Corporation also held money market investments at a fair value of \$868 million \$1.2 billion and \$707 million \$868 million, which are included in time deposits placed and other short-term investments.

The gross realized gains and losses on sales of AFS debt securities for 2023, 2022 2021 and 2020 2021 are presented in the table below.

Gains and Losses on Sales of AFS Debt Securities				
(Dollars in millions)	2022	2021	2020	
Gross gains	\$ 1,251	\$ 49	\$ 423	
Gross losses	(1,219)	(27)	(12)	
Net gains on sales of AFS debt securities	\$ 32	\$ 22	\$ 411	
Income tax expense attributable to realized net gains on sales of AFS debt securities	\$ 8	\$ 5	\$ 103	

Gains and Losses on Sales of AFS Debt Securities				
(Dollars in millions)	2023	2022	2021	
Gross gains	\$ 109	\$ 1,251	\$ 49	
Gross losses	(514)	(1,219)	(27)	
Net gains (losses) on sales of AFS debt securities	\$ (405)	\$ 32	\$ 22	
Income tax expense (benefit) attributable to realized net gains (losses) on sales of AFS debt securities	\$ (101)	\$ 8	\$ 5	

Total AFS Debt Securities in a Continuous Unrealized Loss Position	Total AFS Debt Securities in a Continuous Unrealized Loss Position						
Total AFS Debt Securities in a Continuous Unrealized Loss Position							
Less than Twelve Months							
	Less than Twelve Months	Twelve Months or Longer		Total			
Less than Twelve Months							
	Gross Fair Value	Gross Unrealized Losses	Gross Fair Value	Gross Unrealized Losses	Gross Fair Value	Gross Unrealized Losses	
Less than Twelve Months							
	Fair Value			Twelve Months or Longer		Total	
	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses	Gross Unrealized Losses
(Dollars in millions)	(Dollars in millions)	December 31, 2022			(Dollars in millions)	December 31, 2023	
Continuously unrealized loss-positioned AFS debt securities	Continuously unrealized loss-positioned AFS debt securities						
Mortgage-backed securities:							
Mortgage-backed securities:							
Mortgage-backed securities:	Mortgage-backed securities:						
Agency	Agency	\$ 18,759	\$ (1,118)	\$ 4,437	\$ (649)	\$ 23,196	\$ (1,767)
Agency-collateralized mortgage obligations	Agency-collateralized mortgage obligations	1,165	(96)	1,022	(135)	2,187	(231)
Commercial	Commercial	3,273	(150)	2,258	(365)	5,531	(515)
Non-agency residential	Non-agency residential	264	(65)	97	(25)	361	(90)
Total mortgage-backed securities	Total mortgage-backed securities	23,461	(1,429)	7,814	(1,174)	31,275	(2,603)
U.S. Treasury and government agencies	U.S. Treasury and government agencies	36,730	(308)	118,636	(1,461)	155,366	(1,769)
Non-U.S. securities	Non-U.S. securities	9,399	(34)	756	(18)	10,155	(52)

Other taxable securities	Other taxable securities	2,036	(16)	1,580	(68)	3,616	(84)
Other taxable securities							
Other taxable securities							
Tax-exempt securities							
Tax-exempt securities							
Tax-exempt securities	Tax-exempt securities	607	(28)	2,849	(251)	3,456	(279)
Total AFS debt securities in a continuous unrealized loss position	Total AFS debt securities in a continuous unrealized loss position	\$ 72,233	\$ (1,815)	\$ 131,635	\$ (2,972)	\$ 203,868	\$ (4,787)
	December 31, 2021						
Total AFS debt securities in a continuous unrealized loss position							
Total AFS debt securities in a continuous unrealized loss position							
December 31, 2022							
December 31, 2022							
December 31, 2022							
Continuously unrealized loss-positioned AFS debt securities	Continuously unrealized loss-positioned AFS debt securities						
Mortgage-backed securities:	Mortgage-backed securities:						
Mortgage-backed securities:							
Agency							
Agency							
Agency	Agency	\$ 11,733	\$ (166)	\$ 815	\$ (20)	\$ 12,548	\$ (186)
Agency-collateralized mortgage obligations	Agency-collateralized mortgage obligations	1,427	(22)	122	(3)	1,549	(25)
Commercial	Commercial	3,451	(41)	776	(38)	4,227	(79)
Non-agency residential	Non-agency residential	241	(13)	174	(20)	415	(33)
Total mortgage-backed securities	Total mortgage-backed securities	16,852	(242)	1,887	(81)	18,739	(323)
U.S. Treasury and government agencies	U.S. Treasury and government agencies	103,307	(272)	4,850	(46)	108,157	(318)
Non-U.S. securities							
Other taxable securities	Other taxable securities	—	—	82	(3)	82	(3)

Other taxable securities							
Other taxable securities							
Tax-exempt securities							
Tax-exempt securities							
Tax-exempt securities	Tax-exempt securities	502	(16)	109	(23)	611	(39)
Total AFS debt securities in a continuous unrealized loss position	Total AFS debt securities in a continuous unrealized loss position	\$120,661	\$ (530)	\$ 6,928	\$ (153)	\$127,589	\$ (683)
Total AFS debt securities in a continuous unrealized loss position							
Total AFS debt securities in a continuous unrealized loss position							
Total AFS debt securities in a continuous unrealized loss position							

Bank of America 112

The remaining contractual maturity distribution and yields of the Corporation's debt securities carried at fair value and HTM debt securities at **December 31, 2022** **December 31, 2023** are summarized in the table below. Actual duration and yields may differ as prepayments on the loans underlying the MBS or other ABS are passed through to the Corporation.

**Maturities of
Fair Value at
Securities**

Maturities of Debt Securities Carried at Fair Value and Held-to-maturity Debt Securities

Maturities of Debt Securities Carried at Fair Value and Held-to-maturity Debt Securities

		Due after One Year Due in One Year or Less										Due after Five Years Due in One Year or Less										Due after Ten Years Due in One Year or Less										Total	
		Due in One Year or Less		through Five Years		through Ten Years		Ten Years		Total		Due in One Year or Less		through Five Years		through Ten Years		Ten Years		Total		Due in One Year or Less		through Five Years		through Ten Years		Ten Years		Total			
(Dollars in millions)	(Dollars in millions)	Amount	Yield ⁽¹⁾	Amount	Yield ⁽¹⁾	Amount	Yield ⁽¹⁾	Amount	Yield ⁽¹⁾	Amount	Yield ⁽¹⁾	(Dollars in millions)	Amount	Yield ⁽¹⁾	Amount	Yield ⁽¹⁾	Amount	Yield ⁽¹⁾	Amount	Yield ⁽¹⁾	(Dollars in millions)	Amount	Yield ⁽¹⁾	Amount	Yield ⁽¹⁾	Amount	Yield ⁽¹⁾	Amount	Yield ⁽¹⁾	(Dollars in millions)	Amount	Yield ⁽¹⁾	
Amortized cost of debt securities carried at fair value	Amortized cost of debt securities carried at fair value																																

Mortgage-backed securities:	Mortgage-backed securities:												Mortgage-backed securities:																											
Agency	Agency	\$	—	—	%	\$	3	5.67	%	\$	56	4.39	%	\$	25,145	3.37	%	\$	25,204	3.37	%	Agency	\$	—	—	—	%	\$	4	4.00	4.00	%	\$8	3.38	3.38	%	\$39,183	4.66	4.66	%
Agency-collateralized mortgage obligations	Agency-collateralized mortgage obligations	—	—			10	2.60			—	—			2,442	2.89			2,452	2.89																					
Commercial	Commercial	22	2.09			670	3.07			4,591	2.03			1,624	2.31			6,907	2.20																					
Non-agency residential	Non-agency residential	—	—			—	—			—	—			825	9.54			825	9.54																					
Total mortgage-backed securities	Total mortgage-backed securities	22	2.09			683	3.08			4,647	2.06			30,036	3.44			35,388	3.25																					
U.S. Treasury and government agencies	U.S. Treasury and government agencies	3,306	1.59			79,618	1.68			78,378	1.64			32	3.38			161,334	1.66																					
Non-U.S. securities	Non-U.S. securities	17,499	2.41			3,002	4.58			723	3.93			279	6.87			21,503	2.82																					
Other taxable securities	Other taxable securities	2,034	4.77			2,102	4.85			455	3.46			137	3.35			4,728	4.64																					
Other taxable securities																																								
Other taxable securities																																								
Tax-exempt securities																																								
Tax-exempt securities																																								
Tax-exempt securities	Tax-exempt securities	890	3.36			4,765	3.55			2,022	3.73			3,841	3.88			11,518	3.68																					
Total amortized cost of debt securities carried at fair value	Total amortized cost of debt securities carried at fair value	\$23,751	2.53			\$90,170	1.96			\$ 86,225	1.74			\$ 34,325	3.52			\$234,471	2.16																					
Amortized cost of HTM debt securities																																								
Agency mortgage-backed securities	Agency mortgage-backed securities	\$	—	—	%	\$	—	—	%	\$	14	2.64	%	\$	503,219	2.13	%	\$	503,233	2.13	%																			
Agency mortgage-backed securities																																								
Agency mortgage-backed securities		\$	—	—	%	\$	—	—	%	\$	12			\$	12			2.67	%	\$	465,444	2.12	%																	
U.S. Treasury and government agencies																																								
U.S. Treasury and government agencies																																								
U.S. Treasury and government agencies																																								
Other taxable securities																																								
Other taxable securities																																								
Other taxable securities																																								
Total amortized cost of HTM debt securities																																								
Total amortized cost of HTM debt securities																																								
Total amortized cost of HTM debt securities																																								
Debt securities carried at fair value																																								
Debt securities carried at fair value																																								
Debt securities carried at fair value																																								
Mortgage-backed securities:											Mortgage-backed securities:																													

U.S. Treasury and government agencies	U.S. Treasury and government agencies	—	—	4,544	1.80	117,053	1.37	—	—	121,597	1.39
Other taxable securities	Other taxable securities	38	9.06	1,251	2.23	313	3.00	6,431	2.45	8,033	2.47
Total amortized cost of HTM											
debt securities		\$ 38	9.06	\$ 5,795	1.89	\$117,380	1.37	\$509,650	2.13	\$632,863	1.99
Debt securities carried at fair value											
Mortgage-backed securities:											
Agency		\$ —		\$ 3		\$ 56		\$ 23,383		\$ 23,442	
Agency-collateralized mortgage obligations		—		10		—		2,211		2,221	
Commercial		22		650		4,342		1,404		6,418	
Non-agency residential		—		2		—		751		753	
Total mortgage-backed securities		22		665		4,398		27,749		32,834	
U.S. Treasury and government agencies		3,312		79,013		77,228		30		159,583	
Non-U.S. securities		17,709		2,960		723		279		21,671	

Other taxable securities	Other taxable securities	2,028	2,085	413	122	4,648
Tax-exempt securities		887	4,729	1,997	3,645	11,258
Total debt securities carried at fair value		\$23,958	\$89,452	\$ 84,759	\$ 31,825	\$229,994
Fair value of HTM debt securities						
Agency mortgage-backed securities	\$ —	\$ —	\$ 13	\$415,901	\$415,914	
U.S. Treasury and government agencies	—	4,164	97,174	—	101,338	
Other taxable securities	Other taxable securities	38	1,170	295	5,512	7,015
Total fair value of HTM debt securities	Total fair value of HTM debt securities	\$ 38	\$ 5,334	\$ 97,482	\$421,413	\$524,267
Total fair value of HTM debt securities						
Total fair value of HTM debt securities						

(1) The weighted-average yield is computed based on a constant effective interest rate yield over the contractual life of each security. The average yield considers the contractual coupon and the amortization of premiums and accretion of discounts, excluding the effect of related hedging derivatives.

113 Bank of America

NOTE 5 Outstanding Loans and Leases and Allowance for Credit Losses

The following tables present total outstanding loans and leases and an aging analysis for the Consumer Real Estate, Credit Card and Other Consumer, and Commercial portfolio segments, by class of financing receivables, at December 31, 2022 December 31, 2023 and 2021, 2022.

		30-59 Days Past Due											
		(1)											
						Loans							
				Total		Accounted							
		30-59 Days		90 Days or More		Past Due 30		Total Current or Less Than 30 Days		for Under the Fair Value		Total	
		Past		Past		Past Due		Days		Option		Outstandings	
		Due (1)		Due (1)		(1)		or More		Past Due (1)			
		30-59 Days Past Due											
		(1)											

Residential mortgage								
Home equity	Home equity	88	32	211	331	26,232		26,563
Credit card and other consumer	Credit card and other consumer							
Credit card	Credit card	466	322	717	1,505	91,916		93,421
Credit card								
Credit card								
Direct/Indirect consumer ⁽²⁾								
Direct/Indirect consumer ⁽²⁾								

Direct/Indirect consumer ⁽²⁾	Direct/Indirect consumer ⁽²⁾	204	59	45	308	105,928		106,236
Other consumer	Other consumer	—	—	—	—	156		156
Total consumer	Total consumer	1,835	658	1,918	4,411	451,635		456,046
Consumer loans accounted for under the fair value option ⁽³⁾	Consumer loans accounted for under the fair value option ⁽³⁾						\$ 339	339
Total consumer loans and leases	Total consumer loans and leases	1,835	658	1,918	4,411	451,635	339	456,385

Commercial	Commercial							

U.S. commercial								
U.S. commercial								

U.S. commercial	U.S. commercial	827	288	330	1,445	357,036		358,481
Non-U.S. commercial	Non-U.S. commercial	317	59	144	520	123,959		124,479
Commercial real estate ⁽⁴⁾	Commercial real estate ⁽⁴⁾	409	81	77	567	69,199		69,766
Commercial lease financing	Commercial lease financing	49	9	11	69	13,575		13,644
U.S. small business commercial ⁽⁵⁾	U.S. small business commercial ⁽⁵⁾	107	63	356	526	17,034		17,560
Total commercial	Total commercial	1,709	500	918	3,127	580,803		583,930
Commercial loans accounted for under the fair value option ⁽³⁾	Commercial loans accounted for under the fair value option ⁽³⁾						5,432	5,432
Total commercial loans and leases	Total commercial loans and leases	1,709	500	918	3,127	580,803	5,432	589,362
Total loans and leases ⁽⁶⁾	Total loans and leases ⁽⁶⁾	\$3,544	\$1,158	\$2,836	\$7,538	\$1,032,438	\$ 5,771	\$1,045,747

Percentage of outstandings	Percentage of outstandings	0.34 %	0.11 %	0.27 %	0.72 %	98.73 %	0.55 %	100.00 %	Percentage of outstandings 0.31 % 0.12 % 0.32 % 0.75 % 98.91 % 0.34 % 100.00 %

⁽³⁾ Consumer real estate loans 30-59 days past due includes fully-insured loans of ~~\$184 million~~ ~~\$198 million~~ and nonperforming loans of ~~\$155 million~~ ~~\$150 million~~. Consumer real estate loans 60-89 days past due includes fully-insured loans of ~~\$75 million~~ ~~\$77 million~~ and nonperforming loans of ~~\$88 million~~ ~~\$102 million~~. Consumer real estate loans 90 days or more past due includes fully-insured loans of ~~\$368 million~~ ~~\$252 million~~ and nonperforming loans of ~~\$788 million~~ ~~\$738 million~~. Consumer real estate loans current or less than 30 days past due includes \$1.6 billion, and direct/indirect

consumer includes \$27 million \$39 million of nonperforming loans.

(2) Total outstandings primarily includes auto and specialty lending loans and leases of \$51.8 billion \$53.9 billion, U.S. securities-based lending loans of \$50.4 billion \$46.0 billion and non-U.S. consumer loans of \$3.0 billion \$2.8 billion.

(3) Consumer loans accounted for under the fair value option includes residential mortgage loans of \$71 million \$66 million and home equity loans of \$268 million \$177 million. Commercial loans accounted for under the fair value option includes U.S. commercial loans of \$2.9 billion \$2.2 billion and non-U.S. commercial loans of \$2.5 billion \$1.2 billion. For more information, see Note 20 – Fair Value Measurements and Note 21 – Fair Value Option.

(4) Total outstandings includes U.S. commercial real estate loans of \$64.9 billion \$66.8 billion and non-U.S. commercial real estate loans of \$4.8 billion \$6.1 billion.

(5) Includes Paycheck Protection Program loans.

(6) Total outstandings includes loans and leases pledged as collateral of \$18.5 billion \$33.7 billion. The Corporation also pledged \$163.6 billion \$246.0 billion of loans with no related outstanding borrowings to secure potential borrowing capacity with the Federal Reserve Bank and Federal Home Loan Bank.

Bank of America 114

30-59 Days Past Due (1)	60-89 Days Past Due (1)	90 Days or More Past Due (1)	Total Past Due (1)	Total Current or			
(Dollars in millions)							
December 31, 2023							
Consumer real estate							
Residential mortgage	\$ 1,005,107	\$ 297,245	\$ 1,571,945	\$ 2,873,211			
Home equity	123,88	69,32	369,211	561,88			
Credit card and other consumer							
Credit card	298,466	212,322	487,717	997,157			
Direct/indirect consumer (2)	147,204	52,59	18,45	217,849			
Other consumer	—	—	—	—			
Total consumer	1,573,1,835	630,658	2,445,1,918	4,648,4,648			
Consumer loans accounted for under the fair value option (3)							
Total consumer loans and leases	1,573,1,835	630,658	2,445,1,918	4,648,4,648			
Commercial							
U.S. commercial	815,827	308,288	396,330	1,519,1,519			
Non-U.S. commercial	148,317	20,59	83,144	251,486			
Commercial real estate (4)	115,409	34,81	285,77	434,666			
Commercial lease financing	104,49	28,9	13,11	145,60			
U.S. small business commercial (5)	129,107	259,63	89,356	477,106			
Total commercial	1,311,1,709	649,500	866,918	2,826,3,286			
Commercial loans accounted for under the fair value option (3)							
Total commercial loans and leases	1,311,1,709	649,500	866,918	2,826,3,286			
Total loans and leases (6)	\$ 2,884,3,544	\$ 1,279,1,158	\$ 3,311,2,836	\$ 7,474,7,474			
Percentage of outstandings							
0.29 % 0.13 % 0.34 % 0.76 %							

The Corporation has entered into long-term credit protection agreements with FNMA and FHLMC on loans totaling \$8.7 billion and \$9.5 billion at December 31, 2023 and \$10.5 billion at December 31, 2022 and 2021, 2022, providing full credit protection on residential mortgage loans that become severely delinquent. All of these loans are individually insured, and therefore the Corporation does not record an allowance for credit losses related to these loans.

Nonperforming Loans and Leases

Commercial nonperforming loans decreased increased to \$2.8 billion at December 31, 2023 from \$1.1 billion at December 31, 2022 from \$1.6 billion at December 31, 2021, as paydowns and returns to performing status more than offset new downgrades to nonaccrual status. driven by the commercial real estate property type. Consumer nonperforming loans decreased to \$2.8 billion at December 31, 2022 from

\$3.0 billion nonperforming loans remain at December 31, 2023, partially offset by a decrease in nonperforming loans and leases as of the first quarter of 2022. \$2.7 billion at December 31, 2022.

The following table presents the Corporation's nonperforming loans and leases as of December 31, 2023, past due 90 days or more at December 31, 2022, and December 31, 2021. The criteria for classification as nonperforming loans and leases are:

115 Bank of America

Credit Quality Credit Quality

Credit Quality

Credit Quality

		Nonperforming Loans and Leases		Accruing Past Due 90 Days or More	
		December 31		December 31	
		Nonperforming Loans and Leases		Nonperforming Loans and Leases	
		December 31		December 31	
(Dollars in millions)	(Dollars in millions)	2022	2021	2022	2021
Residential mortgage (1)	Residential mortgage (1)	\$ 2,167	\$ 2,284	\$ 368	\$ 634
With no related allowance (2)	With no related allowance (2)	1,973	1,950	—	—
Home equity (1)	Home equity (1)	510	630	—	—
With no related allowance (2)	With no related allowance (2)	393	414	—	—
Credit Card	Credit Card	n/a	n/a	717	487
Direct/indirect consumer	Direct/indirect consumer	77	75	2	11
Total consumer	Total consumer	2,754	2,989	1,087	1,132
Total consumer					
Total consumer					
U.S. commercial	U.S. commercial	553	825	190	171
Non-U.S. commercial	Non-U.S. commercial	212	268	25	19
Commercial real estate	Commercial real estate	271	382	46	40
Commercial lease financing	Commercial lease financing	4	80	8	8
U.S. small business commercial	U.S. small business commercial	14	23	355	87
Total commercial	Total commercial	1,054	1,578	624	325

Total nonperforming loans	Total nonperforming loans						
		\$	3,808	\$	4,567	\$1,711	\$1,457
Percentage of outstanding loans and leases	Percentage of outstanding loans and leases						
		0.37	%	0.47	%	0.16	0.15 %
Percentage of outstanding loans and leases							

(1) Residential mortgage loans accruing past due 90 days or more are fully-insured loans. At December 31, 2022 December 31, 2023 and 2021 2022 residential mortgage included \$260 million \$156 million and \$444 million \$260 million of loans on which interest had million \$108 million of loans on which interest was still accruing.

(2) Primarily relates to loans for which the estimated fair value of the underlying collateral less any costs to sell is greater than the amortized cost of the loans as of the reporting date.

n/a = not applicable

Credit Quality Indicators

The Corporation monitors credit quality within its Consumer Real Estate, Credit Card and Other Consumer, and Commercial portfolio segments based on primary credit quality indicators. For more information on the portfolio segments, see *Note 1 – Summary of Significant Accounting Principles*. Within the Consumer Real Estate portfolio segment, the primary credit quality indicators are refreshed LTV and refreshed Fair Isaac Corporation (FICO) score. Refreshed LTV measures the carrying value of the loan as a percentage of the value of the property securing the loan, refreshed quarterly. Home equity loans are evaluated using CLTV, which measures the carrying value of the Corporation's loan and available line of credit combined with any outstanding senior liens against the property as a percentage of the value of the property securing the loan, refreshed quarterly. FICO score measures the creditworthiness of the borrower based on the financial obligations of the borrower and the borrower's credit history. FICO scores are typically refreshed quarterly or more frequently. Certain borrowers (e.g., borrowers that have had debts discharged in a bankruptcy proceeding) may not have their FICO scores updated. FICO scores are also a

primary credit quality indicator for the small business commercial. Within tl rated or reservable criticized as the pr are internally classified or listed by tl defined by regulatory authorities. The Pass rated refers to all loans not con uses other credit quality indicators for

The following tables present cert. Credit Card and Other Consumer, an loans that were modified into term loa

Residential Mortgage – Credit Quality Indicators By Vintage

Residential Mortgage – Credit Quality Indicators By Vintage

Residential Mortgage – Credit Quality Indicators By Vintage

Term Loans by Origination Year									
Term Loans by Origination Year									
Term Loans by Origination Year									
Term Loans by Origination Year									
(Dollars in millions)									
(Dollars in millions)									
		Total as of							
		December							
		31,							
(Dollars in millions)	(Dollars in millions)	2022	2022	2021	2020	2019	2018	Prior	
Residential Mortgage	Residential Mortgage								
Residential Mortgage									
Residential Mortgage									
Refreshed LTV									
Refreshed LTV									
Refreshed LTV Refreshed LTV									
Less than or equal to 90 percent	Less than or equal to 90 percent	\$215,713	\$39,625	\$81,437	\$37,228	\$18,980	\$5,734	\$32,709	
Less than or equal to 90 percent									

Less than or equal to 90 percent									
Greater than 90 percent but less than or equal to 100 percent									
Greater than 90 percent but less than or equal to 100 percent									
Greater than 90 percent but less than or equal to 100 percent	Greater than 90 percent but less than or equal to 100 percent	1,615	950	530	93	15	8	19	
Greater than 100 percent	Greater than 100 percent	648	374	169	43	15	8	39	
Greater than 100 percent									
Fully-insured loans	Fully-insured loans	11,694	580	3,667	3,102	949	156	3,240	
Fully-insured loans									
Fully-insured loans									
Total Residential Mortgage									
Total Residential Mortgage									
Total Residential Mortgage	Total Residential Mortgage	\$229,670	\$41,529	\$85,803	\$40,466	\$19,959	\$5,906	\$36,007	
Residential Mortgage	Residential Mortgage								
Residential Mortgage									
Residential Mortgage									
Refreshed FICO score									
Refreshed FICO score									
Refreshed FICO score	Refreshed FICO score								
Less than 620	Less than 620	\$ 2,156	\$ 377	\$ 518	\$ 373	\$ 124	\$ 84	\$ 680	
Less than 620									
Less than 620									
Greater than or equal to 620 and less than 680									
Greater than or equal to 620 and less than 680									
Greater than or equal to 620 and less than 680	Greater than or equal to 620 and less than 680	4,978	1,011	1,382	840	329	233	1,183	
Greater than or equal to 680 and less than 740	Greater than or equal to 680 and less than 740	25,444	5,411	8,290	4,369	2,187	830	4,357	
Greater than or equal to 680 and less than 740									
Greater than or equal to 680 and less than 740									
Greater than or equal to 740									
Greater than or equal to 740									
Greater than or equal to 740	Greater than or equal to 740	185,398	34,150	71,946	31,782	16,370	4,603	26,547	
Fully-insured loans	Fully-insured loans	11,694	580	3,667	3,102	949	156	3,240	
Fully-insured loans									
Fully-insured loans									
Total Residential Mortgage									
Total Residential Mortgage									

Total Residential Mortgage									
Total Residential Mortgage	Total Residential Mortgage								
		\$229,670	\$41,529	\$85,803	\$40,466	\$19,959	\$5,906	\$36,007	
Gross charge-offs		\$ 161	\$ —	\$ 6	\$ 5	\$ 6	\$ 1	\$ 143	
Gross charge-offs for the year ended December 31, 2023									
Gross charge-offs for the year ended December 31, 2023									
Gross charge-offs for the year ended December 31, 2023									

Home Equity - Credit Quality Indicators

Home Equity - Credit Quality Indicators				
	Home Equity	Revolving Loans and Reverse Mortgages	Revolving Loans	to Term Loans
Total	(1)	Loans	Loans	

Home Equity - Credit Quality Indicators				
Total				
Total				
Total				
(Dollars in millions)				
(Dollars in millions)				

(Dollars in millions)	(Dollars in millions)	December 31, 2022			
Home Equity	Home Equity				
Home Equity					
Home Equity					
Refreshed LTV					
Refreshed LTV					
Refreshed LTV					
Refreshed LTV					
Less than or equal to 90 percent	Less than or equal to 90 percent	\$26,395	\$ 1,304	\$ 19,960	\$ 5,131

Less than or equal to 90 percent	
Less than or equal to 90 percent	
Greater than 90 percent but less than or equal to 100 percent	
Greater than 90 percent but less than or equal to 100 percent	

Gross charge-offs for
the year ended
December 31, 2023

Gross charge-offs for
the year ended
December 31, 2023

Gross charge-offs for
the year ended
December 31, 2023

(1) Includes reverse mortgages of \$763 million and home equity loans of \$340 million, which are no longer originated.

Credit Card and Direct/Indirect Consumer – Credit Quality Indicators By Vintage

	Direct/Indirect					
	Total Direct/ Indirect as of December 31,			Term Loans by Origination Year		
	2023	Revolving Loans	2023	2022	2021	2020
(Dollars in millions)						
Refreshed FICO score						
Less than 620	\$ 1,246	\$ 11	\$ 292	\$ 428	\$ 336	\$ 85
Greater than or equal to 620 and less than 680	2,506	11	937	799	501	121
Greater than or equal to 680 and less than 740	8,629	48	3,451	2,582	1,641	462
Greater than or equal to 740	41,656	74	16,761	11,802	7,643	2,707
Other internal credit metrics (2,3)	49,431	48,764	106	183	110	53
Total credit card and other consumer	\$ 103,468	\$ 48,908	\$ 21,547	\$ 15,794	\$ 10,231	\$ 3,428
Gross charge-offs for the year ended December 31, 2023	\$ 233	\$ 5	\$ 32	\$ 95	\$ 53	\$ 15

(1) Represents loans that were modified into term loans.

(2) Other internal credit metrics may include delinquency status, geography or other factors.

(3) Direct/indirect consumer includes \$48.8 billion of securities-based lending, which is typically supported by highly liquid collateral with market value greater than or equal to the outstanding loan balance and therefore has minimal credit risk at December 31, 2023.

117 Bank of America

Commercial – Credit Quality Indicators By Vintage (1)

	Term			
	Amortized Cost Balance			
	Total as of December 31, 2023	2023	2022	2021
(Dollars in millions)				
U.S. Commercial				
Risk ratings				
Pass rated	\$ 347,563	\$ 41,842	\$ 43,290	\$ 27,738
Reservable criticized	11,368	278	1,316	708
Total U.S. Commercial	\$ 358,931	\$ 42,120	\$ 44,606	\$ 28,446
Gross charge-offs for the year ended December 31, 2023	\$ 191	\$ 5	\$ 38	\$ 29
Non-U.S. Commercial				
Risk ratings				

Pass rated	\$	122,931	\$	17,053	\$	15,810	\$	15,256	\$
Reservable criticized		1,650		50		184		294	
Total Non-U.S. Commercial	\$	124,581	\$	17,103	\$	15,994	\$	15,550	\$
Gross charge-offs for the year ended									
December 31, 2023	\$	37	\$	—	\$	—	\$	8	\$
Commercial Real Estate									
Risk ratings									
Pass rated	\$	64,150	\$	4,877	\$	16,147	\$	11,810	\$
Reservable criticized		8,728		134		749		1,728	
Total Commercial Real Estate	\$	72,878	\$	5,011	\$	16,896	\$	13,538	\$
Gross charge-offs for the year ended									
December 31, 2023	\$	254	\$	2	\$	—	\$	4	\$
Commercial Lease Financing									
Risk ratings									
Pass rated	\$	14,688	\$	4,188	\$	3,077	\$	2,373	\$
Reservable criticized		166		9		22		46	
Total Commercial Lease Financing	\$	14,854	\$	4,197	\$	3,099	\$	2,419	\$
Gross charge-offs for the year ended									
December 31, 2023	\$	2	\$	—	\$	—	\$	1	\$
U.S. Small Business Commercial ⁽¹⁾									
Risk ratings									
Pass rated	\$	9,031	\$	1,886	\$	1,830	\$	1,550	\$
Reservable criticized		384		6		64		95	
Total U.S. Small Business Commercial	\$	9,415	\$	1,892	\$	1,894	\$	1,645	\$
Gross charge-offs for the year ended									
December 31, 2023	\$	43	\$	1	\$	2	\$	2	\$
Total	\$	580,659	\$	70,323	\$	82,489	\$	61,598	\$
Gross charge-offs for the year ended									
December 31, 2023	\$	527	\$	8	\$	40	\$	44	\$

⁽¹⁾ Excludes \$3.3 billion of loans accounted for under the fair value option at December 31, 2023.

⁽²⁾ Excludes U.S. Small Business Card loans of \$9.8 billion. Refreshed FICO scores for this portfolio are \$530 million for less than 620; \$1.1 billion for greater than or equal to 620 and less than 680; \$2.7 billion for greater than or equal to 680 and less than 740; and \$5.4 billion for greater than or equal to 740.

The following tables present certain credit quality indicators for the Corporation's Consumer Real Estate, Credit Card and Other Consumer, and Commercial portfolio segment loans, which are shown on an aggregate basis at December 31, 2022.

Residential Mortgage – Credit Quality Indicators By Vintage

(Dollars in millions)	Total as of					
	December 31,					
	2022	2022	2021	2021		
Residential Mortgage						
Refreshed LTV						
Less than or equal to 90 percent	\$	215,713	\$	39,625	\$	81,437

Greater than 90 percent but less than or equal to 100 percent		1,615		950		530
Greater than 100 percent		648		374		169
Fully-insured loans		11,694		580		3,667
Total Residential Mortgage	\$	229,670	\$	41,529	\$	85,803
Residential Mortgage						
Refreshed FICO score						
Less than 620	\$	2,156	\$	377	\$	518
Greater than or equal to 620 and less than 680		4,978		1,011		1,382
Greater than or equal to 680 and less than 740		25,444		5,411		8,290
Greater than or equal to 740		185,398		34,150		71,946
Fully-insured loans		11,694		580		3,667
Total Residential Mortgage	\$	229,670	\$	41,529	\$	85,803
Gross charge-offs for the year ended December 31, 2022	\$	161	\$	—	\$	6

Home Equity - Credit Quality Indicators

(Dollars in millions)

Home Equity

Refreshed LTV

Less than or equal to 90 percent						\$
Greater than 90 percent but less than or equal to 100 percent						
Greater than 100 percent						

Total Home Equity						\$

Home Equity

Refreshed FICO score

Less than 620						\$
Greater than or equal to 620 and less than 680						
Greater than or equal to 680 and less than 740						
Greater than or equal to 740						

Total Home Equity						\$

Gross charge-offs for the year ended December 31, 2022						\$

(1) Includes reverse mortgages of \$937 million and home equity loans of \$424 million, which are no longer originated.

Credit Card and Direct/Indirect Consumer – Credit Quality Indicators By Vintage

119 Bank of America	Direct/Indirect													
Term Loans by Origination Year														
Total Direct/ Indirect as of December 31,														
(Dollars in millions)	2022		Revolving Loans		2022		2021		2020		2019			
Refreshed FICO score														
Credit Card and Direct/Indirect Consumer – Credit Quality Indicators By Vintage														
Less than 620	\$	847	\$	12	\$	237	\$	301	\$	113	\$	84	\$	
Greater than or equal to 620 and less than 680	2,521		12		1,108		Direct/Indirect 819		269		150			
Greater than or equal to 680 and less than 740	8,895		52		4,091		2,730		Term Loans by Origination Year 992		520			
Greater than or equal to 740	39,679		83		16,663		11,392		5,630		2,992			
Other internal credit	Total Direct/Indirect as of													
(Dollars in millions)	December 31, 2022		54,294		Revolving Loans 5,404		2022 259		2021 305		2020 70		2019 57	
Total credit card and other														
Refreshed FICO score														
Less than 620	\$	106,236	\$	847	\$	53,563	\$	22,358	\$	15,544	\$	7,074	\$	3,803
Greater than or equal to 620 and less than 680	2,521		12		1,108		819		269		150			
Gross charge-offs	\$	232	\$	31	\$	79	\$	24	\$	17	\$			

Greater than or equal to 680 and less than 740	8,895	52	4,091	2,730	992	520
Greater than or equal to 740	39,679	83	16,663	11,392	5,630	2,992
Other internal credit metrics (2, 3)	54,294	53,404	259	305	70	57
Total credit card and other consumer						
	\$	106,236	\$	53,563	\$	22,358
				\$	15,544	\$
					7,074	\$
						3,803
						\$
Gross charge-offs for the year ended December 31, 2022						
	\$	232	\$	7	\$	31
				\$	79	\$
					34	\$
						27
						\$

- (1) Represents TDRs that were modified into term loans.
- (2) Other internal credit metrics may include delinquency status, geography or other factors.
- (3) Direct/indirect consumer includes \$53.4 billion of securities-based lending, which is typically supported by highly liquid collateral with market value greater than or equal to the outstanding loan balance and therefore has minimal credit risk at December 31, 2022.

117 Bank of America

Commercial

– Credit

Quality

Indicators

By Vintage

Commercial – Credit Quality Indicators By Vintage ⁽¹⁾

Term Loans										
Commercial – Credit Quality Indicators By Vintage ⁽¹⁾										
Amortized Cost Basis by Origination Year										
Commercial – Credit Quality Indicators By Vintage ⁽¹⁾										
Term Loans										
Term Loans										
Term Loans										
Amortized Cost Basis by Origination Year										
Amortized Cost Basis by Origination Year										
Amortized Cost Basis by Origination Year										
(Dollars in millions)										
(Dollars in millions)										
Total as of										
December										
(Dollars in millions)	(Dollars in millions)	31,	Revolving							
		2022	2022	2021	2020	2019	2018	Prior	Loans	
U.S.										
U.S. Commercial	Commercial									
U.S. Commercial										
U.S. Commercial										
Risk ratings										
Risk ratings										
Risk ratings	Risk ratings									
Pass rated	Pass rated	\$348,447	\$ 61,200	\$39,717	\$18,609	\$16,566	\$ 8,749	\$30,282	\$173,324	
Pass rated										
Pass rated										
Reservable criticized										
Reservable criticized										
Reservable criticized	Reservable criticized	10,034	278	794	697	884	1,202	856	5,323	

Total U.S. Commercial	Total U.S. Commercial	\$358,481	\$ 61,478	\$40,511	\$19,306	\$17,450	\$ 9,951	\$31,138	\$178,647
Gross charge-offs		\$ 151	\$ 2	\$ 24	\$ 24	\$ 9	\$ 6	\$ 13	\$ 73
Total U.S. Commercial									
Total U.S. Commercial									
Gross charge-offs for the year ended									
December 31, 2022									
Gross charge-offs for the year ended									
December 31, 2022									
Gross charge-offs for the year ended									
December 31, 2022									
Non-U.S. Commercial									
Non-U.S. Commercial									
Non-U.S. Commercial	Non-U.S. Commercial								
Risk ratings	Risk ratings								
Risk ratings									
Risk ratings									
Pass rated									
Pass rated									
Pass rated	Pass rated	\$121,890	\$ 24,839	\$19,098	\$ 5,183	\$ 3,882	\$ 2,423	\$ 4,697	\$ 61,768
Reservable	Reservable								
criticized	criticized	2,589	45	395	331	325	98	475	920
Reservable criticized									
Reservable criticized									
Total Non-U.S. Commercial	Total Non-U.S. Commercial	\$124,479	\$ 24,884	\$19,493	\$ 5,514	\$ 4,207	\$ 2,521	\$ 5,172	\$ 62,688
Gross charge-offs		\$ 41	\$ —	\$ 3	\$ 1	\$ —	\$ 37	\$ —	\$ —
Total Non-U.S. Commercial									
Total Non-U.S. Commercial									
Gross charge-offs for the year ended									
December 31, 2022									
Gross charge-offs for the year ended									
December 31, 2022									
Gross charge-offs for the year ended									
December 31, 2022									
Commercial Real Estate									
Commercial Real Estate									
Commercial Real Estate	Commercial Real Estate								
Estate	Real Estate								
Risk ratings	Risk ratings								
Risk ratings									
Risk ratings									
Pass rated									
Pass rated									
Pass rated	Pass rated	\$ 64,619	\$ 15,290	\$13,089	\$ 5,756	\$ 9,013	\$ 4,384	\$ 8,606	\$ 8,481
Reservable	Reservable								
criticized	criticized	5,147	11	837	545	1,501	1,151	1,017	85
Reservable criticized									

Reservable criticized										
Total Commercial Real Estate	Total Commercial Real Estate	\$ 69,766	\$ 15,301	\$ 13,926	\$ 6,301	\$ 10,514	\$ 5,535	\$ 9,623	\$ 8,566	
Gross charge-offs		\$ 75	\$ —	\$ —	\$ 6	\$ —	\$ 26	\$ 43	\$ —	
Total Commercial Real Estate										
Total Commercial Real Estate										
Gross charge-offs for the year ended										
December 31, 2022										
Gross charge-offs for the year ended										
December 31, 2022										
Gross charge-offs for the year ended										
December 31, 2022										
Commercial Lease Financing										
Commercial Lease Financing										
Commercial	Commercial									
Lease	Lease									
Financing	Financing									
Risk ratings	Risk ratings									
Risk ratings										
Risk ratings										
Pass rated										
Pass rated										
Pass rated	Pass rated	\$ 13,404	\$ 3,255	\$ 2,757	\$ 1,955	\$ 1,578	\$ 1,301	\$ 2,558	\$ —	
Reservable criticized	Reservable criticized	240	9	35	12	71	50	63	—	
Reservable criticized										
Reservable criticized										
Total Commercial Lease Financing	Total Commercial Lease Financing	\$ 13,644	\$ 3,264	\$ 2,792	\$ 1,967	\$ 1,649	\$ 1,351	\$ 2,621	\$ —	
Gross charge-offs		\$ 8	\$ —	\$ 4	\$ —	\$ 4	\$ —	\$ —	\$ —	
Total Commercial Lease Financing										
Total Commercial Lease Financing										
Gross charge-offs for the year ended										
December 31, 2022										
Gross charge-offs for the year ended										
December 31, 2022										
Gross charge-offs for the year ended										
December 31, 2022										
U.S. Small Business										
Commercial ⁽²⁾										
U.S. Small Business										
Commercial ⁽²⁾										
U.S. Small Business	U.S. Small Business									
Commercial ⁽²⁾	Commercial ⁽²⁾									
Risk ratings	Risk ratings									
Risk ratings										

Risk ratings																	
Pass rated																	
Pass rated																	
Pass rated	Pass rated	\$	8,726	\$	1,825	\$	1,953	\$	1,408	\$	864	\$	624	\$	1,925	\$	127
Reservable	Reservable																
criticized	criticized	329	11	35	48	76	51	105	3								
Reservable criticized																	
Reservable criticized																	
Total U.S. Small Business Commercial	Total U.S. Small Business Commercial	\$	9,055	\$	1,836	\$	1,988	\$	1,456	\$	940	\$	675	\$	2,030	\$	130
Gross charge-offs		\$	31	\$	—	\$	1	\$	11	\$	4	\$	1	\$	6	\$	8
Total U.S. Small Business Commercial																	
Total U.S. Small Business Commercial																	
Gross charge-offs for the year ended																	
December 31, 2022																	
Gross charge-offs for the year ended																	
December 31, 2022																	
Gross charge-offs for the year ended																	
December 31, 2022																	
Total	Total	\$575,425	\$106,763	\$78,710	\$34,544	\$34,760	\$20,033	\$50,584	\$250,031								
Total gross charge-offs		\$	306	\$	2	\$	32	\$	42	\$	17	\$	70	\$	62	\$	81
Total																	
Total																	
Gross charge-offs for the year ended																	
December 31, 2022																	
Gross charge-offs for the year ended																	
December 31, 2022																	
Gross charge-offs for the year ended																	
December 31, 2022																	

(1) Excludes \$5.4 billion

\$5.4 billion of loans accounted for under the fair value option at December 31, 2022.

(2) Excludes U.S. Small Business Card loans of \$8.5 billion.

Refreshed FICO scores for this portfolio are \$297 million for less than 620; \$859 million for greater than or equal to 620 and less than 680; \$2.4 billion for greater than or equal to 680 and less than 740; and \$5.4 billion for greater than or equal to 740.

(1) Excludes \$5.4 billion of loans accounted for under the fair value option at December 31, 2022.

(2) Excludes U.S. Small Business Card loans of \$8.5 billion. Refreshed FICO scores for this portfolio are \$297 million for less than 620; \$859 million for greater than or equal to 620 and less than 680; \$2.4 billion for greater than or equal to 680 and less than 740; and \$5

The following tables present certain credit quality indicators for the Corporation's Consumer Real Estate, Credit Card and Other Consumer, and Commercial portfolio segments, which are shown on an aggregate basis at December 31, 2021.

Residential Mortgage – Credit Quality Indicators By Vintage

(Dollars in millions)	Total as of		
	December 31,		
	2021	2021	2020

Residential Mortgage					
Refreshed LTV					
Less than or equal to 90 percent	\$	206,562	\$	87,051	\$ 43,597
Greater than 90 percent but less than or equal to 100 percent		1,938		1,401	331
Greater than 100 percent		759		520	112
Fully-insured loans		12,704		3,845	3,486
Total Residential Mortgage	\$	221,963	\$	92,817	\$ 47,526
Residential Mortgage					
Refreshed FICO score					
Less than 620	\$	2,451	\$	636	\$ 442
Greater than or equal to 620 and less than 680		5,199		1,511	1,123
Greater than or equal to 680 and less than 740		24,532		8,822	5,454
Greater than or equal to 740		177,077		78,003	37,021
Fully-insured loans		12,704		3,845	3,486
Total Residential Mortgage	\$	221,963	\$	92,817	\$ 47,526

Home Equity - Credit Quality Indicators

				Home Equity	
		Total			
(Dollars in millions)					
Home Equity					
Refreshed LTV					
Less than or equal to 90 percent		\$	27,594	\$	
Greater than 90 percent but less than or equal to 100 percent			130		
Greater than 100 percent			211		
Total Home Equity		\$	27,935	\$	
Home Equity					
Refreshed FICO score					
Less than 620		\$	893	\$	
Greater than or equal to 620 and less than 680			1,434		
Greater than or equal to 680 and less than 740			4,625		
Greater than or equal to 740			20,983		
Total Home Equity		\$	27,935	\$	

(1) Includes reverse mortgages of \$1.3 billion and home equity loans of \$582 million, which are no longer originated.

119 Bank of America

Credit Card and Direct/Indirect Consumer – Credit Quality Indicators By Vintage

		Direct/Indirect											
		Term Loans by Origination Year											
		Total Direct/Indirect as of											
(Dollars in millions)		December 31, 2021	Revolving Loans	2021	2020	2019	2018						
Refreshed FICO score													
Less than 620	\$	685	\$	13	\$	179	\$	115	\$	129	\$	79	\$

Greater than or equal to 620 and less than 680	2,313	14	1,170	414	313	148							
Greater than or equal to 680 and less than 740	8,530	60	4,552	1,659	1,126	466							
Greater than or equal to 740	37,164	94	15,876	8,642	6,465	2,679							
Other internal credit metrics (2, 3)	54,868	54,173	283	53	77	75							
Total credit card and other													
consumer	\$	103,560	\$	54,354	\$	22,060	\$	10,883	\$	8,110	\$	3,447	\$

⁽¹⁾ Represents TDRs that were modified into term loans.

⁽²⁾ Other internal credit metrics may include delinquency status, geography or other factors.

⁽³⁾ Direct/indirect consumer includes \$54.2 billion of securities-based lending, which is typically supported by highly liquid collateral with market value greater than or equal to the outstanding loan balance and therefore has minimal credit risk at December 31, 2021.

Commercial – Credit Quality Indicators By Vintage ⁽¹⁾

		Amortized Cost			
(Dollars in millions)	Total as of December 31, 2021	2021	2020	2019	
U.S. Commercial					
Risk ratings					
Pass rated	\$ 315,618	\$ 55,862	\$ 25,012	\$ 23,411	
Reservable criticized	10,318	598	687	1,000	
Total U.S. Commercial	\$ 325,936	\$ 56,460	\$ 25,699	\$ 24,411	
Non-U.S. Commercial					
Risk ratings					
Pass rated	\$ 110,787	\$ 25,749	\$ 8,703	\$ 7,411	
Reservable criticized	2,479	223	324	411	
Total Non-U.S. Commercial	\$ 113,266	\$ 25,972	\$ 9,027	\$ 7,822	
Commercial Real Estate					
Risk ratings					
Pass rated	\$ 55,511	\$ 14,402	\$ 7,244	\$ 11,411	
Reservable criticized	7,498	277	990	2,411	
Total Commercial Real Estate	\$ 63,009	\$ 14,679	\$ 8,234	\$ 13,822	
Commercial Lease Financing					
Risk ratings					
Pass rated	\$ 14,438	\$ 3,280	\$ 2,485	\$ 2,411	
Reservable criticized	387	25	18	11	
Total Commercial Lease Financing	\$ 14,825	\$ 3,305	\$ 2,503	\$ 2,422	
U.S. Small Business Commercial (2)					
Risk ratings					
Pass rated	\$ 11,618	\$ 4,257	\$ 2,922	\$ 1,411	
Reservable criticized	433	12	29	11	
Total U.S. Small Business Commercial	\$ 12,051	\$ 4,269	\$ 2,951	\$ 1,422	
Total	\$ 529,087	\$ 104,685	\$ 48,414	\$ 49,066	

⁽¹⁾ Excludes \$7.2 billion of loans accounted for under the fair value option at December 31, 2021.

⁽²⁾ Excludes U.S. Small Business Card loans of \$7.1 billion. Refreshed FICO scores for this portfolio are \$192 million for less than 620; \$618 million for greater than or equal to 620 and less than 680; \$1.9 billion for greater than or equal to 680 and less than 740; and \$4.4 billion for greater than or equal to 740.

During 2022, 2023, commercial credit quality showed some signs of stabilization. Commercial reservable criticized utilized exposure decreased increased to \$23.3 billion at December 31, 2023 from \$19.3 billion at December 31, 2022 from \$22.4 billion (to 3.12 3.74 percent from 3.91 3.12 percent of total commercial reservable utilized exposure) at December 31, 2021 December 31, 2022, which was broad-based across industries. primarily driven by commercial real estate and U.S. commercial.

Loan Modifications to Borrowers in Financial Difficulty

Troubled Debt Restructurings As part of its credit risk management, the Corporation may modify a loan agreement with a borrower experiencing financial difficulties through a refinancing or restructuring of the borrower’s loan agreement (modification programs).

The Corporation uses various indicators to identify borrowers in financial difficulty. Generally, consumer loan borrowers that are delinquent and commercial loan borrowers that are currently nonperforming or are more-likely-than-not to become nonperforming in the next six months at the modification date are the primary criteria used to identify borrowers who are experiencing financial difficulty.

If a borrower is experiencing financial difficulty and their loan is modified, and they are current at the time of modification, the loan generally remains a performing loan as long as there is demonstrated performance prior to the modification and payment in full under the modified terms is expected. Otherwise, the loan is placed on nonaccrual status and reported as nonperforming, excluding fully-insured consumer real estate loans, until there is sustained repayment performance for a reasonable period.

Modifications that do not impact the contractual payment terms, such as covenant waivers, insignificant payment deferrals, and any modifications made to loans carried at fair value, LHFS and leases are not included in the disclosures.

Consumer Real Estate

Modifications of The following modification programs are offered for consumer real estate loans are classified as TDRs to borrowers experiencing financial difficulties. These modifications represented 0.26 percent and 0.34 percent of outstanding residential mortgage and home equity loans at December 31, 2023.

Forbearance and Other Payment Plans: Forbearance plans generally consist of the Corporation suspending the borrower’s payments for a defined period with those payments then due at the conclusion of the forbearance period. The aging status of a loan is generally frozen when it enters into a forbearance plan. Alternatively, the Corporation may offer the borrower a payment plan, which allows the borrower to repay past due amounts through payments over a defined period. At December 31, 2023, the amortized cost of residential mortgage loans that were modified through these plans was \$429 million. The amortized cost of home equity loans that were modified through these plans during the same periods was \$57 million. The weighted-average duration of residential mortgage loan modifications was approximately 8 months for 2023. The weighted-average duration for home equity loan modifications was approximately 9 months. The total forborne payments for residential mortgage loan modifications was \$19 million for 2023. For the same period, the total forborne payments for home equity modifications was \$6 million. If a borrower is experiencing financial difficulties unable to fulfill their obligations under the forbearance plans, they may be offered a trial or permanent modification.

Trial Modifications: Trial modification plans generally consist of the Corporation offering a borrower modified loan terms that repayment terms and not reaffirmed by the borrower were included in TDRs at December 31, 2022, of which \$53 million were classified as nonperforming and \$33 million were loans fully insured.

At December 31, 2022 and 2021, remaining commitments to lend additional funds to debtors whose terms at December 31, 2023. Borrowers with a home equity line of credit that received a forbearance plan could have been modified all or a portion of their lines reinstated in the future if they cure their payment default and meet certain Bank conditions.

Chapter 7 Discharges: If a borrower’s consumer real estate TDR obligation is discharged in a Chapter 7 bankruptcy proceeding, the contractual payment terms of the loan are not modified, although they can no longer be enforced against the individual borrower. The Corporation’s ability to collect amounts due on the loan is limited to enforcement against the property through the foreclosure and sale of the collateral. The Corporation will only pursue foreclosure upon default by the borrower, and otherwise will recover pursuant to the loan terms or at the time of a sale. Residential mortgage and home equity loans that were not significant. granted a Chapter 7 discharge were insignificant for 2023.

The Corporation tracks the performance of modified loans to assess effectiveness of modification programs. Defaults of modified residential mortgage and home equity loans since January 1, 2023 totaled \$287 million during 2023. The following table provides aging information as of December 31, 2023 for consumer real estate loans modified since January 1, 2023.

reduce their contractual payments to payments during the trial period and for 2023, the amortized cost of residential loans entering trial modifications during

Permanent Modifications: Permanent Concessions trial modification and have directly to a permanent modification modified in more than one manner. I modification may also include reduction interest amounts principal and/or interest loan term. The combinations thereof. modifications with certain borrowers to four-month period during which the anticipated modified payment terms. I residential mortgage loans that were were granted a permanent modification permanent modifications vary widely mortgage and home equity loans. The 9.9 years for 2023, while the weighted average term extension of permanent reduction was 2.74 percent. Principal classified as TDRs when the trial offered permanent modification. payment default Consumer For consumer real estate bankruptcy with received a forbearance

121 Bank of America

Consumer Real Estate - Payment Status of Modifications to Borrowers in Financial Difficulty (1)

	Current	
(Dollars in millions)		
Residential mortgage	\$	334 \$

Home equity		58
Total	\$	392 \$

(2) Excludes trial modifications and Chapter 7 discharges

Consumer real estate foreclosed properties totaled \$83 million and \$121 million at December 31, 2023 and \$101 million at December 31, 2022 and 2021. 2022. The carrying value of consumer real estate loans, including fully-insured loans, for which formal foreclosure proceedings were in process at December 31, 2022 December 31, 2023 and 2021 2022 was \$871 million \$633 million and \$1.1 billion \$871 million. During 2022 2023 and 2021, 2022, the Corporation reclassified \$190 million \$106 million and \$64 million \$190 million of consumer real estate loans to foreclosed properties or, for properties acquired upon foreclosure of certain government-guaranteed loans (principally FHA-insured loans), to other assets. The reclassifications represent non-cash investing activities and, accordingly, are not reflected in the Consolidated Statement of Cash Flows.

Credit Card and Other Consumer

Credit card and other consumer loans are primarily modified by placing the customer on a fixed payment plan with a significantly reduced fixed interest rate, with terms ranging from 6 months to 72 months. As of December 31, 2023, substantially all payment plans provided to customers had a 60-month term. In certain circumstances, the Corporation will forgive a portion of the outstanding balance if the borrower makes payments up to a set amount. The Corporation makes modifications directly with borrowers for loans held by the Corporation (internal programs) as well as through third-party renegotiation agencies that provide solutions to customers' entire unsecured debt structures (external programs). The December 31, 2023 amortized cost of credit card and other consumer loans that were modified through these programs during 2023 was \$598 million. The weighted-average interest rate reduction for the modifications was 19.02 percent, and principal forgiveness was \$61 million during 2023.

The Corporation tracks the performance of modified credit card and other consumer loans to borrowers who were 30-89 days past due, and \$48 million of outstanding credit card and other consumer loans were modified in 2023.

Commercial Loans

Modifications of loans to commercial borrowers while providing borrowers with an option for modification is unique, reflects the Corporation's risk exposure. Commercial loan modifications involve the Bank forbearing its contract of time. Reductions in interest rates may occur in connection with foreclosure, and the table below provides the ending amortized cost of modified commercial loans.

Commercial Loans - Modifications to Borrowers in Financial Difficulty

(Dollars in Millions)	Term Extension		Forbearance	
U.S. commercial	\$	1,016	\$	
Non-U.S. commercial		136		
Commercial real estate		1,656		
Total	\$	2,808	\$	

Term extensions granted increased the weighted-average life of the impacted loans by 1.6 years during 2023. The deferral period for loan payments can vary, but are mostly in the range of 8 months to 24 months. The weighted-average interest rate reduction was 0.57 percent in 2023. Modifications of loans to troubled borrowers for Commercial Lease Financing and U.S. Small Business Commercial were not significant during 2023.

The Corporation tracks the performance of loans modified in 2023 were \$159 million of commercial loans modified in 2023.

Commercial - Payment Status of Modified Loans to Borrowers in Financial Difficulty

(Dollars in millions)	Current		30-89 Days Past Due	
U.S. Commercial	\$	1,015	\$	3
Non-U.S. Commercial		157		3
Commercial Real Estate		1,608		122
Total	\$	2,780	\$	128

For 2023, the Corporation had commitments to lend \$1.2 billion to commercial borrowers experiencing financial difficulty whose loans were modified during the period.

Prior-period Troubled Debt Restructuring Disclosures

Prior to adopting the new accounting standard on loan modifications, the Corporation accounted for modifications of loans to borrowers experiencing financial difficulty as TDRs, when the modification resulted in a concession. The following discussion reflects loans that were considered TDRs prior to January 1, 2023. For more information on TDR accounting policies, see Note 1 – Summary of Significant Accounting Principles.

Consumer Real Estate

The table below presents the December 31, 2022 modification interest rates of consumer real estate portfolio segment. Consumer Real Estate portfolio segment had previously been classified as TDR when the trial offer is made and completed modification.

At December 31, 2022, remaining consumer real estate TDR were not significant.

Consumer Real Estate – TDRs Entered into During 2022 and 2021

		Pre-Modification	Post-Modification
	Unpaid Principal Balance	Carrying Value	Interest Rate
Consumer Real Estate – TDRs Entered into During 2022 and 2021			
	Unpaid Principal Balance		
	Unpaid Principal Balance		
	Unpaid Principal Balance		
	Unpaid Principal Balance		
	Unpaid Principal Balance	Carrying Value	Interest Rate
	Unpaid Principal Balance	Value	Rate

(Dollars in millions)

(Dollars in millions)

(Dollars in millions)	(Dollars in millions)

		December 31, 2022						December 31, 2022					
Residential mortgage	Residential mortgage	\$ 1,144	\$ 1,015	3.52	%	3.40	%	Residential mortgage	\$ 1,144	\$ 1,015	3.52	3.52	3.40
Home equity	Home equity	238	191	4.61		4.65							
Total	Total	\$ 1,382	\$ 1,206	3.71		3.62							

December 31, 2021

December 31, 2021

December 31, 2021

December 31, 2021

Residential Residential							Residential							
mortgage	mortgage	\$ 891	\$ 788	3.48	%	3.38	% mortgage	\$ 891	\$ 788	3.48	3.48	%	3.38	%
Home	Home													
equity	equity	107	77	3.60		3.59								
Total	Total	\$ 998	\$ 865	3.49		3.41								

December 31, 2020

Residential mortgage	\$ 732	\$ 646	3.66 %	3.59 %
Home equity	87	69	3.67	3.61
Total	\$ 819	\$ 715	3.66	3.59

(b) The post-modification interest rate reflects the interest rate applicable only to permanently completed modifications, which exclude loans that are in a trial modification period.

The table below presents the December 31, 2022, and 2021 and 2020 carrying value for consumer real estate loans that were modified in a TDR during 2022 2021 and 2020.

**Consumer
Real Estate –
Modification Programs**

Consumer Real Estate – Modification Programs

Consumer Real Estate – Modification Programs

Year	TDRs Entered into During
2000	1
2001	1
2002	1
2003	1
2004	1
2005	1
2006	1
2007	1
2008	1
2009	1
2010	1
2011	1
2012	1
2013	1
2014	1
2015	1
2016	1
2017	1
2018	1
2019	1
2020	1
2021	1
2022	1
2023	1
2024	1
2025	1
2026	1
2027	1
2028	1
2029	1
2030	1
2031	1
2032	1
2033	1
2034	1
2035	1
2036	1
2037	1
2038	1
2039	1
2040	1
2041	1
2042	1
2043	1
2044	1
2045	1
2046	1
2047	1
2048	1
2049	1
2050	1
2051	1
2052	1
2053	1
2054	1
2055	1
2056	1
2057	1
2058	1
2059	1
2060	1
2061	1
2062	1
2063	1
2064	1
2065	1
2066	1
2067	1
2068	1
2069	1
2070	1
2071	1
2072	1
2073	1
2074	1
2075	1
2076	1
2077	1
2078	1
2079	1
2080	1
2081	1
2082	1
2083	1
2084	1
2085	1
2086	1
2087	1
2088	1
2089	1
2090	1
2091	1
2092	1
2093	1
2094	1
2095	1
2096	1
2097	1
2098	1
2099	1
2100	1
2101	1
2102	1
2103	1
2104	1
2105	1
2106	1
2107	1
2108	1
2109	1
2110	1
2111	1
2112	1
2113	1
2114	1
2115	1
2116	1
2117	1
2118	1
2119	1
2120	1
2121	1
2122	1
2123	1
2124	1
2125	1
2126	1
2127	1
2128	1
2129	1
2130	1
2131	1
2132	1
2133	1
2134	1
2135	1
2136	1
2137	1
2138	1
2139	1
2140	1
2141	1
2142	1
2143	1
2144	1
2145	1
2146	1
2147	1
2148	1
2149	1
2150	1
2151	1
2152	1
2153	1
2154	1
2155	1
2156	1
2157	1
2158	1
2159	1
2160	1
2161	1
2162	1
2163	1
2164	1
2165	1
2166	1
2167	1
2168	1

Consumer Real Estate – TDRs
Entering Payment Default that
were Modified During the
Preceding 12 Months

Consumer
Real
Estate –
TDRs
Entering
Payment
Default
that were
Modified
During the
Preceding
12 Months

Consumer Real Estate –
TDRs Entering Payment
Default that were
Modified During the
Preceding 12 Months

(Dollars in millions) (Dollars in millions) 2022 2021 2020

(Dollars in millions)

(Dollars in millions)

Modifications under government
programs

Modifications under government
programs

Modifications under government programs	Modifications under government programs	\$ —	\$ 4	\$ 16

Modifications under proprietary programs	Modifications under proprietary programs	189	128	51

Modifications under proprietary
programs

Modifications under proprietary
programs

Loans discharged in Chapter 7
bankruptcy ⁽¹⁾

Loans discharged in Chapter 7
bankruptcy ⁽¹⁾

Loans discharged in Chapter 7 bankruptcy ⁽¹⁾	Loans discharged in Chapter 7 bankruptcy ⁽¹⁾	2	9	19

Trial modifications ⁽²⁾	Trial modifications ⁽²⁾	25	19	54

Trial modifications ⁽²⁾

Trial modifications ⁽²⁾

Total modifications	Total modifications	\$216	\$160	\$140

Total modifications

Total modifications

⁽¹⁾ Includes loans discharged in Chapter 7 bankruptcy with no change in repayment terms that are classified as TDRs.

⁽²⁾ Includes trial modification offers to which the customer did not respond.

Credit Card and Other Consumer

The Corporation seeks to assist customers who are experiencing financial difficulty by modifying loans while ensuring compliance with federal and local laws and guidelines. Credit card and other consumer loan modifications generally involve reducing the interest rate on the account, placing the customer on a fixed payment plan not exceeding 60 months and canceling the customer's available line of credit, all of which are considered TDRs. The Corporation makes loan modifications directly with borrowers for debt held only by the Corporation (internal programs). Additionally, the Corporation makes loan modifications for borrowers working with third-party renegotiation

The table below provides information on the Corporation's Credit Card and Other Consumer TDR portfolio including the December 31, 2022, 2021 and 2020 unpaid principal modified in TDRs during 2022 2021 and 2020.

2021.

agencies that provide solutions to customers with unsecured consumer loans that have been placed on nonaccrual status no later than

Credit Card and Other Consumer – TDRs Entered into During 2022, 2021 and 2020**Credit Card and Other Consumer – TDRs Entered into During 2022 and 2021****Credit Card and Other Consumer – TDRs Entered into During 2022 and 2021****Credit Card and Other Consumer – TDRs Entered into During 2022 and 2021**

		Unpaid		Pre-Modification		Post-Modification	
		Principal	Carrying	Interest		Interest	
		Balance	Value ⁽¹⁾	Rate		Rate	
(Dollars in millions)	(Dollars in millions)	December 31, 2022					
(Dollars in millions)							
(Dollars in millions)							
Credit card	Credit card	\$ 284	\$ 293	22.34	%	3.89	%
Credit card							
Credit card							
Direct/Indirect consumer							
Direct/Indirect consumer							
Direct/Indirect consumer	Direct/Indirect consumer	6	5	5.51		5.50	
Total	Total	\$ 290	\$ 298	22.06		3.92	
Total							
December 31, 2021							
Total							
December 31, 2021							
December 31, 2021							
December 31, 2021							
Credit card	Credit card	\$ 237	\$ 248	18.45	%	4.09	%
Credit card							
Credit card							
Direct/Indirect consumer							
Direct/Indirect consumer							
Direct/Indirect consumer	Direct/Indirect consumer	23	16	5.88		5.88	
Total	Total	\$ 260	\$ 264	17.68		4.20	
December 31, 2020							
Credit card		\$ 269	\$ 277	18.16	%	5.63	%

Direct/Indirect consumer		52	37	5.83	5.83
Total					
Total	Total	\$ 321	\$ 314	16.70	5.65

(1) Includes accrued interest and fees.

The table below presents the December 31, 2022, and 2021 and 2020 carrying value for Credit Card and Other Consumer loans that were modified in a TDR during 2022 2021

Credit Card and Other Consumer – TDRs by Program Type at December 31 (1)

Credit Card and Other Consumer – TDRs by Program Type (1)					
Credit Card and Other Consumer – TDRs by Program Type (1)					
Credit Card and Other Consumer – TDRs by Program Type (1)					
(Dollars in millions) (Dollars in millions) 2022 2021 2020					
(Dollars in millions)					
(Dollars in millions)					
Internal programs					
Internal programs					
Internal programs	Internal programs	\$251	\$214	\$225	
External programs	External programs	44	44	73	
External programs					
External programs					
Other					
Other					
Other	Other	3	6	16	
Total	Total	\$298	\$264	\$314	
Total					
Total					

(1) Includes accrued interest and fees.

Credit card and other consumer loans are deemed to be in payment default during the quarter in which a borrower misses the second of two consecutive payments. Payment defaults are one of the factors considered when projecting future cash flows in the calculation of the allowance for loan and lease losses for credit card and other consumer. Based on historical experience, the Corporation estimates that 15 percent of new credit card TDRs and 15 percent of new direct/indirect consumer TDRs may be in payment default within 12 months after modification.

Commercial Loans

Modifications of loans to conform to the Corporation's loss reduction strategy, often to address financial difficulties, often to address individual circumstances of the borrower, often to address maturity at a concessionary (but not less than) rate to benefit the borrower while not

Reductions in interest rates are rare. Instead, the interest rates are typically increased, although the increased rate may not represent a market rate of interest. Infrequently, concessions may also include principal forgiveness in connection with foreclosure, short sale or other settlement agreements leading to termination or sale of the loan.

At the time of restructuring, the loans are remeasured to reflect the impact, if any, on projected cash flows resulting from the modified terms. If a portion of the loan is deemed to be uncollectible, a charge-off may be recorded at the time of restructuring. Alternatively, a charge-off may have already been recorded in a previous period such that no charge-off is required at the time of modification.

During 2022, the carrying value of the Corporation's commercial loans that were modified as TDRs was \$1.9 billion compared to \$1.3 billion and \$1.2 billion for in 2021 and 2020.. At December 31, 2022December 31, 2022 and2021, 2021 and 2020, the Corporation had commitments to lend \$358 million, and \$283 million and \$402 million to commercial borrowers whose loans were classified as TDRs. The balance of commercial TDRs in payment default was \$105 million, and \$262 million at December 31, 2022 and \$218 million at December 31, 2022, 2021 and 2020..

Loans Held-for-sale

The Corporation had LHFS of \$6.0 billion and \$6.9 billion at December 31, 2023 and \$15.6 billion at December 31, 2022 and 2021.2022. Cash and non-cash proceeds from sales and paydowns of loans originally classified as LHFS were \$32.0 billion \$16.3 billion, \$32.0 billion and \$43.6 billion for 2023, 2022 and \$20.1 billion for 2022, 2021, and 2020, respectively. respectively. Cash used for originations and purchases of LHFS totaled \$24.9 billion \$15.6 billion, \$24.9 billion and \$37.3 billion and \$19.7 billion for 2023, 2022 2021 and 2020,2021, respectively. Also included were non-cash net transfers into LHFS of \$1.9 billion \$632 million during 2023, \$1.9 billion during 2022, primarily driven by the transfer of a \$1.6 billion affinity card loan portfolio to held for sale that was sold in October 2022, and \$808 million \$808 million during 2021.2021.

the quantitative methods or the economic assumptions. The Corporation incorporates forward-looking information through the use of several macroeconomic scenarios in determining the

Accrued Interest Receivable

Accrued interest receivable for loans : \$3.8 billion \$4.5 billion and \$2.2 billion Sheet.

Outstanding credit card loan be nonperforming but are charged off no after receipt of notification of death c reversed \$332 million \$584 million an which it was originally recorded upon

For the outstanding residential r nonperforming during 2022 2023 an nonperforming was not significant. For Significant Accounting Principles.

Allowance for Credit Losses

The allowance for credit losses is e historical loss experience, the current reserves cover losses that are expect

weighted economic outlook over the forecasted life of the assets. These scenarios include key macroeconomic variables such as gross domestic product, unemployment rate, real estate prices and corporate bond spreads. The scenarios that are chosen each quarter and the weighting given to each scenario depend on a variety of factors including recent economic events, leading economic indicators, internal and third-party economist views, and industry trends. For more information on the Corporation's credit loss accounting policies including the allowance for credit losses, see Note 1 – Summary of Significant Accounting Principles.

The December 31, 2022 December 31, 2023 estimate for allowance for credit losses was based on various economic scenarios, including a baseline scenario derived from consensus estimates, an adverse scenario reflecting an extended moderate recession, a downside scenario reflecting persistent inflation and interest rates above the baseline scenario, a tail risk scenario similar to the severely adverse scenario used in stress testing and an upside scenario that considers the potential for improvement above the baseline scenario. The overall weighted economic outlook is weighted 95 percent towards a recessionary environment in 2023, with continued inflationary pressures leading to lower GDP and higher unemployment rate expectations as of the above scenarios has improved compared to the prior year. weighted economic outlook estimated as of December 31, 2022. The weighted economic outlook assumes that the U.S. average unemployment rate will be above five and a half percent by the fourth quarter of 2023 and will slowly decline to just below five percent by the fourth quarter of 2024. Additionally, in 2024 and will remain near this level through the fourth quarter of 2025. The weighted economic outlook assumes a mild recession in the first half of 2024 with U.S. real gross domestic product is forecasted to contract grow at 0.4 0.3 percent and grow at 1.2 1.4 percent year-over-year in the fourth quarters of 2023 2024 and 2024. For comparison, as of December 31, 2021, the weighted economic outlook for the U.S. average unemployment rate was forecasted to be just above five percent by the fourth quarter of 2022 and slowly decline to just under five percent by the fourth quarter of 2023 and U.S. gross domestic product was forecasted at 2.1 percent and 1.9 percent year-over-year in the fourth quarters of 2022 and 2023. 2025.

The allowance for credit losses increased \$329 million from December 31, 2022 to \$14.6 billion at December 31, 2022 was \$14.2 billion December 31, 2023, an which included a \$1.3 billion reserve increase of \$379 related to the consumer portfolio and a \$942 million compared reserve decrease related

to December 31, 2021. the common consumer portfolio primarily due to outlook, asset quality, partially offset macroeconomic conditions applicable remove the recognition and measure losses by \$243 million on January 1, million \$660 million in the allowance f unfunded lending commitments. The i consumer portfolios of \$341 million, a portfolio of \$139 million. The provision to an expense of \$2.5 billion in 2022 t 2023 was driven by the Corporation's 2020. asset quality, partially offset t portfolio. The increase in the provisio outlook, partially offset by reduced macroeconomic outlook and credit qu

Outstanding loans and leases exc primarily 2023 driven by commercial c which

123 Bank of America

increased \$21.0 billion, primarily \$3.7 billion driven by credit card, and residential mortgage. partially offset by declines in securities-based lending. Commercial loans increased \$6.5 billion driven by broad-based growth.

The changes in the allowance for table below. following table.

Consumer
Real Estate

(Dollars in millions)

125 Bank of America	and lease losses, January 1	\$	557
Loans and leases charged off			(206)
Recoveries of loans and leases previously charged off			224
Net charge-offs			18
Provision for loan and lease losses			(164)
Other			9
Allowance for loan and lease losses, December 31		Consumer	420
		Real Estate	96
Reserve for unfunded lending commitments, January 1			420
Provision for loan and lease losses			(67)
Allowance for loan and lease losses, December 31			353
Reserve for unfunded lending commitments, December 31			353
Loans and leases charged off			(514)
Recoveries of loans and leases previously charged off			146
Net charge-offs			43
Allowance for loan and lease losses, January 1			858
Provision for loan and lease losses			(19)
Loans and leases charged off			(78)
Other			9
Recoveries of loans and leases previously charged off			225
Allowance for loan and lease losses, December 31			386
Net charge-offs			147
Reserve for unfunded lending commitments, January 1			94
Provision for loan and lease losses			(449)
Provision for unfunded lending commitments			(12)
Other			1
Reserve for unfunded lending commitments, December 31			82
Allowance for loan and lease losses, December 31			557
Allowance for credit losses, December 31			468
Reserve for unfunded lending commitments, January 1			137
Provision for unfunded lending commitments			(41)
Other			—
Allowance for loan and lease losses, January 1			557
Reserve for unfunded lending commitments, December 31			(206)
Allowance for credit losses, December 31			553
Loans and leases charged off			18
Net charge-offs			18
Provision for loan and lease losses			(164)
Allowance for loan and lease losses, January 1			440
Other			9
Loans and leases charged off			(98)
Allowance for loan and lease losses, December 31			401
Recoveries of loans and leases previously charged off			189
Reserve for unfunded lending commitments, January 1			189
Net charge-offs			—
Provision for unfunded lending commitments			(3)
Provision for loan and lease losses			307
Other			1
Other			8
Reserve for unfunded lending commitments, December 31			94
Allowance for loan and lease losses, December 31			858
Allowance for credit losses, December 31			514
Reserve for unfunded lending commitments, January 1			119
Provision for unfunded lending commitments			18
Reserve for unfunded lending commitments, December 31			137
Allowance for loan and lease losses, January 1			858
Allowance for credit losses, December 31			995
Loans and leases charged off			(78)
Recoveries of loans and leases previously charged off			225
Net charge-offs			147
Provision for loan and lease losses			(449)
Other			1
Allowance for loan and lease losses, December 31			557
Reserve for unfunded lending commitments, January 1			137
Provision for unfunded lending commitments			(41)
Other			—
Reserve for unfunded lending commitments, December 31			96
Allowance for credit losses, December 31			653

NOTE 6 Securitizations and Other Variable Interest Entities

The Corporation utilizes VIEs in the ordinary course of business to support its own and its customers' financing and investing needs. The Corporation routinely securitizes loans and debt securities using VIEs as a source of funding for the Corporation and as a means of transferring the economic risk of the loans or debt securities to third parties. The assets are transferred into a trust or other securitization vehicle such that the assets are legally isolated from the creditors of the Corporation and are not available to satisfy its obligations. These assets can only be used to settle obligations of the trust or other securitization vehicle. The Corporation also administers, structures or invests in other VIEs including CDOs, investment vehicles and other entities. For more information on the Corporation's use of VIEs, see Note 1 – Summary of Significant Accounting Principles.

The tables in this Note present the assets and liabilities of consolidated and unconsolidated VIEs at December 31, 2022 December 31, 2023 and 2021 2022 in situations where the Corporation has continuing a loan or security interest and involvement with transferred assets or if the Corporation

involvement with consolidated VIEs and unconsolidated VIEs in which the Corporation holds a variable interest. VIEs. The Corporation's maximum loss exposure is based on the unlikely event that all of the assets in the VIEs become worthless and incorporates not only potential losses associated with assets recorded on the Consolidated Balance Sheet but also potential losses associated with off-balance sheet commitments, such as unfunded liquidity commitments and other contractual arrangements. The Corporation's maximum loss exposure does not include losses previously recognized through write-downs of assets.

The Corporation invests in ABS, CLOs and other similar investments issued by third-party VIEs with which it has no other form of involvement and other than a loan or debt security issued by the VIE. In addition, the Corporation also enters into certain commercial lending arrangements that may also incorporate utilize VIEs for activities secondary to the use of VIEs, lending arrangement, for example to hold collateral. The Corporation's maximum loss exposure to these VIEs is the investment balances. These securities and loans are included in Note 4 – Securities or Note 5 – Outstanding Loans and Leases and Allowance for Credit Losses. Losses In addition, and are not included in the Corporation has used VIEs in connection with its funding activities. following tables.

The Corporation did not provide financial support to consolidated or unconsolidated VIEs during 2023, 2022 and

2021 and 2020 that it was not previously contractually required to provide, nor does it intend to do so.

The Corporation had liquidity commitments, including written put options and collateral value guarantees, with certain unconsolidated VIEs of \$989 million and \$978 million at December 31, 2023 and \$968 million at December 31, 2022 and 2021. 2022.

insured FHA-insured and U.S. Depart

First-lien Mortgage Securitizations

As part of its mortgage banking activities, the Corporation securitizes a portion of the first-lien residential mortgage loans it originates or purchases from third parties, generally in the form of residential mortgage-backed securities (RMBS) guaranteed by government-sponsored enterprises, FNMA and FHLMC (collectively the GSEs), or the Government National Mortgage Association (GNMA) primarily in the case of FHA-

guaranteed mortgage loans. Securitization usually occurs in conjunction with or shortly after origination or purchase, and the Corporation may also securitize loans held in its residential mortgage portfolio. In addition, the Corporation may, from time to time, securitize commercial mortgages it originates or purchases from other entities. The Corporation typically services the loans it securitizes. Further, the Corporation may retain beneficial interests in the securitization trusts including senior and subordinate securities and equity tranches issued by the trusts. Except as described in Note 12 – Commitments and Contingencies, the Corporation does not provide guarantees or recourse to the securitization trusts other than standard representations and warranties.

The table below summarizes select information related to first-lien mortgage securitizations for 2023, 2022 2021 and 2020. 2021.

First-lien Mortgage Securitizations

First-lien Mortgage Securitizations	
Residential Mortgage -	
Agency	Commercial Mortgage
First-lien Mortgage Securitizations	
Residential Mortgage -	
Agency	

Residential Mortgage - Agency							
Residential Mortgage - Agency							
(Dollars in millions)							
(Dollars in millions)							
(Dollars in millions)	(Dollars in millions)	2022	2021	2020	2022	2021	2020
Proceeds from loan sales ⁽¹⁾	Proceeds from loan sales ⁽¹⁾	\$8,084	\$6,664	\$15,823	\$5,853	\$10,874	\$5,084
Gains on securitizations ⁽²⁾		8	9	728	46	156	61
Proceeds from loan sales ⁽¹⁾							
Proceeds from loan sales ⁽¹⁾							
Gains (losses) on securitizations ⁽²⁾							
Gains (losses) on securitizations ⁽²⁾							
Gains (losses) on securitizations ⁽²⁾							
Repurchases from securitization trusts ⁽³⁾							
Repurchases from securitization trusts ⁽³⁾							
Repurchases from securitization trusts ⁽³⁾	Repurchases from securitization trusts ⁽³⁾	53	756	436	—	—	—

⁽¹⁾ The Corporation transfers residential mortgage loans to securitizations sponsored primarily by the GSEs or GNMA in the normal course of business and primarily receives residential mortgage-backed securities in exchange. Substantially all of these securities are classified as held-for-sale.

⁽²⁾ A majority of the first-lien residential mortgage loans securitized are initially classified as LHFS and accounted for under the fair value option. Gains recognized on these LHFS prior to securitization, which totaled \$41 million \$49 million, \$121 million \$41 million and \$41 million during 2023, 2022, 2021, and 2020, respectively.

⁽³⁾ The Corporation may have the option to repurchase delinquent loans out of securitization trusts, which reduces the amount of servicing advances it is required to make. The Corporation may also repurchase loans from securitization trusts to perform modifications. For more information on these trusts, see Note 12.

The Corporation recognizes consumer MSRs from the sale or securitization of consumer real estate loans. The unpaid principal balance of loans serviced for investors, including residential mortgage and home equity loans, totaled \$92.7 billion and \$100.1 billion at December 31, 2023 and \$115.4 billion at December 31, 2022 and 2021. 2022. Servicing fee and ancillary fee income on serviced loans was \$274 million \$248 million, \$274 million and \$392 million during 2023, 2022 and \$474 million during 2022, 2021, and 2020, respectively. Servicing advances on serviced loans, including loans serviced for others and loans held for investment, were \$1.3 billion and \$1.6 billion at December 31, 2023 and \$2.0 billion at December 31, 2022 and 2021. 2022. For more information on MSRs, see Note 20 – Fair Value Measurements.

Home Equity Loans

The Corporation retains interests, primarily senior securities, in home equity securitization trusts to which it transferred home equity loans. In addition, the Corporation may be obligated to

provide subordinate funding to the trust in the preceding table. The charges that are a portion of the home equity lines of credit are included in the preceding table.

Mortgage and Home Equity Securities

During 2023 and 2022, the Corporation sold \$1.3 billion and \$784 million, with no significant gain or loss, of mortgage and home equity securities. During 2020, the Corporation completed the securitizations, the Corporation sold \$1.3 billion of the Consolidated Balance Sheet. Total income from these securities was \$1.3 billion of Income. The following table summarizes the mortgage and home equity securities that the Corporation held a variable interest in at December 31, 2023, 2022, and 2021.

First-lien Mortgage VIEs

Mortgage and Home Equity
Securitizations
Mortgage and Home Equity
Securitizations
Mortgage and Home Equity
Securitizations

		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													
		Residential Mortgage													

(1) Maximum loss exposure includes obligations under loss-sharing reinsurance and other arrangements for non-agency residential mortgage and commercial mortgage securitizations, but excludes the reserve for representations and warranties obligations and corp and Contingencies and Note 20 – Fair Value Measurements.

(2) Principal balance outstanding includes loans where the Corporation was the transferor to securitization VIEs with which it has continuing involvement, which may include servicing the loans.

Home Equity Loans

The Corporation retains interests, primarily senior securities, in home equity securitization trusts to which it transferred home equity loans. In addition, the Corporation may be obligated to

provide subordinate funding to the trust in the preceding table. The charges that represent the portion of the home equity lines of credit are shown in the following table.

Mortgage and Home Equity Securitizations

During 2023 and 2022, the Corporation had no significant mortgage and home equity securitizations. The following table summarizes the Corporation held a variable interest in

127 Bank of America

Mortgage and Home Equity Securitizations						
	Residential Mortgage					
	Agency		Prime and Alt-A		Non-agency	
					Subprime	
					December 31	
(Dollars in millions)	2023	2022	2023	2022	2023	2022
Unconsolidated VIEs						
Maximum loss exposure ⁽¹⁾	\$ 8,190	\$ 9,112	\$ 92	\$ 119	\$ 657	\$ —
On-balance sheet assets						
Senior securities:						
Trading account assets	\$ 235	\$ 232	\$ 13	\$ 29	\$ 20	\$ —
Debt securities carried at fair value	2,541	3,027	—	—	341	—
Held-to-maturity securities	5,414	5,853	—	—	—	—
All other assets	—	—	4	5	23	—
Total retained positions	\$ 8,190	\$ 9,112	\$ 17	\$ 34	\$ 384	\$ —
Principal balance outstanding ⁽²⁾	\$ 76,134	\$ 81,644	\$ 13,963	\$ 15,541	\$ 4,508	\$ —
Consolidated VIEs						
Maximum loss exposure ⁽¹⁾	\$ 1,164	\$ 1,735	\$ —	\$ —	\$ —	\$ —
On-balance sheet assets						
Trading account assets	\$ 1,171	\$ 1,735	\$ —	\$ —	\$ —	\$ —
Loans and leases	—	—	—	—	—	—
Allowance for loan and lease losses	—	—	—	—	—	—
All other assets	—	—	—	—	—	—
Total assets	\$ 1,171	\$ 1,735	\$ —	\$ —	\$ —	\$ —
Total liabilities	\$ 7	\$ —	\$ —	\$ —	\$ —	\$ —
⁽¹⁾ Maximum loss exposure includes obligations under loss-sharing reinsurance and other arrangements for non-agency residential mortgage and commercial mortgage securitizations, but excludes the reserve for representations and warranties obligations and contingencies and Note 20 – Fair Value Measurements.						
⁽²⁾ Principal balance outstanding includes loans where the Corporation was the transferor to securitization VIEs with which it has continuing involvement, which may include servicing the loans.						
⁽³⁾ For unconsolidated home equity loan VIEs, the maximum loss exposure includes outstanding trust certificates issued by trusts in rapid amortization, net of recorded reserves. For both consolidated and unconsolidated home equity loan VIEs, the maximum loss exposure includes the reserve for representations and warranties obligations and contingencies.						

Other Asset-backed Securitizations

The following paragraphs summarize select information related to other asset-backed VIEs in which the Corporation had a variable interest at December 31, 2023 and 2022.

Credit Card and Automobile Loan Securitizations

The Corporation securitizes originated and purchased credit card loans and automobile loans as a source of financing. The loans are sold on a non-recourse basis to consolidated trusts. The securitizations are ongoing, whereas additional receivables will be funded into the trusts by either loan repayments or proceeds from securities issued to third parties, depending on the securitization structure. The Corporation's continuing involvement with the securitization trust trusts includes servicing the receivables retaining and holding various subordinated interests, including an undivided seller's interest (seller's interest) in the credit card receivables and holding owning certain retained interests, including subordinate interests interests.

At December 31, 2023 and 2022, the carrying values of the receivables in accrued interest the trusts totaled \$16.6 billion and fees on \$14.6 billion, which are included in loans and leases, and the securitized receivables and cash reserve accounts.

During 2022, 2021 and 2020, the Corporation issued new carrying values of senior debt securities that were issued to third-party investors from the credit card securitization trust totaling \$2.3 billion, \$1.0 billion, trusts totaled \$7.8 billion and \$1.0 billion, respectively.

At December 31, 2022 and 2021, the Corporation held subordinate securities issued by the credit card securitization trust with a notional principal amount of \$6.7 billion and \$6.5 billion. These securities serve as a form of credit enhancement to the senior debt securities and have a stated interest rate of zero percent. During 2022, 2021 and 2020, the credit card securitization trust issued \$363 million, \$161 million and \$161 million, respectively, of these subordinate securities. \$4.2 billion, which are included in long-term debt.

Resecuritization Trusts

The Corporation transfers securities, typically MBS, into resecuritization VIEs generally at the request of customers seeking securities with specific characteristics. Generally, there are no significant ongoing activities performed in a resecuritization trust, and no single investor has the unilateral ability to liquidate the trust.

in market making and similar activities prior to the resecuritization and, accordingly, no gain or loss on sale was recorded. Securities received from the resecuritization VIEs were recognized at their fair value of \$2.4 billion, \$2.4 billion and \$2.2 billion during 2023, 2022 and \$6.1 billion during 2022, 2021, and 2020, respectively. In 2023, 2022 and 2021, substantially all of the securities were classified as trading account assets. All of the securities received as resecuritization proceeds during 2020 were classified as trading account assets. Of the securities received as resecuritization proceeds during 2020, \$2.4 billion, \$2.1 billion and \$1.7 billion were classified as trading account assets, debt securities carried at fair value and HTM securities, respectively. Substantially all of the trading account securities carried at fair value were categorized as Level 2 within the fair value hierarchy.

Municipal Bond Trusts

The Corporation administers municipal bond trusts that hold highly-rated, long-term, fixed-rate municipal bonds. The trusts obtain financing by issuing floating-rate trust certificates that reprice on a weekly or other short-term basis to third-party investors.

The Corporation's liquidity commitments to unconsolidated municipal bond trusts, including those for which the Corporation was transferor, totaled \$2.5 billion and \$4.1 billion at December 31, 2022 and 2021. The weighted-average remaining life of bonds held in the trusts at December 31, 2022 was 8.7 years. There were no significant write-downs or downgrades of assets or issuers during 2022, 2021 and 2020.

Other Variable Interest Entities

The table below summarizes select information related to other VIEs in which the Corporation held a variable interest at December 31, 2022 and 2021.

Other VIEs

	Consolidated		Unconsolidated		Total
(Dollars in millions)	December 31, 2022				
Maximum loss exposure	\$	2,286	\$	31,405	\$
On-balance sheet assets					
Trading account assets	\$	353	\$	638	\$
Debt securities carried at fair value		—		5	
Loans and leases		2,086		90	
Allowance for loan and lease losses		(1)		(12)	
All other assets		46		30,221	
Total	\$	2,484	\$	30,942	\$
On-balance sheet liabilities					
Short-term borrowings	\$	42	\$	—	\$
Long-term debt		156		—	
All other liabilities		—		7,318	
Total	\$	198	\$	7,318	\$
Total assets of VIEs	\$	2,484	\$	101,271	\$

The Corporation resecuritized \$2.3 billion, 2023, 2022 2021 and 2020, 2021, re changes in fair value recorded

Customer VIEs

Customer VIEs include credit-linked, equity-linked and commodity-linked note VIEs, repackaging VIEs and asset acquisition VIEs, which are typically created on behalf of customers who wish to obtain market or credit exposure to a specific company, index, commodity or financial instrument.

The Corporation's involvement in the VIE is limited to its loss exposure. The Corporation's maximum loss exposure to consolidated and unconsolidated customer VIEs totaled \$952 million and \$914 million at December 31, 2023 and \$2.9 billion at December 31, 2022 and 2021, 2022, including the notional amount of derivatives to which the Corporation is a counterparty, net of losses previously recorded, and the Corporation's investment, if any, in securities issued by the VIEs.

Municipal Bond Trusts

The Corporation administers municipal bond trusts that hold highly-rated, long-term, fixed-rate municipal bonds. The trusts obtain financing by issuing floating-rate trust certificates that reprice on a weekly or other short-term basis to third-party investors.

The Corporation's liquidity commitments to unconsolidated municipal bond trusts, including those for which the Corporation was transferor, totaled \$1.7 billion and \$2.5 billion at December 31, 2023 and 2022. The weighted-average remaining

life of bonds held in the trusts at December 31, 2023 was 12.2 years. There were no significant write-downs or downgrades of assets or issuers during 2023, 2022 and 2021.

Collateralized Debt Obligation VIEs

The Corporation receives fees for structuring CDO VIEs, which hold diversified pools of fixed-income securities, typically corporate debt or ABS, which the CDO VIEs fund by issuing multiple tranches of debt and equity securities. CDOs are generally managed by third-party portfolio managers. The Corporation typically transfers assets to these CDOs, holds securities issued by the CDOs and may be a derivative counterparty to the CDOs. The Corporation's maximum loss exposure to consolidated and unconsolidated CDOs totaled \$197 million \$80 million and \$235 million \$197 million at December 31, 2022 December 31, 2023 and 2021, 2022.

Investment VIEs

The Corporation sponsors, invests in or provides financing, which may be in connection with the sale of assets, to a variety of investment VIEs that hold loans, real estate, debt securities or other financial instruments and are designed to provide the desired investment profile to investors or the Corporation. At December 31, 2022 December 31, 2023 and 2021, 2022, the Corporation's consolidated investment VIEs had total assets of \$854 million \$472 million and \$1.0 billion. \$854

million. The Corporation also held billion \$14.8 billion at December 31, 2023 and 2022, with both consolidated and unconsolidated December 31, 2023 and 2021, 2022.

Leveraged Lease Trusts

The Corporation's net investment in leveraged lease trusts was \$1.5 billion at December 31, 2022 and 2021, 2022, representing distribution equipment, and commercial real estate investment represents the Corporation's net investment. Debt issued by the trusts may become worthless. Debt issued by the trusts may become worthless.

The table below summarizes the assets and liabilities of the VIEs at December 31, 2023 and 2022.

Other Asset-backed VIEs

	Credit Card and Automobile (1)		Resecuritization Trusts and CDOs (2)	
	2023	2022	2023	2022
(Dollars in millions)				
Unconsolidated VIEs				
Maximum loss exposure	\$ —	\$ —	\$ 4,494	\$ —
On-balance sheet assets				
Securities (3):				
Trading account assets	\$ —	\$ —	\$ 626	\$ —
Debt securities carried at fair value	—	—	920	—
Held-to-maturity securities	—	—	2,237	—
Loans and leases	—	—	—	—
Allowance for loan and lease losses	—	—	—	—
All other assets	—	—	711	—
Total retained positions	\$ —	\$ —	\$ 4,494	\$ —
Total assets of VIEs	\$ —	\$ —	\$ 15,862	\$ —
Consolidated VIEs				
Maximum loss exposure	\$ 8,127	\$ 9,555	\$ 1,240	\$ —

On-balance sheet assets				
Trading account assets	\$	—	\$	1,798 \$
Debt securities carried at fair value		—	—	—
Loans and leases		16,640	14,555	—
Allowance for loan and lease losses		(832)	(808)	—
All other assets		163	68	38
Total assets	\$	15,971	\$	1,836 \$
On-balance sheet liabilities				
Short-term borrowings	\$	—	\$	— \$
Long-term debt		7,825	4,247	596
All other liabilities		19	13	—
Total liabilities	\$	7,844	\$	596 \$

(1) At December 31, 2023 and 2022, loans and leases in the consolidated credit card trust included \$3.2 billion and \$3.3 billion of seller's interest.

(2) The retained senior securities were valued using quoted market prices or observable market inputs (Level 2 of the fair value hierarchy).

Tax Credit VIEs

The Corporation holds equity investments in unconsolidated limited partnerships and similar entities that construct, own and operate affordable housing, wind renewable energy and solar certain other projects. The total assets of these unconsolidated tax credit VIEs were \$84.1 billion and \$74.8 billion as of December 31, 2023 and 2022. An unrelated third party is typically the general partner or managing member and has control over the significant activities of the VIE. As an investor, tax credits associated with the investments in these entities are allocated

which varies based on the type of investments. Tax credits from environmental, social and governance (ESG) investments in affordable housing are recognized ratably over a term of up to 10 years, and tax credits from wind and solar renewable energy investments are recognized either at inception for transactions electing Investment Tax Credits (ITCs) or as energy is produced for transactions electing Production Tax Credits (PTCs), which is generally up to a 10-year

to the Corporation, as provided by the in the Corporation's Consolidated Sta

129 Bank of America

time period. The volume and types of investments held by the Corporation will influence the amount of tax credits recognized each period. The maximum loss exposure included in the Other VIEs table was \$28.8 billion and \$25.7 billion at December 31, 2022 and 2021. In addition to that amount, the Corporation had unfunded capital contributions for renewable energy investments of \$1.9 billion and \$1.0 billion at December 31, 2022 and 2021. The capital contributions are contingent on various conditions precedent to funding over the next two years. The Corporation's risk of loss is generally mitigated by policies requiring that the project qualify for the expected tax credits prior to making its investment.

The Corporation's equity investments in affordable housing partnerships, and other projects totaled \$15.8 billion and \$14.7 billion at December 31, 2023 and 2022, which are reported in other assets on the Consolidated Balance Sheet, totaled \$14.1 billion and \$12.6 billion, including included unfunded commitments to provide capital contributions of \$6.6 billion \$7.2 billion and \$5.8 billion, at December 31, 2022 and 2021. The unfunded commitments \$6.9 billion that are expected probable to be paid over the next five years. During 2022, 2021 and 2020, the Corporation recognized tax credits and other tax benefits of \$1.5 billion, \$1.3 billion and \$1.2 billion and reported pretax losses in other income of \$1.2 billion, \$1.1 billion and \$1.0 billion. These tax credits are recognized as part of the Corporation's annual effective tax rate used to determine tax expense in a given quarter. The Corporation may be asked to invest additional amounts to support a troubled affordable housing project. Such additional investments have not been and are not expected to be significant. During 2023, 2022 and 2021, the Corporation recognized tax credits and other tax benefits related to affordable housing and other tax credit equity investments of \$1.9 billion, \$1.5 billion and \$1.3 billion, and reported pretax losses in other income of \$1.5 billion, \$1.2 billion and \$1.1 billion. The Corporation's equity investments in renewable energy totaled \$14.2 billion and \$13.9 billion at December 31, 2023 and 2022. In addition, the Corporation had unfunded capital contributions for renewable energy investments of \$6.2 billion and \$1.9 billion at December 31, 2023 and 2022, which are contingent on various conditions precedent to funding over the next two years. The Corporation's risk of loss is generally mitigated by policies requiring the project to qualify for the expected tax credits prior to making its investment. During 2023, 2022 and 2021, the Corporation recognized tax credits and other tax benefits related to renewable energy equity investments of \$4.0 billion, \$2.9 billion and \$3.1 billion and reported pretax losses in other income of \$3.1 billion, \$2.1 billion and \$2.2 billion. The Corporation may also enter into power purchase agreements with renewable energy tax credit entities.

The table below summarizes select information related to unconsolidated tax credit VIEs in which the Corporation held a variable interest at December 31, 2023 and 2022.

Unconsolidated Tax Credit VIEs			
(Dollars in millions)	December 31		
	December 31, 2023	December 31, 2022	
Maximum loss exposure	\$ 30,040	\$ 28,277	
On-balance sheet assets			

All other assets		30,040	\$	28,277
Total	\$	30,040	\$	28,277
On-balance sheet liabilities				
All other liabilities		7,254	\$	6,907
Total	\$	7,254	\$	6,907
Total assets of VIEs	\$	84,148	\$	74,791

NOTE 7 Goodwill and Intangible Assets

Goodwill

The table below presents goodwill balances by business segment at **December 31, 2022**, December 31, 2023 and **2021**, 2022. The reporting units utilized for goodwill impairment testing are the operating segments or one level below.

Goodwill

Goodwill

Goodwill Goodwill

		December 31			
		December 31			
		December 31			
		December 31			
(Dollars in millions)	(Dollars in millions)	2022	2021	(Dollars in millions)	2023
					2022
Consumer Banking					
Consumer Banking					
Consumer Banking	Consumer Banking	\$30,137	\$30,137		
Global Wealth & Investment Management	Global Wealth & Investment Management	9,677	9,677		
Global Wealth & Investment Management					
Global Wealth & Investment Management					
Global Banking					
Global Banking					
Global Banking	Global Banking	24,026	24,026		
Global Markets	Global Markets	5,182	5,182		
Total goodwill	Total goodwill	\$69,022	\$69,022		
Total goodwill					
Total goodwill					

During **2022**, 2023, the Corporation completed its annual goodwill impairment test as of **June 30, 2022**, June 30, 2023 using qualitative assessments a quantitative assessment for all applicable reporting units. Based on the results of the annual goodwill impairment test, the Corporation determined there was no impairment. For more information on the use of qualitative quantitative assessments, see *Note 1 – Summary of Significant Accounting Principles*.

Intangible Assets

At **December 31, 2022**, December 31, 2023 and **2021**, 2022, the net carrying value of intangible assets was **\$2.1 billion**, \$2.0 billion and **\$2.2 billion**, \$2.1 billion. At both **December 31, 2022**, December 31, 2023 and **2021**, 2022, intangible assets included \$1.6

billion \$1.6 billion of intangible assets associated with trade names, substantially all of which had an indefinite life and, accordingly, are not being amortized. Amortization of intangibles expense was \$78 million, \$76 million \$78 million for both 2023 and \$95 million 2022 and \$76 million for 2022, 2021 and 2020. 2021.

NOTE 8 Leases

The Corporation enters into both lessor and lessee arrangements. For more information on lease accounting, see Note 1 – Summary of Significant Accounting Principles and on lease financing receivables, see Note 5 – Outstanding Loans and Leases and Allowance for Credit Losses.

Lessor Arrangements

The Corporation's lessor arrangements primarily consist of operating, sales-type and direct financing leases for equipment. Lease agreements may include options to renew and for the lessee to purchase the leased equipment at the end of the lease term.

The table below presents the net investment in sales-type and direct financing leases at December 31, 2022 December 31, 2023 and 2021. 2022.

Net Investment Investment			
(1)	(1)		
Net Investment (1)			
Net Investment (1)			
		December 31	
		December 31	
		December 31	
(Dollars in millions)			
(Dollars in millions)			
		December 31	
(Dollars in millions)	(Dollars in millions)	2022	2021
Lease	Lease		
receivables	receivables	\$15,123	\$16,806
Lease receivables			
Lease receivables			
Unguaranteed residuals			
Unguaranteed residuals			
Unguaranteed	Unguaranteed		
residuals	residuals	2,143	2,078
Total net	Total net		
investment in	investment in		
sales-type and	sales-type and		
direct	direct		
financing leases	financing leases	\$17,266	\$18,884
Total net investment in sales-type			
and direct			
financing leases			
Total net investment in sales-type			
and direct			
financing leases			

(1) In certain cases, the Corporation obtains third-party residual value insurance to reduce its residual asset risk. The carrying value of residual assets with third-party residual value insurance for at least a portion of the asset value was \$6.8 billion and \$6.5 billion at De

The table below presents lease income for 2023, 2022 2021 and 2020. 2021.

Lease Lease
Income Income

Lease Income	
Lease Income	
(Dollars in millions)	
(Dollars in millions)	
(Dollars in	(Dollars in
millions)	millions)
2022	2021
2020	2023
2022	2021

Sales-type	Sales-type			
and direct	and direct			
financing	financing			
leases	leases	\$ 589	\$ 613	\$ 707
Operating	Operating			
leases	leases	941	930	931
Total lease	Total lease			
income	income	\$1,530	\$1,543	\$1,638

Lessee Arrangements

The Corporation's lessee arrangements predominantly consist of operating leases for premises and equipment; the Corporation's financing leases are not significant. Lease terms may contain renewal and extension options and early termination features. Generally, these options do not impact the lease term because the Corporation is not r

The following table below provides information on the right-of-use assets, lease liabilities and weighted-average discount rates and lease terms at December 31, 2022 December 31, 2023 and 2021.

2022.

Supplemental Information for Lessee Arrangements

Supplemental Information for Lessee Arrangements

December 31

Supplemental Information for Lessee Arrangements

December 31

December 31

December 31

(Dollars in millions)	(Dollars in millions)	2022	2021
Right-of-use asset		\$9,755	\$10,233

(Dollars in millions)
(Dollars in millions)
Right-of-use assets
Right-of-use assets
Right-of-use assets
Lease liabilities
Lease liabilities

Lease	Lease		
liabilities	liabilities	10,359	10,858
Weighted-average discount rate used to calculate present value of future minimum lease payments	Weighted-average discount rate used to calculate present value of future minimum lease payments	3.25 %	2.91 %
Weighted-average discount			



used to calculate present value of future minimum lease payments				
Weighted-average discount rate				
used to calculate present value of future minimum lease payments				
Weighted-average lease term (in years)				
Weighted-average lease term (in years)				
Weighted-average lease term (in years)	Weighted-average lease term (in years)	8.6	9.0	
Right-of-use assets obtained in exchange for new operating lease liabilities (1)	Right-of-use assets obtained in exchange for new operating lease liabilities (1)	\$ 824	\$ 1,713	
Right-of-use assets obtained in exchange for new operating lease liabilities (1)				
Right-of-use assets obtained in exchange for new operating lease liabilities (1)				
2023				
2022				
2021				
2020				
2023				
2023				
Operating cash flows from operating leases (2)				
Operating cash flows from operating leases (2)				
Operating cash flows from operating leases (2)	Operating cash flows from operating leases (2)	\$1,986	\$ 1,964	\$2,039
Lease Cost and Supplemental Information:	Lease Cost and Supplemental Information:			
Lease Cost and Supplemental Information:				
Lease Cost and Supplemental Information:				
Operating lease cost				
Operating lease cost				
Operating lease cost	Operating lease cost	\$2,008	\$ 2,025	\$2,149

Variable	Variable			
lease cost ⁽³⁾	lease cost ⁽³⁾	464	462	474
Variable lease cost ⁽³⁾				
Variable lease cost ⁽³⁾				
Total lease	Total lease			
cost ⁽⁴⁾	cost ⁽⁴⁾	\$2,472	\$ 2,487	\$2,623
Total lease cost ⁽⁴⁾				
Total lease cost ⁽⁴⁾				

⁽¹⁾ Represents non-cash activity and, accordingly, is not reflected in the Consolidated Statement of Cash Flows.

⁽²⁾ Represents cash paid for amounts included in the measurements of lease liabilities.

⁽³⁾ Primarily consists of payments for common area maintenance and property taxes.

⁽⁴⁾ Amounts are recorded in occupancy and equipment expense in the Consolidated Statement of Income.

Maturity Analysis

The maturities of lessor and lessee arrangements outstanding at **December 31, 2022** December 31, 2023 are presented in the table below based on undiscounted cash flows.

Maturities of Lessor and Lessee Arrangements

Maturities of Lessor and Lessee Arrangements

Maturities of Lessor and Lessee Arrangements

		Lessor		Lessee ⁽¹⁾	
		Sales-type and Direct			
		Operating	Financing	Operating	
		Leases	Leases ⁽²⁾	Leases	
		Lessor		Lessee ⁽¹⁾	
		Lessor			
		Lessor			
				Sales-type and Direct Financing	
		Operating		Operating	Operating
		Leases		Leases	Leases
				Leases ⁽²⁾	
(Dollars in millions)	(Dollars in millions)	December 31, 2022		(Dollars in millions)	December 31, 2023
2023		\$ 819	\$ 4,932	\$ 1,998	
2024	2024	682	4,399	1,850	
2025	2025	509	2,539	1,567	
2026	2026	368	1,993	1,354	
2027	2027	289	990	1,131	
2028					
Thereafter	Thereafter	664	1,635	4,189	
Total undiscounted cash flows	Total undiscounted cash flows	\$ 3,331	16,488	12,089	
Less: Net present value adjustment	Less: Net present value adjustment		1,365	1,730	
Total ⁽³⁾	Total ⁽³⁾	\$ 15,123	\$ 10,359		

⁽¹⁾ Excludes \$278 million \$98 million in commitments under lessee arrangements that have not yet commenced with lease terms that will begin in 2023, 2024.

⁽²⁾ Includes \$10.2 billion \$11.3 billion in commercial lease financing receivables and \$4.9 billion \$5.3 billion in direct/indirect consumer lease financing receivables.

⁽³⁾ Represents lease receivables for lessor arrangements and lease liabilities for lessee arrangements.

The scheduled contractual maturities for total time deposits at December 31, 2022 December 31, 2023 are presented in the table below.

Contractual Maturities of Total Time Deposits

Contractual Maturities of Total Time Deposits	Contractual Maturities of Total Time Deposits

		Non-		
(Dollars in millions)	(Dollars in millions)	U.S.	U.S.	Total
Due in 2023		\$36,114	\$7,393	\$43,507
(Dollars in millions)				
(Dollars in millions)				
Due in 2024				
Due in 2024				
Due in 2024	Due in 2024	3,576	67	3,643
Due in 2025	Due in 2025	643	6	649
Due in 2026	Due in 2026	149	23	172
Due in 2027	Due in 2027	116	1,472	1,588
Due in 2028				
Thereafter	Thereafter	238	8	246
Total time deposits	Total time deposits	\$40,836	\$8,969	\$49,805

At **December 31, 2022** **December 31, 2023** and **2021, 2022**, the Corporation had aggregate U.S. time deposits of **\$12.8 billion** **\$105.0 billion** and **\$9.4 billion** **\$12.8 billion** and non-U.S. time deposits of **\$9.0 billion** **\$12.6 billion** and **\$10.6 billion** **\$9.0 billion** in denominations that met or exceeded insurance limits.

131 Bank of America

NOTE 10 Securities Financing Agreements, Short-term Borrowings, Collateral and Restricted Cash

The Corporation enters into securities financing agreements which include securities borrowed or purchased under agreements to resell and securities loaned or sold under agreements to repurchase. These financing agreements (also referred to as "matched-book transactions") are to accommodate customers, obtain securities to cover short positions and finance inventory positions. The Corporation elects to account for certain securities financing agreements under the fair value option. For more information on the fair value option, see *Note 21 – Fair Value Option*.

Substantially all of the Corporation's securities financing activities are transacted under legally enforceable master

default by the counterparty, the right to liquidate securities held and to offset receivables and payables with the same counterparty. The Corporation offsets securities financing transactions with the same counterparty on the Consolidated Balance Sheet where it has such a legally enforceable master netting agreement and the transactions have the same maturity date.

repurchase agreements or legally enforceable master securities
lending agreements that give the Corporation, in the event of

**Securities
Financing
Agreements**

Securities Financing Agreements

REFINITIV 

December 31, 2022						
Securities	Securities					
borrowed	borrowed					
or	or					
purchased	purchased					
under	under					
agreements	agreements					
to resell ⁽³⁾	to resell ⁽³⁾	\$	527,054	\$(276,334)	\$250,720	\$ (229,525) \$ 21,195
Securities	Securities					
loaned or	loaned or					
sold under	sold under					
agreements	agreements					
to	to					
repurchase	repurchase	\$	468,663	\$(276,334)	\$192,329	\$ (181,860) \$ 10,469
Securities loaned or						
sold under agreements						
to repurchase						
Securities loaned or						
sold under agreements						
to repurchase						
Other ⁽⁴⁾	Other ⁽⁴⁾		11,391	—	11,391	(11,391) —
Total	Total	\$	480,054	\$(276,334)	\$203,720	\$ (193,251) \$ 10,469

- ⁽¹⁾ Includes activity where uncertainty exists as to the enforceability of certain master netting agreements under bankruptcy laws in some countries or industries.
- ⁽²⁾ Includes securities collateral received or pledged under repurchase or securities lending agreements where there is a legally enforceable master netting agreement. These amounts are not offset on the Consolidated Balance Sheet, but are shown as a reduction in the table.
- ⁽³⁾ Excludes repurchase activity of \$8.7 billion and \$20.1 billion reported in loans and leases on the Consolidated Balance Sheet at December 31, 2022 for both December 31, 2023 and 2021, 2022.
- ⁽⁴⁾ Balance is reported in accrued expenses and other liabilities on the Consolidated Balance Sheet and relates to transactions where the Corporation acts as the lender in a securities lending agreement and receives securities that can be pledged as collateral or sold to return those securities.

Repurchase Agreements and Securities Loaned Transactions Accounted for as Secured Borrowings

The following tables present securities sold under agreements to repurchase and securities loaned by remaining contractual term to maturity and class of collateral pledged. Included in "Other" are transactions where the Corporation acts as the

lender in a securities lending agreement right to substitute collateral and/or terms of agreements are included in the table below.

Remaining Contractual Maturity

Remaining Contractual Maturity

Overnight and Continuous					
Overnight and Continuous	30 Days or Less	After 30 Days		(1)	Total
		Through 90 Days	Greater than 90 Days		
Overnight and Continuous	30 Days or Less	After 30 Days Through 90 Days	Greater than 90 Days	(1)	Total
Overnight and Continuous					
Overnight and Continuous					
(Dollars in millions)	(Dollars in millions)	December 31, 2022		(Dollars in millions)	December 31, 2023

Securities sold under repurchase agreements to	Securities sold under repurchase agreements to					
		\$	\$	\$	\$	\$
		200,087	181,632	41,666	30,107	453,492

Securities loaned	Securities loaned					
		66,909	288	1,139	4,080	72,416
Other	Other	8,427	—	—	—	8,427
Total	Total	\$ 275,423	\$181,920	\$42,805	\$34,187	\$534,335

December 31, 2021

December 31, 2022

December 31, 2022

December 31, 2022

Securities sold under repurchase agreements to	Securities sold under repurchase agreements to					
		\$	\$	\$	\$	\$
		148,023	194,964	36,939	36,501	416,427

Securities loaned	Securities loaned					
		46,231	466	1,428	4,111	52,236
Other	Other	11,391	—	—	—	11,391
Total	Total	\$ 205,645	\$195,430	\$38,367	\$40,612	\$480,054

(1) No agreements have maturities greater than four years.

Class of Collateral Pledged

	Securities Sold Under Agreements to Repurchase	
(Dollars in millions)		
U.S. government and agency securities	\$	193,005 \$
Corporate securities, trading loans and other		14,345
Equity securities		10,249
Non-U.S. sovereign debt		232,171
Mortgage trading loans and ABS		3,722
Total	\$	453,492 \$
(Dollars in millions)		
U.S. government and agency securities	\$	352,950 \$
Corporate securities, trading loans and other		22,638
Equity securities		11,507
Non-U.S. sovereign debt		231,140
Mortgage trading loans and ABS		4,948
Total	\$	623,177 \$
U.S. government and agency securities	\$	193,005 \$
Corporate securities, trading loans and other		14,345
Equity securities		10,249
Non-U.S. sovereign debt		232,171
Mortgage trading loans and ABS		3,722
Total	\$	453,492 \$

Under repurchase agreements, the Corporation is required to post collateral with a market value equal to or in excess of the principal amount borrowed. For securities loaned transactions, the Corporation receives collateral in the form of cash, letters of credit or other securities. To determine whether the market value of the underlying collateral remains sufficient, collateral is generally valued daily, and the Corporation may be required to deposit additional collateral or may receive or return collateral pledged when appropriate. Repurchase agreements and securities loaned transactions are generally either overnight, continuous (i.e., no stated term) or short-term. The Corporation manages liquidity risks related to these agreements by sourcing funding from a diverse group of counterparties, providing a range of securities collateral and pursuing longer durations, when appropriate.

Short-term Bank Notes Borrowings

Bank The Corporation classifies borrowings with an original maturity of America, N.A. maintains a global program to offer up to a maximum of \$75.0 billion outstanding at any less than one time, of bank notes with fixed or floating rates and maturities of at least seven days from the date of issue. Short-term bank notes outstanding under this program totaled \$6.2 billion and \$1.8 billion at December 31, 2022 and 2021. These short-term bank notes, along with Federal Home Loan Bank advances, U.S.

The Corporation also pledges company-owned securities and loans as collateral in transactions that include repurchase agreements, securities loaned, public and trust deposits, U.S. Treasury tax and loan notes, and short-term borrowings. This collateral, which in some cases can be sold or replighted by the counterparties to the transactions, is parenthetically disclosed on the Consolidated Balance Sheet.

In certain cases, the Corporation has transferred assets to consolidated VIEs where those restricted assets serve as collateral for the interests issued by the VIEs. These assets are included on the Consolidated Balance Sheet in Assets of Consolidated VIEs.

Treasury tax and loan notes, and te
Balance Sheet. At December 31, 2
advances, which totaled \$13.2 billion ;

Collateral

The Corporation accepts securities a
31, 2022 December 31, 2023 and 20
billion, of which \$764.1 billion \$870.9 l
is securities borrowed or purchased u

131 Bank of America

In addition, the Corporation obtains collateral in connection with its derivative contracts. Required collateral levels vary depending on the credit risk rating and the type of counterparty. Generally, the Corporation accepts collateral in the form of cash, U.S. Treasury securities and other marketable securities. Based on provisions contained in master netting agreements, the Corporation nets cash collateral received against derivative assets. The Corporation also pledges collateral on its own derivative positions which can be applied against derivative

liabilities. For more information on the

Restricted Cash

At December 31, 2022 December 3
equivalents on the Consolidated Bal
segregated in compliance with securit

133 Bank of America

NOTE 11 Long-term Debt

Long-term debt consists of borrowings having an original maturity of one year or more. The table below presents the balance of long-term debt at December 31, 2022 December 3
2022 December 31, 2023.

		December 31					
		Weighted-					
		average					
		Rate					
		Weighted-					
		average					
		Rate					
		Weighted-					
		average	Interest	Maturity			
(Dollars in millions)	(Dollars in millions)	Rate	Rates	Dates	2022	2021	(Dollars in millions)
Notes issued	Notes issued	Notes issued by Bank of America Corporation ⁽¹⁾					
by Bank of	by Bank of	Weighted-					
America	America	average					
Corporation ⁽¹⁾	Corporation ⁽¹⁾	Rate					
Senior notes:	Senior notes:	Senior notes:					
Fixed	Fixed	3.03 %	0.25 - 8.05 %	2023 - 2052	\$188,429	\$194,191	
Floating	Floating	4.2	0.74 - 9.16	2023 - 2044	17,469	18,753	
Senior	Senior						
structured notes	structured notes				11,608	15,086	

	Subordinated notes:	Subordinated notes:				
	Fixed	Fixed	4.88	2.94 - 8.57	2024 - 2045	21,098 22,311
	Fixed					
	Fixed					
	Floating	Floating	3.45	2.48 - 5.53	2026 - 2037	4,544 2,371
Junior subordinated notes:	Junior subordinated notes:					
	Fixed					
	Fixed					
	Fixed	Fixed	6.71	6.45 - 8.05	2027 - 2066	743 741
	Floating	Floating	5.56	5.56	2056	1 1
	Total notes issued by Bank of America Corporation	Total notes issued by Bank of America Corporation				243,892 253,454
Notes issued by Bank of America, N.A.	Notes issued by Bank of America, N.A.					Notes issued by Bank of America, N.A.
Senior notes:	Senior notes:					Senior notes:
Fixed	Fixed					— 501
Floating	Floating	5.05	5.05	2024	2,600	3,173
Subordinated notes	Subordinated notes	6.00	6.00	2036	1,485	1,780
Advances from Federal Home Loan Banks:	Advances from Federal Home Loan Banks:					
Fixed	Fixed	4.49	0.01 - 7.42	2023 - 2034	681	290
	Fixed					
	Fixed					
Securitizations and other BANA VIEs (2)	Securitizations and other BANA VIEs (2)					
Securitizations and other BANA VIEs (2)	Securitizations and other BANA VIEs (2)					
Securitizations and other BANA VIEs (2)	Securitizations and other BANA VIEs (2)					
Other debt	Other debt					Other debt
Structured liabilities (2)	Structured liabilities (2)				21,835	16,599
Nonbank VIEs (2)	Nonbank VIEs (2)				281	249
Other	Other				—	53
Total notes issued by nonbank and other entities	Total notes issued by nonbank and other entities				22,116	16,901

Total long-term debt	Total long-term debt	
		\$275,982 \$280,117

(1) Includes total loss-absorbing capacity compliant debt.

(2) Represents liabilities of consolidated VIEs included in total long-term debt on the Consolidated Balance Sheet. Long-term debt of VIEs is collateralized by the assets of the VIEs. At December 31, 2022 December 31, 2023, amount includes debt predominantly from see Note 6 – Securitizations and Other Variable Interest Entities.

(3) Includes debt outstanding of \$10.0 billion and \$8.0 billion at December 31, 2023 and \$5.4 billion at December 31, 2022 and 2021 2022 that was issued by BoFA Finance LLC, a consolidated finance subsidiary of Bank of America Corporation, the parent company, an

During 2023, the Corporation issued \$62.0 billion of long-term debt consisting of \$24.0 billion of notes issued by Bank of America Corporation, \$25.1 billion of notes issued by Bank of America, N.A. and \$12.9 billion of other debt. During 2022, the Corporation issued \$66.0 billion of long-term debt consisting of \$44.2 billion of notes issued by Bank of America Corporation, \$10.0 billion of notes issued by Bank of America, N.A. and \$11.8 billion of other debt.

During 2021, 2023, the Corporation issued \$76.7 billion of had total long-term debt maturities and redemptions in the aggregate of \$42.7 billion consisting of \$56.2 billion of notes issued by \$25.3 billion for Bank of America Corporation, \$8.0 billion of notes issued by \$10.5 billion for Bank of America, N.A. and \$12.5 billion \$6.9 billion of other debt.

During 2022, the Corporation had total long-term debt maturities and redemptions in the aggregate of \$33.3 billion consisting of \$19.8 billion for Bank of America Corporation, \$9.9 billion for Bank of America, N.A. and \$3.6 billion of other debt. During 2021, the Corporation had total long-term debt maturities and redemptions in the aggregate of \$46.4 billion consisting of \$24.4 billion for Bank of America Corporation, \$10.4 billion for Bank of America, N.A. and \$11.6 billion of other debt.

debt and total floating-rate debt were 3.70 percent, 3.55 percent and 5.21 percent, respectively, at December 31, 2023, and 3.27 percent, 3.23 percent and 4.14 percent, respectively, at December 31, 2022, and 2.83 percent, 3.08 percent and 0.75 percent, respectively, at December 31, 2021. The Corporation's ALM activities maintain an overall interest rate risk management strategy that incorporates the use of interest rate contracts to manage fluctuations in earnings caused by interest rate volatility. The

Bank of America Corporation and subordinated notes. The notes may be denominated in U.S. dollars and foreign currencies. At December 31, 2023, 2022, 2021, 2020, 2019, 2018, 2017, 2016, 2015, 2014, 2013, 2012, 2011, 2010, 2009, 2008, 2007, 2006, 2005, 2004, 2003, 2002, 2001, 2000, 1999, 1998, 1997, 1996, 1995, 1994, 1993, 1992, 1991, 1990, 1989, 1988, 1987, 1986, 1985, 1984, 1983, 1982, 1981, 1980, 1979, 1978, 1977, 1976, 1975, 1974, 1973, 1972, 1971, 1970, 1969, 1968, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1959, 1958, 1957, 1956, 1955, 1954, 1953, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1943, 1942, 1941, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1922, 1921, 1920, 1919, 1918, 1917, 1916, 1915, 1914, 1913, 1912, 1911, 1910, 1909, 1908, 1907, 1906, 1905, 1904, 1903, 1902, 1901, 1900, 1899, 1898, 1897, 1896, 1895, 1894, 1893, 1892, 1891, 1890, 1889, 1888, 1887, 1886, 1885, 1884, 1883, 1882, 1881, 1880, 1879, 1878, 1877, 1876, 1875, 1874, 1873, 1872, 1871, 1870, 1869, 1868, 1867, 1866, 1865, 1864, 1863, 1862, 1861, 1860, 1859, 1858, 1857, 1856, 1855, 1854, 1853, 1852, 1851, 1850, 1849, 1848, 1847, 1846, 1845, 1844, 1843, 1842, 1841, 1840, 1839, 1838, 1837, 1836, 1835, 1834, 1833, 1832, 1831, 1830, 1829, 1828, 1827, 1826, 1825, 1824, 1823, 1822, 1821, 1820, 1819, 1818, 1817, 1816, 1815, 1814, 1813, 1812, 1811, 1810, 1809, 1808, 1807, 1806, 1805, 1804, 1803, 1802, 1801, 1800, 1799, 1798, 1797, 1796, 1795, 1794, 1793, 1792, 1791, 1790, 1789, 1788, 1787, 1786, 1785, 1784, 1783, 1782, 1781, 1780, 1779, 1778, 1777, 1776, 1775, 1774, 1773, 1772, 1771, 1770, 1769, 1768, 1767, 1766, 1765, 1764, 1763, 1762, 1761, 1760, 1759, 1758, 1757, 1756, 1755, 1754, 1753, 1752, 1751, 1750, 1749, 1748, 1747, 1746, 1745, 1744, 1743, 1742, 1741, 1740, 1739, 1738, 1737, 1736, 1735, 1734, 1733, 1732, 1731, 1730, 1729, 1728, 1727, 1726, 1725, 1724, 1723, 1722, 1721, 1720, 1719, 1718, 1717, 1716, 1715, 1714, 1713, 1712, 1711, 1710, 1709, 1708, 1707, 1706, 1705, 1704, 1703, 1702, 1701, 1700, 1699, 1698, 1697, 1696, 1695, 1694, 1693, 1692, 1691, 1690, 1689, 1688, 1687, 1686, 1685, 1684, 1683, 1682, 1681, 1680, 1679, 1678, 1677, 1676, 1675, 1674, 1673, 1672, 1671, 1670, 1669, 1668, 1667, 1666, 1665, 1664, 1663, 1662, 1661, 1660, 1659, 1658, 1657, 1656, 1655, 1654, 1653, 1652, 1651, 1650, 1649, 1648, 1647, 1646, 1645, 1644, 1643, 1642, 1641, 1640, 1639, 1638, 1637, 1636, 1635, 1634, 1633, 1632, 1631, 1630, 1629, 1628, 1627, 1626, 1625, 1624, 1623, 1622, 1621, 1620, 1619, 1618, 1617, 1616, 1615, 1614, 1613, 1612, 1611, 1610, 1609, 1608, 1607, 1606, 1605, 1604, 1603, 1602, 1601, 1600, 1599, 1598, 1597, 1596, 1595, 1594, 1593, 1592, 1591, 1590, 1589, 1588, 1587, 1586, 1585, 1584, 1583, 1582, 1581, 1580, 1579, 1578, 1577, 1576, 1575, 1574, 1573, 1572, 1571, 1570, 1569, 1568, 1567, 1566, 1565, 1564, 1563, 1562, 1561, 1560, 1559, 1558, 1557, 1556, 1555, 1554, 1553, 1552, 1551, 1550, 1549, 1548, 1547, 1546, 1545, 1544, 1543, 1542, 1541, 1540, 1539, 1538, 1537, 1536, 1535, 1534, 1533, 1532, 1531, 1530, 1529, 1528, 1527, 1526, 1525, 1524, 1523, 1522, 1521, 1520, 1519, 1518, 1517, 1516, 1515, 1514, 1513, 1512, 1511, 1510, 1509, 1508, 1507, 1506, 1505, 1504, 1503, 1502, 1501, 1500, 1499, 1498, 1497, 1496, 1495, 1494, 1493, 1492, 1491, 1490, 1489, 1488, 1487, 1486, 1485, 1484, 1483, 1482, 1481, 1480, 1479, 1478, 1477, 1476, 1475, 1474, 1473, 1472, 1471, 1470, 1469, 1468, 1467, 1466, 1465, 1464, 1463, 1462, 1461, 1460, 1459, 1458, 1457, 1456, 1455, 1454, 1453, 1452, 1451, 1450, 1449, 1448, 1447, 1446, 1445, 1444, 1443, 1442, 1441, 1440, 1439, 1438, 1437, 1436, 1435, 1434, 1433, 1432, 1431, 1430, 1429, 1428, 1427, 1426, 1425, 1424, 1423, 1422, 1421, 1420, 1419, 1418, 1417, 1416, 1415, 1414, 1413, 1412, 1411, 1410, 1409, 1408, 1407, 1406, 1405, 1404, 1403, 1402, 1401, 1400, 1399, 1398, 1397, 1396, 1395, 1394, 1393, 1392, 1391, 1390, 1389, 1388, 1387, 1386, 1385, 1384, 1383, 1382, 1381, 1380, 1379, 1378, 1377, 1376, 1375, 1374, 1373, 1372, 1371, 1370, 1369, 1368, 1367, 1366, 1365, 1364, 1363, 1362, 1361, 1360, 1359, 1358, 1357, 1356, 1355, 1354, 1353, 1352, 1351, 1350, 1349, 1348, 1347, 1346, 1345, 1344, 1343, 1342, 1341, 1340, 1339, 1338, 1337, 1336, 1335, 1334, 1333, 1332, 1331, 1330, 1329, 1328, 1327, 1326, 1325, 1324, 1323, 1322, 1321, 1320, 1319, 1318, 1317, 1316, 1315, 1314, 1313, 1312, 1311, 1310, 1309, 1308, 1307, 1306, 1305, 1304, 1303, 1302, 1301, 1300, 1299, 1298, 1297, 1296, 1295, 1294, 1293, 1292, 1291, 1290, 1289, 1288, 1287, 1286, 1285, 1284, 1283, 1282, 1281, 1280, 1279, 1278, 1277, 1276, 1275, 1274, 1273, 1272, 1271, 1270, 1269, 1268, 1267, 1266, 1265, 1264, 1263, 1262, 1261, 1260, 1259, 1258, 1257, 1256, 1255, 1254, 1253, 1252, 1251, 1250, 1249, 1248, 1247, 1246, 1245, 1244, 1243, 1242, 1241, 1240, 1239, 1238, 1237, 1236, 1235, 1234, 1233, 1232, 1231, 1230, 1229, 1228, 1227, 1226, 1225, 1224, 1223, 1222, 1221, 1220, 1219, 1218, 1217, 1216, 1215, 1214, 1213, 1212, 1211, 1210, 1209, 1208, 1207, 1206, 1205, 1204, 1203, 1202, 1201, 1200, 1199, 1198, 1197, 1196, 1195, 1194, 1193, 1192, 1191, 1190, 1189, 1188, 1187, 1186, 1185, 1184, 1183, 1182, 1181, 1180, 1179, 1178, 1177, 1176, 1175, 1174, 1173, 1172, 1171, 1170, 1169, 1168, 1167, 1166, 1165, 1164, 1163, 1162, 1161, 1160, 1159, 1158, 1157, 1156, 1155, 1154, 1153, 1152, 1151, 1150, 1149, 1148, 1147, 1146, 1145, 1144, 1143, 1142, 1141, 1140, 1139, 1138, 1137, 1136, 1135, 1134, 1133, 1132, 1131, 1130, 1129, 1128, 1127, 1126, 1125, 1124, 1123, 1122, 1121, 1120, 1119, 1118, 1117, 1116, 1115, 1114, 1113, 1112, 1111, 1110, 1109, 1108, 1107, 1106, 1105, 1104, 1103, 1102, 1101, 1100, 1099, 1098, 1097, 1096, 1095, 1094, 1093, 1092, 1091, 1090, 1089, 1088, 1087, 1086, 1085, 1084, 1083, 1082, 1081, 1080, 1079, 1078, 1077, 1076, 1075, 1074, 1073, 1072, 1071, 1070, 1069, 1068, 1067, 1066, 1065, 1064, 1063, 1062, 1061, 1060, 1059, 1058, 1057, 1056, 1055, 1054, 1053, 1052, 1051, 1050, 1049, 1048, 1047, 1046, 1045, 1044, 1043, 1042, 1041, 1040, 1039, 1038, 1037, 1036, 1035, 1034, 1033, 1032, 1031, 1030, 1029, 1028, 1027, 1026, 1025, 1024, 1023, 1022, 1021, 1020, 1019, 1018, 1017, 1016, 1015, 1014, 1013, 1012, 1011, 1010, 1009, 1008, 1007, 1006, 1005, 1004, 1003, 1002, 1001, 1000, 999, 998, 997, 996, 995, 994, 993, 992, 991, 990, 989, 988, 987, 986, 985, 984, 983, 982, 981, 980, 979, 978, 977, 976, 975, 974, 973, 972, 971, 970, 969, 968, 967, 966, 965, 964, 963, 962, 961, 960, 959, 958, 957, 956, 955, 954, 953, 952, 951, 950, 949, 948, 947, 946, 945, 944, 943, 942, 941, 940, 939, 938, 937, 936, 935, 934, 933, 932, 931, 930, 929, 928, 927, 926, 925, 924, 923, 922, 921, 920, 919, 918, 917, 916, 915, 914, 913, 912, 911, 910, 909, 908, 907, 906, 905, 904, 903, 902, 901, 900, 899, 898, 897, 896, 895, 894, 893, 892, 891, 890, 889, 888, 887, 886, 885, 884, 883, 882, 881, 880, 879, 878, 877, 876, 875, 874, 873, 872, 871, 870, 869, 868, 867, 866, 865, 864, 863, 862, 861, 860, 859, 858, 857, 856, 855, 854, 853, 852, 851, 850, 849, 848, 847, 846, 845, 844, 843, 842, 841, 840, 839, 838, 837, 836, 835, 834, 833, 832, 831, 830, 829, 828, 827, 826, 825, 824, 823, 822, 821, 820, 819, 818, 817, 816, 815, 814, 813, 812, 811, 810, 809, 808, 807, 806, 805, 804, 803, 802, 801, 800, 799, 798, 797, 796, 795, 794, 793, 792, 791, 790, 789, 788, 787, 786, 785, 784, 783, 782, 781, 780, 779, 778, 777, 776, 775, 774, 773, 772, 771, 770, 769, 768, 767, 766, 765, 764, 763, 762, 761, 760, 759, 758, 757, 756, 755, 754, 753, 752, 751, 750, 749, 748, 747, 746, 745, 744, 743, 742, 741, 740, 739, 738, 737, 736, 735, 734, 733, 732, 731, 730, 729, 728, 727, 726, 725, 724, 723, 722, 721, 720, 719, 718, 717, 716, 715, 714, 713, 712, 711, 710, 709, 708, 707, 706, 705, 704, 703, 702, 701, 700, 699, 698, 697, 696, 695, 694, 693, 692, 691, 690, 689, 688, 687, 686, 685, 684, 683, 682, 681, 680, 679, 678, 677, 676, 675, 674, 673, 672, 671, 670, 669, 668, 667, 666, 665, 664, 663, 662, 661, 660, 659, 658, 657, 656, 655, 654, 653, 652, 651, 650, 649, 648, 647, 646, 645, 644, 643, 642, 641, 640, 639, 638, 637, 636, 635, 634, 633, 632, 631, 630, 629, 628, 627, 626, 625, 624, 623, 622, 621, 620, 619, 618, 617, 616, 615, 614, 613, 612, 611, 610, 609, 608, 607, 606, 605, 604, 603, 602, 601, 600, 599, 598, 597, 596, 595, 594, 593, 592, 591, 590, 589, 588, 587, 586, 585, 584, 583, 582, 581, 580, 579, 578, 577, 576, 575, 574, 573, 572, 571, 570, 569, 568, 567, 566, 565, 564, 563, 562, 561, 560, 559, 558, 557, 556, 555, 554, 553, 552, 551, 550, 549, 548, 547, 546, 545, 544, 543, 542, 541, 540, 539, 538, 537, 536, 535, 534, 533, 532, 531, 530, 529, 528, 527, 526, 525, 524, 523, 522, 521, 520, 519, 518, 517, 516, 515, 514, 513, 512, 511, 510, 509, 508, 507, 506, 505, 504, 503, 502, 501, 500, 499, 498, 497, 496, 495, 494, 493, 492, 491, 490, 489, 488, 487, 486, 485, 484, 483, 482, 481, 480, 479, 478, 477, 476, 475, 474, 473, 472, 471, 470, 469, 468, 467, 466, 465, 464, 463, 462, 461, 460, 459, 458, 457, 456, 455, 454, 453, 452, 451, 450, 449, 448, 447, 446, 445, 444, 443, 442, 441, 440, 439, 438, 437, 436, 435, 434, 433, 432, 431, 430, 429, 428, 427, 426, 425, 424, 423, 422, 421, 420, 419, 418, 417, 416, 415, 414, 413, 412, 411, 410, 409, 408, 407, 406, 405, 404, 403, 402, 401, 400, 399, 398, 397, 396, 395, 394, 393, 392, 391, 390, 389, 388, 387, 386, 385, 384, 383, 382, 381, 380, 379, 378, 377, 376, 375, 374, 373, 372, 371, 370, 369, 368, 367, 366, 365, 364, 363, 362, 361, 360, 359, 358, 357, 356, 355, 354, 353, 352, 351, 350, 349, 348, 347, 346, 345, 344, 343, 342, 341, 340, 339, 338, 337, 336, 335, 334, 333, 332, 331, 330, 329, 328, 327, 326, 325, 324, 323, 322, 321, 320, 319, 318, 317, 316, 315, 314, 313, 312, 311, 310, 309, 308, 307, 306, 305, 304, 303, 302, 301, 300, 299, 298, 297, 296, 295, 294, 293, 292, 291, 290, 289, 288, 287, 286, 285, 284, 283, 282, 281, 280, 279, 278, 277, 276, 275, 274, 273, 272, 271, 270, 269, 268, 267, 266, 265, 264, 263, 262, 261, 260, 259, 258, 257, 256, 255, 254, 253, 252, 251, 250, 249, 248, 247, 246, 245, 244, 243, 242, 241, 240, 239, 238, 237, 236, 235, 234, 233, 232, 231, 230, 229, 228, 227, 226, 225, 224, 223, 222, 221, 220, 219, 218, 217, 216, 215, 214, 213, 212, 211, 210, 209, 208, 207, 206, 205, 204, 203, 202, 201, 200, 199, 198, 197, 196, 195, 194, 193, 192, 191, 190, 189, 188, 187, 186, 185, 184, 183, 182, 181, 180, 179, 178, 177, 176, 175, 174, 173, 172, 171, 170, 169, 168, 167, 166, 165, 164, 163, 162, 161, 160, 159, 158, 157, 156, 155, 154, 153, 152, 151, 150, 149, 148, 147, 146, 145, 144, 143, 142, 141, 140, 139, 138, 137, 136, 135, 134, 133, 132, 131, 130, 129, 128, 127, 126, 125, 124, 123, 122, 121, 120, 119, 118, 117, 116, 115, 114, 113, 112, 111, 110, 109, 108, 107, 106, 105, 104, 103, 102, 101, 100, 99, 98, 97, 96, 95, 94, 93, 92, 91, 90, 89, 88, 87, 86, 85, 84, 83, 82, 81, 80, 79, 78, 77, 76, 75, 74, 73, 72, 71, 70, 69, 68, 67, 66, 65, 64, 63, 62, 61, 60, 59, 58, 57, 56, 55, 54, 53, 52, 51, 50, 49, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38, 37, 36, 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20, 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4, 3, 2, 1, 0.

The weighted-average effective interest rate on the debt was 3.70 percent at December 31, 2023, 3.27 percent at December 31, 2022, and 2.83 percent at December 31, 2021.

Corporation's goal is to manage interest rate sensitivity so that movements in interest rates do not have a significantly adverse effect on earnings and capital. The weighted-average rates are the contractual interest rates on the debt and do not reflect the impacts of derivative transactions.

The following table below shows the carrying value for aggregate annual contractual maturities of long-term debt as of December

Loan commitments	Loan commitments					
(1)	(1)	\$113,962	\$162,890	\$221,374	\$13,667	\$ 511,893
Home equity lines of credit	Home equity lines of credit	1,479	7,230	11,578	22,154	42,441
Standby letters of credit and financial guarantees (2)	Standby letters of credit and financial guarantees (2)	22,565	9,237	2,787	628	35,217
Letters of credit	Letters of credit	853	46	52	49	1,000
Other commitments (3)	Other commitments (3)	5	93	71	1,103	1,272
Legally binding commitments	Legally binding commitments	138,864	179,496	235,862	37,601	591,823
Credit card lines (4)	Credit card lines (4)	419,144	—	—	—	419,144
Total credit extension commitments	Total credit extension commitments	\$558,008	\$179,496	\$235,862	\$37,601	\$1,010,967

December 31, 2021

Notional amount of credit extension commitments	Notional amount of credit extension commitments	Notional amount of credit extension commitments				
Loan commitments	Loan commitments					
(1)	(1)	\$102,464	\$190,687	\$174,978	\$26,635	\$ 494,764
Home equity lines of credit	Home equity lines of credit	890	5,097	10,268	24,276	40,531
Standby letters of credit and financial guarantees (2)	Standby letters of credit and financial guarantees (2)	22,359	10,742	2,017	422	35,540
Letters of credit	Letters of credit	1,145	124	56	98	1,423
Other commitments (3)	Other commitments (3)	18	59	81	1,233	1,391
Legally binding commitments	Legally binding commitments	126,876	206,709	187,400	52,664	573,649
Credit card lines (4)	Credit card lines (4)	406,169	—	—	—	406,169
Total credit extension commitments	Total credit extension commitments	\$533,045	\$206,709	\$187,400	\$52,664	\$ 979,818

(1) At December 31, 2022, December 31, 2023 and 2021, 2022, \$3.1 billion and \$2.6 billion and \$4.6 billion of these loan commitments were held in the form of a security.

(2) The notional amounts of SBLs and financial guarantees classified as investment grade and non-investment grade based on the credit quality of the underlying reference name within the instrument were \$25.1 billion, \$23.6 billion and \$9.5 billion. \$9.7 billion at December 31, 2022, \$10.1 billion at December 31, 2023 and \$10.1 billion at December 31, 2021. The notional amounts of SBLs and financial guarantees classified as non-investment grade based on the credit quality of the underlying reference name within the instrument were \$744 million and \$575 million at December 31, 2023 and \$512 million at December 31, 2022 and 2021, 2022.

(3) Primarily includes second-loss positions on lease-end residual value guarantees.

(4) Includes business card unused lines of credit.

Other Commitments

At December 31, 2022 December 31, 2023 and 2021, 2022, the Corporation had commitments to purchase loans (e.g., residential mortgage and commercial real estate) of \$636 million \$822 million and \$181 million \$636 million, which upon settlement will be included in trading account assets, loans or LHFS, and commitments to purchase commercial loans of \$294 million \$420 million and \$518 million \$294 million, which upon settlement will be included in trading account assets.

At December 31, 2022 December 31, 2023 and 2021, the Corporation had commitments to purchase commodities, primarily liquefied natural gas, of \$0 and \$949 million, which upon settlement will be included in trading account assets.

At both December 31, 2022 and 2021, 2022, the Corporation had commitments to enter into resale and forward-dated resale and securities borrowing agreements of \$117.0 billion and \$92.0 billion, and commitments to enter into forward-dated repurchase and securities lending agreements of \$57.8 billion \$63.0 billion and \$32.6 billion as \$57.8 billion. A significant portion of both period ends. These these commitments generally will expire within the next 12 months.

At December 31, 2022 December 31, 2023 and 2021, 2022, the Corporation had a commitment to originate or purchase up to \$3.7 billion \$4.0 billion and \$4.0 billion \$3.7 billion on a rolling 12-month basis, of auto loans and leases from a strategic partner. This commitment extends through November 2026 and can be terminated with 12 months prior notice.

At December 31, 2022 December 31, 2023 and 2021, 2022, the Corporation had unfunded equity investment commitments of \$571 million \$477 million and \$395 million. \$571 million.

As a Federal Reserve member bank, the Corporation is required to subscribe to a certain amount of shares issued by its Federal Reserve district bank, which pays cumulative dividends at a prescribed rate. At both December 31, 2023 and 2022, the Corporation paid \$5.4 billion for half of its subscribed shares, with the remaining half subject to call by the Federal Reserve district bank board, which the Corporation believes is remote.

billion \$3.8 billion and \$6.3 billion \$4.3 billion. At December 31, 2022 December 31, 2023 and 2021, 2022, the Corporation's maximum exposure related to these guarantees totaled \$632 million \$577 million and \$928 million \$632 million, with estimated maturity dates between 2033 and 2039, 2037.

Indemnifications

In the ordinary course of business, the Corporation enters into various agreements that contain indemnifications, such as tax indemnifications, whereupon payment may become due if certain external events occur, such as a change in tax law. The indemnification clauses are often standard contractual terms and were entered into in the normal course of business based on an assessment that the risk of loss would be remote. These agreements typically contain an early termination clause that permits the Corporation to exit the agreement upon these events. The maximum potential future payment under indemnification agreements is difficult to assess for several reasons, including the occurrence of an external event, the inability to predict future changes in tax and other laws, the difficulty in determining how such laws would apply to parties in contracts, the absence of exposure limits contained in standard contract language and the timing of any early termination clauses. Historically, any payments made under these guarantees have been de minimis. The Corporation has assessed the probability of making such payments in the future as remote.

Other Guarantees

Bank-owned Life Insurance Boc

The Corporation sells products that corporations, primarily banks. At Dec totaled \$4.3

Merchant Services

The Corporation in its role as merchant acquirer or as a sponsor of other merchant acquirers may be held liable for any reversed charges that cannot be collected from the merchants due to, among other things, merchant fraud or insolvency. If charges are properly reversed after a purchase and cannot be collected from either the merchants or merchant acquirers, the Corporation may be held liable for these reversed charges. The ability to reverse a charge is primarily governed by the applicable

payment network rules and regulations, which include, but are not limited to, the type of charge, type of payment used and time limits. The total amount of transactions subject to reversal under payment network rules and regulations processed for the preceding six-month period, which was approximately ~~\$501 billion~~ ~~\$395 billion~~, is an estimate of the Corporation's maximum potential exposure as of ~~December 31, 2022~~ ~~December 31, 2023~~. The Corporation's risk in this area primarily relates to circumstances where a cardholder has purchased goods or services for future delivery. The Corporation mitigates this risk by requiring cash deposits, guarantees, letters of credit or other types of collateral from certain merchants. The Corporation's reserves for contingent losses, and the losses incurred related to the merchant processing activity were not significant.

Exchange and Clearing House Member Guarantees

The Corporation is a member of various securities and derivative exchanges and clearinghouses, both in the U.S. and other countries. As a member, the Corporation may be required to pay a pro-rata share of the losses incurred by some of these organizations as a result of another member default and under other loss scenarios. The Corporation's potential obligations may be limited to its membership interests in such exchanges and clearinghouses, to the amount (or multiple) of the Corporation's contribution to the guarantee fund or, in limited instances, to the full pro-rata share of the residual losses after applying the guarantee fund. The Corporation's maximum potential exposure under these membership agreements is difficult to estimate; however, the Corporation has assessed the probability of making any such payments as remote.

Prime Brokerage and Securities Clearing Services

In connection with its prime brokerage and clearing businesses, the Corporation performs securities clearance and settlement services with other brokerage firms and clearinghouses on behalf of its clients. Under these arrangements, the Corporation stands ready to meet the obligations of its clients with respect to securities transactions. The Corporation's obligations in this respect are secured by the assets in the clients' accounts and the accounts of their customers, as well as by any proceeds received from the transactions cleared and settled by the Corporation on behalf of clients or their customers. The Corporation's maximum potential exposure under these arrangements is difficult to estimate; however, the potential for the Corporation to incur material losses pursuant to these arrangements is remote.

Fixed Income Clearing Corporation Sponsored Member Repo Program

The Corporation acts as a sponsoring member in a repo program whereby the Corporation clears certain eligible resale and repurchase agreements through the Government Securities Division of the Fixed Income Clearing Corporation on behalf of clients that are sponsored members in accordance with the Fixed Income Clearing Corporation's rules. As part of this program, the Corporation guarantees the payment and

performance of its sponsored member a security interest in cash or high-quality Corporation to incur significant losses into consideration the related collateral 2022 and 2021. ~~2022~~.

Other Guarantees

In the normal course of business, the Corporation periodically guarantees the obligations of its affiliates in a variety of transactions including ISDA-related transactions and non-ISDA related transactions such as commodities trading, repurchase agreements, prime brokerage agreements and other transactions.

Guarantees of Certain Long-term Debt

The Corporation, as the parent company, fully and unconditionally guarantees the securities issued by BoFA Finance LLC, a consolidated finance subsidiary of the Corporation, and effectively provides for the full and unconditional guarantee of trust ~~securities~~ and capital securities issued by certain statutory trust companies that are 100 percent owned finance subsidiaries of the Corporation.

Representations and Warranties Obligations and Corporate Guarantees

The Corporation securitizes first-lien residential mortgage loans generally in the form of RMBS guaranteed by the GSEs or by GNMA in the case of FHA-insured, VA-guaranteed and Rural Housing Service-guaranteed mortgage loans, and sells pools of first-lien residential mortgage loans in the form of whole loans. In addition, in prior years, legacy companies and certain subsidiaries sold pools of first-lien residential mortgage loans and home equity loans as private-label securitizations or in the form of whole loans. In connection with these transactions, the Corporation or certain of its subsidiaries or legacy companies make and have made various representations and warranties. Breaches of these representations and warranties have resulted in and may continue to result in the requirement to repurchase mortgage loans or to otherwise make whole or provide indemnification or other remedies to sponsors, investors, securitization trusts, guarantors, insurers or other parties (collectively, repurchases).

Unresolved Repurchase Claims

Unresolved representations and warranties repurchase claims represent the notional amount of repurchase claims made by counterparties, typically the outstanding principal balance or the unpaid principal balance at the time of default. In the case of first-lien mortgages, the claim amount is often significantly greater than the expected loss amount due to the benefit of collateral and, in some cases, mortgage insurance or mortgage guarantee payments.

The notional amount of unresolved repurchase claims at ~~December 31, 2022~~ ~~December 31, 2023~~ and ~~2021~~ ~~2022~~ was ~~\$5.5 billion~~ ~~\$5.4 billion~~ and ~~\$8.4 billion~~ ~~\$5.5 billion~~. These balances included \$2.2 billion at both ~~December 31, 2023~~ and \$2.8 billion at ~~December 31, 2022~~ and ~~2021~~ ~~2022~~ of claims related to loans in specific private-label securitization groups or tranches where the Corporation owns substantially all of the outstanding securities or will otherwise realize the benefit of any repurchase claims paid.

During 2022, 2023, the Corporation received \$82 million \$254 million in new repurchase claims that were not time-barred. During 2022, \$3.0 billion 2023, \$269 million in claims were resolved.

Reserve and Related Provision

The reserve for representations and warranties obligations and corporate guarantees was \$612 million \$604 million and \$1.2 billion \$612 million at December 31, 2022 December 31, 2023 and 2021 2022 and is included in accrued expenses and other liabilities on the Consolidated Balance Sheet, and the related provision is included in other income in the Consolidated Statement of Income. The representations and warranties reserve represents the Corporation's best estimate

135 Bank of America

of probable incurred losses, is based on its experience in previous negotiations, and is subject to judgment, a variety of assumptions and known or unknown uncertainties. Future representations and warranties losses may occur in excess of the amounts recorded for these exposures; however, the Corporation does not expect such amounts to be material to the Corporation's financial condition and liquidity. See Litigation and Regulatory Matters below for the Corporation's combined range of possible loss in excess of the reserve for representations and warranties and the accrued liability for litigation.

Other Contingencies

On November 16, 2023, the Federal Deposit Insurance Corporation (FDIC) issued its final rule to impose a special assessment to recover the loss to the Deposit Insurance Fund (DIF) resulting from the closure of Silicon Valley Bank and Signature Bank. The special assessment is based on uninsured deposits as of December 31, 2022, adjusted to exclude the first \$5 billion. Accordingly, in the fourth quarter of 2023, the Corporation recorded noninterest expense of \$2.1 billion in other general operating expenses for its estimated assessment amount. The FDIC will collect the special assessment over eight quarterly assessment periods. The special assessment is subject to change for any updates made by the FDIC to the estimated loss to the DIF, or if the assessments collected from insured depository institutions change due to amendments made to their uninsured deposits reported for the December 31, 2022 period. In the event of any such change resulting in an increased assessment, the Corporation could recognize further expense in future periods.

Litigation and Regulatory Matters

In the ordinary course of business, the Corporation and its subsidiaries are routinely defendants in or parties to many pending and threatened legal, regulatory and governmental actions and proceedings. In view of the inherent difficulty of predicting the outcome of such matters, particularly where the claimants seek very large or indeterminate damages or where the matters present novel legal theories or involve a large number of parties, the Corporation generally cannot predict the eventual outcome of the pending matters, timing of the ultimate resolution of these matters, or eventual loss, fines or penalties related to each pending matter.

As a matter develops, the Corporation, in conjunction with any outside counsel handling the matter, evaluates whether such matter presents a loss contingency that is probable and estimable, and, for the matters below, whether a loss in excess of any accrued liability is reasonably possible in future periods. Once the loss contingency is deemed to be both probable and estimable, the Corporation will establish an accrued liability and record a corresponding amount of litigation-related expense. The Corporation continues to monitor the matter for further developments that could affect the amount of the accrued material to the Corporation's business or results of operations for any particular reporting period, or cause significant reputational harm.

Deposit Insurance Assessment

On January 9, 2017, the Federal Deposit Insurance Corporation (FDIC) FDIC filed suit against BANA in the U.S. District Court for the District of Columbia ("District Court") (District Court) alleging failure to pay a December 15, 2016 invoice for additional deposit insurance assessments and interest in the amount of \$542 million for the quarters ending June 30, 2013 through December 31, 2014.

On April 7, 2017, the FDIC amended its complaint to add a claim for additional deposit insurance and interest in the amount of \$583 million for the quarters ending March 31, 2012 through March 31, 2013. The FDIC asserts these claims based on BANA's alleged underreporting of counterparty exposures that resulted in underpayment of assessments for those quarters, and its Enforcement Section is also conducting a parallel investigation related to the same alleged reporting error. BANA disagrees with the FDIC's interpretation of the regulations as they existed during the relevant time period and is defending itself against the FDIC's claims. Pending final resolution, BANA has pledged security satisfactory to the FDIC related to the disputed additional assessment amounts. On March 27, 2018, the District Court denied BANA's partial motion to dismiss certain of the FDIC's claims.

On January 24, 2023 April 10, 2023, the magistrate judge assigned issued a report and recommendation (Report) for resolving the parties' pending summary judgment motions. The Report recommends granting the FDIC's motion for summary judgment on BANA's statutory liability for the unpaid assessments, subject to BANA's statute of limitations defenses to assessments for the matter by quarters ended March 31, 2012 through March 31, 2013, on which the Report

liability that has been previously es regulatory investigation-related exper 2021, 2022.

For any matter disclosed in this Nc accrued liability or where there is no range of possible loss is \$0 to \$0.8 bil

The accrued liability and estimate judgment, a variety of assumptions a range of possible loss are unpredictable estimate and accrual. The estimated r

Information is provided below reg current knowledge, and taking into pending matters, including the matte liquidity of the Corporation. However matters, some of which are beyond t matters, an adverse outcome in one c

recommends that relevant issues should be resolved at trial. The Report also recommends denying BANA's counterclaims challenging the adoption of the relevant assessment regulations and granting BANA's motion for summary judgment on the FDIC's claims for unjust enrichment and disgorgement. The Report has been submitted to the District Court judge held oral argument on for consideration, and the parties' motions for summary judgment and took parties have filed objections to the motions under advisement. recommendations in the Report.

LIBOR

The Corporation, BANA and certain Merrill Lynch entities have been named as defendants along with most of the other LIBOR panel banks in a number of individual and putative class actions by persons alleging that they sustained losses on U.S. dollar LIBOR-based financial instruments as a result of collusion or manipulation by defendants regarding the setting of U.S. dollar LIBOR. Plaintiffs assert a variety of claims, including antitrust, Commodity Exchange Act, Racketeer Influenced and Corrupt Organizations (RICO), Securities Exchange Act of 1934, common law fraud and breach of contract claims, and seek compensatory, treble and punitive damages, and injunctive relief. All but one of the cases naming the Corporation and its affiliates relating to U.S. dollar LIBOR are pending in the U.S. District Court for the Southern District of New York ("District Court") (District Court). The District Court has dismissed all RICO claims, and dismissed all manipulation claims against Bank of America entities based on alleged trader conduct. The District Court has also substantially limited the scope of antitrust, Commodity Exchange Act and various other claims, including by dismissing in their entirety certain individual and putative class plaintiffs'

antitrust claims for lack of standing. C these antitrust claims for lack of stand and certain Merrill Lynch entities. On OTC swaps and notes that reference Section 1 of the Sherman Act.

Unemployment Insurance Prepa

BANA has been named as a defend related to its administration of prepaic claims for monetary damages and inji Class action and mass action law total benefits and number of participi Southern District of California. On Ma and plaintiffs subsequently filed an a amended complaint in the MDL, which

NOTE 13 Shareholders' Equity

Common Stock

Declared Quarterly Cash Dividends on Common Stock (1)

Declaration Date	Record Date	Payment Date	Dividend Per Share
February January 31, 2024	March 1, 2024	March 29, 2024	\$ 0.24
October 18, 2023	December 1, 2023	December 29, 2023	0.24
July 19, 2023	September 1, 2023	September 29, 2023	0.24
April 26, 2023	June 2, 2023	June 30, 2023	0.22
February 1, 2023	March 3, 2023	March 31, 2023	\$ 0.22

(1) In 2022, 2023, and through February 22, 2023 February 20, 2024.

The cash dividends paid per share of common stock were \$0.92 \$0.86 and \$0.78 for 2023, 2022 and \$0.72 for 2022, 2021, and 2020, respectively.

The table below summarizes common stock repurchases during 2023, 2022 2021 and 2020, 2021.

Common Stock Repurchase Summary

(in millions)	2022	2021	2020
Total share repurchases, including CCAR capital plan repurchases	126	615	227
Purchase price of shares repurchased and retired (1)	\$ 5,073	\$ 25,126	\$ 7,025

Common Stock Repurchase Summary

(in millions)	2023	2022	2021
Total share repurchases, including CCAR capital plan repurchases	147	126	615
Purchase price of shares repurchased and retired (1)	\$ 4,576	\$ 5,073	\$ 25,126

(1) Consists of repurchases pursuant to the Corporation's CCAR capital plans.

During 2022, 2023, in connection with employee stock plans, the Corporation issued 73 million 75 million shares of its common stock and, to satisfy tax withholding obligations, repurchased 28 million 30 million shares of its common stock. At December 31, 2022 December 31, 2023, the Corporation had reserved 491 million 497 million unissued shares of common stock for future issuances under employee stock plans, convertible notes and preferred stock.

Preferred Stock

The cash dividends declared on preferred stock were \$1.6 billion in both 2023 and 2022 and \$1.4 billion in both 2021 and 2020.

On January 25, 2022, the Corporation issued 70,000 shares of 4.375% Fixed-Rate Reset Non-Cumulative Preferred Stock, Series RR for \$1.8 billion, with quarterly dividends commencing in April 2022. The Series RR preferred stock has a liquidation preference of \$25,000 per share and is subject to certain restrictions in the event the Corporation fails to declare and pay full dividends.

On January 31, 2022 the Corporation issued 28,000 shares of 4.750% Non-Cumulative Preferred Stock, Series SS for \$700 million, with quarterly dividends commencing in May 2022. The Series SS preferred stock has a liquidation preference of \$25,000 per share and is subject to certain restrictions in the event the Corporation fails to declare and pay full dividends. 2021.

On April 22, 2022, the Corporation for \$2.0 billion, with quarterly dividends of \$25,000 per share and is subject to certain restrictions in the event the Corporation fails to declare and pay full dividends.

Through a cash tender offer announced on April 22, 2022, the Corporation redeemed Series FF, Series HH, Series JJ, Series KK and Series 5 preferred stock with a total liquidation preference of \$2.0 billion as a preferred stock redemption.

All series of preferred stock in the operation of a sinking fund, have no par value. The holders of the Series B Preferred Stock common stock. The holders of the other stock of the Corporation have preferred rights in the event of the Corporation's assets in the event of any dividend payable on these series (whether consecutive or not), the holders of dividends and upon which equivalent to vote for the election of two additional directors for at least two semi-annual or annual meetings.

The 7.25% Non-Cumulative Preferred Stock redemption/call rights. Each share of shares of the Corporation's common stock has the right to convert into common stock, at its option, at any conversion rate if, for 20 trading days prior to the conversion date, the closing price of the common stock is at least 10 percent of the then-applicable conversion price. The option of the holder, subsequent to the conversion, of accrued dividends payable.

The table below presents a summary of perpetual preferred stock outstanding at December 31, 2022 December 31, 2023.

Preferred Stock Preferred Stock Summary Summary

Preferred Stock Summary

Preferred Stock Summary

(Dollars in millions, except as noted) (Dollars in millions, except as noted)

(Dollars in millions, except as noted)

(Dollars in millions, except as noted)

Series

Series

			Initial	Total	Liquidation		Per		Dividend				Initial	Total		Liquidation				
			Issuance	Shares	per Share	Carrying	Dividend	(in	Annual	Redemption			Issuance	Shares		per Share		Carrying		
Series	Series	Description	Date	Outstanding	(in dollars)	Value	Rate	dollars)(3)	Dividend	Period (2)	Description	Date	Outstanding			(in dollars)		Value		
Series B	Series B	7.000% Cumulative Redeemable	June 1997	7,076	\$ 100	\$ 1	7.00 %	\$ 7	\$ —	n/a	Series B 7.000% Cumulative Redeemable	June 1997	7,076		\$	\$	100	\$		
Series E (3)	E (3)	Floating Rate Non-Cumulative	November 2006	12,317	25,000	308	3-mo. LIBOR + 35 bps (4)	1.01	13	On or after November 15, 2011	Series E (3) Floating Rate Non-Cumulative	November 2006	12,317		25,000		25,000	308		
Series F	F	Floating Rate Non-Cumulative	March 2012	1,409	100,000	141	3-mo. LIBOR + 40 bps (4)	4,055.56	6	On or after March 15, 2012	Series F Floating Rate Non-Cumulative	March 2012	1,409		100,000		100,000	141		
Series G	G	Adjustable Rate Non-Cumulative	March 2012	4,925	100,000	492	3-mo. LIBOR + 40 bps (4)	4,055.56	20	On or after March 15, 2012	Series G Adjustable Rate Non-Cumulative	March 2012	4,925		100,000		100,000	492		
Series L	L	7.25% Non-Cumulative Perpetual Convertible	January 2008	3,080,182	1,000	3,080	7.25 %	72.50	223	n/a	Series L 7.25% Non-Cumulative Perpetual Convertible	January 2008	3,080,182		1,000		1,000	3,080		
Series U (5)		Fixed-to-Floating Rate Non-Cumulative	May 2013	40,000	25,000	1,000	5.2% to, but excluding, 6/1/23; 3-mo. LIBOR +313.5 bps thereafter	52.00	52	On or after June 1, 2023										
Series X (5)		Fixed-to-Floating Rate Non-Cumulative	September 2014	80,000	25,000	2,000	6.250% to, but excluding, 9/5/24; 3-mo. LIBOR +370.5 bps thereafter	62.50	125	On or after September 5, 2024										
Series Z (5)		Fixed-to-Floating Rate Non-Cumulative	October 2014	56,000	25,000	1,400	6.500% to, but excluding, 10/23/24; 3-mo. LIBOR +417.4 bps thereafter	65.00	91	On or after October 23, 2024										
Series AA (5)		Fixed-to-Floating Rate Non-Cumulative	March 2015	76,000	25,000	1,900	6.100% to, but excluding, 3/17/25; 3-mo. LIBOR +389.8 bps thereafter	61.00	116	On or after March 17, 2025										

[illegible]

												On or after																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	

						6.125% to, but excluding, 4/27/27; 5-yr U.S. Treasury Rate +323.1 bps thereafter	46.79	94	On or after April 27, 2027
Series TT ⁽⁶⁾	6.125% Fixed-Rate Reset Non-Cumulative	April 2022	80,000	25,000	2,000				
	Floating Rate					3-mo.			On or after
	Non- November					LIBOR +			November
Series 1 ⁽⁷⁾	Cumulative	2004	3,186	30,000	96	75 bps ⁽⁸⁾	0.80	3	28, 2009
	Floating Rate					3-mo.			On or after
	Non- March					LIBOR +			November
Series 2 ⁽⁷⁾	Cumulative	2005	9,967	30,000	299	65 bps ⁽⁸⁾	0.80	10	28, 2009
	Floating Rate					3-mo.			On or after
	Non- November					LIBOR +			November
Series 4 ⁽⁷⁾	Cumulative	2005	7,010	30,000	210	75 bps ⁽⁴⁾	1.01	9	28, 2010
	Floating Rate					3-mo.			On or after
	Non- March					LIBOR +			May 21,
Series 5 ⁽⁷⁾	Cumulative	2007	13,331	30,000	400	50 bps ⁽⁴⁾	1.01	17	2012
Series TT ⁽⁶⁾	6.125% Fixed-Rate Reset Non-Cumulative	April 2022	80,000	25,000	2,000				
	Floating Rate								
Series 1 ⁽⁶⁾	Non- November								
	Cumulative	2004	3,185	30,000					
	Floating Rate								
Series 2 ⁽⁶⁾	Non- March								
	Cumulative	2005	9,967	30,000					
	Floating Rate								
Series 4 ⁽⁶⁾	Non- November								
	Cumulative	2005	7,010	30,000					
	Floating Rate								
Series 5 ⁽⁶⁾	Non- March								
	Cumulative	2007	13,331	30,000					
Issuance costs									
and certain	Issuance costs and								
adjustments	certain adjustments	(347)							
Total	Total	4,088,101		\$28,397					
Total									
Total								4,088,099	\$ 28,310

(1) For all series of preferred stock other than Series B, Series F, Series G and Series L, "Dividend per Share" means the amount of dividends per depositary share of such series.

(2) The Corporation may redeem series of preferred stock on or after the redemption date, in whole or in part, at its option, at the liquidation preference plus declared and unpaid dividends. Series B and Series L Preferred Stock do not have early redemption/call rights.

(3) Ownership is held in the form of depositary shares, each representing a 1/1,000th interest in a share of preferred stock, paying a quarterly cash dividend, if and when declared.

(4) Subject to 4.00% minimum rate per annum.

(5) The number of basis points to be added to 3-mo. Term SOFR is equal to the original basis point spread applicable to floating rate periods when the preferred stock was originally issued, plus a tenor spread adjustment of 26.161 bps relating to the transition from 3-mo. SOFR to 3-mo. Term SOFR.

(6) Solely for the dividend period commencing 6/1/23, the per annum dividend rate for the Series U Preferred Stock was determined by reference to 3-mo. LIBOR + 313.5 bps.

(7) Ownership is held in the form of depositary shares, each representing a 1/25th interest in a share of preferred stock, paying a semi-annual cash dividend, if and when declared, until the first redemption date at which time, it adjusts to a quarterly cash dividend, if and when declared.

(8) Ownership is held in the form of depositary shares, each representing a 1/25th interest in a share of preferred stock, paying a quarterly cash dividend, if and when declared.

(9) Ownership is held in the form of depositary shares, each representing a 1/1,200th interest in a share of preferred stock, paying a quarterly cash dividend, if and when declared.

(10) Subject to 3.00% minimum rate per annum.

n/a = not applicable

The table below presents the changes in accumulated OCI after-tax for 2023, 2022 2021 and 2020, 2021.

										2023		2022	
		Pretax								Tax		After-tax	
		Pretax								effect		Pretax	
		Tax		After-		Tax		After-					
		Pretax	effect	tax	Pretax	effect	tax	Pretax	effect	tax			
(Dollars in millions)													
(Dollars in millions)													
(Dollars in millions)	(Dollars in millions)	2022		2021		2020		2023		2022			
Debt securities:	Debt securities:												
Net increase (decrease)	Net increase (decrease)												
in fair value	in fair value	\$ (7,995)	\$ 1,991	\$ (6,004)	\$(2,749)	\$ 689	\$(2,060)	\$ 6,819	\$(1,712)	\$ 5,107			
Net increase (decrease) in fair value													
Net increase (decrease) in fair value													

Net realized (gains) losses reclassified into earnings ⁽¹⁾										
Net realized (gains) losses reclassified into earnings ⁽¹⁾										
Net realized (gains) losses reclassified into earnings ⁽¹⁾	Net realized (gains) losses reclassified into earnings ⁽¹⁾									
		(32)	8	(24)	(22)	5	(17)	(411)	103	(308)
Net change	Net change	(8,027)	1,999	(6,028)	(2,771)	694	(2,077)	6,408	(1,609)	4,799
Debit valuation adjustments:										
Debit valuation adjustments:										
Net increase (decrease) in fair value										
Net increase (decrease) in fair value										
Net increase (decrease) in fair value	Net increase (decrease) in fair value	980	(237)	743	449	(103)	346	(669)	156	(513)
Net realized (gains) losses reclassified into earnings ⁽¹⁾	Net realized (gains) losses reclassified into earnings ⁽¹⁾	16	(4)	12	13	(3)	10	19	(4)	15
Net change	Net change	996	(241)	755	462	(106)	356	(650)	152	(498)
Net change										
Net change										
Derivatives:										
Derivatives:										
Net increase (decrease) in fair value										
Net increase (decrease) in fair value										
Net increase (decrease) in fair value	Net increase (decrease) in fair value	(13,711)	3,430	(10,281)	(2,849)	703	(2,146)	1,098	(268)	830
Reclassifications into earnings:	Reclassifications into earnings:									
Net interest income	Net interest income	332	(84)	248	(166)	48	(118)	6	(1)	5
Net interest income										
Net interest income										
Market making and similar activities										
Compensation and benefits expense										
Compensation and benefits expense										
Compensation and benefits expense	Compensation and benefits expense	(29)	7	(22)	(55)	13	(42)	(12)	3	(9)
Net realized (gains) losses reclassified into earnings	Net realized (gains) losses reclassified into earnings	303	(77)	226	(221)	61	(160)	(6)	2	(4)
Net change	Net change	(13,408)	3,353	(10,055)	(3,070)	764	(2,306)	1,092	(266)	826
Net change										
Net change										
Employee benefit plans:										
Employee benefit plans:										
Net increase (decrease) in fair value	Net increase (decrease) in fair value	(1,103)	276	(827)	463	(72)	391	(381)	80	(301)
Net increase (decrease) in fair value										
Net increase (decrease) in fair value										
Net actuarial losses and other reclassified into earnings ⁽²⁾										
Net actuarial losses and other reclassified into earnings ⁽²⁾										

Net actuarial losses and other reclassified into earnings ⁽²⁾	Net actuarial losses and other reclassified into earnings ⁽²⁾	198	(49)	149	295	(67)	228	261	(63)	198
Settlements, curtailments and other	Settlements, curtailments and other	11	—	11	5	—	5	5	—	5
Net change	Net change	(894)	227	(667)	763	(139)	624	(115)	17	(98)
Foreign currency:	Foreign currency:									
Net increase (decrease) in fair value	Net increase (decrease) in fair value	332	(390)	(58)	296	(341)	(45)	(251)	199	(52)
Net increase (decrease) in fair value	Net increase (decrease) in fair value									
Net realized (gains) losses reclassified into earnings ⁽¹⁾	Net realized (gains) losses reclassified into earnings ⁽¹⁾	—	1	1	(5)	5	—	(1)	1	—
Net change	Net change	332	(389)	(57)	291	(336)	(45)	(252)	200	(52)
Net change	Net change									
Net change	Net change									
Total other comprehensive income (loss)	Total other comprehensive income (loss)	\$ (21,001)	\$ 4,949	\$ (16,052)	\$ (4,325)	\$ 877	\$ (3,448)	\$ 6,483	\$ (1,506)	\$ 4,977

⁽¹⁾ Reclassifications of pretax debt securities, DVA and foreign currency (gains) losses are recorded in other income in the Consolidated Statement of Income.

⁽²⁾ Reclassifications of pretax employee benefit plan costs are recorded in other general operating expense in the Consolidated Statement of Income.

NOTE 15 Earnings Per Common Share

The calculation of EPS and diluted EPS for 2023, 2022 2021 and 2020 2021 is presented below. For more information on the calculation of EPS, see Note 1 – Summary of Significant Accounting Policies.

(In millions, except per share information)	(In millions, except per share information)	2022	2021	2020
(In millions, except per share information)	(In millions, except per share information)			
(In millions, except per share information)	(In millions, except per share information)			
Earnings per common share	Earnings per common share			
Net income	Net income			
Net income	Net income	\$27,528	\$31,978	\$17,894
Preferred stock dividends and other	Preferred stock dividends and other	(1,513)	(1,421)	(1,421)
Net income applicable to common shareholders	Net income applicable to common shareholders	\$26,015	\$30,557	\$16,473

Average	Average			
common	common			
shares issued	shares issued			
and	and			
outstanding	outstanding	8,113.7	8,493.3	8,753.2

Average common shares
issued and outstanding

Average common shares
issued and outstanding

Earnings per	Earnings per			
common	common			
share	share	\$ 3.21	\$ 3.60	\$ 1.88

Diluted
earnings per
common
share

Diluted earnings per
common share

Diluted earnings per
common share

Net income applicable to
common shareholders

Net income applicable to
common shareholders

Net income	Net income			
applicable to	applicable to			
common	common			
shareholders	shareholders	\$26,015	\$30,557	\$16,473

Average	Average			
common	common			
shares issued	shares issued			
and	and			
outstanding	outstanding	8,113.7	8,493.3	8,753.2

Average common shares
issued and outstanding

Average common shares
issued and outstanding

Dilutive	Dilutive			
potential	potential			
common	common			
shares ⁽¹⁾	shares ⁽¹⁾	53.8	65.1	43.7

Total diluted	Total diluted			
average	average			
common	common			
shares	shares			
issued and	issued and			
outstanding	outstanding	8,167.5	8,558.4	8,796.9

Diluted	Diluted			
earnings per	earnings per			
common	common			
share	share	\$ 3.19	\$ 3.57	\$ 1.87

⁽¹⁾ Includes incremental dilutive shares from preferred stock, restricted stock units, restricted stock and warrants.

For 2023, 2022 and 2021, and 2020, 62 million average dilutive potential common shares associated with the Series L preferred stock were not included in the diluted share count because the result would have been antidilutive under the "if-converted" method.

NOTE 16 Regulatory Requirements and Restrictions

The Federal Reserve, Office of the Comptroller of the Currency (OCC) and FDIC (collectively, U.S. banking regulators) jointly establish regulatory capital adequacy rules, including Basel 3, for U.S. banking organizations. As a financial holding company, the Corporation is subject to capital adequacy rules issued by the Federal Reserve. The Corporation's banking entity affiliates are subject to capital adequacy rules issued by the OCC.

The Corporation and its primary banking entity affiliate, BANA, are Advanced approaches institutions under Basel 3. As Advanced approaches institutions, the Corporation and its

banking entity affiliates are required to use Standardized and Advanced approaches. The applicable regulatory framework is the Prompt Corrective Action (PCA) framework.

The Corporation is required to maintain a minimum capital ratio of 10.0 percent in order to avoid certain restrictions. The Corporation's insured depository institution affiliate is required to maintain a minimum capital ratio of 10.0 percent under the PCA framework.

The following table below presents the Corporation's regulatory capital ratios under the Standardized and Advanced approaches as measured at December 31, 2023.

Regulatory Capital under Basel 3

143 Bank of America	Bank of America Corporation	
	Standardized Approach ⁽¹⁾	Advanced Approaches ⁽²⁾
(Dollars in millions, except as noted)		
Risk-based capital metrics:		
Common equity tier 1 capital	\$ 180,060	\$ 180,060
Tier 1 capital	208,446	208,446
Regulatory Capital under Basel 3		
Total capital ⁽⁴⁾	238,773	230,916
Risk-weighted assets (in billions)	1,605	Bank of America Corporation
Common equity tier 1 capital ratio	Standardized Approach 11.2 %	Advanced Approach 12.8 %
Tier 1 capital ratio	13.0	14.8
Risk-based capital metrics:	14.9	16.4
Common equity tier 1 capital	\$ 194,928	\$ 194,928
Leverage-based metrics:		
Tier 1 capital	223,323	223,323
Adjusted quarterly average assets (in billions) ⁽⁵⁾	\$ 2,997	\$ 2,997
Total capital ⁽⁴⁾	251,399	241,448
Tier 1 leverage ratio	7.0 %	7.0 %
Risk-weighted assets (in billions)	1,651	1,459
Supplementary leverage exposure (in billions)		\$ 3,523
Common equity tier 1 capital ratio	11.8 %	13.4 %
Supplementary leverage ratio		5.9 %
Tier 1 capital ratio	13.5	15.3
Total capital ratio	15.2	16.6
Risk-based capital metrics:		
Leverage-based metrics:		
Common equity tier 1 capital	\$ 171,759	\$ 171,759
Adjusted quarterly average assets (in billions) ⁽⁵⁾	\$ 3,135	\$ 3,135
Tier 1 capital	196,465	196,465
Tier 1 leverage ratio	7.1 %	7.1 %
Total capital ⁽⁴⁾	227,592	220,616
Supplementary leverage exposure (in billions)		\$ 3,676
Risk-weighted assets (in billions)	1,618	1,399
Supplementary leverage ratio		6.1 %
Common equity tier 1 capital ratio	10.6 %	12.3 %
Tier 1 capital ratio	12.1	14.0
Risk-based capital metrics:	14.1	15.8
Common equity tier 1 capital	\$ 180,060	\$ 180,060
Leverage-based metrics:		
Tier 1 capital	208,446	208,446
Adjusted quarterly average assets (in billions) ⁽⁵⁾	\$ 3,087	\$ 3,087
Total capital ⁽⁴⁾	238,773	230,916
Tier 1 leverage ratio	6.4 %	6.4 %
Risk-weighted assets (in billions)	1,605	1,411
Supplementary leverage exposure (in billions)		\$ 3,604
Common equity tier 1 capital ratio	11.2 %	12.8 %
Supplementary leverage ratio		5.5 %
Tier 1 capital ratio	13.0	14.8
Total capital ratio	14.9	16.4
Leverage-based metrics:		
Adjusted quarterly average assets (in billions) ⁽⁵⁾	\$ 2,997	\$ 2,997
Tier 1 leverage ratio	7.0 %	7.0 %

Supplementary leverage exposure (in billions)	\$	3,523
Supplementary leverage ratio		5.9 %

- (a) As of **December 31, 2022**, **December 31, 2023** and **2021, 2022**, capital ratios are calculated using the regulatory capital rule that allows a five-year transition period related to the adoption of the current expected credit losses accounting standard on January 1, 2020.
- (b) The capital conservation buffer and global systemically important bank (G-SIB) surcharge were 2.5 percent at both December 31, 2022 and 2021. The Corporation's stress capital buffer applied in place of the capital conservation buffer under the Standardized approach. The CET1 common equity tier 1 (CET1) capital regulatory minimum is the sum of the CET1 capital ratio minimum of 4.5 percent, the Corporation's G-SIB surcharge of 2.5 percent and the Corporation's capital conservation buffer of 2.5 percent (under the Advanced approach). The CET1 capital ratio at December 31, 2022 was 10.5 percent (under the Standardized approach), as applicable. The countercyclical capital buffer was zero for both periods. The SLR regulatory minimum includes a leverage buffer of 2.0 percent.
- (c) Risk-based capital regulatory minimums at December 31, 2022 **both December 31, 2023 and 2021 2022** are the minimum ratios under Basel 3 including a capital conservation buffer of 2.5 percent. The regulatory minimums for the leverage ratios as of both period ended December 31, 2022 were 1.0 percent.
- (d) Total capital under the Advanced approaches differs from the Standardized approach due to differences in the amount permitted in Tier 2 capital related to the qualifying allowance for credit losses.
- (e) Reflects total average assets adjusted for certain Tier 1 capital deductions.

The capital adequacy rules issued by the U.S. banking regulators require institutions to meet the established minimums outlined in the table above. Failure to meet the minimum requirements can lead to certain mandatory and discretionary actions by regulators that could have a material adverse impact on the Corporation's financial position. At December 31, 2022 December 31, 2023 and 2021, 2022, the Corporation and its banking entity affiliates were well capitalized.

Other Regulatory Matters

At **December 31, 2022** **December 31, 2023** and **2021, 2022**, the Corporation had cash and cash equivalents in the amount of **\$5.6 billion** **\$3.6 billion** and **\$4.0 billion** **\$5.6 billion**, and securities with a fair value of **\$16.6 billion** **\$18.0 billion** and **\$10.6 billion** **\$16.6 billion** that were segregated in compliance with securities regulations. Cash and cash equivalents segregated in compliance with securities regulations are a component of restricted cash. For more information, see *Note 10 – Securities Financing Agreements, Short-term Borrowings, Collateral and Restricted Cash*. In addition, at **December 31, 2022** **December 31, 2023** and **2021, 2022**, the Corporation had cash deposited with clearing organizations of **\$20.7 billion** **\$23.7 billion** and **\$28.6 billion** **\$20.7 billion** primarily recorded in other assets on the Consolidated Balance Sheet.

Bank Subsidiary Distribution

The primary sources of funds for cast subsidiaries, BANA and Bank of Ame from BANA and \$250 million \$199 mill

The amount of dividends that a stockholder is entitled to receive is based on the profits for that year combined with its retained earnings. The dividends consist of net income less dividends paid. In 2019, Bank of America paid **\$16.1 billion** in dividends and retained **\$12.0 billion** to the Corporation for any such dividend declaration. Bank of America also paid an additional amount equal to its retained earnings.

NOTE 17 Employee Benefit Plans

Pension and Postretirement Plans

The Corporation sponsors a qualified noncontributory trustee pension plan (Qualified Pension Plan), a number of noncontributory nonqualified pension plans and postretirement health and life plans that cover eligible employees. Non-U.S.

pension plans sponsored by the Corp
The Qualified Pension Plan has a
the time a benefit payment is made f
certain compensation credits. The Co
Benefits earned under the Quali
investment credits or interest credits i
The Corporation has an annuity c
(Other Pension Plan). The Corporatio
investment performance of the annuit
Contributions may be required in the f
The Corporation's noncontributory,
certain eligible employees.

In addition to retirement pension benefits, certain benefits-eligible employees may become eligible to continue participation as retirees in health care and/or life insurance plans sponsored by the Corporation. These plans are referred to as the Postretirement Health and Life Plans.

The Pension and Postretirement Plans table summarizes the changes in the fair value of plan assets, changes in the projected benefit obligation (PBO), the funded status of both the accumulated benefit obligation (ABO) and the PBO, and the weighted-average assumptions used to determine benefit obligations for the pension plans and postretirement plans at December 31, 2022 December 31, 2023 and 2021, 2022. The estimate of the Corporation's PBO associated with these plans considers various actuarial assumptions, including assumptions for mortality rates and discount rates. The discount rate assumptions are derived from a cash flow matching technique that utilizes rates that are based on Aa-rated corporate bonds with cash flows that match estimated benefit payments of each of the plans. The decreases in the weighted-average discount rates in 2023 resulted in an increase to the PBO of \$511 million at December 31, 2023. The increases in the weighted-average discount rates in 2022 resulted in a decrease to the PBO of approximately \$5.3 billion at December 31, 2022. The increases in the weighted-average discount rates in 2021 resulted in a decrease to the PBO of approximately \$895 million at December 31, 2021. Significant gains and losses related to changes in the PBO for 2022 2023 and 2021 2022 primarily resulted from changes in the discount rate.

141 Bank of America

Pension and Pension and
Postretirement Postretirement
Plans (1) Plans (1)

Pension and Postretirement
Plans (1)

Pension and Postretirement
Plans (1)

		Qualified Pension Plan		Nonqualified and Other Pension Plans		Postretirement Health and Life Plans			
		Qualified Pension Plan	Non-U.S. Pension Plans	Other Pension Plans					
(Dollars in millions)	Qualified Pension Plan								
	Qualified Pension Plan								
	Qualified Pension Plan								
	Qualified Pension Plan								
	Qualified Pension Plan								
	Qualified Pension Plan								
	Qualified Pension Plan								
	Qualified Pension Plan								
	Qualified Pension Plan								
		Qualified Pension Plan							Non-U.S. Pension Pla
(Dollars in millions)	(Dollars in millions)	2022	2021	2022	2021	2022	2021	2022	2021
Fair value, January 1	Fair value, January 1	\$22,078	\$21,776	\$3,031	\$3,078	\$2,585	\$2,789	\$ 117	\$ 143

Actual return on plan assets	Actual return on plan assets	(3,896)	1,215	(898)	62	(332)	(55)	2	—	
Company contributions (withdrawals)	Company contributions (withdrawals)	—	—	30	24	(135)	87	45	38	
Plan participant contributions	Plan participant contributions	—	—	1	1	—	—	104	107	
Settlements and curtailments	Settlements and curtailments	—	—	(51)	(11)	(6)	—	—	—	
Benefits paid	Benefits paid	(924)	(913)	(62)	(84)	(226)	(236)	(161)	(171)	
Federal subsidy on benefits paid	Federal subsidy on benefits paid	n/a	n/a	n/a	n/a	n/a	n/a	—	—	
Foreign currency exchange rate changes	Foreign currency exchange rate changes	n/a	n/a	(323)	(39)	n/a	n/a	n/a	n/a	Foreign currency exchange rate changes n/a n/a 97
Fair value, December 31	Fair value, December 31	\$17,258	\$22,078	\$1,728	\$3,031	\$1,886	\$2,585	\$ 107	\$ 117	
Change in projected benefit obligation	Change in projected benefit obligation	Change in projected benefit obligation								
Projected benefit obligation, January 1	Projected benefit obligation, January 1	\$15,676	\$16,427	\$3,116	\$3,340	\$2,753	\$3,005	\$ 928	\$1,007	
Service cost	Service cost	—	—	29	28	—	—	4	5	
Interest cost	Interest cost	438	414	53	45	74	67	25	24	
Plan participant contributions	Plan participant contributions	—	—	1	1	—	—	104	107	
Plan amendments	Plan amendments	—	—	3	—	—	—	—	—	
Settlements and curtailments	Settlements and curtailments	—	—	(51)	(11)	(6)	—	—	—	
Actuarial loss (gain)	Actuarial loss (gain)	(3,610)	(252)	(1,054)	(152)	(486)	(83)	(198)	(44)	
Benefits paid	Benefits paid	(924)	(913)	(62)	(84)	(226)	(236)	(161)	(171)	
Federal subsidy on benefits paid	Federal subsidy on benefits paid	n/a	n/a	n/a	n/a	n/a	n/a	—	—	
Foreign currency exchange rate changes	Foreign currency exchange rate changes	n/a	n/a	(283)	(51)	n/a	n/a	(2)	—	
Projected benefit obligation, December 31	Projected benefit obligation, December 31	\$11,580	\$15,676	\$1,752	\$3,116	\$2,109	\$2,753	\$ 700	\$ 928	
Projected benefit obligation, December 31	Projected benefit obligation, December 31									
Projected benefit obligation, December 31	Projected benefit obligation, December 31									
Amounts recognized on Consolidated Balance Sheet	Amounts recognized on Consolidated Balance Sheet									
Other assets	Other assets									
Other assets	Other assets	\$ 5,678	\$ 6,402	\$ 370	\$ 550	\$ 495	\$ 777	\$ —	\$ —	
Accrued expenses and other liabilities	Accrued expenses and other liabilities	—	—	(394)	(635)	(718)	(945)	(593)	(811)	
Net amount recognized, December 31	Net amount recognized, December 31	\$ 5,678	\$ 6,402	\$ (24)	\$ (85)	\$ (223)	\$ (168)	\$ (593)	\$ (811)	
Funded status, December 31	Funded status, December 31	Funded status, December 31								
Accumulated benefit obligation	Accumulated benefit obligation	\$11,580	\$15,676	\$1,694	\$3,031	\$2,109	\$2,753	n/a	n/a	Accumulated benefit obligation \$ 11,769 \$ 11,580 \$ 1,903
Overfunded (unfunded) status of ABO	Overfunded (unfunded) status of ABO	5,678	6,402	34	—	(223)	(168)	n/a	n/a	Overfunded (unfunded) status of ABO 5,863 5,678 5,678 (124) (12)

Components of Net Periodic Benefit Cost	Components of Net Periodic Benefit Cost
Components of Net Periodic Benefit Cost	Components of Net Periodic Benefit Cost
Components of Net Periodic Benefit Cost	Components of Net Periodic Benefit Cost

316/515

REFINITIV 

Rate of compensation increase	Rate of compensation increase	n/a	n/a	n/a	4.46	4.11	4.10	
		Nonqualified and Other Pension Plans		Postretirement Health and Life Plans				
		Nonqualified and Other Pension Plans						
		Nonqualified and Other Pension Plans						
		Nonqualified and Other Pension Plans						
(Dollars in millions)	(Dollars in millions)	2022	2021	2020	2022	2021	2020	(Dollars in millions)
Components of net periodic benefit cost (income)	Components of net periodic benefit cost (income)							
Service cost	Service cost							
Service cost	Service cost	\$ —	\$ —	\$ 1	\$ 4	\$ 5	\$ 5	
Interest cost	Interest cost	74	67	90	25	24	32	
Expected return on plan assets	Expected return on plan assets	(59)	(49)	(71)	(2)	(3)	(4)	
Amortization of actuarial loss (gain) and prior service cost	Amortization of actuarial loss (gain) and prior service cost	54	63	50	(9)	20	29	
Amortization of actuarial loss (gain) and prior service cost								
Amortization of actuarial loss (gain) and prior service cost								
Other								
Other	Other	1	—	—	—	—	(2)	
Net periodic benefit cost (income)	Net periodic benefit cost (income)	\$ 70	\$ 81	\$ 70	\$ 18	\$ 46	\$ 60	
Weighted-average assumptions used to determine net cost for years ended December 31	Weighted-average assumptions used to determine net cost for years ended December 31							Weighted-average assumptions used to determine net cost for years ended December 31
Discount rate	Discount rate	2.80 %	2.33 %	3.20 %	2.85 %	2.48 %	3.27 %	Discount rate
Expected return on plan assets	Expected return on plan assets	2.38	1.88	2.77	2.00	2.00	2.00	
Rate of compensation increase	Rate of compensation increase	4.00	4.00	4.00	n/a	n/a	n/a	Rate of compensation increase
n/a = not applicable								

n/a = not applicable

The asset valuation method used to calculate the expected return on plan assets component of net periodic benefit cost for the Qualified Pension Plan recognizes 60 percent of the prior year's market gains or losses at the next measurement date with the remaining 40 percent spread equally over the subsequent four years.

Gains and losses for all benefit plans except postretirement health care are recognized in accordance with the standard amortization provisions of the applicable accounting guidance. Net periodic postretirement health and life expense was determined using the "projected unit credit" actuarial method. For the U.S. Postretirement Health and Life Plans, 50 percent of the unrecognized gain or loss at the beginning of the year (or at subsequent remeasurement) is recognized on a level basis during the year.

Assumed health care cost trend rate for the Qualified Pension Health and Life Plans. The assumed Postretirement Health and Life Plans i

The Corporation's net periodic ben plan assets. For the Qualified Pensi Health and Life Plans, a 25 bp bps de the net periodic benefit cost for 2022.

Pretax Amounts included in Accumulated OCI and OCI

(Dollars in millions)	Qualified Pension Plan		Non-U.S. Pension Plans	
	2022	2021	2022	2021
Net actuarial loss (gain)	\$ 4,775	\$ 3,425	\$ 312	\$ 456
Prior service cost (credits)	—	—	43	17
Amounts recognized in accumulated OCI	\$ 4,775	\$ 3,425	\$ 355	\$ 473
Current year actuarial loss (gain)	\$ 1,490	\$ (294)	\$ (107)	\$ (154)
Amortization of actuarial gain (loss) and prior service cost	(140)	(193)	(14)	(19)
Current year prior service cost (credit)	—	—	3	—
Amounts recognized in OCI	\$ 1,350	\$ (487)	\$ (118)	\$ (173)

Pretax Amounts included in Accumulated OCI and OCI

(Dollars in millions)	Qualified Pension Plan		Non-U.S. Pension Plans	
	2023	2022	2023	2022
Net actuarial loss (gain)	\$ 5,072	\$ 4,775	\$ 478	\$ 312
Prior service cost (credits)	—	—	46	43
Amounts recognized in accumulated OCI	\$ 5,072	\$ 4,775	\$ 524	\$ 355
Current year actuarial loss (gain)	\$ 391	\$ 1,490	\$ 177	\$ (107)
Amortization of actuarial gain (loss) and prior service cost	(94)	(140)	(12)	(14)
Current year prior service cost (credit)	—	—	4	3
Amounts recognized in OCI	\$ 297	\$ 1,350	\$ 169	\$ (118)

Plan Assets

The Qualified Pension Plan has been established as a retirement vehicle for participants, and trusts have been established to secure benefits promised under the Qualified Pension Plan. The Corporation's policy is to invest the trust assets in a prudent manner for the exclusive purpose of providing benefits to participants and defraying reasonable expenses of administration. The Corporation's investment strategy is designed to provide a total return that, over the long term, increases the ratio of assets to liabilities. The strategy attempts to maximize the investment return on assets at a level of risk deemed appropriate by the Corporation while complying with ERISA and any applicable regulations and laws. The investment strategy utilizes asset allocation as a principal determinant for establishing the risk/return profile of the assets. Asset allocation ranges are established, periodically reviewed and adjusted as funding levels and liability characteristics change. Active and passive investment managers are employed to help enhance the risk/return profile of the assets. An additional aspect of the investment strategy used to minimize risk (part of the asset allocation plan) includes matching the exposure of participant-selected investment measures.

The assets of the Non-U.S. Pension Plans are primarily attributable to a U.K. pension plan. This U.K. pension plan's assets are invested prudently so that the benefits promised to members are provided with consideration given to the nature and the duration of the plans' liabilities. The selected asset

allocation strategy is designed to achi

The expected rate of return on pla
class volatility and correlations, cur
expectations on potential future marl
market-related value for the Qualified
Postretirement Health and Life Plans
performance of the assets in the Qu
Health and Life Plans, a return that i
solely in an annuity contract, which
duration of the plan's obligations.

The target allocations for 2023 202
Other Pension Plans are presented i
Corporation in the amounts of \$299
December 31, 2023 and \$398 million

2023 2024 Target Allocation

Asset Category

Equity securities

Debt securities

Real estate

Other

Fair Value Measurements

For more information on fair value measurements, including descriptions of Level 1, 2 and 3 of the fair value hierarchy and the valuation methods employed by the Corporation, see the Fair Value Measurements section of the 2023 Form 10-K. Combined plan investment assets measured at fair value by level and in total at December 31, 2022 December 31, 2023 and 2021 2022 are summarized in the Fair Value Measurements table below.

Fair Value Measurements

Fair Value Measurements

Fair Value Measurements

		Level 1				Level 2				Level 3			
		Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
		December 31, 2022				December 31, 2021				December 31, 2023			
		(Dollars in millions)				(Dollars in millions)				(Dollars in millions)			
Money market and interest-bearing cash													
Money market and interest-bearing cash													
Money market and interest-bearing cash	Money market and interest-bearing cash	\$ 1,329	\$ —	\$ —	\$ 1,329	\$ 1,339	\$ —	\$ —	\$ 1,339				
U.S. government and government agency obligations	U.S. government and government agency obligations	3,313	704	5	4,022	4,948	934	6	5,888				
Corporate debt	Corporate debt	—	3,587	—	3,587	—	4,900	—	4,900				
Non-U.S. debt securities	Non-U.S. debt securities	327	933	—	1,260	925	1,165	—	2,090				
Asset-backed securities	Asset-backed securities	—	1,273	—	1,273	—	1,485	—	1,485				
Mutual and exchange-traded funds	Mutual and exchange-traded funds	1,247	—	—	1,247	1,395	—	—	1,395				
Collective investment funds	Collective investment funds	—	1,988	—	1,988	—	3,419	—	3,419				
Common and preferred stocks	Common and preferred stocks	3,901	—	—	3,901	4,826	—	—	4,826				
Real estate investment trusts	Real estate investment trusts	76	—	—	76	87	—	—	87				
Participant loans	Participant loans	—	—	6	6	—	—	7	7				
Other investments (1)													
Other investments (1)													

2021					
U.S.					
government					
and					
U.S. government and	government				
government agency	agency				
obligations	obligations	\$ 8	\$ —	\$ (1)	\$ 7
Participant					
Participant loans	loans	8	—	(1)	7
Participant loans					
Participant loans					
Other					
Other investments	investments	628	6	50	684
Total	Total	\$ 644	\$ 6	\$ 48	\$ 698

Projected Benefit Payments

Benefit payments projected to be made from the Qualified Pension Plan, Non-U.S. Pension Plans, Nonqualified and Other Pension Plans, and Postretirement Health and Life Plan

Projected

Benefit

Payments Projected Benefit Payments

Projected Benefit Payments

Projected Benefit Payments

	(Dollars in millions)	Qualified Pension Plan ⁽¹⁾	Non-U.S. Pension Plans ⁽²⁾	Nonqualified and Other Pension Plans ⁽²⁾	Postretirement Health and Life Plans ⁽³⁾
2023		\$ 892	\$ 114	\$ 235	\$ 73

(Dollars in millions)

		Qualified Pension Plan ⁽¹⁾	Non-U.S. Pension Plans ⁽²⁾	Nonqualified and Other Pension Plans ⁽²⁾
2024	2024	927	108	232
2025	2025	918	116	223
2026	2026	921	117	215
2027	2027	908	114	209
2028 - 2032		4,289	580	884
2028				263
2029 - 2033				

⁽¹⁾ Benefit payments expected to be made from the plan's assets.

⁽²⁾ Benefit payments expected to be made from a combination of the plans' and the Corporation's assets.

⁽³⁾ Benefit payments (net of retiree contributions) expected to be made from a combination of the plans' and the Corporation's assets.

Defined Contribution Plans

The Corporation maintains qualified and non-qualified **nonqualified** defined contribution retirement plans. The Corporation recorded expense of \$1.2 billion in 2023, 2022, 2021 and 2020, 2021 related to the qualified defined contribution plans. At December 31, 2022, December 31, 2023 and 2021, 2022, 178 million and 179 million and 173 million shares of the Corporation's common stock were held by these plans. Payments to the plans for dividends on common stock were \$153 million, \$166 million, \$153 million and \$139 million in 2023, 2022 and \$138 million in 2022, 2021, and 2020, respectively.

Certain non-U.S. employees are covered under defined contribution pension plans that are separately administered in accordance with local laws.

NOTE 18 Stock-based Compensation Plans

The Corporation administers a number of equity compensation plans, with awards being granted predominantly from the Bank of America Corporation Equity Plan (BACEP). Under this plan, 715 million 790 million shares of the Corporation's common stock are authorized to be used for grants of awards.

During 2022 and 2021, the Corporation granted 115 million and 102 million RSUs to certain employees under the BACEP. These RSUs were authorized to settle predominantly in shares of common stock of the Corporation. Certain RSUs will be settled in cash or contain settlement provisions that subject these awards to variable accounting whereby compensation expense is adjusted to fair value based on changes in the share price of the Corporation's common stock up to the settlement date. The RSUs granted in 2023 and 2022 will generally vest over four years. Of the RSUs granted in 2021, 81 million will generally vest over four years and 18 million will vest over three years. The four-year awards vest primarily in one-fourth increments on each of the first four anniversaries of the grant date while the three-year awards vest primarily in one-third increments on each of the first three anniversaries of the grant date, provided that the employee remains continuously employed with the Corporation during that time, and will be expensed ratably over the vesting period, net of estimated forfeitures, for non-retirement eligible employees based on the grant-date fair value of the shares. Of the RSUs granted in 2023 and 2022, 42 million and 2021 that vest over four years, 39 million and 27 million do not include retirement eligibility. For all other RSUs granted to employees who are retirement eligible, they are deemed authorized as of the beginning of the year preceding the grant date when the incentive award plans are generally approved. As a result, the estimated value is expensed ratably over the year preceding the grant date. The compensation cost for the stock-based plans was \$2.9 billion \$3.1 billion, \$3.0 billion \$2.9 billion and \$2.1 billion \$3.0 billion, and the related income tax benefit was \$697 million \$733 million, \$697 million and \$723 million for 2023, 2022 and \$505 million for 2022, 2021, and 2020, respectively. At December 31, 2022 December 31, 2023, there was an estimated \$3.6 billion \$4.0 billion of total unrecognized compensation cost related to certain share-based compensation awards that is expected to be recognized generally over a period of up to four years, with a weighted-average period of 2.7 2.5 years.

NOTE 19 Income Taxes

The components of income tax expense for 2023, 2022 2021 and 2020 2021 are presented in the table below.

Income

Tax Expense **Income Tax Expense**

Income Tax Expense

Income Tax Expense

(Dollars in millions)

(Dollars in millions)

(Dollars in millions)	(Dollars in millions)	2022	2021	2020
Current income tax expense	Current income tax expense			
U.S. federal	U.S. federal	\$1,157	\$1,076	\$1,092
U.S. state and local	U.S. state and local	389	775	1,076
Non-U.S.	Non-U.S.	1,156	985	670
Total current expense	Total current expense	2,702	2,836	2,838

Restricted Stock and Restrict

The total fair value of restricted stock \$2.3 billion \$3.4 billion and \$2.3 billion the share-settled restricted stock and

Stock-settled Restricted Stock and Restricted Stock Units

Stock-settled Restricted Stock and Restricted Stock Units

			Weighted Average Grant Date Fair Value
		Shares/Units	Value
Outstanding at January 1,			
2022		185,050,842	\$ 31.00
		Shares/Units	
		Shares/Units	
		Shares/Units	
Outstanding at January 1,			
2023			
Granted	Granted	100,108,395	40.00
Vested	Vested	(73,288,792)	30.00
Canceled	Canceled	(9,310,647)	35.00
Outstanding at			
December 31, 2022		202,559,798	38.00
Outstanding at December 31, 2023			

Deferred income tax expense	Deferred income tax expense	Deferred income tax expense		
U.S. federal	U.S. federal	110	962	(799)
U.S. state and local	U.S. state and local	254	491	(233)
Non-U.S.	Non-U.S.	375	(2,291)	(705)
Total deferred expense	Total deferred expense	739	(838)	(1,737)
Total income tax expense	Total income tax expense	\$3,441	\$1,998	\$1,101

Total income tax expense does not reflect the tax effects of items that are included in OCI each period. For more information, see *Note 14 – Accumulated Other Comprehensive Income* in 2023 and a benefit of \$4.9 billion and \$877 million in 2022 and 2021 and an expense of \$1.5 billion 2021. The increase in 2020, the federal deferred tax benefit was primarily driven by the expiration of the federal research and development credit. Income tax expense for 2023, 2022 and 2021 varied from the amount computed by applying the statutory income tax rate to income before income taxes. The reconciliation of the expected U.S. federal income tax expense, calculated by applying the federal statutory tax rate, to the Corporation's actual income tax expense, and the effect

Reconciliation of Income Tax Expense

Reconciliation of Income Tax Expense

Reconciliation of Income Tax Expense

		Amount	Percent	Amount	Percent	Amount	Percent	Amount	Percent	Amount
(Dollars in millions)	(Dollars in millions)	2022		2021		2020		2023		
Expected U.S. federal income tax expense	Expected U.S. federal income tax expense	\$ 6,504	21.0 %	\$ 7,135	21.0 %	\$ 3,989	21.0 %	\$ 5,952	21.0 %	
Increase (decrease) in taxes resulting from:	Increase (decrease) in taxes resulting from:									
State tax expense, net of federal benefit	State tax expense, net of federal benefit	756	2.4	1,087	3.2	728	3.8			
Affordable housing/energy/other credits	Affordable housing/energy/other credits	(3,698)	(11.9)	(3,795)	(11.2)	(2,869)	(15.1)			
Tax-exempt income, including dividends	Tax-exempt income, including dividends	(273)	(0.9)	(352)	(1.0)	(346)	(1.8)			
Tax law changes										
Changes in prior-period UTBs, including interest	Changes in prior-period UTBs, including interest	(273)	(0.9)	(155)	(0.5)	(41)	(0.2)			
Rate differential on non-U.S. earnings	Rate differential on non-U.S. earnings	368	1.2	45	0.1	218	1.1			

Nondeductible expenses	Nondeductible expenses	352	1.1	206	0.6	324	1.7
Tax law changes		186	0.6	(2,050)	(6.0)	(699)	(3.7)
Other	Other	(481)	(1.5)	(123)	(0.3)	(203)	(1.0)
Total income tax expense	Total income tax expense	\$ 3,441	11.1 %	\$ 1,998	5.9 %	\$ 1,101	5.8 %

Total income tax expense							
Total income tax expense						\$ 1,827	6.4 % \$

Tax Law changes reflect the impact of certain state legislative enactments in 2023 of approximately \$137 million and the 2022 2021 and 2020 2021 U.K. enacted corporate income tax rate changes, which resulted in a negative tax adjustment of approximately \$186 million \$186 million in 2022 and a positive income tax adjustments adjustment of approximately \$2.0 billion and \$700 million in 2021, and 2020, with corresponding adjustments of U.K. net deferred tax assets. The U.K. net deferred tax assets are primarily net operating losses (NOLs), incurred by the Corporation's U.K. broker-dealer entity in historical periods, which do not expire under U.K. tax law and are assessed regularly for impairment. If further U.K. tax law changes are enacted, a corresponding income tax adjustment will be made based on the amount of available net deferred tax assets and applicable tax rate changes.

Tax credits originate from ESG investments in affordable housing and renewable energy partnerships and similar entities. Significant increases in the tax credits recognized over the last three annual periods have been primarily driven by the Corporation's continued growth in the volume of investments in wind and solar energy production facilities, consistent with the Corporation's commitment to support the transition to a lower carbon economy. For additional more information, see Note 6 – Securitizations and Other Variable Interest Entities.

The reconciliation of the beginning unrecognized tax benefits (UTB) balance to the ending balance is presented in the table below.

Reconciliation of the Change in Unrecognized Tax Benefits

Reconciliation of the Change in Unrecognized Tax Benefits

Reconciliation of the Change in Unrecognized Tax Benefits

(Dollars in millions)

(Dollars in millions)

(Dollars in millions)	(Dollars in millions)	2022	2021	2020	2023	2022	2021
Balance, January 1	Balance, January 1	\$1,322	\$1,340	\$1,175			
Increases related to positions taken during the current year	Increases related to positions taken during the current year	121	208	238			
Increases related to positions taken during prior years	Increases related to positions taken during prior years	167	265	99			
(1)	(1)						
Decreases related to positions taken during prior years	Decreases related to positions taken during prior years	(289)	(413)	(172)			
(1)	(1)						
Settlements	Settlements	(99)	(23)	—			
Expiration of statute of limitations	Expiration of statute of limitations	(166)	(55)	—			
Balance, December 31	Balance, December 31	\$1,056	\$1,322	\$1,340			

(1) The sum of the positions taken during prior years differs from the \$(26) million, \$(273) million \$(155) million and \$(41) \$(155) million in the Reconciliation of Income Tax Expense table due to temporary items, state items and jurisdictional offsets, as well as the inclusion of certain items that are not included in the tax return.

At December 31, 2022 December 31, 2023, 2021 2022 and 2020, 2021, the balance of the Corporation's UTBs which would, if recognized, affect the Corporation's effective tax rate was \$709 million \$671 million, \$959 million \$709 million and \$976 million \$959 million, respectively. Included in the UTB balance are some items the recognition of which would not affect the effective tax rate, such as the tax effect of certain temporary differences, the portion of gross state UTBs that would be offset by the tax benefit of the associated federal deduction and the portion of gross non-U.S. UTBs that would be offset by tax reductions in other jurisdictions.

It is reasonably possible that the UTB balance may decrease by as much as \$375 million \$109 million during the next 12 months, since resolved items will be removed from the balance whether their resolution results in payment or recognition.

The Corporation recognized an interest expense of \$35 million in 2023 and interest benefit of \$50 million in 2022 and interest expense of \$32 million in 2021. At December 31, 2023 and \$9 million in 2021 and 2020. At December 31, 2022 and 2021, 2022, the Corporation's accrual for interest and penalties that related to income taxes, net of taxes and remittances, was \$107 million \$134 million and \$167 million \$107 million.

The Corporation files income tax returns in more than 100 state states and non-U.S. jurisdictions each year. The IRS and other tax authorities in countries and states in which the Corporation has significant business operations examine tax returns periodically (continuously in some jurisdictions). The table below summarizes the status of examinations by major jurisdiction for the Corporation and various subsidiaries at December 31, 2022 December 31, 2023.

Tax Examination Status

	Years under Examination ⁽¹⁾	Status at December 31, 2022 2023
United States	2017-2021	Field Examination
California	2012-2014	Appeals
California	2015-2017	Field Examination
California	2018-2020 2018-2021	To begin in 2023 2024
New York	2019-2021	To begin in 2023 Field Examination
United Kingdom ⁽²⁾	2019-2020 2021	Field Examination

⁽¹⁾ All tax years subsequent to the years shown remain subject to examination.

⁽²⁾ Field examination for tax year 2021 2022 to begin in 2023, 2024.

Significant components of the Corporation's net deferred tax assets and liabilities at December 31, 2022 December 31, 2023 and 2021 2022 are presented in the following table.

Deferred Tax Assets and Liabilities

Deferred Tax Assets and Liabilities

Deferred Tax Assets and Liabilities

	December 31		December 31	
(Dollars in millions)	(Dollars in millions)	2022	2021	(Dollars in millions) 2023
Deferred tax assets	Deferred tax assets			
Net operating loss carryforwards		\$ 9,029	\$9,360	
Security, loan and debt valuations		4,788	2,746	
Tax attribute carryforwards ⁽¹⁾				
Security, loan and debt valuations ⁽²⁾				
Allowance for credit losses	Allowance for credit losses	\$ 503	\$ 207	

Credit losses	Credit losses	3,903	3,097
Lease liability	Lease liability	2,443	2,508
Employee compensation and retirement benefits	Employee compensation and retirement benefits	1,625	1,392
Accrued expenses	Accrued expenses	1,143	1,626
Available-for-sale securities		960	—
Credit carryforwards		769	705
Other	Other	1,371	1,160
Gross deferred tax assets	Gross deferred tax assets	25,631	22,594
Valuation allowance	Valuation allowance	(2,133)	(1,988)
Total deferred tax assets, net of valuation allowance	Total deferred tax assets, net of valuation allowance	23,498	20,606
Deferred tax liabilities	Deferred tax liabilities		
Equipment lease financing	Equipment lease financing	2,432	3,083
Equipment lease financing	Equipment lease financing		
Right-of-use asset	Right-of-use asset	2,303	2,358
ESG-related tax credit investments		1,759	1,387
Tax credit investments			
Fixed Assets	Fixed Assets	1,200	2,082
Available-for-sale securities		—	1,016
Other	Other	2,459	1,527
Gross deferred tax liabilities	Gross deferred tax liabilities	10,153	11,453
Net deferred tax assets	Net deferred tax assets	\$13,345	\$9,153

- (1) Includes both net operating loss and tax credit carryforwards.
- (2) Includes AFS debt securities.

The table below summarizes the deferred tax assets and related valuation allowances recognized for the net operating loss (NOL) and tax credit carryforwards at **December 31, 2023**

Net Operating

Net Operating Loss and Tax Credit Carryforward Deferred Tax Assets
Net Operating Loss and Tax Credit Carryforward Deferred Tax Assets
(Dollars in millions)
(Dollars in millions)

		Deferred		Net		Deferred Tax Asset	Valuation Allowance		Net		
(Dollars in millions)	(Dollars in millions)	Tax Asset	Valuation Allowance	Tax Asset	First Year Expiring				Deferred Tax Asset		
Net operating losses - U.K. ⁽¹⁾	Net operating losses - U.K. ⁽¹⁾	\$ 7,661	\$ —	\$ 7,661	None						
Net operating losses - U.K. ⁽¹⁾	Net operating losses - U.K. ⁽¹⁾										
Net operating losses - U.K. ⁽¹⁾	Net operating losses - U.K. ⁽¹⁾										
Net operating losses - other non-U.S.	Net operating losses - other non-U.S.	331	(147)	184	Various	Net operating losses - other non-U.S.	235	(44)	(44)	191	191
Net operating losses - U.S. states ⁽²⁾	Net operating losses - U.S. states ⁽²⁾	1,036	(627)	409	Various	Net operating losses - U.S. states ⁽²⁾	807	(471)	(471)	336	336
General business credits	General business credits					General business credits	1,557	—	—	1,557	
Foreign tax credits	Foreign tax credits	769	(769)	—	After 2028	Foreign tax credits	897	(897)	(897)	—	—

⁽¹⁾ Represents U.K. broker-dealer net operating losses that may be carried forward indefinitely.

⁽²⁾ The net operating losses and related valuation allowances for U.S. states before considering the benefit of federal deductions were **\$1.3 billion** \$1.0 billion and **\$794 million** \$597 million.

Management concluded that no valuation allowance was necessary to reduce the deferred tax assets related to the U.K. NOL carryforwards and U.S. federal and certain state income taxes prior to their expiration. The majority of the Corporation's U.K. net deferred tax assets, which consist primarily of NOLs, are expected to be realized by certain subsidiaries over the next several years based on forecasts for the relevant entities and the indefinite period to carry forward NOLs. However, a material change in those estimates could lead management to reassess such valuation allowance.

At **December 31, 2022** **December 31, 2023**, U.S. federal income taxes had not been provided on approximately \$5.0 billion of temporary differences associated with investments. If, upon record the associated deferred tax liability, the amount would be approximately \$1.0 billion.

NOTE 20 Fair Value Measurements

Under applicable accounting standards, fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The Corporation determines the fair values of its financial instruments under applicable accounting standards that require an entity to maximize the use of observable inputs and minimize the use of unobservable inputs. The Corporation categorizes its financial instruments into three levels based on the established fair value hierarchy and conducts a review of fair value hierarchy classifications on a quarterly basis. Transfers into or out of fair value hierarchy classifications are made if the significant inputs used in the financial models measuring the fair values of the assets and liabilities become unobservable or observable in the current marketplace. For more information regarding the fair value hierarchy and how the Corporation measures fair value, see *Note 1 – Summary of Significant Accounting Principles*. The Corporation accounts for certain financial instruments under the fair value option. For more information, see *Note 21 – Fair Value Option*.

Valuation Techniques

The following sections outline the valuation methodologies for the Corporation's assets and liabilities. While the Corporation believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date.

During 2022, 2023, there were no significant changes to valuation approaches or techniques that had, or are expected to have, a material impact on the Corporation's consolidated financial position or results of operations.

Trading Account Assets and Liabilities and Debt Securities

The fair values of trading account assets and liabilities are primarily based on actively traded markets where prices are based on either direct market quotes or observed transactions. The fair values of debt securities are generally based on quoted market prices or market prices for similar assets. Liquidity is a significant factor in the determination of the fair values of trading account assets and liabilities and debt securities. Market price quotes may not be readily available for some positions such as positions within a market sector where trading activity has slowed significantly or ceased. Some of these instruments are valued using a discounted cash flow model, which estimates the fair value of the securities using internal credit risk, and interest rate and prepayment risk models that incorporate management's best estimate of current key assumptions such as default rates, loss severity and prepayment rates. Principal and interest cash flows are discounted using an observable discount rate for similar instruments with adjustments that management believes a market participant would consider in determining fair value for the specific security. Other instruments are valued using a net asset value approach which considers the value of the underlying securities. Underlying assets are valued using external pricing services, where available, or matrix pricing based on the vintages and ratings. Situations of illiquidity generally are triggered by the market's perception of credit uncertainty regarding a single company or a specific market sector. In these instances, fair value is determined based on limited available market information and other factors.

principally from reviewing the issuer's financial statements and changes in credit ratings made by one or more rating agencies.

Derivative Assets and Liabilities

The fair values of derivative assets and liabilities traded in the OTC market are determined using quantitative models that utilize multiple market inputs including interest rates, prices and indices to generate continuous yield or pricing curves and volatility factors to value the position. The majority of market inputs are actively quoted and can be validated through external sources, including brokers, market transactions and third-party pricing services. When third-party pricing services are used, the methods and assumptions are reviewed by the Corporation. Estimation risk is greater for derivative asset and liability positions that are either option-based or have longer maturity dates where observable market inputs are less readily available, or are unobservable, in which case, quantitative-based extrapolations of rate, price or index scenarios are used in determining fair values. The fair values of derivative assets and liabilities include adjustments for market liquidity, counterparty credit quality and other instrument-specific factors, where appropriate. In addition, the Corporation incorporates within its fair value measurements of OTC derivatives a valuation adjustment to reflect the credit risk associated with the net position. Positions are netted by counterparty, and fair value for net long exposures is adjusted for counterparty credit risk while the fair value for net short exposures is adjusted for the Corporation's own credit risk. The Corporation also incorporates FVA within its fair value measurements to include funding costs on uncollateralized derivatives and derivatives where the Corporation is not permitted to use the collateral it receives. An estimate of severity of loss is also used in the determination of fair value, primarily based on market data.

Loans and Loan Commitments

The fair values of loans and loan commitments are based on market prices, where available, or discounted cash flow analyses using market-based credit spreads of comparable debt instruments or credit derivatives of the specific borrower or comparable borrowers. Results of discounted cash flow analyses may be adjusted, as appropriate, to reflect other market conditions or the perceived credit risk of the borrower.

Mortgage Servicing Rights

The fair values of MSRs are primarily determined using an option-adjusted spread valuation approach, which factors in prepayment risk to determine the fair value of MSRs. This approach consists of projecting servicing cash flows under multiple interest rate scenarios and discounting these cash flows using risk-adjusted discount rates.

Loans Held-for-sale

The fair values of LHFS are based on using interest rates approximating the The borrower-specific credit risk is e selecting comparables.

Short-term Borrowings and Lon

The Corporation issues structured l securities, interest rates, indices, c quantitative models for the combined instances, unobservable inputs includ and correlations among these inputs. rate used to value these liabilities. The

Securities Financing Agreements

The fair values of certain reverse repl using quantitative models, including c and spreads to generate continuous y can be validated through external sou

Deposits

The fair values of deposits are deter multiple market inputs including inter majority of market inputs are actively third-party pricing services. The Corp risk is determined by reference to obs

Asset-backed Secured Financin

The fair values of asset-backed se discounting estimated cash flows u: adjusted to reflect the inherent credit r

Recurring Fair Value

Assets and liabilities carried at fair value on a recurring basis at **December 31, 2022** **December 31, 2023** and **2021, 2022**, including financial instruments that the Corporation acco

		December 31, 2023										December 31, 2023										December 31, 2023										December 31, 2022																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		Fair Value Measurements																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
(Dollars in millions)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
(Dollars in millions)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		Netting										Assets/Liabilities																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
		Adjustments																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
(Dollars in millions)		Level 1										Level 2										Level 3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
(Dollars in millions)		Level 1										Level 2										Level 3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
Assets		Assets										Assets																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
Time deposits placed and other short-term investments	Time deposits placed and other short-term investments	\$	868	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$	—	\$

U.S. Treasury and government agencies	U.S. Treasury and government agencies	58,894	212	—	—	59,106
Corporate securities, trading loans and other	Corporate securities, trading loans and other	—	46,897	2,384	—	49,281
Equity securities	Equity securities	77,868	35,065	145	—	113,078
Non-U.S. sovereign debt	Non-U.S. sovereign debt	7,392	26,306	518	—	34,216
Mortgage trading loans, MBS and ABS:	Mortgage trading loans, MBS and ABS:					
U.S. government-sponsored agency guaranteed						
U.S. government-sponsored agency guaranteed						
U.S. government-sponsored agency guaranteed	U.S. government-sponsored agency guaranteed	—	28,563	34	—	28,597
Mortgage trading loans, ABS and other	Mortgage trading loans, ABS and other					
MBS	MBS	—	10,312	1,518	—	11,830
Total trading account assets ⁽²⁾	Total trading account assets ⁽²⁾	144,154	147,355	4,599	—	296,108
Derivative assets	Derivative assets	14,775	380,380	3,213	(349,726)	48,642
AFS debt securities:	AFS debt securities:					
AFS debt securities:						
U.S. Treasury and government agencies	U.S. Treasury and government agencies	158,102	920	—	—	159,022
Mortgage-backed securities:	Mortgage-backed securities:					
Mortgage-backed securities:						
Agency	Agency	—	23,442	—	—	23,442
Agency-collateralized mortgage obligations	Agency-collateralized mortgage obligations	—	2,221	—	—	2,221
Non-agency residential	Non-agency residential	—	128	258	—	386
Commercial	Commercial	—	6,407	—	—	6,407
Non-U.S. securities	Non-U.S. securities	—	13,212	195	—	13,407
Other taxable securities	Other taxable securities	—	4,645	—	—	4,645
Other taxable securities						
Other taxable securities						
Tax-exempt securities	Tax-exempt securities	—	11,207	51	—	11,258

Total AFS debt securities	Total AFS debt securities	158,102	62,182	504	—	220,788
Other debt securities carried at fair value:	Other debt securities carried at fair value:					
U.S. Treasury and government agencies	U.S. Treasury and government agencies					
U.S. Treasury and government agencies	U.S. Treasury and government agencies	561	—	—	—	561
Non-agency residential MBS	Non-agency residential MBS	—	248	119	—	367
Non-agency residential MBS	Non-agency residential MBS					
Non-U.S. and other securities	Non-U.S. and other securities					
Non-U.S. and other securities	Non-U.S. and other securities	3,027	5,251	—	—	8,278
Total other debt securities carried at fair value	Total other debt securities carried at fair value	3,588	5,499	119	—	9,206
Loans and leases	Loans and leases	—	5,518	253	—	5,771
Loans held-for-sale	Loans held-for-sale	—	883	232	—	1,115
Other assets (3)	Other assets (3)	6,898	897	1,799	—	9,594
Other assets (3)	Other assets (3)					
Other assets (3)	Other assets (3)					
Total assets (4)	Total assets (4)					
Total assets (4)	Total assets (4)					
Total assets (4)	Total assets (4)	\$328,385	\$749,713	\$10,719	\$ (349,726)	\$ 739,091
Liabilities	Liabilities					
Liabilities	Liabilities					
Interest-bearing deposits in U.S. offices	Interest-bearing deposits in U.S. offices	\$ —	\$ 311	\$ —	\$ —	\$ 311
Federal funds purchased and securities loaned or sold under agreements to repurchase	Federal funds purchased and securities loaned or sold under agreements to repurchase	—	151,708	—	—	151,708
Trading account liabilities:	Trading account liabilities:					
U.S. Treasury and government agencies	U.S. Treasury and government agencies	13,906	181	—	—	14,087
U.S. Treasury and government agencies	U.S. Treasury and government agencies					
U.S. Treasury and government agencies	U.S. Treasury and government agencies					

Equity securities	Equity securities	36,937	4,825	—	—	41,762
Non-U.S. sovereign debt	Non-U.S. sovereign debt	9,636	8,228	—	—	17,864
Corporate securities and other	Corporate securities and other	—	6,628	58	—	6,686
Total trading account liabilities						
Total trading account liabilities						
Total trading account liabilities	Total trading account liabilities	60,479	19,862	58	—	80,399
Derivative liabilities	Derivative liabilities	15,431	376,979	6,106	(353,700)	44,816
Short-term borrowings	Short-term borrowings	—	818	14	—	832
Accrued expenses and other liabilities	Accrued expenses and other liabilities	7,458	2,262	32	—	9,752
Long-term debt	Long-term debt	—	32,208	862	—	33,070
Total liabilities	Total liabilities	\$ 83,368	\$584,148	\$ 7,072	\$ (353,700)	\$ 320,888

(1) Amounts represent the impact of legally enforceable master netting agreements and also cash collateral held or placed with the same counterparties.

(2) Includes securities with a fair value of \$18.0 billion that were segregated in compliance with securities regulations or deposited with clearing organizations. This amount is included in the parenthetical disclosure on the Consolidated Balance Sheet. Trading account selling price less any costs to sell.

(3) Includes MSRs, which are classified as Level 3 assets, of \$970 million.

(4) Total recurring Level 3 assets were 0.29 percent of total consolidated assets, and total recurring Level 3 liabilities were 0.23 percent of total consolidated liabilities.

153 Bank of America

(Dollars in millions)	Fair Value Measurements	
	Level 1	Level 2
Assets		
Time deposits placed and other short-term investments	\$ 868	\$ —
Federal funds sold and securities borrowed or purchased under agreements to resell (2)	—	146,999
Trading account assets:		
U.S. Treasury and government agencies	58,894	212
Corporate securities, trading loans and other	—	46,897
Equity securities	77,868	35,065
Non-U.S. sovereign debt	7,392	26,306
Mortgage trading loans, MBS and ABS:		
U.S. government-sponsored agency guaranteed	—	28,563
Mortgage trading loans, ABS and other MBS	—	10,312
Total trading account assets (2)	144,154	147,355
Derivative assets	14,775	380,380
AFS debt securities:		
U.S. Treasury and government agencies	158,102	920
Mortgage-backed securities:		
Agency	—	23,442

Agency-collateralized mortgage obligations	—	2,221
Non-agency residential	—	128
Commercial	—	6,407
Non-U.S. securities	—	13,212
Other taxable securities	—	4,645
Tax-exempt securities	—	11,207
Total AFS debt securities	158,102	62,182
Other debt securities carried at fair value:		
U.S. Treasury and government agencies	561	—
Non-agency residential MBS	—	248
Non-U.S. and other securities	3,027	5,251
Total other debt securities carried at fair value	3,588	5,499
Loans and leases	—	5,518
Loans held-for-sale	—	883
Other assets ⁽⁴⁾	6,898	897
Total assets ⁽⁵⁾	\$ 328,385	\$ 749,713
Liabilities		
Interest-bearing deposits in U.S. offices	\$ —	\$ 311
Federal funds purchased and securities loaned or sold under agreements to repurchase ⁽²⁾	—	151,708
Trading account liabilities:		
U.S. Treasury and government agencies	13,906	181
Equity securities	36,937	4,825
Non-U.S. sovereign debt	9,636	8,228
Corporate securities and other	—	6,628
Total trading account liabilities	60,479	19,862
Derivative liabilities	15,431	376,979
Short-term borrowings	—	818
Accrued expenses and other liabilities	7,458	2,262
Long-term debt	—	32,208
Total liabilities ⁽⁵⁾	\$ 83,368	\$ 584,148

⁽¹⁾ Amounts represent the impact of legally enforceable derivative master netting agreements and also cash collateral held or placed with the same counterparties.

⁽²⁾ Amounts have been netted by \$221.7 billion to reflect the application of legally enforceable master netting agreements.

⁽³⁾ Includes securities with a fair value of \$16.6 billion that were segregated in compliance with securities regulations or deposited with clearing organizations. This amount is included in the parenthetical disclosure on the Consolidated Balance Sheet: Trading account liabilities, net of cash collateral held or placed with the same counterparties, selling price less any costs to sell.

⁽⁴⁾ Includes MSRs, of \$1.0 billion, which are classified as Level 3 assets. assets, of \$1.0 billion.

⁽⁵⁾ Total recurring Level 3 assets were 0.35 percent of total consolidated assets, and total recurring Level 3 liabilities were 0.25 percent of total consolidated liabilities.

(Dollars in millions)	Fair Value Measurements	
	Level 1	Level 2
Assets		
Time deposits placed and other short-term investments	\$ 707	\$ —
Federal funds sold and securities borrowed or purchased under agreements to resell	—	150,665
Trading account assets:		

U.S. Treasury and government agencies	44,599	803
Corporate securities, trading loans and other	—	31,601
Equity securities	61,425	38,383
Non-U.S. sovereign debt	3,822	25,612
Mortgage trading loans, MBS and ABS:		
U.S. government-sponsored agency guaranteed	—	25,645
Mortgage trading loans, ABS and other MBS	—	10,967
Total trading account assets ⁽²⁾	109,846	133,011
Derivative assets	34,748	310,581
AFS debt securities:		
U.S. Treasury and government agencies	198,071	1,074
Mortgage-backed securities:		
Agency	—	46,339
Agency-collateralized mortgage obligations	—	3,380
Non-agency residential	—	267
Commercial	—	19,604
Non-U.S. securities	—	11,933
Other taxable securities	—	2,690
Tax-exempt securities	—	15,381
Total AFS debt securities	198,071	100,668
Other debt securities carried at fair value:		
U.S. Treasury and government agencies	575	—
Non-agency residential MBS	—	343
Non-U.S. and other securities	2,580	5,155
Total other debt securities carried at fair value	3,155	5,498
Loans and leases	—	7,071
Loans held-for-sale	—	4,138
Other assets ⁽³⁾	7,657	2,915
Total assets ⁽⁴⁾	\$ 354,184	\$ 714,547
Liabilities		
Interest-bearing deposits in U.S. offices	\$ —	\$ 408
Federal funds purchased and securities loaned or sold under agreements to repurchase	—	139,641
Trading account liabilities:		
U.S. Treasury and government agencies	19,826	313
Equity securities	41,744	6,491
Non-U.S. sovereign debt	10,400	13,781
Corporate securities and other	—	8,124
Total trading account liabilities	71,970	28,709
Derivative liabilities	35,282	314,380
Short-term borrowings	—	4,279
Accrued expenses and other liabilities	8,359	3,130
Long-term debt	—	28,633
Total liabilities ⁽⁴⁾	\$ 115,611	\$ 519,180

⁽¹⁾ Amounts represent the impact of legally enforceable master netting agreements and also cash collateral held or placed with the same counterparties.

⁽²⁾ Includes securities with a fair value of \$10.6 billion that were segregated in compliance with securities regulations or deposited with clearing organizations. This amount is included in the parenthetical disclosure on the Consolidated Balance Sheet. Trading account selling price less any costs to sell.

⁽³⁾ Includes MSRs of \$818 million, which are classified as Level 3 assets.

⁽⁴⁾ Total recurring Level 3 assets were 0.34 percent of total consolidated assets, and total recurring Level 3 liabilities were 0.24 percent of total consolidated liabilities.

[illegible]

loans and other	loans and other											
Equity securities	Equity securities	190	(3)	—	45	(25)	—	(4)	38	(96)	145	(6)
Non-U.S. sovereign debt	Non-U.S. sovereign debt	396	59	16	54	(4)	—	(68)	75	(10)	518	56
Mortgage trading	Mortgage trading											
loans, MBS and	loans, MBS and											
ABS	ABS	1,527	(254)	—	729	(665)	—	(112)	536	(209)	1,552	(152)
Total trading account	Total trading account											
assets	assets	4,223	(250)	14	1,897	(1,078)	—	(790)	1,672	(1,089)	4,599	(180)
Net derivative assets	Net derivative assets											
(liabilities) ⁽⁴⁾	(liabilities) ⁽⁴⁾	(2,662)	551	—	319	(830)	—	294	(180)	(385)	(2,893)	259
AFS debt securities:	AFS debt securities:											
Non-agency residential MBS	Non-agency residential MBS	316	—	(35)	—	(8)	—	(75)	73	(13)	258	—
Non-agency residential MBS												
Non-agency residential MBS												
Non-U.S. and other taxable securities												
Non-U.S. and other taxable securities												
Non-U.S. and other taxable securities	Non-U.S. and other taxable securities	71	10	(10)	126	—	—	(22)	311	(291)	195	1
Tax-exempt securities	Tax-exempt securities	52	—	1	—	—	—	(3)	1	—	51	—
Total AFS debt securities	Total AFS debt securities	439	10	(44)	126	(8)	—	(100)	385	(304)	504	1
Other debt securities carried at fair value – Non-agency residential MBS	Other debt securities carried at fair value – Non-agency residential MBS	242	(19)	—	—	—	—	(111)	30	(23)	119	14
Loans and leases ^(5,6)	Loans and leases ^(5,6)	748	(45)	—	—	(154)	82	(129)	—	(249)	253	(21)
Loans held-for-sale ^(5,6)	Loans held-for-sale ^(5,6)	317	9	4	171	(6)	—	(271)	8	—	232	19
Other assets ^(6,7)	Other assets ^(6,7)	1,572	305	(21)	39	(35)	208	(271)	5	(3)	1,799	213
Trading account liabilities – Equity securities												
Trading account liabilities – Equity securities												
Trading account liabilities – Equity securities												
Trading account liabilities – Corporate securities	Trading account liabilities – Corporate securities	(11)	5	—	(4)	—	—	(2)	(46)	—	(58)	1

and other	and other											
Short-term	Short-term											
borrowings	borrowings											
(5)	(5)	—	3	—	—	(17)	—	—	(3)	3	(14)	2
Accrued	Accrued											
expenses	expenses											
and other	and other											
liabilities (5)	liabilities (5)	—	(23)	—	(9)	—	—	—	—	—	(32)	(7)
Long-term	Long-term											
debt (5)	debt (5)	(1,075)	(197)	82	—	14	(1)	57	(24)	282	(862)	(200)

Year Ended December 31,
2021

Year Ended December 31,
2022

Year Ended December 31,
2022

Year Ended December 31,
2022

Trading
account
assets:

Trading account assets:

Corporate securities,
trading loans and other

Corporate securities,
trading loans and other

Corporate securities, trading loans and other	Corporate securities, trading loans and other	\$ 1,359	\$ (17)	\$ —	\$ 765	\$ (437)	\$ —	\$ (327)	\$ 1,218	\$ (451)	\$ 2,110	\$ (79)

Equity securities	Equity securities	227	(18)	—	103	(68)	—	—	112	(166)	190	(44)

Non-U.S. sovereign debt	Non-U.S. sovereign debt	354	31	(20)	18	—	—	(13)	26	—	396	34

Mortgage trading loans, MBS and ABS	Mortgage trading loans, MBS and ABS	1,440	(58)	—	518	(721)	7	(167)	771	(263)	1,527	(91)

Total trading account assets	Total trading account assets	3,380	(62)	(20)	1,404	(1,226)	7	(507)	2,127	(880)	4,223	(180)

Net derivative assets (liabilities) (4)	Net derivative assets (liabilities) (4)	(3,468)	927	—	521	(653)	—	293	(74)	(208)	(2,662)	800

AFS debt securities: Non-agency residential MBS	AFS debt securities: Non-agency residential MBS	378	(11)	(111)	—	(98)	—	(45)	304	(101)	316	8

Non-agency residential
MBS

Non-agency residential
MBS

Non-U.S. and other

Non-U.S. and other taxable securities												
Non-U.S. and other taxable securities												
Non-U.S. and other taxable securities	Non-U.S. and other taxable securities	89	(4)	(7)	8	(10)	—	(4)	—	(1)	71	—
Tax-exempt securities	Tax-exempt securities	176	20	—	—	—	—	(2)	—	(142)	52	(19)
Total AFS debt securities	Total AFS debt securities	643	5	(118)	8	(108)	—	(51)	304	(244)	439	(11)
Other debt securities carried at fair value – Non-agency residential MBS	Other debt securities carried at fair value – Non-agency residential MBS	267	1	—	—	(45)	—	(37)	101	(45)	242	10
Loans and leases (5,6)	Loans and leases (5,6)	717	62	—	59	(13)	70	(180)	46	(13)	748	65
Loans held-for-sale (5,6)	Loans held-for-sale (5,6)	236	13	(6)	132	(1)	—	(79)	26	(4)	317	18
Other assets (5,7)	Other assets (5,7)	1,970	7	3	26	(202)	144	(383)	9	(2)	1,572	3
Trading account liabilities – Corporate securities and other	Trading account liabilities – Corporate securities and other	(16)	6	—	—	—	(1)	—	—	—	(11)	—
Trading account liabilities – Corporate securities and other	Trading account liabilities – Corporate securities and other											
Short-term borrowings (5)	Short-term borrowings (5)											
Accrued expenses and other liabilities (5)	Accrued expenses and other liabilities (5)											
Long-term debt (5)	Long-term debt (5)	(1,164)	(92)	13	(6)	15	(12)	98	(65)	138	(1,075)	(113)
Long-term debt (5)	Long-term debt (5)											
Long-term debt (5)	Long-term debt (5)											

(1) Assets (liabilities). For assets, increase (decrease) to Level 3 and for liabilities, (increase) decrease to Level 3.

(2) Includes gains (losses) reported in earnings in the following income statement line items: Trading account assets/liabilities - predominantly market making and similar activities; activities and other income; Net derivative assets (liabilities) - market making and similar activities and other income; Loans held-for-sale - other income; Other assets - market making and similar activities and other income primarily related to MSRs; Short-term borrowings - market making and similar activities; Accrued expenses and other liabilities - market making and similar activities.

(3) Includes unrealized gains (losses) in OCI on AFS debt securities, foreign currency translation adjustments, derivatives designated in cash flow hedges and the impact of changes in the Corporation's credit spreads on long-term debt accounted for under the fair value option held at December 31, 2022, December 31, 2023 and 2021, 2022.

(4) Net derivative assets (liabilities) include derivative assets of \$3.2 billion \$3.4 billion and \$3.1 billion \$3.2 billion and derivative liabilities of \$5.9 billion and \$6.1 billion at December 31, 2023 and \$5.8 billion at December 31, 2022 and 2021, 2022.

(5) Amounts represent instruments that are accounted for under the fair value option.

(6) Issuances represent loan originations and MSRs recognized following securitizations or whole-loan sales.

(7) Settlements primarily represent the net change in fair value of the MSR asset due to the recognition of modeled cash flows and the passage of time.

(1) **Measurements** (1)

Level 3 – Fair Value Measurements ⁽¹⁾

(Dollars in millions)

		Total trading										
Total trading account	account											
assets	assets	3,781	(256)	(50)	1,161	(1,102)	21	(420)	1,604	(1,359)	3,380	(178)

	Net											
	derivative											
Net derivative assets	assets											
(liabilities) ⁽⁴⁾	(liabilities) ⁽⁴⁾	(2,538)	(235)	—	120	(646)	—	(112)	(235)	178	(3,468)	(953)
	AFS debt											
AFS debt securities:	securities:											
	Non-											
	agency											
Non-agency	residential											
residential MBS	MBS	424	(2)	3	23	(54)	—	(44)	158	(130)	378	(2)
Non-agency residential MBS												
Non-agency residential MBS												
Non-U.S. and other taxable securities												
Non-U.S. and other taxable securities												
	Non-U.S.											
	and other											
Non-U.S. and other	taxable											
taxable securities	securities	67	1	—	9	(5)	—	(1)	18	—	89	1
	Tax-											
	exempt											
Tax-exempt securities	securities	108	(21)	3	—	—	—	(169)	265	(10)	176	(20)
Total AFS												
Total AFS debt	debt											
securities	securities	599	(22)	6	32	(59)	—	(214)	441	(140)	643	(21)
	Other debt											
	securities											
	carried at											
	fair value -											
Other debt securities	Non-											
carried at fair value -	agency											
Non-agency	residential											
residential MBS	MBS	299	26	—	—	(180)	—	(24)	190	(44)	267	3
	Loans and											
Loans and leases ^(5,6)	leases ^(5,6)	693	(4)	—	145	(76)	22	(161)	98	—	717	9
	Loans held-											
Loans held-for-sale ^(5,6)	for-sale ^(5,6)	375	26	(28)	—	(489)	691	(119)	93	(313)	236	(5)
Loans held-for-sale ^(5,6)												
Loans held-for-sale ^(5,6)												
	Other assets											
Other assets ^(6,7)	^(6,7)	2,360	(288)	3	178	(4)	224	(506)	5	(2)	1,970	(374)
Trading account liabilities – Equity												
securities		(2)	1	—	—	—	—	—	—	1	—	—
Trading account liabilities – Corporate securities and other												
Trading account liabilities – Corporate securities and other												
	Trading											
	account											
	liabilities –											
Trading account	Corporate											
liabilities – Corporate	securities											
securities and other	and other	(15)	8	—	(7)	(3)	—	1	—	—	(16)	—
	Long-term											
Long-term debt ⁽⁸⁾	debt ⁽⁸⁾	(1,149)	(46)	2	(104)	—	(47)	218	(52)	14	(1,164)	(5)

Long-term debt (5)

Long-term debt (5)

- (1) Assets (liabilities). For assets, increase (decrease) to Level 3 and for liabilities, (increase) decrease to Level 3.
- (2) Includes gains/losses reported in earnings in the following income statement line items: Trading account assets/liabilities - predominantly market making and similar activities; Net derivative assets (liabilities) - market making and similar activities and other income and other income; Loans held-for-sale - other income; Other assets - market making and similar activities and other income related to MSRs; Long-term debt - market making and similar activities.
- (3) Includes unrealized losses in OCI on AFS debt securities, foreign currency translation adjustments and the impact of changes in the Corporation's credit spreads on long-term debt accounted for under the fair value option. Amounts include net unrealized losses of \$1.1 billion.
- (4) Net derivative assets (liabilities) include derivative assets of \$2.8 billion \$3.1 billion and derivative liabilities of \$6.2 billion \$5.8 billion.
- (5) Amounts represent instruments that are accounted for under the fair value option.
- (6) Issuances represent loan originations and MSRs recognized following securitizations or whole-loan sales.
- (7) Settlements primarily represent the net change in fair value of the MSR asset due to the recognition of modeled cash flows and the passage of time.

The following tables present information about significant unobservable inputs related to the Corporation's material categories of Level 3 financial assets and liabilities at December 31, 2022

Quantitative Information about Level 3 Fair Value Measurements at December 31, 2022

Quantitative Information about Level 3 Fair Value Measurements at December 31, 2023

Quantitative Information about Level 3 Fair Value Measurements at December 31, 2023

Quantitative Information about Level 3 Fair Value Measurements at December 31, 2023

(Dollars in millions)

(Dollars in millions)

(Dollars in millions) (Dollars in millions)

				Inputs				
Financial Instrument	Financial Instrument	Fair Value	Valuation Technique	Significant Unobservable Inputs	Weighted Ranges of Inputs	Average (1)	Fair Value	Valuation Technique
Loans and Securities (2)	Loans and Securities (2)							
Instruments backed by residential real estate assets	Instruments backed by residential real estate assets	\$ 852	Discounted cash flow, Market comparables	Yield	0% to 25%	10 %		
Instruments backed by residential real estate assets								
Instruments backed by residential real estate assets								
Trading account assets - Mortgage trading loans, MBS and ABS	Trading account assets - Mortgage trading loans, MBS and ABS	338		Prepayment speed	0% to 29% CPR	12% CPR	Trading account assets - Mortgage trading loans, MBS and ABS	
Loans and leases	Loans and leases	137		Default rate	0% to 3% CDR	1% CDR	Loans and leases	

	Trading account assets – Non-U.S. sovereign debt	Trading account assets – Non-U.S. sovereign debt	518		Default rate	3% to 4%	4 %	Trading account assets – Non-U.S. sovereign debt	396			
	Trading account assets – Mortgage trading loans, MBS and ABS	Trading account assets – Mortgage trading loans, MBS and ABS	1,148		Loss severity	35% to 40%	38 %	Trading account assets – Mortgage trading loans, MBS and ABS	1,046			
	AFS debt securities – Tax-exempt securities		51		Price	\$0 to td57	\$75					
	AFS debt securities – Non-U.S. and other taxable securities											
	AFS debt securities – Non-U.S. and other taxable securities											
	AFS debt securities – Non-U.S. and other taxable securities	AFS debt securities – Non-U.S. and other taxable securities	195	Discounted cash flow, Market comparables				103	Price	Discounted cash flow, Market comparables		
	Loans and leases	Loans and leases	116									
	Loans held-for-sale	Loans held-for-sale	228									
	Loans held-for-sale											
	Other assets, primarily auction rate securities											
Other assets, primarily auction rate securities												
Other assets, primarily auction rate securities	Other assets, primarily auction rate securities	\$ 779	Discounted cash flow, Market comparables	Price	td0 to \$97	\$94	\$ 687	Discounted cash flow, Market comparables	Discounted cash flow, Market comparables			
				Discount rate	11 %	n/a						
MSRs	MSRs	\$ 1,020		Weighted-average life, fixed rate ⁽⁵⁾	0 to 14 years	6 years						
MSRs												
			Option-adjusted spread, fixed rate									
					7% to 14%	9 %						

				Option-adjusted spread, variable rate	9% to 15%	12 %			
MSRs			Weighted-average life, variable rate ⁽⁵⁾	Discounted cash flow			\$ 970		Weighted-average life, fixed rate ⁽⁵⁾
			Option-adjusted spread, fixed rate					Discounted cash flow	
			Option-adjusted spread, variable rate						
Structured liabilities	Structured liabilities								
Long-term debt	Long-term debt	\$ (862)		Discounted cash flow, Yield	22% to 43%	23 %			
Long-term debt				Market comparables, Industry standard					
Long-term debt			Equity correlation				\$ (614)		Yield
				derivative pricing ⁽³⁾	Equity correlation	0% to 95%	69 %	Discounted cash flow, Market comparables, Industry standard derivative pricing ⁽³⁾	
				Price					
				Price					
				Price					
			Natural gas forward price						
Net derivative assets (liabilities)									
	Credit derivatives								
Discounted cash flow, Market comparables, Industry standard derivative pricing ⁽³⁾				Price	\$0 to td19	\$90			
				Natural gas forward price	\$3/MMBtu to td3/MMBtu	\$9 /MMBtu			
	Net derivative assets (liabilities)								
Credit derivatives									
Credit derivatives	Credit derivatives	\$ (44)		Credit spreads	3 to 63 bps	22 bps	\$ 9		
				Upfront points	0 to 100 points	83 points			
				Discounted cash flow, speed					
				Stochastic recovery correlation model	Prepayment speed	15% CPR	n/a	Discounted cash flow, Stochastic recovery correlation model	Discounted cash flow, Stochastic recovery correlation model
					Default rate	2% CDR	n/a		
					Prepayment speed				
					Discounted cash flow, Stochastic recovery correlation model	Credit correlation	18% to 53%	44 %	
				Price	Stochastic	\$0 to td51	\$63		
				Prepayment speed					
			Default rate						

(4) Includes models such as Monte Carlo simulation, Black-Scholes and other methods that model the joint dynamics of interest, inflation and foreign exchange rates.

(5) The weighted-average life is a product of changes in market rates of interest, prepayment rates and other model and cash flow assumptions.

CPR = Constant Prepayment Rate

CDR = Constant Default Rate

MMBtu = Million British thermal units

IR = Interest Rate

FX = Foreign Exchange

n/a = not applicable

157 Bank of America

Quantitative Information about Level 3 Fair Value Measurements at December 31, 2022

(Dollars in millions)

Financial Instrument	Fair Value	Valuation Technique	
Loans and Securities (2)			
Instruments backed by residential real estate assets	\$ 852	Discounted cash flow, Market comparables	Yield
Trading account assets – Mortgage trading loans, MBS and ABS	338		Prepayment speed
Loans and leases	137		Default rate
AFS debt securities - Non-agency residential	258		Price
Other debt securities carried at fair value - Non-agency residential	119		Loss severity
Instruments backed by commercial real estate assets	\$ 362	Discounted cash flow	Yield
Trading account assets – Corporate securities, trading loans and other	292		Price
Trading account assets – Mortgage trading loans, MBS and ABS	66		
Loans held-for-sale	4		
Commercial loans, debt securities and other	\$ 4,348	Discounted cash flow, Market comparables	Yield
Trading account assets – Corporate securities, trading loans and other	2,092		Prepayment speed
Trading account assets – Non-U.S. sovereign debt	518		Default rate
Trading account assets – Mortgage trading loans, MBS and ABS	1,148		Loss severity
AFS debt securities – Tax-exempt securities	51		Price
AFS debt securities – Non-U.S. and other taxable securities	195		
Loans and leases	116		
Loans held-for-sale	228		
Other assets, primarily auction rate securities	\$ 779	Discounted cash flow, Market comparables	Price
			Discount rate
MSRs	\$ 1,020	Discounted cash flow	Weighted-average life, (5)
			Weighted-average life, (6)
			Option-adjusted spread, (7)
			Option-adjusted spread, (8)
Structured liabilities			
Long-term debt	\$ (862)	Discounted cash flow, Market comparables, Industry standard derivative pricing (2)	Yield
			Equity correlation
			Price
			Natural gas forward price
Net derivative assets (liabilities)			
Credit derivatives	\$ (44)	Discounted cash flow, Stochastic recovery correlation model	Credit spreads
			Upfront points
			Prepayment speed
			Default rate
			Credit correlation

			Price
Equity derivatives	\$ (1,534)	Industry standard derivative pricing ⁽³⁾	Equity correlation Long-dated equity volatility
Commodity derivatives	\$ (291)	Discounted cash flow, industry standard derivative pricing ⁽³⁾	Natural gas forward price Power forward price
Interest rate derivatives	\$ (1,024)	Industry standard derivative pricing ⁽⁴⁾	Correlation (IR/IR) Correlation (FX/IR) Long-dated inflation rates Long-dated inflation volatility Interest rates volatilities
Total net derivative assets (liabilities)	\$ (2,893)		

⁽³⁾ For loans and securities, structured liabilities and net derivative assets (liabilities), the weighted average is calculated based upon the absolute fair value of the instruments.

⁽²⁾ The categories are aggregated based upon product type, which differs from financial statement classification. The following is a reconciliation to the line items in the table on page 154: Trading account assets – Corporate securities, trading loans and other of \$2 billion, AFS debt securities of \$504 million, Other debt securities carried at fair value - Non-agency residential of \$119 million, Other assets, including MSRs, of \$1.8 billion, Loans and leases of \$253 million and LHFS of \$232 million.

⁽³⁾ Includes models such as Monte Carlo simulation and Black-Scholes.

⁽⁴⁾ Includes models such as Monte Carlo simulation, Black-Scholes and other methods that model the joint dynamics of interest, inflation and foreign exchange rates.

⁽⁵⁾ The weighted-average life is a product of changes in market rates of interest, prepayment rates and other model and cash flow assumptions.

CPR = Constant Prepayment Rate

CDR = Constant Default Rate

MMBtu = Million British thermal units

IR = Interest Rate

FX = Foreign Exchange

n/a = not applicable

Quantitative Information about Level 3 Fair Value Measurements at December 31, 2021

(Dollars in millions)

Financial Instrument	Fair Value	Valuation Technique	
Loans and Securities ⁽²⁾			
Instruments backed by residential real estate assets	\$ 1,269		Yield
Trading account assets – Mortgage trading loans, MBS and ABS	338	Discounted cash flow, Market comparables	Prepayment speed
Loans and leases	373		Default rate
AFS debt securities - Non-agency residential	316		Price
Other debt securities carried at fair value - Non-agency residential	242		Loss severity
Instruments backed by commercial real estate assets	\$ 298		Yield
Trading account assets – Corporate securities, trading loans and other	138	Discounted cash flow	Price
Trading account assets – Mortgage trading loans, MBS and ABS	77		
AFS debt securities – Non-U.S. and other taxable securities	71		
Loans held-for-sale	12		
Commercial loans, debt securities and other	\$ 4,212		Yield
Trading account assets – Corporate securities, trading loans and other	1,972	Discounted cash flow, Market comparables	Prepayment speed
Trading account assets – Non-U.S. sovereign debt	396		Default rate
Trading account assets – Mortgage trading loans, MBS and ABS	1,112		Loss severity
AFS debt securities – Tax-exempt securities	52		Price
Loans and leases	375		Long-dated equity volatility
Loans held-for-sale	305		
Other assets, primarily auction rate securities	\$ 754	Discounted cash flow, Market comparables	Price Discount rate

MSRs	\$ 818	Discounted cash flow	Weighted-average life, fair value Weighted-average life, value at risk Option-adjusted spread, 100% Option-adjusted spread, 100%
Structured liabilities			
Long-term debt	\$ (1,075)	Discounted cash flow, Market comparables, Industry standard derivative pricing ⁽²⁾	Yield Equity correlation Long-dated equity volatility Price Natural gas forward price
Net derivative assets (liabilities)			
Credit derivatives	\$ (104)	Discounted cash flow, Stochastic recovery correlation model	Credit spreads Upfront points Prepayment speed Default rate Credit correlation Price
Equity derivatives	\$ (1,710)	Industry standard derivative pricing ⁽²⁾	Equity correlation Long-dated equity volatility
Commodity derivatives	\$ (976)	Discounted cash flow, Industry standard derivative pricing ⁽²⁾	Natural gas forward price Correlation Power forward price Volatilities
Interest rate derivatives	\$ 128	Industry standard derivative pricing ⁽⁴⁾	Correlation (IR/IR) Correlation (FX/IR) Long-dated inflation rates Long-dated inflation volatility Interest rates volatilities
Total net derivative assets (liabilities)	\$ (2,662)		

⁽¹⁾ For loans and securities, structured liabilities and net derivative assets (liabilities), the weighted average is calculated based upon the absolute fair value of the instruments.

⁽²⁾ The categories are aggregated based upon product type which differs from financial statement classification. The following is a reconciliation to the line items in the table on page 151: Trading account assets – Corporate securities, trading loans and other of \$2.1 billion, AFS debt securities of \$439 million, Other debt securities carried at fair value - Non-agency residential of \$242 million, Other assets, including MSRs, of \$1.6 billion, Loans and leases of \$748 million and LHFS of \$317 million.

⁽³⁾ Includes models such as Monte Carlo simulation and Black-Scholes.

⁽⁴⁾ Includes models such as Monte Carlo simulation, Black-Scholes and other methods that model the joint dynamics of interest, inflation and foreign exchange rates.

⁽⁵⁾ The weighted-average life is a product of changes in market rates of interest, prepayment rates and other model and cash flow assumptions.
CPR = Constant Prepayment Rate
CDR = Constant Default Rate
MMBtu = Million British thermal units
IR = Interest Rate
FX = Foreign Exchange
n/a = not applicable

In the previous tables, instruments backed by residential and commercial real estate assets include RMBS, commercial MBS, whole loans and mortgage CDOs. Commercial loans, debt securities and other include corporate CLOs and CDOs, commercial loans and bonds, and securities backed by non-real estate assets. Structured liabilities primarily include equity-linked notes that are accounted for under the fair value option.

The Corporation uses multiple market approaches in valuing certain of its Level 3 financial instruments. For example, market comparables and discounted cash flows are used together. For a given product, such as corporate debt securities, market comparables may be used to estimate some of the unobservable inputs, and then these inputs are incorporated into a discounted cash flow model. Therefore, the balances disclosed encompass both of these techniques.

The levels of aggregation and diversity within the products disclosed in the tables result in certain ranges of inputs being wide and unevenly distributed across asset and liability categories.

Uncertainty of Fair Value Measurements from Unobservable Inputs

Loans and Securities

A significant increase in market yields, default rates, loss severities or duration would have resulted in a significantly lower fair value for long positions. Short positions would have been impacted in a directionally opposite way. The impact of changes in prepayment speeds would have resulted in differing impacts depending on the seniority of the instrument and, in the case of CLOs, whether prepayments can be reinvested. A significant increase in price would have resulted in a significantly higher fair value for long positions, and short positions would have been impacted in a directionally opposite way.

Structured Liabilities and Derivatives

For credit derivatives, a significant increase in market yield, upfront points (i.e., a single upfront payment made by a

protection buyer at inception), credit : protection sellers and higher fair val differing impacts depending on the se

Structured credit derivatives are dependence among credit default rate on the fair value varies depending on a significant increase in default correl have been impacted in a directionally

For equity derivatives, commodity rates and volatilities and correlation in commodities, between two different significant impact to the fair value; he short the exposure. For structured lie lower fair value.

Nonrecurring Fair Value

The Corporation holds certain assets these measurements are referred to l which a nonrecurring fair value adjust

Assets Measured at Fair Value on a Nonrecurring Basis

Assets Measured at Fair Value on a Nonrecurring Basis

		December 31, 2022		31, 2021													
		December 31, 2023															
		December 31, 2023															
		December 31, 2023														December 31, 2022	
(Dollars in millions)	(Dollars in millions)	Level 2	Level 3	Level 2	Level 3	(Dollars in millions)	Level 2	Level 3	Level 2							Level 3	
Assets	Assets					Assets											
Loans held-for-sale	Loans held-for-sale	\$1,979	\$ 3,079	\$634	\$ 24												
Loans and leases (1)	Loans and leases (1)	—	166	—	213												
Foreclosed properties (2, 3)	Foreclosed properties (2, 3)	—	7	—	5												
Other assets		88	165	256	2,046												
Gains (Losses)																	

Foreclosed properties	Foreclosed properties	(6)	(2)	(6)
Other assets	Other assets	(91)	(492)	(98)

(1) Includes \$15 million \$10 million, \$24 million \$15 million and \$30 million \$24 million of losses on loans that were written down to a collateral value of zero during 2023, 2022 2021 and 2020, 2021, respectively.

(2) Amounts are included in other assets on the Consolidated Balance Sheet and represent the carrying value of foreclosed properties that were written down subsequent to their initial classification as foreclosed properties. Losses on foreclosed properties include losses

(3) Excludes \$60 million \$31 million and \$52 million \$60 million of properties acquired upon foreclosure of certain government-guaranteed loans (principally FHA-insured loans) at December 31, 2022 December 31, 2023 and 2021, 2022.

(4) Represents the fair value of certain impaired renewable energy investments.

The table below presents information about significant unobservable inputs utilized in the Corporation's nonrecurring Level 3 fair value measurements at December 31, 2022 De

Quantitative Information about Nonrecurring Level 3 Fair Value Measurements

Quantitative Information about Nonrecurring Level 3 Fair Value Measurements

		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									
		Inputs									

		Discounted			
Other assets ⁽⁴⁾	1,875	cash flow	Discount rate	7%	n/a
			Estimated		
		Market	appraisal		
	166	comparables value			n/a
Costs to sell					
Other					
assets ⁽³⁾		Other assets ⁽³⁾	165	Discounted cash flow	Discount rate
				7 %	n/a

⁽¹⁾ The weighted average is calculated based upon the fair value of the loans.

⁽²⁾ Represents residential mortgages where the loan has been written down to the fair value of the underlying collateral.

⁽³⁾ Represents the fair value of certain impaired renewable energy investments.

⁽⁴⁾ Represents the fair value of certain impaired renewable energy investments and impaired assets related to the Corporation's real estate rationalization.
n/a = not applicable

NOTE 21 Fair Value Option

Loans and Loan Commitments

The Corporation elects to account for certain loans and loan commitments that exceed the Corporation's single-name credit risk concentration guidelines under the fair value option. Lending commitments are actively managed and, as appropriate, credit risk for these lending relationships may be mitigated through the use of credit derivatives, with the Corporation's public side credit view and market perspectives determining the size and timing of the hedging activity. These credit derivatives do not meet the requirements for designation as accounting hedges and are carried at fair value. The fair value option allows the Corporation to carry these loans and loan commitments at fair value, which is more consistent with management's view of the underlying economics and the manner in which they are managed. In addition, the fair value option allows the Corporation to reduce the accounting volatility that would otherwise result from the asymmetry created by accounting for the financial instruments at historical cost and the credit derivatives at fair value.

Loans Held-for-sale

The Corporation elects to account for residential mortgage LHFS, commercial mortgage LHFS and certain other LHFS under the fair value option. These loans are actively managed and monitored and, as appropriate, certain market risks of the loans may be mitigated through the use of derivatives. The Corporation has elected not to designate the derivatives as qualifying accounting hedges, and therefore, they are carried at

Loans Reported as Trading Account Assets

The Corporation elects to account for certain loans that are held for the purpose of trading and are risk-managed on a fair value basis under the fair value option.

Other Assets

The Corporation elects to account for certain long-term fixed-rate margin loans that are hedged with derivatives under the fair value option. Election of the fair value option allows the Corporation to reduce the accounting volatility that would otherwise result from the asymmetry created by accounting for the financial instruments at historical cost and the derivatives at fair value.

Securities Financing Agreements

The Corporation elects to account for certain securities financing agreements, including resale and repurchase agreements, under the fair value option. These elections include certain agreements collateralized by the U.S. government and its agencies, which are generally short-dated and have minimal interest rate risk.

fair value. The changes in fair value c allows the Corporation to reduce the financial instruments at the lower of certain other LHFS under the fair valu instruments.

Long-term Deposits

The Corporation elects to account for certain long-term fixed-rate and rate-linked deposits that are hedged with derivatives that do not qualify for hedge accounting. Election of the fair value option allows the Corporation to reduce the accounting volatility that would otherwise result from the asymmetry created by accounting for the financial instruments at historical cost and the derivatives at fair value. The Corporation has not elected to carry other long-term deposits at fair value because they are not hedged using derivatives.

Short-term Borrowings

The Corporation elects to account for certain short-term borrowings, primarily short-term structured liabilities, under the fair value option because this debt is risk-managed on a fair value basis.

The Corporation also elects to account for certain asset-backed secured financings, which are also classified in short-term borrowings, under the fair value option. Election of the fair value option allows the Corporation to reduce the accounting

volatility that would otherwise result in cost and the corresponding mortgage

Long-term Debt

The Corporation elects to account for

long-term debt is either risk-managed on a fair value basis or the related hedges do not qualify for hedge accounting.

Fair Value Option Elections

The following tables provide information about the fair value carrying amount and the contractual principal outstanding of assets and liabilities accounted for under the fair value option at **December 31, 2022**, **December 31, 2023** and **2021**, 2022, and information about where changes in the fair value of assets and liabilities accounted for under the fair value option are included in the Consolidated Statement of Income for **2023**, 2022 2021 and **2020**, 2021.

Fair Value Option Elections

Fair Value Option Elections

		December 31, 2022			December 31, 2021					
		December 31, 2023								
		December 31, 2023								
		December 31, 2023								
		Fair Value			Fair Value					
		Carrying Amount			Carrying Amount					
		Fair Value	Contractual	Less	Fair Value	Contractual	Less	Fair Value	Contractual	Fair Value
(Dollars in millions)	(Dollars in millions)	Carrying Amount	Principal Outstanding	Unpaid Principal	Carrying Amount	Principal Outstanding	Unpaid Principal	Carrying Amount	Principal Outstanding	Carrying Amount
		Amount			Amount			(Dollars in millions)	Amount	Unpaid Principal
Federal funds sold and securities borrowed or purchased under agreements to resell	Federal funds sold and securities borrowed or purchased under agreements to resell	\$146,999	\$ 147,158	\$ (159)	\$150,665	\$ 150,677	\$ (12)			
Loans reported as trading account assets (1)	Loans reported as trading account assets (1)	10,143	17,682	(7,539)	10,864	18,895	(8,031)			
Trading inventory – other	Trading inventory – other	20,770	n/a	n/a	21,986	n/a	n/a	Trading inventory – other	25,282	n/a
Consumer and commercial loans	Consumer and commercial loans	5,771	5,897	(126)	7,819	7,888	(69)			
Loans held-for-sale (1)	Loans held-for-sale (1)	1,115	1,873	(758)	4,455	5,343	(888)			
Other assets	Other assets	620	n/a	n/a	544	n/a	n/a			
Other assets	Other assets								1,986	n/a
Long-term deposits	Long-term deposits	311	381	(70)	408	401	7			
Federal funds purchased and securities loaned or sold under agreements to repurchase	Federal funds purchased and securities loaned or sold under agreements to repurchase	151,708	151,885	(177)	139,641	139,682	(41)			

Short-term borrowings	Short-term borrowings	832	833	(1)	4,279	4,127	152			
Unfunded loan commitments	Unfunded loan commitments	110	n/a	n/a	97	n/a	n/a	Unfunded loan commitments	67	n/a
Accrued expenses and other liabilities	Accrued expenses and other liabilities	1,217	1,161	56	—	—	—			
Long-term debt	Long-term debt	33,070	36,830	(3,760)	29,708	30,903	(1,195)			

(1) A significant portion of the loans reported as trading account assets and LHFS are distressed loans that were purchased at a deep discount to par, and the remainder are loans with a fair value near contractual principal outstanding.
n/a = not applicable

Gains (Losses) Related to Assets and Liabilities Accounted for Under the Fair Value Option

Gains (Losses) Related to Assets and Liabilities Accounted for Under the Fair Value Option

Gains (Losses) Related to Assets and Liabilities Accounted for Under the Fair Value Option

Market making and similar activities										
Market making and similar activities	Other Income	Total								
Market making and similar activities										
Market making and similar activities										

(Dollars in millions)

(Dollars in millions)

(Dollars in millions)	(Dollars in millions)	2022								
Loans reported as trading account assets	Loans reported as trading account assets	\$ (164)	\$ —	\$ (164)						
Trading inventory – other (1)	Trading inventory – other (1)	(1,159)	—	(1,159)						

Consumer and commercial			
loans	(58)	(27)	(85)
Loans held-for-sale ⁽²⁾	—	(304)	(304)
Short-term borrowings	639	—	639
Unfunded loan			
commitments	—	8	8
Accrued expenses and			
other liabilities	11	—	11
Long-term debt ⁽³⁾	4,359	(46)	4,313
Other ⁽⁴⁾	74	30	104
Total	\$ 3,702	\$ (339)	\$3,363

2021

Loans reported as trading

account assets

Loans	Loans			
reported as	reported as			
trading	trading			
account	account			
assets	assets	\$ 275	\$ —	\$ 275
Trading	Trading			
inventory –	inventory –			
other ⁽¹⁾	other ⁽¹⁾	(211)	—	(211)

Trading inventory – other ⁽¹⁾

Trading inventory – other ⁽¹⁾

Consumer	Consumer			
and	and			
commercial	commercial			
loans	loans	78	40	118

Consumer and commercial loans

Consumer and commercial loans

Loans held-for-sale ⁽²⁾

Loans held-for-sale ⁽²⁾

Loans held-	Loans held-			
for-sale ⁽²⁾	for-sale ⁽²⁾	—	58	58
Short-term	Short-term			
borrowings	borrowings	883	—	883
Long-term debt ⁽³⁾		(604)	(41)	(645)
Other ⁽⁴⁾		18	(23)	(5)
Total		\$ 439	\$ 34	\$ 473

Short-term borrowings

2020

Short-term borrowings

Unfunded loan

commitments

Unfunded loan

commitments

Unfunded loan

commitments

Accrued expenses and

other liabilities

Accrued expenses and

other liabilities

Accrued expenses and
other liabilities
Long-term debt (2)
Long-term debt (2)
Long-term debt (2)
Other (4)
Other (4)
Other (4)

Total

Total

Total

2022

2022

2022

Loans reported as trading
account assets
Loans reported as trading
account assets

Loans reported as trading account assets	Loans reported as trading account assets	\$	107	\$	—	\$	107

Trading inventory – other (1)	Trading inventory – other (1)	3,216	—	3,216

Trading inventory – other (1)

Trading inventory – other (1)

Consumer and commercial loans	Consumer and commercial loans	22	(3)	19

Consumer and commercial loans

Consumer and commercial loans

Loans held-for-sale (2)

Loans held-for-sale (2)

Loans held-for-sale (2)	Loans held-for-sale (2)	—	103	103

Short-term borrowings	Short-term borrowings	(170)	—	(170)

Short-term borrowings

Short-term borrowings

Unfunded loan commitments	Unfunded loan commitments	—	(65)	(65)

Unfunded loan commitments

Unfunded loan commitments

Accrued expenses and other liabilities

(a) The gains (losses) in market making and similar activities are primarily offset by (losses) gains on trading liabilities that hedge these assets.

(b) Includes the value of IRLCs on funded loans, including those sold during the period.

(c) The net gains (losses) in market making and similar activities relate to the embedded derivatives in structured liabilities and are typically offset by (losses) gains on derivatives and securities that hedge these liabilities. For the cumulative impact of changes in the fair value of these securities, see Note 10 – Fair Value Measurements.

(d) Includes gains (losses) on federal funds sold and securities borrowed or purchased under agreements to resell, other assets, long-term deposits, and federal funds purchased and securities loaned or sold under agreements to repurchase.

Gains (Losses) Related to Borrower-specific Credit Risk for Assets and Liabilities Accounted for Under the Fair Value Option

Gains (Losses) Related to Borrower-specific Credit Risk for Assets and Liabilities Accounted for Under the Fair Value Option

Gains (Losses) Related to Borrower-specific Credit Risk for Assets and Liabilities Accounted for Under the Fair Value Option

(Dollars in millions)

(Dollars in millions)

(Dollars in millions)	(Dollars in millions)	2022	2021	2020	2023	2022	2021
Loans reported as trading account assets	Loans reported as trading account assets	\$(950)	\$128	\$(172)			
Consumer and commercial loans	Consumer and commercial loans	(51)	7	(19)			
Loans held-for-sale	Loans held-for-sale	(23)	28	(105)			
Unfunded loan commitments	Unfunded loan commitments	8	(1)	(65)			

NOTE 22 Fair Value of Financial Instruments

Financial instruments are classified within the fair value hierarchy using the methodologies described in *Note 20 – Fair Value Measurements*. Certain loans, deposits, long-term debt, unfunded lending commitments and other financial instruments are accounted for under the fair value option. For more information, see *Note 21 – Fair Value Option*. The following disclosures include financial instruments that are not carried at fair value or only a portion of the ending balance is carried at fair value on the Consolidated Balance Sheet.

borrowings, approximates the fair value of these instruments. These financial instruments generally expose the Corporation to limited credit risk and have no stated maturities or have short-term maturities and carry interest rates that approximate market. The Corporation accounts for certain resale and repurchase agreements under the fair value option.

Short-term Financial Instrum

The carrying value of short-term fina short-term investments, federal funds

Under the fair value hierarchy, cash and cash equivalents are classified as Level 1. Time deposits placed and other short-term investments, such as U.S. government securities and short-term commercial paper, are classified as Level 1 or Level 2. Federal funds sold and purchased are classified as Level 2. Resale and repurchase agreements are classified as Level 2 because they are generally short-dated and/or variable-rate instruments collateralized by U.S. government or agency securities. Short-term borrowings are generally classified as Level 2.

Fair Value of Financial Instruments

The carrying values and fair values by fair value hierarchy of certain financial instruments where only a portion of the ending balance was carried at fair value at December 31, 2022 December 31, 2023 and 2021 2022 are presented in the table below.

Fair Value of Financial Instruments

Fair Value of Financial Instruments

Fair Value of Financial Instruments

		Fair Value			
		Carrying Value	Fair Value		Total
			Level 2	Level 3	
			Fair Value		
			Fair Value		
			Fair Value		
Carrying Value		Carrying Value	Level 2	Level 3	Total
(Dollars in millions)	(Dollars in millions)			(Dollars in millions)	
		December 31, 2022		December 31, 2023	
Financial assets	Financial assets				
Loans	Loans				
Loans	Loans				
Loans	Loans	\$ 1,014,593	\$ 50,194	\$ 935,282	\$ 985,476
Loans held-for-sale	Loans held-for-sale	6,871	3,417	3,455	6,872
Financial liabilities	Financial liabilities				
Deposits ⁽¹⁾	Deposits ⁽¹⁾	1,930,341	1,930,165	—	1,930,165
Deposits ⁽¹⁾	Deposits ⁽¹⁾				
Deposits ⁽¹⁾	Deposits ⁽¹⁾				
Long-term debt	Long-term debt	275,982	271,993	1,136	273,129
Commercial unfunded lending commitments	Commercial unfunded lending commitments				
⁽²⁾	⁽²⁾	1,650	77	6,596	6,673
December 31, 2021					
December 31, 2022					
December 31, 2022					
December 31, 2022					
Financial assets	Financial assets				
Loans	Loans				
Loans	Loans				
Loans	Loans	\$ 946,142	\$ 53,544	\$ 919,980	\$ 973,524
Loans held-for-sale	Loans held-for-sale	15,635	15,016	627	15,643
Financial liabilities	Financial liabilities				
Deposits ⁽¹⁾	Deposits ⁽¹⁾	2,064,446	2,064,438	—	2,064,438

Deposits ⁽¹⁾					
Deposits ⁽¹⁾					
Long-term	Long-term				
debt	debt	280,117	286,802	1,288	288,090
Commercial	Commercial				
unfunded	unfunded				
lending	lending				
commitments	commitments				
(2)	(2)	1,554	97	6,384	6,481

(1) Includes demand deposits of \$918.9 billion \$897.3 billion and \$1.0 trillion \$918.9 billion with no stated maturities at December 31, 2022 December 31, 2023 and 2021, 2022.

(2) The carrying value of commercial unfunded lending commitments is included in accrued expenses and other liabilities on the Consolidated Balance Sheet. The Corporation does not estimate the fair value of consumer unfunded lending commitments because, in see Note 12 – Commitments and Contingencies.

NOTE 23 Business Segment Information

The Corporation reports its results of operations through the following four business segments: Consumer Banking, Global Wealth & Investment Management, Global Banking and

Consumer Banking

Consumer Banking offers a diversified range of credit, banking and investment products and services to consumers and small businesses. Consumer Banking product offering includes checking accounts, and investment accounts and products, as well as credit and debit cards, residential mortgages and home equity loans, and direct and indirect loans to consumer mortgages and home equity loans.

Global Wealth & Investment Management

GWIM provides a high-touch client experience through a network of financial advisors focused on clients with over \$250,000 in total investable assets, including tailored solutions to meet clients' needs through a full set of investment management, brokerage, banking and retirement products. GWIM also provides comprehensive wealth management solutions targeted to high net worth and ultra high net worth clients, as well as customized solutions to meet clients' wealth structuring, investment management, trust and banking needs, including specialty asset management services.

Global Banking

Global Banking provides a wide range of lending-related products and services, integrated working capital management and treasury solutions, and underwriting and advisory services through the Corporation's network of offices and client relationship teams. Global Banking also provides investment banking products to clients. The economics of certain investment banking and underwriting activities are shared primarily between Global Banking and Global Markets under an internal revenue-sharing arrangement. Global Banking clients generally include middle-market companies, commercial real estate firms, not-for-profit companies, large global corporations, financial institutions, leasing clients, and mid-sized U.S.-based businesses requiring customized and integrated financial advice and solutions.

Global Markets

Global Markets offers sales and trading services and research services to institutional clients across fixed-income, credit, currency, commodity and equity businesses. Global Markets provides market-making, financing, securities clearing, settlement and custody services globally to institutional investor clients in support of their investing and trading activities. Global Markets product coverage includes securities and derivative products in both the primary and secondary markets. Global Markets also works with commercial and corporate clients to provide risk management products. As a result of market-making activities, Global Markets may be required to manage risk in a broad range of financial products. In addition, the economics of certain investment banking and underwriting activities are shared primarily between Global Markets and Global Banking under an internal revenue-sharing arrangement.

All Other

All Other primarily consists of ALM activities, liquidating businesses and certain expenses not otherwise allocated to a business segment. ALM activities encompass interest rate and foreign currency risk management activities for which substantially all of the results are allocated to the business segments.

Basis of Presentation

The management accounting and reporting process derives segment and business results by utilizing allocation methodologies for revenue and expense. The net income derived for the businesses is dependent upon revenue and cost allocations using an activity-based costing model, funds transfer pricing, and other methodologies and assumptions management believes are appropriate to reflect the results of the business.

Total revenue, net of interest expense, includes net interest income on an FTE basis and noninterest income. The adjustment of net interest income to an FTE basis results in a corresponding increase in income tax expense. The segment results also reflect certain revenue and expense methodologies

that are utilized to determine net income. The net interest income of the businesses includes the results of a funds transfer pricing process that matches assets and liabilities with similar interest rate sensitivity and maturity characteristics. In segments where the total of liabilities and equity exceeds assets, which are generally deposit-taking segments, the Corporation allocates assets to match liabilities. Net interest income of the business segments also includes an allocation of net interest income generated by certain of the Corporation's ALM activities.

The Corporation's ALM activities include an overall interest rate risk management strategy that incorporates the use of

various derivatives and cash instruments to manage fluctuations in earnings and capital that are caused by interest rate volatility. The Corporation's goal is to manage interest rate sensitivity so that movements in interest rates do not significantly adversely affect earnings and capital. The results of

a majority of the Corporation's ALM activities. ALM activities include the Corporation's internal funds transfer pricing. Certain expenses not directly attributable to centralized or shared functions are allocated to the business segments. Effective October 1, 2021, the

included in the *Global Markets* segment is being reported as a liquidating business in *All Other*, consistent with a realignment in performance reporting to senior management. While this activity was not material to *Global Markets*' results of operations and historical results have not been restated, this activity's noninterest expense of \$309 million and \$473 million for the three months ended September 30, 2021 and June 30, 2021 was elevated and would have been excluded from *Global Markets*' results of operations for those periods under the new basis of presentation.

The table below presents net income (loss) and the components thereto (with net interest income on an FTE basis for the business segments, *All Other* and the total Corporation) for 2023, 2022 2021 and 2020, 2021, and total assets at December 31, 2022 December 31, 2023, 2021 2022 and 2020 2021 for each business segment, as well as *All Other*.

Results of Business Segments and All Other

Results of Business Segments and All Other

Results of Business Segments and All Other

At and for the year ended	At and for the year ended						
December 31	December 31	Total Corporation ⁽¹⁾			Consumer Banking		
At and for the year ended December 31							
At and for the year ended December 31							
(Dollars in millions)							
(Dollars in millions)							
(Dollars in millions)	(Dollars in millions)	2022	2021	2020	2022	2021	2020
Net interest income	Net interest income	\$ 52,900	\$ 43,361	\$ 43,859	\$ 30,045	\$ 24,929	\$ 24,698
Net interest income							
Net interest income							
Noninterest income							
Noninterest income							
Noninterest income	Noninterest income	42,488	46,179	42,168	8,590	9,076	8,564

	Total revenue, net of interest expense	Total revenue, net of interest expense	95,388	89,540	86,027	38,635	34,005	33,262
	Total revenue, net of interest expense							
	Total revenue, net of interest expense							
	Provision for credit losses							
	Provision for credit losses							
	Provision for credit losses	Provision for credit losses	2,543	(4,594)	11,320	1,980	(1,035)	5,765
	Noninterest expense	Noninterest expense	61,438	59,731	55,213	20,077	19,290	18,882
	Noninterest expense							
	Noninterest expense							
	Income before income taxes							
	Income before income taxes							
	Income before income taxes	Income before income taxes	31,407	34,403	19,494	16,578	15,750	8,615
	Income tax expense	Income tax expense	3,879	2,425	1,600	4,062	3,859	2,111
	Income tax expense							
	Income tax expense							
	Net income	Net income	\$ 27,528	\$ 31,978	\$ 17,894	\$ 12,516	\$ 11,891	\$ 6,504
	Net income							
	Net income							
	Year-end total assets							
	Year-end total assets							
	Year-end total assets	Year-end total assets	\$ 3,051,375	\$ 3,169,495		\$ 1,126,453	\$ 1,131,142	
	Global Wealth & Investment Management							
	Global Banking							
	2022	2021	2020	2022	2021	2020		
	Global Wealth & Investment Management							
	Global Wealth & Investment Management							
	Global Wealth & Investment Management							
	2023							
	2023							
	2023							
	Net interest income							
	Net interest income							
	Net interest income	Net interest income	\$ 7,466	\$ 5,664	\$ 5,468	\$ 12,184	\$ 8,511	\$ 9,013
	Noninterest income	Noninterest income	14,282	15,084	13,116	10,045	12,364	9,974
	Noninterest income							
	Noninterest income							

Total revenue, net of interest expense								
Total revenue, net of interest expense								
Total revenue, net of interest expense	Total revenue, net of interest expense	21,748	20,748	18,584	22,229	20,875	18,987	
Provision for credit losses	Provision for credit losses	66	(241)	357	641	(3,201)	4,897	
Provision for credit losses								
Provision for credit losses								
Noninterest expense								
Noninterest expense								
Noninterest expense	Noninterest expense	15,490	15,258	14,160	10,966	10,632	9,342	
Income before income taxes	Income before income taxes	6,192	5,731	4,067	10,622	13,444	4,748	
Income before income taxes								
Income before income taxes								
Income tax expense								
Income tax expense								
Income tax expense	Income tax expense	1,517	1,404	996	2,815	3,630	1,282	
Net income	Net income \$	4,675	\$ 4,327	\$ 3,071	\$ 7,807	\$ 9,814	\$ 3,466	
Net income								
Net income								
Year-end total assets								
Year-end total assets								
Year-end total assets	Year-end total assets	\$ 368,893	\$ 438,275		\$ 588,466	\$ 638,131		
		Global Markets			All Other			
		2022	2021	2020	2022	2021	2020	
Net interest income								
Net interest income								
Net interest income	Net interest income	\$ 3,088	\$ 4,011	\$ 4,646	\$ 117	\$ 246	\$ 34	
Noninterest income	Noninterest income	15,050	15,244	14,119	(5,479)	(5,589)	(3,605)	
Noninterest income								
Noninterest income								
Total revenue, net of interest expense								
Total revenue, net of interest expense								
Total revenue, net of interest expense	Total revenue, net of interest expense	18,138	19,255	18,765	(5,362)	(5,343)	(3,571)	
Provision for credit losses	Provision for credit losses	28	65	251	(172)	(182)	50	
Provision for credit losses								

Provision for credit losses								
Noninterest expense								
Noninterest expense								
Noninterest expense	Noninterest expense	12,420	13,032	11,417	2,485	1,519	1,412	
Income (loss) before income taxes								
Income (loss) before income taxes	Income (loss) before income taxes	5,690	6,158	7,097	(7,675)	(6,680)	(5,033)	
Income (loss) before income taxes								
Income (loss) before income taxes								
Income tax expense (benefit)								
Income tax expense (benefit)								
Income tax expense (benefit)	Income tax expense (benefit)	1,508	1,601	1,845	(6,023)	(8,069)	(4,634)	
Net income (loss)								
Net income (loss)	Net income (loss)	\$ 4,182	\$ 4,557	\$ 5,252	\$ (1,652)	\$ 1,389	\$ (399)	
Net income (loss)								
Net income (loss)								
Year-end total assets								
Year-end total assets	Year-end total assets	\$ 812,489	\$ 747,794		\$ 155,074	\$ 214,153		
Year-end total assets								
Year-end total assets								

(1) There were no material intersegment revenues.

The tables below present presents noninterest income and the associated components for 2023, 2022, 2021 and 2020 2021 for each business segment, All Other and the

Noninterest Income by Business Segment and All Other

Noninterest Income by Business Segment and All Other

Noninterest Income by Business Segment and All Other

Total Corporation																																			
Total Corporation																																			
Total Corporation																						Consumer Banking													
														Global Wealth & Investment Management																					
Total Corporation														Consumer Banking				Investment Management																	
(Dollars in millions)																																			
(Dollars in millions)																																			
(Dollars in millions)		(Dollars in millions)		2022			2021			2020			2022			2021			2020			2023		2022				2021				2023			
Fees and commissions:		Fees and commissions:																																	

Card income	Card income									
Card income										
Card income										
Interchange fees										
Interchange fees										
Interchange fees	Interchange fees	\$ 4,096	\$ 4,560	\$ 3,954	\$ 3,239	\$ 3,597	\$ 3,027	\$ 20	\$ 43	\$ 36
Other card income	Other card income	1,987	1,658	1,702	1,930	1,575	1,646	50	42	42
Total card income	Total card income	6,083	6,218	5,656	5,169	5,172	4,673	70	85	78
Service charges	Service charges									
Deposit-related fees	Deposit-related fees	5,190	6,271	5,991	2,706	3,538	3,417	65	72	67
Deposit-related fees										
Deposit-related fees										
Lending-related fees	Lending-related fees	1,215	1,233	1,150	—	—	—	8	—	—
Total service charges	Total service charges	6,405	7,504	7,141	2,706	3,538	3,417	73	72	67
Investment and brokerage services	Investment and brokerage services									
Asset management fees	Asset management fees	12,152	12,729	10,708	195	188	146	11,957	12,541	10,578
Asset management fees										
Asset management fees										
Brokerage fees	Brokerage fees	3,749	3,961	3,866	109	132	127	1,604	1,771	1,692
Total investment and brokerage services	Total investment and brokerage services	15,901	16,690	14,574	304	320	273	13,561	14,312	12,270
Investment banking fees	Investment banking fees									
Underwriting income										
Underwriting income										
Underwriting income										
Underwriting income	Underwriting income	1,970	5,077	4,698	—	—	—	189	388	391
Syndication fees	Syndication fees	1,070	1,499	861	—	—	—	—	—	—
Financial advisory services	Financial advisory services	1,783	2,311	1,621	—	—	—	—	—	—
Total investment banking fees	Total investment banking fees	4,823	8,887	7,180	—	—	—	189	388	391
Total fees and commissions	Total fees and commissions	33,212	39,299	34,551	8,179	9,030	8,363	13,893	14,857	12,806
Market making and similar activities	Market making and similar activities	12,075	8,691	8,355	10	1	2	102	40	63
Other income (loss)	Other income (loss)	(2,799)	(1,811)	(738)	401	45	199	287	187	247
Total noninterest income	Total noninterest income	\$42,488	\$46,179	\$42,168	\$ 8,590	\$ 9,076	\$ 8,564	\$14,282	\$15,084	\$13,116
Global Banking										
Global Banking										
Global Banking										
Global Banking	Global Markets									
Global Banking	Global Markets									
All Other (1)										
2023										
2023										

(1) *All Other* includes eliminations of intercompany transactions.

Business Segment Reconciliations

(Dollars in millions)

Segments' total revenue, net of interest expense	\$
Adjustments ⁽¹⁾ :	
Asset and liability management activities	
Liquidating businesses, eliminations and other	
FTE basis adjustment	
Consolidated revenue, net of interest expense	\$
Segments' total net income	
Adjustments, net-of-tax ⁽¹⁾ :	
Asset and liability management activities	
Liquidating businesses, eliminations and other	
Consolidated net income	\$

Segments' total assets

Adjustments ⁽¹⁾:

Asset and liability management activities, including securities portfolio
Elimination of segment asset allocations to match liabilities
Other
Consolidated total assets

The table below presents a reconciliation of the four business segments' total revenue, net of interest expense, on an FTE basis, and net income to the Consolidated Statement of

Business Segment Reconciliations

(Dollars in millions)

Segments' total revenue, net of interest expense	\$
Adjustments ⁽¹⁾ :	
Asset and liability management activities	
Liquidating businesses, eliminations and other	
FTE basis adjustment	
Consolidated revenue, net of interest expense	\$
Segments' total net income	
Adjustments, net-of-tax ⁽¹⁾ :	
Asset and liability management activities	
Liquidating businesses, eliminations and other	
Consolidated net income	\$

Segments' total assets

Adjustments ⁽¹⁾:

Asset and liability management activities, including securities portfolio
Elimination of segment asset allocations to match liabilities
Other
Consolidated total assets

⁽¹⁾ Adjustments include consolidated income, expense and asset amounts not specifically allocated to individual business segments.

NOTE 24 Parent Company Information

The following tables present the Parent Company-only financial information.

Condensed Statement of Income

Condensed Statement of Income

Condensed Statement of Income

(Dollars in millions)

(Dollars in millions)

(Dollars in millions) (Dollars in millions) 2022 2021 2020 2023

Income Income Income
Dividends from subsidiaries: Dividends from subsidiaries: Dividends from subsidiaries:

Bank holding companies and related subsidiaries Bank holding companies and related subsidiaries \$22,250 \$15,621 \$10,352

Interest from subsidiaries

Interest from subsidiaries

Interest from subsidiaries Interest from subsidiaries 12,420 8,362 8,825

Other income (loss) Other income (loss) (201) (114) (138)

Total income Total income 34,469 23,869 19,039

Expense Expense Expense

Interest on borrowed funds from subsidiaries Interest on borrowed funds from subsidiaries 236 54 136

Other interest expense Other interest expense 7,041 3,383 4,119

Noninterest expense Noninterest expense 1,322 1,531 1,651

Total expense Total expense 8,599 4,968 5,906

Income before income taxes and equity in undistributed earnings of subsidiaries Income before income taxes and equity in undistributed earnings of subsidiaries 25,870 18,901 13,133

Income tax expense Income tax expense 683 886 649

Income before equity in undistributed earnings of subsidiaries Income before equity in undistributed earnings of subsidiaries 25,187 18,015 12,484

Equity in undistributed earnings (losses) of subsidiaries Equity in undistributed earnings (losses) of subsidiaries Equity in undistributed earnings (losses) of subsidiaries:

Bank holding companies and related subsidiaries	Bank holding companies and related subsidiaries	2,333	14,078	5,372
Nonbank companies and related subsidiaries	Nonbank companies and related subsidiaries	8	(115)	38
Total equity in undistributed earnings (losses) of subsidiaries	Total equity in undistributed earnings (losses) of subsidiaries	2,341	13,963	5,410
Net income	Net income	\$27,528	\$31,978	\$17,894

163 Bank of America

Condensed Balance Sheet

(Dollars in millions)

Assets

Cash held at bank subsidiaries

Securities

Receivables from subsidiaries:

Bank holding companies and related subsidiaries

Banks and related subsidiaries

Nonbank companies and related subsidiaries

Investments in subsidiaries:

Bank holding companies and related subsidiaries

Nonbank companies and related subsidiaries

Other assets

Total assets

Liabilities and shareholders' equity

Accrued expenses and other liabilities

Payables to subsidiaries:

Banks and related subsidiaries

Bank holding companies and related subsidiaries

Nonbank companies and related subsidiaries

Long-term debt

Total liabilities

Shareholders' equity

Total liabilities and shareholders' equity

Condensed Statement of Cash Flows

(Dollars in millions)

Operating activities

Net income
Reconciliation of net income (loss) to net cash provided by (used in) operating activities:
Equity in undistributed (earnings) losses of subsidiaries
Other operating activities, net
Net cash provided by (used in) operating activities

Investing activities

Net sales (purchases) of securities
Net payments to subsidiaries
Other investing activities, net
Net cash used in investing activities

Financing activities

Net increase (decrease) in other advances
Proceeds from issuance of long-term debt
Retirement of long-term debt
Proceeds from issuance of preferred stock and warrants
Redemption of preferred stock
Common stock repurchased
Cash dividends paid
Net cash provided by (used in) financing activities
Net increase (decrease) in cash held at bank subsidiaries
Cash held at bank subsidiaries at January 1
Cash held at bank subsidiaries at December 31

Condensed Balance Sheet

(Dollars in millions)

Assets

Cash held at bank subsidiaries
Securities
Receivables from subsidiaries:
Bank holding companies and related subsidiaries
Banks and related subsidiaries
Nonbank companies and related subsidiaries
Investments in subsidiaries:
Bank holding companies and related subsidiaries
Nonbank companies and related subsidiaries
Other assets

Total assets

Liabilities and shareholders' equity

Accrued expenses and other liabilities
Payables to subsidiaries:
Banks and related subsidiaries
Bank holding companies and related subsidiaries

Nonbank companies and related subsidiaries

Long-term debt

Total liabilities

Shareholders' equity

Total liabilities and shareholders' equity

Condensed Statement of Cash Flows

(Dollars in millions)

Operating activities

Net income

Reconciliation of net income (loss) to net cash provided by (used in) operating activities:

Equity in undistributed (earnings) losses of subsidiaries

Other operating activities, net

Net cash provided by (used in) operating activities

Investing activities

Net sales (purchases) of securities

Net payments to subsidiaries

Other investing activities, net

Net cash used in investing activities

Financing activities

Net increase (decrease) in other advances

Proceeds from issuance of long-term debt

Retirement of long-term debt

Proceeds from issuance of preferred stock and warrants

Redemption of preferred stock

Common stock repurchased

Cash dividends paid

Net cash provided by (used in) financing activities

Net increase (decrease) in cash held at bank subsidiaries

Cash held at bank subsidiaries at January 1

Cash held at bank subsidiaries at December 31

167 Bank of America

NOTE 25 Performance by Geographical Area

The Corporation's operations are highly integrated with operations in both U.S. and non-U.S. markets. The non-U.S. business activities are largely conducted in Europe, the Middle East and Africa and in Asia. The Corporation identifies its geographic performance based on the business unit structure used to manage the capital or expense deployed in the region

as applicable. This requires certain judgments. The related capital or expense deployed in the region arrive at total assets, total revenue, and total expense, presented below.

(Dollars in millions)

(Dollars in millions)

		Total Revenue, Net of Interest Expense and Income Before Taxes				
		Total Assets at Year End	Interest Expense	Income Before Taxes	Net Income	
(Dollars in millions)	(Dollars in millions)	(1)	(2)			
U.S. (3)	U.S. (3)	2022	\$2,631,815	\$ 82,890	\$28,135	\$25,607
		2021	2,789,862	78,012	31,392	27,781

Total Assets at Year End (1)

Total Revenue, Net of Interest Expense (2)

		2020		75,576	18,247	16,692
Asia	Asia	2022	127,399	4,597	1,144	865
		2021	117,085	4,439	988	733
		2020		4,232	1,051	788
Europe, Middle East and Africa	Europe, Middle East and Africa	2022	262,856	6,044	1,121	689
		2021	233,356	5,423	1,097	3,134
		2020		4,491	(596)	264
Latin America and the Caribbean	Latin America and the Caribbean	2022	29,305	1,419	569	367
		2021	29,192	1,239	499	330
		2020		1,229	293	150
Total Non-U.S.	Total Non-U.S.	2022	419,560	12,060	2,834	1,921
		2021	379,633	11,101	2,584	4,197
		2020		9,952	748	1,202
Total Consolidated	Total Consolidated	2022	\$ 3,051,375	\$ 94,950	\$ 30,969	\$ 27,528
		2021	3,169,495	89,113	33,976	31,978
		2020		85,528	18,995	17,894

(1) Total assets include long-lived assets, which are primarily located in the U.S.

(2) There were no material intercompany revenues between geographic regions for any of the periods presented.

(3) Substantially reflects the U.S.

Glossary

Alt-A Mortgage – A type of U.S. mortgage that is considered riskier than A-paper, or “prime,” and less risky than “subprime,” the riskiest category. Typically, Alt-A mortgages are characterized by borrowers with less than full documentation, lower credit scores and higher LTVs.

Assets Under Management (AUM) – The total market value of assets under the investment advisory and/or discretion of GWIM which generate asset management fees based on a percentage of the assets’ market values. AUM reflects assets that are generally managed for institutional, high net worth and retail clients, and are distributed through various investment products including mutual funds, other commingled vehicles and separate accounts.

Banking Book – All on- and off-balance sheet financial instruments of the Corporation except for those positions that are held for trading purposes.

Brokerage and Other Assets – Non-discretionary client assets which are held in brokerage accounts or held for safekeeping.

Committed Credit Exposure – Any funded portion of a facility plus the unfunded portion of a facility on which the lender is legally bound to advance funds during a specified period under prescribed conditions.

Credit Derivatives – Contractual agreements that provide protection against a specified credit event on one or more referenced obligations.

Credit Valuation Adjustment (CVA) – A portfolio adjustment required to properly reflect the counterparty credit risk exposure as part of the fair value of derivative instruments.

Debit Valuation Adjustment (DVA) – A portfolio adjustment required to properly reflect the Corporation’s own credit risk exposure as part of the fair value of derivative instruments and/or structured liabilities.

Funding Valuation Adjustment (FVA) – A portfolio adjustment required to include funding costs on uncollateralized derivatives and derivatives where the Corporation is not permitted to use the collateral it receives.

Interest Rate Lock Commitment (IRLC) – Commitment with a loan applicant in which the loan terms are guaranteed for a designated period of time subject to credit approval.

Letter of Credit – A document issued on behalf of a customer to a third party promising to pay the third party upon presentation of specified documents. A letter of credit effectively substitutes the issuer’s credit for that of the customer.

Loan-to-value (LTV) – A commonly used credit quality metric. LTV is calculated as the outstanding carrying value of the loan divided by the estimated value of the property securing the loan.

Macro Products – Include currencies

Margin Receivable – An extension of

Matched Book – Repurchase and r liability position is similar in size and/ earns the interest rate spread.

Mortgage Servicing Rights Right (l Servicing includes collections for prin interest payments to investors.

Nonperforming Loans and Leases loans whose contractual terms have difficulties.

Prompt Corrective Action (PCA) – / of regulatory capital ratios, comprised “significantly undercapitalized” and “c levels are subject to increasingly stri compensation, grow assets and take i

Subprime Loans – Although a stand Corporation defines subprime loans a

Troubled Debt Restructurings (TDR to a borrower experiencing financial c also classified as TDRs.

Value-at-Risk (VaR) – VaR is a mo generate a distribution of potential g confidence level based on historical v trading portfolios.

Key Metrics

Active Digital Banking Users – Mobile and/or online active users over the past 90 days.

Active Mobile Banking Users – Mobile active users over the past 90 days.

Book Value – Ending common shareholders’ equity divided by ending common shares outstanding.

Common Equity Ratio - Ending common shareholders’ equity divided by ending total assets.

Deposit Spread – Annualized net interest income divided by average deposits.

Dividend Payout Ratio – Common dividends declared divided by net income applicable to common shareholders.

Efficiency Ratio – Noninterest expense divided by total revenue, net of interest expense.

Gross Interest Yield – Effective annual percentage rate divided by average loans.

Net Interest Yield – Net interest incom

Operating Margin – Income before ir

Return on Average Allocated Capit

Return on Average Assets – Net inc

Return on Average Common Share shareholders’ equity.

Return on Average Shareholders’ E

Risk-adjusted Margin – Difference b

Acronyms

ABS	Asset-backed securities	GLS	Global Liquidity
AFS	Available-for-sale	GNMA	Government National Mortgage Association
AI	Artificial intelligence	GRM	Global Risk Management
ALM	Asset and liability management	GSE	Government-Sponsored Enterprise
ARR	Alternative reference rates	G-SIB	Global Systemically Important Bank
AUM	Assets under management	GWIM	Global Wealth Management
AVM	Automated valuation model	HELOC	Home Equity Line of Credit
BANA	Bank of America, National Association	HQLA	High Quality Liquid Assets
BHC	Bank holding company	HTM	Held-to-maturity
BofAS	BofA Securities, Inc.	ICAAP	Internal Capital Adequacy Assessment Process
BofASE	BofA Securities Europe SA	IRLC	Interest Rate Linked
bps	Basis points	ISDA	International Swaps and Derivatives Association
BSBY	Bloomberg Short-Term Bank Yield Index	LCR	Liquidity Coverage Ratio
CAE	Chief Audit Executive	LHFS	Loans held-for-sale
CCAR	Comprehensive Capital Analysis and Review	LIBOR	London Interbank Benchmark Rate
CCP	Central counterparty clearinghouses	LTV	Loan-to-value
CCPA	California's Consumer Privacy Act	MBS	Mortgage-backed securities
CDO	Collateralized debt obligation	MD&A	Management Discussion and Analysis
CECL	Current expected credit losses	MLI	Merrill Lynch
CET1	Common equity tier 1	MLPCC	Merrill Lynch
CFPB	Consumer Financial Protection Bureau	MLPF&S	Merrill Lynch, Pierce, Fenner & Smith
CFTC	Commodity Futures Trading Commission	MRC	Management Review Committee
CLO	Collateralized loan obligation	MSA	Metropolitan
CLTV	Combined loan-to-value	MSR	Mortgage Servicing
CPRA	California Privacy Rights Act	NOL	Net operating loss
CRO	Chief Risk Officer	NSFR	Net Stable Funding Ratio
CVA	Credit valuation adjustment	OCC	Office of the Comptroller of the Currency
DIF	Deposit Insurance Fund	OCI	Other comprehensive income
DTA	Deferred tax assets	OECD	Organization for Economic Cooperation and Development
DVA	Debit valuation adjustment	OREO	Other real estate owned
ECL	Expected credit losses	OTC	Over-the-counter
EEA	European Economic Area	PCA	Prompt Corrective Action
EPS	Earnings per common share	PPP	Paycheck Protection Program
ERC	Enterprise Risk Committee	RMBS	Residential Mortgage-backed Securities
ESG	Environmental, social and governance	RSU	Restricted Stock Unit
EU	European Union	RWA	Risk-weighted assets
FDIC	Federal Deposit Insurance Corporation	SBA	Small Business Administration
FDICIA	Federal Deposit Insurance Corporation Improvement Act of 1991	SBLC	Standby Letter of Credit
FHA	Federal Housing Administration	SCB	Stress Capital Buffer
FHLB	Federal Home Loan Bank	SEC	Securities and Exchange Commission
FHLMC	Freddie Mac	SIFI	Systemically Important Financial Institution
FICC	Fixed income, currencies and commodities	SLR	Supplemental Liquidity Ratio
FICO	Fair Isaac Corporation (credit score)	SOFR	Secured Overnight Financing Rate
FLUs	Front line units	TDR	Troubled Debt Restructuring
FNMA	Fannie Mae	TLAC	Total Loss-Absorbing Capacity
FTE	Fully taxable-equivalent	UDAAP	Unfair, Deceptive, and Abusive Practices
FVA	Funding valuation adjustment	VA	U.S. Department of Veterans Affairs
GAAP	Accounting principles generally accepted in the United States of America	VaR	Value-at-Risk
GDPR	General Data Protection Regulation	VIE	Variable Interest Entity
GLS GHG	Global Liquidity SourcesGreenhouse gas		



Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

As of the end of the period covered by this report and pursuant to Rule 13a-15 of the Securities Exchange Act of 1934, as amended (Exchange Act), Bank of America's management, including the Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the effectiveness and design of our disclosure controls and procedures (as that term is defined in Rule 13a-15(e) of the Exchange Act). Based upon that evaluation, Bank of America's Chief Executive Officer and Chief Financial Officer concluded that Bank of America's disclosure controls and procedures were effective, as of the end of the period covered by this report.

Report of Management on Internal Control Over Financial Reporting

The Report of Management on Internal Control Over Financial Reporting is set forth on page 87 and incorporated herein by reference. The Report of Independent Registered Public Accounting Firm with respect to the Corporation's internal control over financial reporting is set forth on pages 88 and 89 and incorporated herein by reference.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act) during the quarter ended **December 31, 2022** **December 31, 2023**, that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

Trading Arrangements

During the fiscal quarter ended December 31, 2023, none of the Corporation's directors or officers (as defined in Rule 16a-1(f) of the Securities Exchange Act of 1934, as amended) adopted or terminated a Rule 10b5-1 trading arrangement or non-Rule 10b5-1 trading arrangement (in each case, as defined in Item 408 of Regulation S-K) for the purchase or sale of the Corporation's securities.

Disclosure Pursuant to Section 13(r) of the Securities Exchange Act of 1934

Pursuant to Section 13(r) of the Exchange Act, an issuer is required to disclose in its annual or quarterly reports, as applicable, whether it or any of its affiliates knowingly engaged in certain activities, transactions or dealings relating to Iran or with individuals or entities designated pursuant to certain Executive Orders. Disclosure may be required even where the activities, transactions or dealings were conducted in compliance with applicable law. As previously disclosed in its related quarterly reports **report** on Form 10-Q, the Corporation identified and reported certain activities pursuant to Section 13(r) for the first, second and third quarters **quarter** of **2022, 2023**. The information provided pursuant to Section 13(r) of the Exchange Act in Item 5 of the quarters **quarter** ended March 31, 2022, June 30, 2022 and September 30, 2022 **June 30, 2023** is hereby incorporated by reference to such reports. **report**. Except as set forth below, as of the date of this Annual Report on Form 10-K, the Corporation is not aware of any other

Foreign Assets Control. The wire deposits **Control regarding Afghanistan or governing institutions in Afghanistan. These payments for BANA clients** were processed by BANA on behalf of a U.S. client into its account at BANA and settled invoices owed to the U.S. client. The deposits were unblocked funds belonging to Jammal Trust Bank, **Afghan state-owned banks**, which at the time of the deposits was designated pursuant **are subject** to Executive Order 13224. There was no measurable gross revenue or net profit to the Corporation relating to these transactions. **transactions, except nominal fees received by BANA for processing payments.** The Corporation may in the future engage in similar transactions for its clients to the extent permitted by U.S. law.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

Part III

Bank of America Corporation and Subsidiaries

Item 10. Directors, Executive Officers and Corporate Governance

Information about our Executive Officers

The name, age, position and office, and business experience of our current executive officers are:

Dean C. Athanasia (56) (57) President, Regional Banking since October 2021; President, Retail and Preferred & Small Business Banking from January 2019 to October 2021; Co-Head -- Consumer Banking from September 2014 to January 2019; and Preferred and Small Business Banking Executive from April 2011 to September 2014.

Aditya Bhasin (49) (50) Chief Technology & Information Officer since October 2021; Chief Information Officer and Head of Technology for Consumer, Small Business, Wealth Management and Employee Technology from October 2017 to October 2021; CIO, Retail, Preferred & Wealth Management Technology, and Wealth Management Operations from June 2015 to October 2017.

Darrin Steve Boland (54) (55) Chief Administrative Officer since October 2021; President, Retail from February 2020 to October 2021; Head of Consumer Lending from May 2017 to February 2020; Consumer Lending Executive from May 2015 to May 2017.

Alastair M. Borthwick (54) (55) Chief Financial Officer since November 2021; President of Global Commercial Banking from October 2012 to October 2021.

Sheri Bronstein (54) (55) Chief Human Resources Officer since January 2019; Global Human Resources Executive from July 2015 to January 2019; and HR Executive for Global Banking & Markets from March 2010 to July 2015.

James P. DeMare (53) (54) President, Global Markets since September 2020; Global Co-Head of FICC Trading and Commercial Real Estate Banking from February 2015 to September 2020.

Paul M. Donofrio (62) (63) Vice Chair since November 2021; Chief Financial Officer from August 2015 to November 2021; Strategic Finance Executive from April 2015 to August 2015; and Head of Global Corporate Credit and Transaction Banking from January 2012 to April 2015.

activity, transaction or dealing by any disclosure under Section 13(r) of the Exchange Act. During the fourth quarter of **2022**, the Corporation, processed **two seven** a license issued on April 21, 2022, by the

Geoffrey S. Greener (58) (59) Chief Risk Officer since April 2014; Head of Enterprise Capital Management from April 2011 to April 2014.

Lindsay D. Hans (44) President, Co-Head Merrill Wealth Management since April 2023; Head of Private Wealth Management, International and Institutional, Merrill Lynch from February 2023 to March 2023; Division Executive, Merrill Lynch from March 2017 to February 2023; Market Executive, Merrill Lynch from September 2014 to March 2017.

Kathleen A. Knox (59) (60) President, The Private Bank since November 2017; Head of Business Banking from October 2014 to November 2017; and Retail Banking & Distribution Executive from June 2011 to October 2014.

169 Bank of America

Matthew M. Koder (51) (52) President, Global Corporate & Investment Banking since December 2018; President of APAC from March 2012 to December 2018.

Bernard A. Mensah (54) (55) President, International, CEO of Merrill Lynch International (MLI), BANA London Branch Head since August 2020. President of UK and Central and Eastern Europe, the Middle East, Africa, CEO of MLI, BANA London Branch and Co-Head of Global Fixed Income Currency and Commodities (FICC) Trading from September 2019 to August 2020; Co-Head of Global FICC Trading from March 2015 to September 2019.

Lauren A. Mogensen (60) (61) Global General Counsel since November 2021; Head of Global Compliance & Operational Risk, and Reputational Risk from December 2013 to October 2021.

Brian T. Moynihan (63) (64) Chair of the Board since October 2014, and President, Chief Executive Officer, and member of the Board of Directors since January 2010.

Thong M. Nguyen (64) (65) Vice Chair, Head of Global Strategy & Enterprise Platforms since October 2021; Vice Chairman from January 2019 to October 2021; Co-Head -- Consumer Banking from September 2014 to January 2019; Retail Banking Executive from April 2014 to September 2014; and Retail Strategy, and Operations & Digital Banking Executive from September 2012 to April 2014.

Eric A. Schimpf (55) President, Co-Head Merrill Wealth Management since April 2023; Pacific Coast Division Executive, Merrill Lynch from July 2022 to March 2023; Head of Advisory Division, Merrill Lynch from September 2020 to July 2022; Southeast Division Executive, Merrill Lynch from April 2017 to Solutions with Merrill Lynch from October 2011 to January 2017.

Bruce R. Thompson (58) (59) Vice Chair, Head of Enterprise Credit since October 2021; Vice Chairman, Head of Institutional Credit Exposure Management (from December 2020) and Wholesale Credit Underwriting and Monitoring (from May 2021) to October 2021; Vice Chairman, President of the EU & Switzerland and CEO of Bank of America Europe DAC from May 2018 to December 2020; Vice Chairman of Bank of America Corporation from March 2016 to May 2018; Managing Director from July 2015 to March 2016; Chief Financial Officer from July 2011 to July 2015.

Information included under the following captions in the Corporation's proxy statement relating to its 2023 2024 annual meeting of shareholders (the 2023 2024 Proxy Statement) is incorporated herein by reference:

- "Proposal 1: Electing directors – Our director nominees;"
- "Corporate governance – Additional corporate governance information;"
- "Corporate governance – Committees and membership;" and
- "Corporate governance – Board meetings and attendance. attendance;" and
- "Delinquent Section 16(a) Reports."

Item 11. Executive Compensation

Information included under the following captions in the 2023 2024 Proxy Statement is incorporated herein by reference:

- "Compensation discussion and analysis;"
- "Compensation and Human Capital Committee Report;"
- "Executive compensation;"
- "CEO pay ratio;"
- "Corporate governance;" and
- "Director compensation."

September 2020; South Atlantic Division January 2014 to June 2015.

Thomas M. Scrivener (51) (52) C Management Operations from October 2018 to October 2019; Enterprise Sc Testing, Recovery & Resolution Plann

Andrew M. Sieg (55) President, M

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information included under the following caption in the 2023 2024 Proxy Statement is incorporated herein by reference:

- "Stock ownership of directors, executive officers, and certain beneficial owners."

The table below presents information on equity compensation plans at December 31, 2022 December 31, 2023:

Plan Category ⁽¹⁾										
Plan Category ⁽¹⁾										

Consolidated Statement of Cash Flows for the years ended [December 31, 2022](#) [December 31, 2023](#), [2021](#) [2022](#) and [2020](#) [2021](#)

Notes to Consolidated Financial Statements

(2) Schedules:

None

(3) Index to Exhibits

With the exception of the information expressly incorporated herein by reference, the [2023](#) [2024](#) Proxy Statement shall not be deemed filed as part of this Annual Report on Form :

Incorporated by Reference

Incorporated by Reference

Incorporated by Reference

Incorporated by Reference

Exhibit Exhibit			Filing File			Exhibit								
No.	No.	Description	Notes	Form	Exhibit	Date	No.	No.	Description	Notes	Form	Exhibit		Filing D
3.1	3.1	Restated Certificate of Incorporation, as amended and in effect on the date hereof	10-Q	3.1	04/29/22	1-6523	3.1	Restated Certificate of Incorporation, as amended and in effect on the date hereof				10-Q		3.1
3.2	3.2	Amended and Restated Bylaws of the Corporation as in effect on the date hereof	1				3.2	Amended and Restated Bylaws of the Corporation as in effect on the date hereof				10-K		3.2
4.1	4.1	Indenture dated as of January 1, 1995 (for senior debt securities) between registrant (successor to NationsBank Corporation) and BankAmerica National Trust Company	S-3	4.1	2/1/95	33-57533	4.1	Indenture dated as of January 1, 1995 (for senior debt securities) between registrant (successor to NationsBank Corporation) and BankAmerica National Trust Company				S-3		4.1
4.2	4.2	First Supplemental Indenture dated as of September 18, 1998 between registrant and U.S. Bank Trust National Association (successor to BankAmerica National Trust Company) to the indenture dated as of January 1, 1995 (See Exhibit 4.1)	8-K	4.3	11/18/98	1-6523	4.2	First Supplemental Indenture dated as of September 18, 1998 between registrant and U.S. Bank Trust National Association (successor to BankAmerica National Trust Company) to the indenture dated as of January 1, 1995 (See Exhibit 4.1)				8-K		4.3

4.3	4.3	Second Supplemental Indenture dated as of May 7, 2001 between registrant, U.S. Bank Trust National Association, as Prior Trustee, and The Bank of New York, as Successor Trustee to the indenture dated as of January 1, 1995 (See Exhibit 4.1)	8-K	4.4	6/14/01	1-6523	4.3	Second Supplemental Indenture dated as of May 7, 2001 between registrant, U.S. Bank Trust National Association, as Prior Trustee, and The Bank of New York, as Successor Trustee to the indenture dated as of January 1, 1995 (See Exhibit 4.1)		8-K	4.4
4.4	4.4	Third Supplemental Indenture dated as of July 28, 2004 between registrant and The Bank of New York to the indenture dated as of January 1, 1995 (See Exhibit 4.1)	8-K	4.2	8/27/04	1-6523	4.4	Third Supplemental Indenture dated as of July 28, 2004 between registrant and The Bank of New York to the indenture dated as of January 1, 1995 (See Exhibit 4.1)		8-K	4.2
4.5	4.5	Fourth Supplemental Indenture dated as of April 28, 2006 between the registrant and The Bank of New York to the indenture dated as of January 1, 1995 (See Exhibit 4.1)	S-3	4.6	5/5/06	333-133852	4.5	Fourth Supplemental Indenture dated as of April 28, 2006 between the registrant and The Bank of New York to the indenture dated as of January 1, 1995 (See Exhibit 4.1)		S-3	4.6

4.6	4.6	Fifth Supplemental Indenture dated as of December 1, 2008 between registrant and The Bank of New York Mellon Trust Company, N.A. (successor to The Bank of New York) to the indenture dated as of January 1, 1995 (See Exhibit 4.1).	8-K	4.1	12/5/08	1-6523	4.6	Fifth Supplemental Indenture dated as of December 1, 2008 between registrant and The Bank of New York Mellon Trust Company, N.A. (successor to The Bank of New York) to the indenture dated as of January 1, 1995 (See Exhibit 4.1).		8-K	4.1
4.7	4.7	Sixth Supplemental Indenture dated as of February 23, 2011 between registrant and The Bank of New York Mellon Trust Company, N.A. to the indenture dated as of January 1, 1995 (See Exhibit 4.1).	10-K	4(ee)	2/25/11	1-6523	4.7	Sixth Supplemental Indenture dated as of February 23, 2011 between registrant and The Bank of New York Mellon Trust Company, N.A. to the indenture dated as of January 1, 1995 (See Exhibit 4.1).		10-K	4(ee)
4.8	4.8	Seventh Supplemental Indenture dated as of January 13, 2017 between registrant and The Bank of New York Mellon Trust Company, N.A. to the indenture dated as of January 1, 1995 (See Exhibit 4.1).	8-K	4.1	1/13/17	1-6523	4.8	Seventh Supplemental Indenture dated as of January 13, 2017 between registrant and The Bank of New York Mellon Trust Company, N.A. to the indenture dated as of January 1, 1995 (See Exhibit 4.1).		8-K	4.1

4.9	4.9	Eighth Supplemental Indenture dated as of February 23, 2017 between registrant and the Bank of New York Mellon Trust Company, N.A. to the indenture dated as of January 1, 1995 (See Exhibit 4.1)	10-K	4(a)	2/23/17	1-6523	4.9	Eighth Supplemental Indenture dated as of February 23, 2017 between registrant and the Bank of New York Mellon Trust Company, N.A. to the indenture dated as of January 1, 1995 (See Exhibit 4.1)	10-K	4(a)
4.10	4.10	Successor Trustee Agreement effective December 15, 1995 between registrant (successor to NationsBank Corporation) and First Trust of New York National Association, as successor trustee to BankAmerica National Trust Company	S-3	4.2	6/28/96	333-07229	4.10	Successor Trustee Agreement effective December 15, 1995 between registrant (successor to NationsBank Corporation) and First Trust of New York National Association, as successor trustee to BankAmerica National Trust Company	S-3	4.2
4.11	4.11	Agreement of Appointment and Acceptance dated as of December 29, 2006 between registrant and The Bank of New York Trust Company, N.A.	10-K	4(aaa)	2/28/07	1-6523	4.11	Agreement of Appointment and Acceptance dated as of December 29, 2006 between registrant and The Bank of New York Trust Company, N.A.	10-K	4(aaa)
4.12	4.12	Form of Senior Registered Note	S-3	4.12	5/1/15	333-202354	4.12	Form of Senior Registered Note	S-3	4.12
4.13	4.13	Form of Registered Global Senior Medium-Term Note, Series L	S-3	4.13	5/1/15	333-202354	4.13	Form of Registered Global Senior Medium-Term Note, Series L	S-3	4.13
4.14	4.14	Form of Master Registered Global Senior Medium-Term Note, Series L	S-3	4.14	5/1/15	333-202354	4.14	Form of Master Registered Global Senior Medium-Term Note, Series L	S-3	4.14

4.15	4.15	Form of Registered Global Senior Medium-Term Note, Series M	8-K	4.2	1/13/17	1-6523	4.15	Form of Registered Global Senior Medium-Term Note, Series M	8-K	4.2
4.16	4.16	Form of Master Registered Global Senior Medium-Term Note, Series M	8-K	4.3	1/13/17	1-6523	4.16	Form of Master Registered Global Senior Medium-Term Note, Series M	8-K	4.3
4.17	4.17	Indenture dated as of January 1, 1995 (for subordinated debt securities) between registrant (successor to NationsBank Corporation) and The Bank of New York	S-3	4.5	2/1/95	33-57533	4.17	Indenture dated as of January 1, 1995 (for subordinated debt securities) between registrant (successor to NationsBank Corporation) and The Bank of New York	S-3	4.5
4.18	4.18	First Supplemental Indenture dated as of August 28, 1998 between registrant and The Bank of New York to the indenture dated as of January 1, 1995 (See Exhibit 4.17)	8-K	4.8	11/18/98	1-6523	4.18	First Supplemental Indenture dated as of August 28, 1998 between registrant and The Bank of New York to the indenture dated as of January 1, 1995 (See Exhibit 4.17)	8-K	4.8

171 175 Bank of America

Incorporated by Reference

Incorporated by Reference

Incorporated by Reference

Incorporated by Reference

Exhibit Exhibit				Filing	File	Exhibit	
No.	No.	Description	Notes Form Exhibit	Date	No.	No.	Description

4.19	4.19	Second Supplemental Indenture dated as of January 25, 2007 between registrant and The Bank of New York Trust Company, N.A. (successor to The Bank of New York) to the indenture dated as of January 1, 1995 (See Exhibit 4.17)	S-4	4.3	3/16/07	333-141361	4.19	Second Supplemental Indenture dated as of January 25, 2007 between registrant and The Bank of New York Trust Company, N.A. (successor to The Bank of New York) to the indenture dated as of January 1, 1995 (See Exhibit 4.17)
4.20	4.20	Third Supplemental Indenture dated as of February 23, 2011 between registrant and The Bank of New York Mellon Trust Company, N.A. (formerly The Bank of New York Trust Company, N.A.) to the indenture dated as of January 1, 1995 (See Exhibit 4.17)	10-K	4(ff)	2/25/11	1-6523	4.20	Third Supplemental Indenture dated as of February 23, 2011 between registrant and The Bank of New York Mellon Trust Company, N.A. (formerly The Bank of New York Trust Company, N.A.) to the indenture dated as of January 1, 1995 (See Exhibit 4.17)
4.21	4.21	Fourth Supplemental Indenture dated as of February 23, 2017 between registrant and The Bank of New York Mellon Trust Company, N.A. to the indenture dated as of January 1, 1995 (See Exhibit 4.17)	10-K	4(i)	2/23/17	1-6523	4.21	Fourth Supplemental Indenture dated as of February 23, 2017 between registrant and The Bank of New York Mellon Trust Company, N.A. to the indenture dated as of January 1, 1995 (See Exhibit 4.17)
4.22	4.22	Indenture dated as of June 27, 2018 (for senior debt securities) between the registrant and The Bank of New York Mellon Trust Company, N.A.	S-3	4.3	6/27/18	333-224523	4.22	Indenture dated as of June 27, 2018 (for senior debt securities) between the registrant and The Bank of New York Mellon Trust Company, N.A.
4.23	4.23	Form of Registered Global Senior Medium-Term Note, Series N (prior to August 2021)	S-3	4.4	6/27/18	333-224523	4.23	Form of Registered Global Senior Medium-Term Note, Series N (prior to August 2021)
4.24	4.24	Form of Master Registered Global Senior Medium-Term Note, Series N (prior to August 2021)	S-3	4.5	6/27/18	333-224523	4.24	Form of Master Registered Global Senior Medium-Term Note, Series N (prior to August 2021)
4.25	4.25	Form of Registered Global Senior Medium-Term Note, Series N (from August 2021)	S-3	4.4	8/2/21	333-257399	4.25	Form of Registered Global Senior Medium-Term Note, Series N (from August 2021)

4.26	4.26	Form of Master Registered Global Senior Medium-Term Note, Series N (from August 2021)	S-3	4.5	8/2/21	333-257399	4.26	Form of Master Registered Global Senior Medium-Term Note, Series N (from August 2021)
4.27	4.27	Indenture dated as of June 27, 2018 (for subordinated debt securities) between the registrant and The Bank of New York Mellon Trust Company, N.A.	S-3	4.6	6/27/18	333-224523	4.27	Indenture dated as of June 27, 2018 (for subordinated debt securities) between the registrant and The Bank of New York Mellon Trust Company, N.A.
4.28	4.28	Form of Registered Global Subordinated Medium-Term Note, Series N (prior to August 2021)	S-3	4.7	6/27/18	333-224523	4.28	Form of Registered Global Subordinated Medium-Term Note, Series N (prior to August 2021)
4.29	4.29	Form of Registered Global Subordinated Medium-Term Note, Series N (from August 2021)	S-3	4.7	8/2/21	333-257399	4.29	Form of Registered Global Subordinated Medium-Term Note, Series N (from August 2021)
Registrant and its subsidiaries have other long-term debt agreements, but these are omitted pursuant to Item 601(b)(4)(iii) of Regulation S-K. Copies of these agreements will be furnished to the Commission on request								
Registrant and its subsidiaries have other long-term debt agreements, but these are omitted pursuant to Item 601(b)(4)(iii) of Regulation S-K. Copies of these agreements will be furnished to the Commission on request								
4.30	4.30	Description of the Corporation's Securities	1					
4.30								
10.1								
10.1								

10.1	10.1	Bank of America Pension Restoration Plan, as amended and restated effective January 1, 2009 (Pension Restoration Plan)	2	10-K	10(c)	2/27/09	1-6523	Bank of America Pension Restoration Plan, as amended and restated effective January 1, 2009 (Pension Restoration Plan)	2
10.2	10.2	First Amendment to the Pension Restoration Plan dated December 18, 2009	2	10-K	10(c)	2/26/10	1-6523	10.2 First Amendment to the Pension Restoration Plan dated December 18, 2009	
10.3	10.3	Second Amendment to the Pension Restoration Plan dated June 29, 2012	2	10-K	10(a)	2/28/13	1-6523	10.3 Second Amendment to the Pension Restoration Plan dated June 29, 2012	
10.4	10.4	Third Amendment to the Pension Restoration Plan dated March 26, 2013	2	10-K	10.4	2/19/20	1-6523	10.4 Third Amendment to the Pension Restoration Plan dated March 26, 2013	
10.5	10.5	Fourth Amendment to the Pension Restoration Plan dated August 22, 2013	2	10-K	10.5	2/19/20	1-6523	10.5 Fourth Amendment to the Pension Restoration Plan dated August 22, 2013	
10.6	10.6	Fifth Amendment to the Pension Restoration Plan dated December 5, 2014	2	10-K	10.6	2/19/20	1-6523	10.6 Fifth Amendment to the Pension Restoration Plan dated December 5, 2014	
10.7	10.7	Sixth Amendment to the Pension Restoration Plan dated December 15, 2016	2	10-K	10.7	2/19/20	1-6523	10.7 Sixth Amendment to the Pension Restoration Plan dated December 15, 2016	
10.8	10.8	NationsBank Corporation Benefit Security Trust dated as of June 27, 1990	2	10-K	10(t)	3/27/91	1-6523	10.8 Bank of America Deferred Compensation Plan (formerly known as the Bank of America 401(k) Restoration Plan) as amended and restated eff	
10.9	10.9	First Supplement to NationsBank Corporation Benefit Security Trust dated as of November 30, 1992	2	10-K	10(v)	3/24/93	1-6523	10.9 First Amendment to the Bank of America Deferred Compensation Plan (formerly known as the Bank of America 401(k) Restoration Plan), as amended and restated effective January 1, 2015	
10.10	10.10	NationsBank Corporation Benefit Security Trust Trustee Removal/Appointment Agreement dated as of December 19, 1995	2	10-K	10(o)	3/29/96	1-6523	10.10 Second Amendment to the Bank of America Deferred Compensation Plan (formerly known as the Bank of America 401(k) Restoration Plan) as amended and restated effective January 1, 2015	

10.11	10.11	Bank of America	2	10-K	10(c)	2/25/15	1-6523	10.11	Third Amendment to the Bank of America Deferred Compensation Plan (formerly known as the Bank of America 401(k) Restoration Plan) as amended and restated effective January 1, 2015
		Deferred Compensation Plan (formerly known as the Bank of America 401(k) Restoration Plan) as amended and restated effective January 1, 2015							
10.12	10.12	First Amendment to the Bank of America Deferred Compensation Plan (formerly known as the Bank of America 401(k) Restoration Plan) as amended and restated effective January 1, 2015	2	10-K	10(vv)	2/24/16	1-6523	10.12	Fourth Amendment to the Bank of America Deferred Compensation Plan (formerly known as the Bank of America 401(k) Restoration Plan) as amended and restated effective January 1, 2015
		Deferred Compensation Plan (formerly known as the Bank of America 401(k) Restoration Plan) as amended and restated effective January 1, 2015							
10.13	10.13	Second Amendment to the Bank of America Deferred Compensation Plan (formerly known as the Bank of America 401(k) Restoration Plan) as amended and restated effective January 1, 2015	2	S-8	4(c)	11/19/19	333-234780	10.13	Bank of America Executive Incentive Compensation Plan, as amended and restated effective December 10, 2002
		Deferred Compensation Plan (formerly known as the Bank of America 401(k) Restoration Plan) as amended and restated effective January 1, 2015							
10.14	10.14	Third Amendment to the Bank of America Deferred Compensation Plan (formerly known as the Bank of America 401(k) Restoration Plan) as amended and restated effective January 1, 2015	2	10-K	10.14	2/19/20	1-6523	10.14	Amendment to Bank of America Executive Incentive Compensation Plan, dated January 23, 2013
		Deferred Compensation Plan (formerly known as the Bank of America 401(k) Restoration Plan) as amended and restated effective January 1, 2015							
10.15	10.15	Fourth Amendment to the Bank of America Deferred Compensation Plan (formerly known as the Bank of America 401(k) Restoration Plan) as amended and restated effective January 1, 2015	2	10-K	10.15	2/24/21	1-6523	10.15	Bank of America Director Deferral Plan, as amended and restated effective January 1, 2005
		Deferred Compensation Plan (formerly known as the Bank of America 401(k) Restoration Plan) as amended and restated effective January 1, 2015							
10.16	10.16	Bank of America Executive Incentive Compensation Plan, as amended and restated effective December 10, 2002	2	10-K	10(g)	3/3/03	1-6523	10.16	Bank of America Director Deferral Plan, as amended and restated effective January 1, 2019
		Executive Incentive Compensation Plan, as amended and restated effective December 10, 2002							

10.17	10.17	Amendment to Bank of America Executive Incentive Compensation Plan, dated January 23, 2013	2	10-K	10(d)	2/28/13	1-6523	10.17	Bank of America Corporation Key Employee Equity Plan (formerly known as the Key Associate Stock Plan), as amended and restated effective
10.18	10.18	Bank of America Director Deferral Plan, as amended and restated effective January 1, 2005	2	10-K	10(g)	2/28/07	1-6523	10.18	First Amendment to the 2015 KEEP dated December 19, 2018
10.19	10.19	Bank of America Director Deferral Plan, as amended and restated effective January 1, 2019	2	10-K	10(f)	2/26/19	1-6523	10.19	Second Amendment to the 2015 KEEP dated April 24, 2019
10.20	10.20	Bank of America Corporation Key Employee Equity Plan (formerly known as the Key Associate Stock Plan), as amended and restated effective May 6, 2015 (2015 KEEP)	2	8-K	10.2	5/7/15	1-6523	10.20	Bank of America Corporation Equity Plan (formerly known as the Key Employee Equity Plan), as amended and restated effective April 20, 202
10.21	10.21	First Amendment to the 2015 KEEP dated December 19, 2018	2	10-K	10(mm)	2/26/19	1-6523	10.21	Bank of America Corporation Equity Plan (formerly known as the Key Employee Equity Plan), as amended and restated effective April 25, 202
10.22	10.22	Second Amendment to the 2015 KEEP dated April 24, 2019	2	8-K	10.1	4/24/19	1-6523	10.22	Form of Restricted Stock Award Agreement for Non-Employee Directors under the 2015 KEEP and the 2021 BACEP

Incorporated by Reference

Incorporated by Reference

Incorporated by Reference

Incorporated by Reference

Exhibit	Exhibit			Filing	File	Exhibit	
No.	No.	Description	Notes	Form	Exhibit	Date	No.
10.23	10.23	Bank of America Corporation Equity Plan (formerly known as the Key Employee Equity Plan), as amended and restated effective April 20, 2021 (2021 BACEP)	2	8-K	10.1	4/22/21	1-6523
							10.23
							Form of Time-based Restricted Stock Units Award Agreement (February 2021) under the 2015 KEEP

10.24	10.24	Form of Cash-settled Restricted Stock Units Award Agreement (February 2016 and subsequent grants) under the 2015 KEEP	2	10-Q	10(a)	5/2/16	1-6523	10.24	Form of Performance Restricted Stock Units Award Agreement (February 2021) under the 2015 KEEP
10.25	10.25	Form of Restricted Stock Award Agreement for Non-Employee Directors under the 2015 KEEP and the 2021 BACEP	2	10-K	10(h)	2/26/19	1-6523	10.25	Form of Cash-settled Restricted Stock Units Award Agreement under the 2021 BACEP
10.26	10.26	Form of Time-based Restricted Stock Units Award Agreement (February 2020) under the 2015 KEEP	2	10-Q	10.1	5/1/20	1-6523	10.26	Form of Time-Based Restricted Stock Units Award Agreement under the 2021 BACEP
10.27	10.27	Form of Performance Restricted Stock Units Award Agreement (February 2020) under the 2015 KEEP	2	10-Q	10.2	5/1/20	1-6523	10.27	Form of Performance-Based Restricted Stock Units Award Agreement under the 2021 BACEP
10.28	10.28	Form of Time-based Restricted Stock Units Award Agreement (February 2021) under the 2015 KEEP	2	10-Q	10.1	4/29/21	1-6523	10.28	Form of Phantom Restricted Stock Units Award Agreement
10.29	10.29	Form of Performance Restricted Stock Units Award Agreement (February 2021) under the 2015 KEEP	2	10-Q	10.2	4/29/21	1-6523	10.29	Amendment to various plans in connection with FleetBoston Financial Corporation merger dated October 27, 2003
10.30	10.30	Form of Cash-settled Restricted Stock Units Award Agreement under the 2021 BACEP	2	10-K	10.32	2/22/22	1-6523	10.30	FleetBoston Supplemental Executive Retirement Plan effective December 31, 2004

10.31	10.31	Form of Time-Based Restricted Stock Units Award Agreement under the 2021 BACEP	2	10-K	10.33	2/22/22	1-6523	10.31	FleetBoston Executive Deferred Compensation Plan No. 2 effective December 16, 2003
10.32	10.32	Form of Performance-Based Restricted Stock Units Award Agreement under the 2021 BACEP	2	10-K	10.34	2/22/22	1-6523	10.32	FleetBoston Executive Supplemental Plan effective December 31, 2004
10.33	10.33	Form of Phantom Restricted Stock Units Award Agreement	2	10-K	10.35	2/22/22	1-6523	10.33	Retirement Income Assurance Plan for Legacy Fleet, as amended and restated effective January 1, 2009
10.34	10.34	Amendment to various plans in connection with FleetBoston Financial Corporation merger dated October 27, 2003	2	10-K	10(v)	3/1/04	1-6523	10.34	First Amendment to the Retirement Income Assurance Plan for Legacy Fleet, as amended and restated effective January 1, 2009
10.35	10.35	FleetBoston Supplemental Executive Retirement Plan effective December 31, 2004	2	10-K	10(r)	3/1/05	1-6523	10.35	Officer's Certificate of Global Compensation, Benefits and Shared Services Executive Regarding Wanover Divestiture
10.36	10.36	FleetBoston Executive Deferred Compensation Plan No. 2 effective December 16, 2003	2	10-K	10(u)	3/1/05	1-6523	10.36	FleetBoston Directors Deferred Compensation and Stock Unit Plan effective January 1, 2004
10.37	10.37	FleetBoston Executive Supplemental Plan effective December 31, 2004	2	10-K	10(v)	3/1/05	1-6523	10.37	BankBoston Corporation and its Subsidiaries Deferred Compensation Plan dated December 24, 2001
10.38	10.38	Retirement Income Assurance Plan for Legacy Fleet, as amended and restated effective January 1, 2009	2	10-K	10(p)	2/26/10	1-6523	10.38	BankBoston Director Stock Award Plan effective July 1, 1998

10.39	10.39	First Amendment to the Retirement Income Assurance Plan for Legacy Fleet, as amended and restated effective January 1, 2009	2	10-K	10(i)	2/28/13	1-6523	10.39	BankBoston Corporation Directors' Deferred Compensation Plan effective March 1, 1988
10.40	10.40	Officer's Certificate of Global Compensation, Benefits and Shared Services Executive Regarding Wanger Divestiture	2	10-K	10(c)	2/25/11	1-6523	10.40	BankBoston, N.A. Directors' Deferred Compensation Plan effective March 1, 1988
10.41	10.41	Trust Agreement for the FleetBoston Executive Deferred Compensation Plans No. 1 and 2 dated December 17, 1997	2	10-K	10(x)	3/1/05	1-6523	10.41	Description of BankBoston Director Retirement Benefits Exchange Program
10.42	10.42	Trust Agreement for the FleetBoston Executive Supplemental Plan dated June 19, 1996	2	10-K	10(y)	3/1/05	1-6523	10.42	Global amendment to definition of "change in control" or "change of control," together with a list of plans affected by such amendment
10.43	10.43	Trust Agreement for the FleetBoston Retirement Income Assurance Plan and the FleetBoston Supplemental Executive Retirement Plan dated June 19, 1996	2	10-K	10(z)	3/1/05	1-6523	10.43	Employment Agreement dated October 27, 2003 between registrant and Brian T. Moynihan
10.44	10.44	FleetBoston Directors Deferred Compensation and Stock Unit Plan effective January 1, 2004	2	10-K	10(aa)	3/1/05	1-6523	10.44	Cancellation Agreement dated October 26, 2005 between registrant and Brian T. Moynihan

10.45	10.45	BankBoston Corporation and its Subsidiaries Deferred Compensation Plan dated December 24, 2001	2	10-K	10(cc)	3/1/05	1-6523	10.45	Agreement Regarding Participation in the Fleet Boston Supplemental Executive Retirement Plan dated October 26, 2005 between registrant and Brian T. Moynihan
10.46									
10.46									
10.46	10.46	BankBoston Director Stock Award Plan effective July 1, 1998	2	10-K	10(hh)	3/1/05	1-6523	Securities Purchase Agreement dated August 25, 2011 between registrant and Berkshire Hathaway Inc. (including forms of the certificate of Designations, Warrant and Registration Rights Agreement)	
10.47	10.47	BankBoston Corporation Directors' Deferred Compensation Plan effective March 1, 1988	2	10-K	10(ii)	3/1/05	1-6523	10.47	Amended and Restated Aircraft Time Sharing Agreement (Multiple Aircraft) dated June 26, 2018 between Bank of America, N.A. and Brian T. Moynihan
10.48	10.48	BankBoston N.A. Directors' Deferred Compensation Plan effective March 1, 1988	2	10-K	10(jj)	3/1/05	1-6523	10.48	Form of Aircraft Time Sharing Agreement (Multiple Aircraft) between Bank of America, N.A. and certain executive officers of the Corporation, including certain Named Executive Officers
10.49	10.49	Description of BankBoston Director Retirement Benefits Exchanging Program	2	10-K	10(ll)	3/1/05	1-6523	10.49	Amended Exhibit B to the Form of Aircraft Time Sharing Agreement (Multiple Aircraft) between Bank of America, N.A. and certain executive officers of the Corporation, including certain Named Executive Officers
10.50	10.50	Global amendment to definition of "change in control" or "change of control," together with a list of plans affected by such amendment	2	10-K	10(oo)	3/1/05	1-6523	10.50	ESA Retention Agreement dated March 15, 2004 between the Corporation and Dean C. Athanasia

10.51	10.51	Employment Agreement dated October 27, 2003 between registrant and Brian T. Moynihan	2	S-4	10(d)	12/4/03	333-110924	10.51	Letter Agreement dated November 9, 2021 between the Corporation and James P. DeMare	
10.52	10.52	Cancellation Agreement dated October 26, 2005 between registrant and Brian T. Moynihan	2	8-K	10.1	10/26/05	1-6523	10.52	Employment Offer Letter dated March 4, 2019 between the Corporation and Matthew M. Koder	
10.53	10.53	Agreement Regarding Participation in the Fleet Boston Supplemental Executive Retirement Plan dated October 26, 2005 between registrant and Brian T. Moynihan	2	8-K	10.2	10/26/05	1-6523	10.53	Letter of Understanding dated March 4, 2019 between the Corporation and Matthew M. Koder	
10.54								10.54	Appointment Letter dated January 1, 2008 between the Corporation and Paul M. Donofrio	
21										
22										
22										
22										Subsidiary Issuers of Guarantees
23										
10.54		Employment Letter dated May 1, 2008 between Merrill Lynch & Co., Inc. and Thomas K. Montan and Summary of Agreement with respect to Post-Employment Medical Coverage	2	10-K	10(bbb)	2/26/10	1-6523			

10.55 [Securities](#) 8-K 1.1 8/25/11 1-6523

[Purchase](#)

[Agreement](#)

[dated August](#)

[25, 2011](#)

[between](#)

[registrant and](#)

[Berkshire](#)

[Hathaway Inc.](#)

[\(including forms](#)

[of the certificate](#)

[of Designations,](#)

[Warrant and](#)

[Registration](#)

[Rights](#)

[Agreement\).](#)

10.56 [Amended and](#) 2 10-Q 10 7/30/18 1-6523

[Restated](#)

[Aircraft Time](#)

[Sharing](#)

[Agreement](#)

[\(Multiple](#)

[Aircraft\) dated](#)

[June 26, 2018](#)

[between Bank](#)

[of America, N.A.](#)

[and Brian T.](#)

[Moynihan](#)

173 177 Bank of America

Incorporated by Reference												
Incorporated by Reference												
Incorporated by Reference												
Incorporated by Reference												
Exhibit	Exhibit						Filing	File	Exhibit			
No.	No.	Description	Notes	Form	Exhibit	Date	No.	No.	Description	Notes	Form	Exhibit
10.57		Form of Aircraft Time Sharing Agreement (Multiple Aircraft) between Bank of America, N.A. and certain executive officers of the Corporation, including certain Named Executive Officers	2	10-Q	10(b)	7/29/19	1-					
								6523				

10.58	Amended Exhibit B to the Form of Aircraft Time Sharing Agreement (Multiple Aircraft) between Bank of America, N.A. and certain executive officers of the Corporation, including certain Named Executive Officers	2	10-Q	10.1	10/28/22	1-	6523
10.59	Letter Agreement dated November 9, 2021 between the Corporation and James P. DeMare	2, 3	10-Q	10.1	4/29/22	1-	6523
10.60	Employment Offer Letter dated March 4, 2019 between the Corporation and Matthew M. Koder	2, 3	10-Q	10.2	4/29/22	1-	6523
10.61	Letter of Understanding dated March 4, 2019 between the Corporation and Matthew M. Koder	2, 3	10-Q	10.3	4/29/22	1-	6523
10.62	Appointment Letter dated December 1, 2022 between Bank of America Europe Designated Activity Company and Paul M. Donofrio with respect to board service as Chair and Non-Executive Director	1, 2, 3					
21	Direct and Indirect Subsidiaries of Bank of America Corporation As of December 31, 2022	1					
22	Subsidiary Issuers of Guaranteed Securities	1					
23	Consent of PricewaterhouseCoopers LLP	1					
24	Power of Attorney	1					
31.1	31.1 Certification of the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	1					
31.1							
31.1							
31.2							
31.2							
31.2	31.2 Certification of the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	1					

32.1 32.1 [Certification of the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002](#)

32.1

32.1

32.2 32.2 [Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002](#)

32.2

32.2

97.1

97.1

97.1

99.1

99.1

99.1 99.1 [Bank of America Corporation Corporate Policy Regarding Seeking Stockholder Approval of Future Severance Agreements](#)

[Bank of America Corporation Corporate Policy Regarding Seeking Stockholder Approval of Future Severance Agreements](#)

10-K

99.1

101.INS 101.INS Inline XBRL Instance Document 5

101.SCH 101.SCH Inline XBRL Taxonomy Extension Schema Document 1

101.SCH

101.SCH

101.CAL

101.CAL

101.CAL 101.CAL Inline XBRL Taxonomy Extension Calculation Linkbase Document 1

101.LAB 101.LAB Inline XBRL Taxonomy Extension Label Linkbase Document 1

101.LAB

101.LAB

101.PRE

101.PRE

101.PRE	101.PRE	Inline XBRL Taxonomy	1
		Extension Presentation	
		Linkbase Document	
101.DEF	101.DEF	Inline XBRL Taxonomy	1
		Extension Definitions	
		Linkbase Document	

101.DEF
101.DEF

104	104	Cover Page Interactive
		Data File (formatted as
		Inline XBRL and
		contained in Exhibit 101)

104
104

- (1) Filed Herewith.
- (2) Exhibit is a management contract or compensatory plan or arrangement.
- (3) As permitted by Regulation S-K, Item 601(b)(10)(iv) of the Securities Exchange Act of 1934, as amended, certain portions of this exhibit have been redacted from the publicly filed document.
- (4) Furnished herewith. This exhibit shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that Section. Such exhibit shall not be deemed incorporated into any filing under the Securities Act o
- (5) The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document.

Item 16. Form 10-K Summary
Not applicable.

Signatures

Pursuant to the requirements of Section 13 of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereu
Date: February 22, 2023 February 20, 2024

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities

Signature	
/s/ Brian T. Moynihan	Chief Executive Officer
Brian T. Moynihan	(Principal)
*s/ Alastair M. Borthwick	Chief
Alastair M. Borthwick	(Principal)
*s/ Rudolf A. Bless	Chief
Rudolf A. Bless	(Principal)
*s/ Sharon L. Allen	
Sharon L. Allen	
*s/ José E. Almeida	
José E. Almeida	
*s/ Pierre J.P. de Weck	
Pierre J.P. de Weck	
*s/ Arnold W. Donald	
Arnold W. Donald	
*s/ Linda P. Hudson	
Linda P. Hudson	
*s/ Monica C. Lozano	
Monica C. Lozano	
*s/ Lionel L. Nowell III	
Lionel L. Nowell III	
*s/ Denise L. Ramos	
Denise L. Ramos	

175 Bank of America

Signature	
*s/ Clayton S. Rose	
Clayton S. Rose	

179 Bank of America

Signature

*/s/ Michael D. White

Michael D. White

*/s/ Thomas D. Woods

Thomas D. Woods

*/s/ Maria T. Zuber

Maria T. Zuber

*By

/s/ Ross E. Jeffries, Jr.

Ross E. Jeffries, Jr.
Attorney-in-Fact

Bank of America Corporation

BYLAWS

OF

BANK OF AMERICA CORPORATION

As Amended and Restated by the Board of Directors
on December 14, 2022

TABLE OF CONTENTS

ARTICLE I DEFINITIONS

Section 1. Definitions

Section 2. Cross-Reference to the DGCL

ARTICLE II OFFICES

Section 1. Principal Place of Business

Section 2. Registered Office

Section 3. Other Offices

ARTICLE III STOCKHOLDERS

Section 1. Annual Meeting

Section 2. Special Meetings

Section 3. Place of Meeting

Section 4. Notice to Stockholders

Section 5. Fixing of Record Date

Section 6. Stockholders List

Section 7. Quorum

Section 8. Proxies

Section 9. Voting of Shares

Section 10. Required Vote for Directors

Section 11. Conduct of Meetings

Section 12. Notice of Stockholder Business and Nominations

Section 13. Inspectors of Election

ARTICLE IV BOARD OF DIRECTORS

Section 1. General Powers

Section 2. Number and Qualifications

Section 3. Terms of Directors

Section 4. Vacancies and Newly Created Directorships

Section 5. Compensation

Section 6. Committees

Section 7. Chair of the Board

Section 8. Lead Independent Director

Section 9. Inclusion of Director Nominations by Stockholders in the Corporation's Proxy Materials

ARTICLE V MEETINGS OF DIRECTORS

Section 1. Regular Meetings

-i-

Section 2.Special Meetings
Section 3.Notice
Section 4.Waiver of Notice
Section 5.Quorum
Section 6.Manner of Acting
Section 7.Conduct of Meetings
Section 8.Action Without a Meeting
Section 9.Participation Other Than in Person

ARTICLE VI OFFICERS

Section 1.Officers of the Corporation
Section 2.Appointment and Term
Section 3.Compensation
Section 4.Resignation and Removal of Officers
Section 5.Contract Rights of Officers
Section 6.Chief Executive Officer
Section 7.President
Section 8.Secretary
Section 9.Treasurer

ARTICLE VII SHARES AND THEIR TRANSFER

Section 1.Shares
Section 2.Stock Transfer Books and Transfer of Shares
Section 3.Lost Certificates
Section 4.Transfer Agent and Registrar; Regulations

ARTICLE VIII INDEMNIFICATION

Section 1.Right to Indemnification
Section 2.Right to Advancement of Expenses
Section 3.Right of Indemnatee to Bring Suit
Section 4.Non-Exclusivity of Rights
Section 5.Insurance
Section 6.Indemnification of Agents of the Corporation
Section 7.Limitations on Indemnification
Section 8.Severability

ARTICLE IX GENERAL PROVISIONS

Section 1.Execution of Instruments
Section 2.Voting of Ownership Interests
Section 3.Distributions
Section 4.Seal and Attestation
Section 5.Amendments

Section 6.Exclusive Forum

ARTICLE X EMERGENCY BYLAWS

Section 1.Emergency Bylaws

Section 2.Meetings

Section 3.Quorum

Section 4.Amendments

Section 5.Contingency Plan

Section 6.Liability

Section 7.Repeal or Change

BYLAWS OF BANK OF AMERICA CORPORATION

ARTICLE I
DEFINITIONS

Section 1. Definitions. In these Bylaws, unless otherwise specifically provided:

- (a) "Advancement of Expenses" has the meaning set forth in Section 2 of Article VIII of these Bylaws.
- (b) "Affiliate" means any corporation, partnership, limited liability company, association, trust or other entity or organization that controls, is controlled by, or is under common control with the Corporation.
- (c) "Certificate of Incorporation" means the Certificate of Incorporation of the Corporation, as amended and restated from time to time, as filed with the Secretary of State setting forth the terms of preferred stock of the Corporation.
- (d) "Chief Audit Executive" has the meaning set forth in Section 1 of Article VI of these Bylaws.
- (e) "Common Stock" means the common stock of the Corporation.
- (f) "Controlled By" means possession, directly or indirectly, of the power to direct or cause the direction and management of the Corporation, or to exercise or control the exercise of a majority of the voting securities or other ownership interest, by contract or otherwise.
- (g) "Corporation" means Bank of America Corporation, a Delaware corporation, and any successor thereto.
- (h) "Delivery Date" has the meaning set forth in Section 2(c) of Article III of these Bylaws.
- (i) "Designated Officers" has the meaning set forth in Section 2 of Article X of these Bylaws.
- (j) "DGCL" means the General Corporation Law of the State of Delaware, as the same now exists or may hereafter be amended.
- (k) "Eligible Stockholder" has the meaning set forth in Section 9(a) of Article IV of these Bylaws.
- (l) "Emergency" has the meaning set forth in Section 1 of Article X of these Bylaws.

- (m) "Exchange Act" means the Securities Exchange Act of 1934, as amended.
- (n) "Executive Officer" has the meaning set forth in Section 1 of Article VI of these Bylaws.
- (o) "Federal Reserve Board" has the meaning set forth in Section 12(c)(iii)(E) of Article III of these Bylaws.
- (p) "Final Adjudication" has the meaning set forth in Section 2 of Article VIII of these Bylaws.
- (q) "Final Proxy Access Nomination Date" has the meaning set forth in Section 9(b) of Article IV of these Bylaws.
- (r) "Indemnatee" has the meaning set forth in Section 1 of Article VIII of these Bylaws.
- (s) "Lead Independent Director" means the independent director appointed by the independent members of the Board of Directors.
- (t) "Meeting Record Date" has the meaning set forth in Section 2(d) of Article III of these Bylaws.
- (u) "Notice of Proxy Access Nomination" has the meaning set forth in Section 9(b) of Article IV of these Bylaws.
- (v) "NYSE" has the meaning set forth in Section 9 of Article III of these Bylaws.
- (w) "Officer" has the meaning set forth in Section 1 of Article VI of these Bylaws.
- (x) "OCC" has the meaning set forth in Section 12(c)(iii)(E) of Article III of these Bylaws.
- (y) "Permitted Number" has the meaning set forth in Section 9(d) of Article IV of these Bylaws.
- (z) "Proceeding" has the meaning set forth in Section 1 of Article VIII of these Bylaws.
- (aa) "Qualifying Fund" has the meaning set forth in Section 9(e) of Article IV of these Bylaws.
- (bb) "Required Shares" has the meaning set forth in Section 9(e) of Article IV of these Bylaws.
- (cc) "Requisite Percent" has the meaning set forth in Section 2(a)(i) of Article III of these Bylaws.
- (dd) "Shares" means the Common Stock and other units into which equity interests in the Corporation are divided.
- (ee) "Similar Item" has the meaning set forth in Section 2(c) of Article III of these Bylaws.
- (ff) "Special Meeting Request" has the meaning set forth in Section 2(a)(i) of Article III of these Bylaws.
- (gg) "Statement" has the meaning set forth in Section 9(h) of Article IV of these Bylaws.
- (hh) "Stockholder" means the person in whose name Shares are registered in the records of the Corporation.
- (ii) "Stockholder Nominee" has the meaning set forth in Section 9(a) of Article IV of these Bylaws.
- (jj) "Stockholder Requested Special Meeting" has the meaning set forth in Section 2(a)(i) of Article III of these Bylaws.
- (kk) "Stockholder Special Meeting Request" has the meaning set forth in Section 2(b) of Article III of these Bylaws.
- (ll) "Undertaking" has the meaning set forth in Section 2 of Article VIII of these Bylaws.

Section 2. Cross-Reference to the DGCL. If any term used in these Bylaws and not otherwise defined herein is defined for purposes of the DGCL, the term shall have the meaning given to it in the DGCL, unless the context shall clearly require otherwise.

ARTICLE II OFFICES

Section 1. Principal Place of Business. The principal place of business of the Corporation shall be located in the City of Charlotte, North Carolina.

Section 2. Registered Office. The registered office of the Corporation required by the DGCL to be maintained in the State of Delaware shall be located in Delaware County, Delaware, 19801. The name of the Corporation's registered agent at such address is The Corporation Trust Company.

Section 3. Other Offices. The Corporation may have offices at such other places, either within or without the State of Delaware, as the Corporation may require from time to time.

ARTICLE III STOCKHOLDERS

Section 1. Annual Meeting. The annual meeting of the Stockholders shall be held each year at a date and hour fixed from time to time by the Board of Directors and for the transaction of such other proper business as may come before the meeting. The Board of Directors may postpone or reschedule the meeting at any time without notice. The Board of Directors may also schedule additional meetings of the Stockholders at any time without notice.

Section 2. Special Meetings.

(a) General.

- (i) Special meetings of the Stockholders, for any purpose or purposes, unless otherwise prescribed by the DGCL, shall be called by the Board of Directors, the Executive Officer, the President, or by the Secretary acting under instructions of the Board of Directors, the Chairman of the Board, or any officer or director of the Corporation (each, a "Special Meeting Request"). A special meeting of Stockholders shall be called upon the written request made by one or more Stockholders on behalf of any beneficial owner of Common Stock, representing at least the Requisite Percent of the total voting power of the Common Stock of the Corporation (the "Requisite Percent"), subject to Subsection (b) of this Section 2 (a "Stockholder Requested Special Meeting"). The Board of Directors may postpone, reschedule, or cancel a special meeting of Stockholders called upon a Stockholder Requested Special Meeting at any time without notice. The Board of Directors may also schedule additional meetings of the Stockholders at any time without notice.
- (ii) For purposes of calculating the Requisite Percent, "ownership" shall be deemed to consist of and include only the full voting rights pertaining to the Common Stock and (B) the full economic interest in (including the opportunity to receive dividends) the Common Stock owned of record and beneficially by the Stockholder. Ownership of Common Stock shall be deemed to include (A) the full economic interest in the Common Stock owned of record and beneficially by the Stockholder, (y) that a person has borrowed or purchased pursuant to an agreement to resell or (z) subject to any other similar agreement entered into by a person, whether any such instrument or agreement is to be settled with Common Stock, in any

such case which instrument or agreement has, or is intended to have, the purpose or effect of (1) reducing in any manner the full voting rights pertaining to the Common Stock, and/or (2) hedging, offsetting or altering to any degree gain or loss attributable to the Common Stock. Ownership of Common Stock shall be deemed to include Common Stock held in the name of a nominee or other intermediary so long as the person claiming ownership of Common Stock is voted with respect to the election of directors and possesses the full economic interest in the Common Stock. Ownership of Common Stock shall be deemed to include Common Stock loaned if the person claiming ownership may terminate the Common Stock lending within three (3) days and during any such term the person claiming ownership may exercise all the powers and rights of ownership in the Common Stock. The determination of ownership of Common Stock for purposes of this Section 2 shall be made in good faith by the Board of Directors, which determination shall be conclusive and binding on the Corporation. The variations of the word "own" shall have correlative meanings.

(b) Stockholder Requested Special Meetings. In order for a Stockholder Requested Special Meeting to be called, one or more Stockholders shall submit a written request to the Secretary, which request shall be signed by the Stockholder (or duly authorized agent) and collectively, the "Stockholder Special Meeting Requests" must be signed by Stockholders owning in the aggregate not less than the Requisite Percent of the total voting power of the Common Stock of the Corporation. Each Stockholder Special Meeting Request shall (i) set forth a statement of the specific purpose(s) of the meeting and the matters to be considered at the meeting, (ii) set forth the name and address of each Stockholder (or duly authorized agent) signing the Stockholder Special Meeting Request, (iii) set forth (A) the name and address of each Stockholder (or duly authorized agent) signing the Stockholder Special Meeting Request, (B) the amount of Common Stock owned of record and beneficially by each Stockholder (or duly authorized agent) signing the Stockholder Special Meeting Request, (iv) set forth all information relating to each such Stockholder (or duly authorized agent) signing the Stockholder Special Meeting Request, and (v) contain the information required by Article III, Section 12(c)(i)-(iii) of these Bylaws as to each such Stockholder Requested Special Meeting.

is signed, and the information required by Article III, Section 12(c)(iv) and (v) as to any nominees and other business proposed to be considered at the meeting, shall be delivered to the Secretary at the principal executive offices of the Corporation. The Stockholder Special Meeting Request shall be deemed to be revoked (and any meeting scheduled in response to the Stockholder Special Meeting Request shall be canceled) if the Stockholder (or duly authorized agent) signing the Stockholder Special Meeting Request, as well as an agreement by each such Stockholder to notify the Corporation immediately if such Stockholder ceases to be a Stockholder, is not delivered to the Secretary at the principal executive offices of the Corporation within the time specified in the Stockholder Special Meeting Request. If none of the Stockholders who submitted a Stockholder Special Meeting Request for

representative (as defined below in Article III, Section 12(g)) to present the nominations proposed to be presented or other business the Corporation need not present such nominations or other business for a vote at such Stockholder Requested Special Meeting.

In determining whether a Stockholder Requested Special Meeting has been requested by Stockholders (including by one or more owning in the aggregate not less than the Requisite Percent as of the date of such written request to the Secretary, multiple Stockholders together only if (i) each request identifies substantially the same purpose or purposes of the proposed Stockholder Requested Special Meeting (in each case to be determined by the Board of Directors), and (ii) such Stockholder Requested Special Meeting is requested by the Secretary within sixty (60) days of the earliest dated Stockholder Special Meeting Request.

(c) **Calling of a Special Meeting.** The Secretary shall not be required to call a special meeting of Stockholders if (i) the Board of Directors has not later than sixty (60) days after the date on which a valid Special Meeting Request, Stockholder Special Meeting Request or multiple Stockholder Special Meeting Request have been delivered to the Secretary (the "Delivery Date"); or (ii) the Special Meeting Request or the Stockholder Special Meeting Request is made commencing seventy-five (75) days prior to the first anniversary of the date of the immediately preceding annual meeting and on a substantially similar item (a "Similar Item") to an item that was presented at any meeting of Stockholders held within one hundred (100) days of the date of the meeting. clause (B) the election of directors shall be deemed a "Similar Item" with respect to all items of business involving the election or re-election of directors on the same subject

for action by the party requesting the special meeting under applicable law; (D) was made in a manner that involved a violation of Regulation S-X, or (E) did not comply with the provisions of this Section 2. The Secretary may call a special meeting of Stockholders at any time as requested by any Stockholder.

(d) **Holding a Special Meeting.** Except as provided in the next sentence, any special meeting shall be held at such date, time and place as the Board of Directors in accordance with these Bylaws and the DGCL. In the case of a Stockholder Requested Special Meeting, such meeting shall be held at the time and place designated by the Board of Directors; provided, however, that the date of any Stockholder Requested Special Meeting shall be not less than ten (10) days prior to the date of the "Meeting Record Date", which shall be fixed in accordance with Article III, Section 5 of these Bylaws; provided further that, if the Board of Directors fails to designate a date and time for a Stockholder Requested Special Meeting, then such meeting shall be held at 9:00 a.m. local time on the sixth (6th) business day, then on the next preceding business day); and provided further that in the event that the Board of Directors fails to designate a date and time for a Stockholder Requested Special Meeting, then such meeting shall be held at the Corporation's principal executive offices. In fixing a date and time for a Stockholder Requested Special Meeting, the Board of Directors may consider such factors as it deems relevant within the good faith exercise of business judgment, including, without limitation, the time and place of the meeting, the nature of the business to be transacted, the convenience of the Stockholders, and the surrounding any request for meeting and any plan of the Board of Directors to call an annual meeting or a special meeting.

(e) **Business Transacted at a Special Meeting.** Business to be transacted at a special meeting may only be brought before the meeting if it is a matter that the Board of Directors has authorized to be transacted at any Stockholder Requested Special Meeting shall be limited to the purpose(s) stated in the Stockholder Special Meeting Request. No business shall be transacted at any Stockholder Requested Special Meeting unless it has been authorized by the Board of Directors from submitting matters to the Stockholders at any Stockholder Requested Special Meeting.

Section 3. Place of Meeting. The Board of Directors, the Chair of the Board, the Chief Executive Officer or the President of the Corporation, the Chair of the Board, the Chief Executive Officer or the President, may designate any place, either within or without the State of Delaware, for any meeting of Stockholders or for any special meeting of Stockholders or may, in its sole discretion determine that a meeting of Stockholders shall be held at such place in accordance with the DGCL.

Section 4. Notice to Stockholders. Except as otherwise provided herein or permitted by law, whenever Stockholders are required to attend a meeting of the Corporation, notice of such meeting shall be given which shall state the place, if any, date and hour of the meeting, the means of remote communications, if any, by which the Stockholders may participate in the meeting, and the purpose or purposes for which the meeting is called.

to be present in person and vote at such meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called. Notice of such meeting may be given by electronic transmission in the manner and to the extent permitted by the DGCL.

Unless otherwise provided or permitted by law, the Certificate of Incorporation or these Bylaws, the notice of any meeting shall be given to each Stockholder entitled to vote at such meeting. Notwithstanding the foregoing, notice may be given to Stockholders by electronic transmission in the manner and to the extent permitted by the DGCL and by the "householding" rules set forth in Rule 14a-3(e) under the Exchange Act. If mailed, notice is given when deposited in the United States mail, first class postage paid at New York, New York, and at such other places as may be designated by the Corporation, addressed to such Stockholder's address as it appears on the records of the Corporation.

Any meeting of Stockholders, annual or special, may adjourn from time to time to reconvene at the same or another place. When a meeting of Stockholders adjourns, the date, time and place, if any, of the adjourned meeting and the means of remote communications, if any, by which the Stockholders may participate in the meeting are announced at the meeting at which the adjournment is taken or are provided in writing to the Stockholders. The Corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days, the Corporation shall give notice of the adjourned meeting to each Stockholder entitled to vote at the meeting. If after the adjournment a new record date for determining Stockholders entitled to vote at the adjourned meeting is fixed, notice of the adjourned meeting shall be given to each Stockholder entitled to vote at the adjourned meeting on or before the record date for notice in accordance with Article III, Section 5 of these Bylaws and notice of the adjourned meeting shall be given to each Stockholder on or before the record date fixed for notice of such adjourned meeting.

A Stockholder may waive any notice required by the DGCL, the Certificate of Incorporation or these Bylaws before or after the meeting. Such waiver shall constitute a waiver of notice of such meeting, except when the Stockholder attends a meeting for the express purpose of objecting to the meeting because the meeting is not lawfully called or convened.

Section 5. Fixing of Record Date. For the purpose of determining Stockholders entitled to notice of or to vote at any meeting of Stockholders for the payment of any dividend or other distribution, or in order to make a determination of Stockholders for any other proper purpose, the record date shall be the day on which the resolution fixing the record date is adopted, and which date shall not precede the date upon which the resolution fixing the record date is adopted, and which date shall not be more than ten days prior to the date of such meeting or on which such action is to be taken. If no record date is fixed by the resolution, the record date shall be the day on which the resolution is adopted.

For the determination of Stockholders entitled to notice of or to vote at a meeting of Stockholders, the close of business on the day before the day before the date of such meeting shall be the record date. If no record date is fixed for the determination of Stockholders entitled to notice of or to vote at a meeting of Stockholders for any other proper purpose, the close of business on the day on which the Board of Directors adopts the resolution relating thereto shall be the record date. If the determination of Stockholders has been made as provided in this Section 5, such determination shall apply to any adjournment thereof or any postponement of such meeting in each case unless the Board of Directors fixes a new record date.

Section 6. Stockholders List. The Corporation shall prepare, no later than the tenth day before each meeting of Stockholders, a list of the names of the Stockholders, in alphabetical order, and showing the address of each Stockholder and the number of Shares registered in the name of each Stockholder, for any purpose germane to the meeting, for a period of ten days ending on the day before the meeting date during ordinary business hours. The Corporation may place the Stockholders list on a reasonably accessible electronic network as permitted by the DGCL. Except as otherwise provided, any Stockholder who is entitled to examine the list of Stockholders required by this Section 6 or to vote in person or by proxy at any meeting of Stockholders shall be entitled to examine and copy the list.

Section 7. Quorum. Except as otherwise required by law, a majority of the voting power of the outstanding Shares entitled to vote at a meeting of Stockholders shall constitute a quorum for the transaction of business. Where a separate vote by a class or series or classes or series is required, a majority of the voting power of the class or series, present in person or represented by proxy, shall constitute a quorum entitled to take action with respect to that matter. A meeting of Stockholders may be adjourned from time to time by the chair of the meeting or upon the approval of the majority of the voting power of the outstanding Shares. Notice of adjournment shall be given without notice other than announcement at the meeting as provided in Article III, Section 4 or as otherwise required by Article III. One meeting of Stockholders may be held without notice of the meeting and for any adjournment of that meeting, notwithstanding the withdrawal of enough Stockholders to leave less than a quorum.

Section 8. Proxies. Each Stockholder entitled to vote at a meeting of Stockholders or to express consent or dissent to corporate action may authorize another person or persons to act for such Stockholder by proxy, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for its extension.

Without limiting the manner in which a Stockholder may authorize another person or persons to act for such Stockholder as proxy, the following are the means by which a Stockholder may grant such authority:

- (1) A Stockholder, or such Stockholder's authorized officer, director, employee or agent, may execute a document in writing, signed by the Stockholder or such authorized officer, director, employee or agent, authorizing another person or persons to act for such Stockholder as proxy.
- (2) A Stockholder may authorize another person or persons to act for such Stockholder as proxy by transmitting a written authorization to the holder of the proxy or to a proxy solicitation firm, proxy support service organization or like agent duly authorized to solicit proxies, provided that any such transmission must either set forth or be submitted with information from which it can be determined that such transmissions are valid, the inspectors or, if there are no inspectors, such other persons making the determination.
- (3) The authorization of a person to act as a proxy may be documented, signed and delivered in accordance with the requirements of the DGCL, with information enabling the Corporation to determine the identity of the Stockholder granting such authorization.

Any copy, facsimile telecommunication or other reliable reproduction of the document (including electronic transmission) created or used in lieu of the original document for any and all purposes for which the original document could be used, provided that such reproduction is a true and correct reproduction of the entire original document.

A duly executed proxy shall be irrevocable if it states that it is irrevocable and if, and only as long as, it is coupled with an interest in the Shares. A proxy shall be irrevocable regardless of whether the interest with which it is coupled is an interest in the stock itself or an interest in the Corporation or in the proceeds of the sale of the stock.

A Stockholder may revoke any proxy which is not irrevocable by attending the meeting and voting in person or by delivering to the Secretary a written notice of revocation.

Section 9. Voting of Shares. Except as otherwise provided by the Certificate of Incorporation, each outstanding Share of Common Stock shall be entitled to one vote. Other Shares are entitled to vote only as provided in the Certificate of Incorporation or the DGCL. If a quorum exists, action on any matter shall be taken by the affirmative vote of a majority of the votes cast.

Section 10. Required Vote for Directors. A nominee for director shall be elected to the Board of Directors if the votes cast for such provided, however, that the directors shall be elected by a plurality of the votes cast at any meeting of Stockholders for which (a) the persons for election to the Board of Directors pursuant to these Bylaws and (b) each such nomination has not been withdrawn by such advance of the date the Corporation files its definitive proxy statement (regardless of whether thereafter revised or supplemented Commission, as a result of which the total number of nominees for director exceeds the number of directors to be elected at such meeting are elected at an annual meeting, a special meeting of Stockholders shall be called for an election of directors in the manner provided

The chair of the meeting, in addition to making any other determinations that may be appropriate to the conduct of the meeting, shall determine whether or not any business was not properly brought before the meeting and if the chair should so determine, such chair shall so declare to the meeting. No business shall be transacted or considered. The chair of the meeting may, for any reason, from time to time, adjourn any meeting of Stockholders of the Company for any reason without announcement at the meeting except as provided in Article III, Section 4. The date and time of the opening and closing of the polls for the election of directors shall be announced at the meeting.

(a) At any meeting of the Stockholders, only nominations for the election of directors and the proposal of other business in accordance with the procedures set forth in this Section 12 may be conducted. Nominations for the election of directors and the proposal of other business may be made: (i) by the Board of Directors or any committee thereof; (ii) by a Stockholder of the Corporation who was a stockholder of record as of the date of the filing of the proxy statement for the meeting, or who was a stockholder of record on the date of the meeting, and who delivered to the Secretary, who is entitled to vote at the meeting and who complies with this Section 12; or (iii) by an Eligible Stockholder as defined in the requirements of Article IV, Section 9 of these Bylaws. For the avoidance of doubt, the foregoing clauses (ii) and (iii) shall be the exclusive means for a Stockholder to propose other business at a meeting of Stockholders, and the foregoing clause (ii) shall be the exclusive means for a Stockholder to propose other business at a meeting of the Corporation's definitive proxy statement for the applicable Stockholders' meeting pursuant to and in compliance with Rule 14a-8 under the Securities Act.

announcement of an adjournment or postponement of an annual meeting commence a new time period (or extend any time period).
 persons a Stockholder may nominate for election as a director at the annual meeting (or in the case of a Stockholder giving the notice
 nominate for election as a director at the annual meeting on behalf of such beneficial owner) shall not exceed the number of directors

- (i) the name and address of the Stockholder and the beneficial owner (within the meaning of Section 13(d) of the Securities Exchange Act of 1934) of the business is proposed;
- (ii) a representation that the Stockholder is a holder of record of the Corporation's Shares (including the number and class of Shares) and the beneficial owner, if any, on whose behalf the nomination is made or the other business is proposed) as of the date of the filing of this statement.

to appear (or have a qualified representative appear) at such meeting to make such nomination or to propose such

(iii) as to the Stockholder giving the notice or, if the notice is given on behalf of a beneficial owner, as to such beneficial individual who is a director, executive officer, general partner or managing member of such entity or of any other entity (a "control person"):

(A) the number and class of Shares which are beneficially owned by such Stockholder or beneficial owner and that the Stockholder will notify the Corporation in writing within five (5) business days after the record date for the meeting of the Stockholder or such beneficial owners and by any control person as of the record date for the meeting of the "beneficially owned" by a person if the person beneficially owns such Shares, directly or indirectly, for purposes of the exercise thereunder or has or shares pursuant to any agreement, arrangement or understanding (whether or not such Shares are exercisable immediately or only after the passage of time or the fulfillment of

a condition or both), (2) the right to vote such Shares, alone or in concert with others, (3) investment power with respect to the disposition of, such Shares, and/or (4) a direct or indirect pecuniary interest in such Shares, as determined by the Stockholder or such beneficial owner, or (5) an indirect financial interest in Shares, regardless of whether exempt from the definition of pecuniary interest;

(B) whether and the extent to which any hedging, pledging or other transaction or series of transactions has been entered into by the Stockholder or such beneficial owner, including any derivative or short positions, profit interests, or dividend rights, performance-related fees or any borrowing and/or lending of Shares (any of the foregoing transactions or arrangements is to be settled with Shares or with cash based on the notional amount or value of Common Shares), and any control person with respect to any Shares, and a representation that the Stockholder will notify the Corporation of such meeting of any Derivative Instrument in effect as of the record date for the meeting;

(C) a representation whether the Stockholder or the beneficial owner, if any, and any control person intends to solicit proxies for nomination or business proposed and, if so, (1) whether such solicitation will be conducted as an exempt solicitation (as defined in Item 4 of Schedule 14A under the Exchange Act) in such solicitation, (3) in the case of a director, whether such person intends or is part of a group which intends to deliver a proxy statement and form of proxy applicable to the Corporation under either Rule 14a-16(a) or Rule 14a-16(n) of the Exchange Act to holders of at least the percentage of the voting power of the

outstanding Shares required under applicable law to approve or adopt the proposal, and (4) in the case of a director, confirming that such person will deliver a proxy statement and form of proxy through means satisfying each of the requirements of Rule 14a-16(a) or Rule 14a-16(n) of the Exchange Act to holders (including any beneficial owners pursuant to the applicable law) of at least the percentage of the voting power of the outstanding Shares then entitled to vote at the meeting on the election of such director;

(D) a representation that promptly after soliciting proxies from the percentage of Stockholders referred to in the preceding paragraph, no later than the tenth day before such meeting of Stockholders, such Stockholder or beneficial owner will deliver to the Corporation a certified statement and documentation from a proxy solicitor, specifically demonstrating that the necessary number of proxies has been obtained from holders of such percentage of the Corporation's outstanding Shares, which documents shall be deemed to be true and correct;

(E) a description of any plans or proposals which such Stockholder or beneficial owner and each control person intend to implement that would (1) be required to be disclosed pursuant to Item 4 of Schedule 13D of the Exchange Act (if such disclosure is required) or (2) require the Stockholder to notify any government or regulatory agency, including the Board of Governors of the Federal Reserve System, the Comptroller of the Currency (the "OCC") under applicable banking laws and regulations, and a representation that the Stockholder will notify the Corporation in writing within five (5) business days after the record date for such meeting of any such plans or proposals existing as of such record date;

(F) a description (which description shall include, in addition to all other information, information identifying each person or persons with respect to the nomination or proposal among the Stockholder or the beneficial owner, if any, and any control person) (naming such person or persons)

including without limitation any agreements that would be required to be disclosed pursuant to Item 5 or Item 6 of Schedule 13D (if such disclosure is applicable to the Stockholder or beneficial owner) pursuant to which the nominal holder of such Shares, the Stockholder will notify the Corporation in writing within five (5) business days after the record date for the meeting of such meeting;

(g) Except as otherwise provided by law, the chair of the meeting shall have the power and duty (i) to determine whether a made or proposed, as the case may be, in accordance with the procedures set forth in this Section 12 (including whether the Stockholder

behalf the nomination or proposal is made provided timely and proper notice pursuant to this Section 12 or solicited (or is part of a support of such nominee or proposal in compliance with the representations as required by Subsection (c)(iii)(C) of this Section 12) a compliance with this Section 12 (including if a Stockholder or a nominee, as applicable, did not provide the information required under therein), and if it be so determined, to declare that such nomination shall be disregarded or that such proposed business shall not be may have been received (which proxies and votes shall be disregarded). In furtherance and not by way of limitation of the foregoing, if a Stockholder (or a qualified representative of the Stockholder) does not appear at the annual or special meeting of Stockholders, a nomination shall be disregarded and such proposed business shall not be transacted, notwithstanding that proxies and votes in respect of Article III, Section 2 and this Section 12, to be considered a qualified representative of the Stockholder, a person must be duly authorized by a writing executed by such Stockholder or an electronic transmission delivered by such Stockholder to act for such Stockholder. To produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the meeting of Stockholders will appear at the annual or special meeting of Stockholders (including a Stockholder Requested Special Meeting) to make a nomination or designation, including the identity of the representative, to the Corporation at least forty-eight (48) hours prior to such meeting. Where within the required timeframe, such Stockholder must appear in person to present such Stockholder's nomination or proposed business and such proposed business shall not be transacted as provided for above.

(h) For purposes of this Section 12 and Article IV, Section 9(b) of these Bylaws, "public announcement" shall include a public announcement in the Associated Press or comparable national news service or in a document publicly filed by the Corporation with the Securities and Exchange

(i) Notwithstanding the foregoing provisions of this Section 12, a Stockholder seeking to include a proposal in a proxy statement shall comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth in any rights (i) of Stockholders to request inclusion of proposals in the Corporation's proxy statement pursuant to Rule 14a-8 promulgated

Exchange Act or (ii) of the holders of any series of preferred stock to elect directors pursuant to any applicable provisions of the Certificate of Incorporation.

Section 13. Inspectors of Election. The Corporation shall, in advance of any meeting of Stockholders, appoint one or more inspectors to attend the meeting or any adjournment thereof and to make a written report thereof. The Corporation may designate one or more persons as alternate inspectors. If no inspector so appointed or designated is able to act at a meeting of Stockholders, the chair of the meeting shall appoint one or more persons to act as inspectors. The inspectors or designated shall (a) ascertain the number of Shares outstanding and the voting power of each such Share, (b) determine the Shareholder's entitlement to vote and ballots, (c) count all votes and ballots, (d) determine and retain for a reasonable period a record of the disposition of any challenge to the determination of the number of Shares of the Corporation represented at the meeting and such inspectors' count of all votes and ballots, and (e) be required by law. In determining the validity and counting of proxies and ballots cast at any meeting of Stockholders of the Corporation, the inspectors shall be required by law. No person who is a nominee for an office at an election may serve as an inspector at such election.

ARTICLE IV BOARD OF DIRECTORS

Section 1. General Powers. The business and affairs of the Corporation shall be managed under the direction of its Board of Directors, subject to the extent permitted under the DGCL.

Section 2. Number and Qualifications. Subject to the Certificate of Incorporation, the number of directors of the Corporation shall be determined by the Board of Directors. Directors need not be residents of the State of Delaware or Stockholders of the Corporation. A director of the Corporation shall not be an officer or a publicly held bank holding company and financial holding company, as well as all requirements of the Corporation's primary regulatory

Section 3. Terms of Directors. The terms of all directors shall expire at the next annual Stockholders meeting following their election. A decrease in the number of directors does not shorten an incumbent director's term. The term of a director elected to fill a vacancy or upon such director's earlier death, resignation, disqualification or removal. Despite the expiration of a director's term, however, such director shall continue to be qualified or until

such director's earlier death, resignation, disqualification or removal. Any director may be removed at any time with or without cause by a majority of the outstanding Shares then entitled to vote at an election of directors. Any director may resign at any time upon notice to the Corporation.

Section 4. Vacancies and Newly Created Directorships. Except in those instances where the Certificate of Incorporation or applicable law requires a vote of less than a quorum, or a sole remaining director, may fill a vacancy or a newly created directorship on the Board of Directors. A vacancy

(e) An Eligible Stockholder is one or more Stockholders who owns and has owned, or are acting on behalf of one or more, three years as of date the Notice of Proxy Access Nomination is received by the Corporation, Shares representing at least 3% of “Required Shares”), and who continue to own the Required Shares at all times between the date the Notice of Proxy Access Nomination is received by the Corporation and the date of the meeting of Stockholders, provided that the aggregate number of Stockholders, and, if and to the extent that a Stockholder is acting on behalf of one or more persons, the aggregate number of persons, whose stock ownership is counted for the purposes of satisfying the foregoing ownership requirement shall not exceed twenty (20). Two or more persons shall be deemed to own Shares jointly if (i) they are (or were) or (ii) under common management and funded primarily by a single employer (such funds together under each of (i) or (ii) comprising more than 50% of the total assets of the employer); or (iii) they are determining the aggregate number of Stockholders in this Section 9(e), and treated as one person for the purpose of determining ownership of Shares, if they are acting in concert; or (iv) otherwise meets the requirements set forth in this Section 9. No

(f) For purposes of calculating the Required Shares, "ownership" shall be deemed to consist of and include only the outstanding investment rights pertaining to the Shares and (ii) the full economic interest in (including the opportunity for profit and risk of loss) in accordance with clauses (i) and (ii) shall not include any Shares (A) that a person has sold in any transaction that has not been subject to an agreement to resell or (C) subject to any option, warrant, forward contract, swap, contract of sale, other derivative or similar agreement that may be settled with Shares or with cash based on the notional amount or value of Shares, in any such case which instrument or agreement provides, in any manner, to any extent or at any time in the future, the person's full right to vote or direct the voting of any such Shares, and/or (2) has not had the economic ownership of such person's Shares. "Ownership" shall include Shares held in the name of a nominee or other intermediary or agent who is instructed how the Shares are voted with respect to the election of directors and possesses the full economic interest in the Shares, provided that the person provides the Notice of Proxy Access Nomination. Ownership of Shares shall be deemed to continue during any period in which Shares are loaned or Shares lending within three (3) days and during any period in which any voting power has been delegated by means of a proxy, power of attorney or otherwise, without condition. The determination of the extent of "ownership" of Shares for purposes of this Section 9 shall be made in good faith and in accordance with the binding on the Corporation and the Stockholders. The terms "owned," "owning" and other variations of the word "own" shall have corresponding meanings for purposes of this Section 9. For purposes of this Section 9, Access Nomination the number of Shares it is deemed to own for the purposes of this Section 9.

(g) No later than the Final Proxy Access Nomination Date, an Eligible Stockholder (including each Stockholder, fund component, or other investment vehicle, if applicable, that is counted for the purposes of qualifying as an Eligible Stockholder) must provide the following information in writing to the Secretary: (i) the name of each intermediary through which the Shares are or have been held during the requisite three-year holding period) verifying that the Stockholder is the beneficial owner of the Required Shares, (ii) the name of the Corporation, the Eligible Stockholder owns, and has owned continuously for the preceding three (3) years, the Required Shares, and (iii) the date of the last annual meeting, and (B) immediate notice if the Eligible Stockholder ceases to own any of the Required Shares

REFINITIV CORPORATE DISCLOSURES | www.refinitiv.com | Contact Us

(h) The Eligible Stockholder may provide to the Secretary, at the time the information required by this Section 9 is provided, applicable annual meeting of Stockholders, not to exceed 500 words, in support of the Eligible Stockholder's Stockholder Nominee (Section 9. the Corporation may omit from its proxy materials any information or Statement (or portion thereof) that it, in good faith, believes

inaccuracy or omission in such previously provided information and of the information that is required to make such information or a notification shall not be deemed to cure any defect or limit the Corporation's rights to omit a Stockholder Nominee from its proxy material.

(k) The Corporation shall not be required to include, pursuant to this Section 9, a Stockholder Nominee in its proxy material, to allow the nomination of a Stockholder Nominee, notwithstanding that proxies in respect of such vote may have been received from or by a Stockholder (or any member of any group of Stockholders that together is such Eligible Stockholder) who has nominated such Stockholder Nominee, if:

- (i) such Stockholder Nominee was not engaged in a "solicitation" as defined under Rule 14a-1(i) under the Exchange Act in support of the election of any individual as a director at the applicable annual meeting of Stockholders other than a nominee of the Board of Directors; or
- (ii) if another person is engaging in a "solicitation" as defined under Rule 14a-1(i) under the Exchange Act in support of the election of any individual as a director at the applicable annual meeting of Stockholders other than a nominee of the Board of Directors.

In addition, the Corporation shall not be required to disclose, pursuant to this Section 9, information regarding each principal U.S. exchange upon which the Common Stock of the Corporation is listed, any applicable rules of the Securities and Exchange Commission and any publicly disclosed standards used by the Board of Directors in determining and disclosing independence of the Corporation's directors and committees if:

- (i) such information does not meet the audit committee independence requirements under the rules of any stock exchange on which the Corporation's securities are listed;
- (ii) such information does not meet the risk management independence requirements under the rules of any stock exchange on which the Corporation's securities are listed; or
- (iii) such information, under the Exchange Act (or any successor rule), is not experienced in matters of risk management for the purposes of the Corporation's business.

REFINITIV CORPORATE DISCLOSURES | www.refinitiv.com | Contact Us

misleading, as determined by the Board of Directors or any committee thereof; (xi) the Eligible Stockholder (or any member of any group of Stockholders) or applicable Stockholder Nominee otherwise breaches or fails to comply with its representations or obligations pursuant to this Section 9; or (xii) the Eligible Stockholder (or any member of any group of Stockholders) or applicable Stockholder Nominee ceases to be an Eligible Stockholder for any reason, including but not limited to not owning the Required Shares. If the proxy statement already has been filed, the ineligibility of the Stockholder Nominee; however, clauses (i) and (ii) will result in the exclusion from the proxy materials for an annual meeting of Stockholders, or, if the proxy statement already has been filed, the ineligibility of all Stockholder Nominees. Such resignation shall become effective upon a determination provided pursuant to this Section 9 to the Corporation by such individual or by the Eligible Stockholder (or any member of any group of

Stockholder) who nominated such individual was untrue in any material respect or omitted to state a material fact necessary in order for the statements made, not misleading or (ii) such individual, or the Eligible Stockholder (or any member of any group of Stockholders that together with the Eligible Stockholder (or any member of any group of Stockholders) breached or failed to comply with its agreements, representations undertakings and/or obligations pursuant to these Bylaws, including

ARTICLE V MEETINGS OF DIRECTORS

Section 1. **Regular Meetings.** A regular meeting of the Board of Directors shall be held without other notice than this Bylaw provided to the Stockholders. In addition, the Board of Directors may determine the date, time and place, within or without the State of Delaware for the

Section 2. **Special Meetings.** Special meetings of the Board of Directors may be held at any date, time and place, within or without the State of Delaware, at the call of the Independent Director, the Chief Executive Officer, the President or of the Secretary acting under instructions from the Chair of the Board, or upon the call of any three directors. Special meetings may be held at any date, time and place and without special notice

Section 3. **Notice.** The person or persons calling a special meeting of the Board of Directors shall, at least twenty-four (24) hours in advance of the meeting, give notice of such meeting by written communication. Such notice may be communicated, without limitation, in person; by telephone, facsimile, or other electronic transmission. Notice shall be given at the earliest of the following:

- (a) when received;
- (b) if by facsimile or other electronic transmission, when sent addressed to the director; or
- (c) on the date shown on the confirmation of delivery issued by United States mail or a private carrier, if sent by overnight delivery.

Oral notice is effective when actually communicated to the director. Notice of an adjourned meeting of directors need not be given. Notice of any meeting of directors need not describe the purpose of the meeting unless otherwise required by the DGCL.

Section 4. **Waiver of Notice.** A director may waive any notice required by the DGCL, the Certificate of Incorporation or these Bylaws in writing, signed by the director entitled to the notice, or by electronic transmission of such director and filed with the minutes or certified copies of the minutes. A director's attendance at or participation in a meeting waives any required notice to the director of the meeting unless the director votes at the meeting or transacting business at the meeting because the meeting is not lawfully called or convened. Neither the business to be transacted at the meeting or the names of the directors or members of a committee of directors need be specified in any waiver of notice unless so required by the Certificate of Incorporation.

Section 5. **Quorum.** A majority of the number of directors in office immediately before the meeting begins, but in no case less than a majority of the total number of directors, shall constitute a quorum for the transaction of business at any meeting of the Board of Directors, but if a quorum is not present at a meeting, the directors present may adjourn the meeting from time to time without further notice.

Section 6. **Manner of Acting.** Except as otherwise provided in the DGCL, the Certificate of Incorporation or herein, the act of the majority of the directors present at a meeting shall be the act of the Board of Directors.

Section 7. **Conduct of Meetings.** The Chair of the Board shall preside at all meetings of the Board of Directors or, in the absence of the Chair, the Independent Director shall so preside; provided, however, that in the absence or at the request of both the Chair of the Board and the Independent Director, the person selected to preside at a meeting of directors by a vote of a majority of the directors present shall preside at such meeting. The secretary of the Board of Directors, or any person designated by the person presiding at a meeting of the Board of Directors, shall act as secretary of such meeting.

Section 8. **Action Without a Meeting.** Any action required or permitted to be taken at any meeting of the Board of Directors or of any committee of the Board of Directors may be taken by all members of the Board of Directors or such committee, as the case may be. The action must be evidenced by one or more consents in writing. After an action is taken, the consent or consents shall be filed with the records of the Board of Directors or of such committee in the same manner as minutes of a meeting.

Directors, a committee thereof or independent legal counsel) that the Indemnitee has not met such applicable standard of conduct, standard of conduct or, in the case of such a suit brought by the Indemnitee, be a defense to such suit. In any suit brought by the Expenses hereunder, or by the Corporation to recover an Advancement of Expenses pursuant to the terms of an Undertaking, the b such Advancement of Expenses, under this Article or otherwise shall be on the Corporation.

Section 4. Non-Exclusivity of Rights. The rights to indemnification and to the Advancement of Expenses conferred in this Article hereafter acquire under any statute, the Corporation's Certificate of Incorporation, Bylaws, agreement, vote of Stockholders or disinter

Section 5. Insurance. The Corporation may maintain insurance, at its expense, to protect itself and any director, officer, employ Corporation as a director, officer, manager, employee or agent of another corporation, association, limited liability company, partners loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the I

Section 6. Indemnification of Agents of the Corporation. The Corporation may, to the extent authorized from time to time by the E Advancement of Expenses to any agent of the Corporation to the fullest extent of the provisions of this Article VIII with respect to the the Corporation.

Section 7. Limitations on Indemnification. All indemnification and insurance provisions contained in this Article VIII are subject Securities Act of 1933 and the Federal Deposit Insurance Act, and any implementing regulations concerning indemnification.

Section 8. Severability. If any provision or provisions of this Article VIII shall be held to be invalid, illegal or unenforceable fo remaining provisions of this Article VIII (including, without limitation, all portions of any paragraph of this Article VIII containing any themselves invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby, and (b) to the fullest extent possible, any paragraph of this Article VIII containing any such provision held to be invalid, illegal or unenforceable, that are not themselves in intent of the parties that the Corporation provide protection to the Indemnitee to the fullest enforceable extent.

ARTICLE IX GENERAL PROVISIONS

Section 1. Execution of Instruments. All indentures, mortgages, deeds, conveyances, contracts, notes, drafts, loan document discharges, releases, satisfactions, settlements, affidavits, bonds, undertakings, powers of attorney, and other instruments or contract accepted on behalf of the Corporation by an Officer (as such term is defined in Article VI, Section 1) or any individual who is listed Officers, or such other officers, employees or agents as the Board of Directors, the Chief Executive Officer or any Officer reporting dir the minute book of the Corporation. The provisions of this Section 1 are supplementary to any other provision of these Bylaws and sh by law.

Section 2. Voting of Ownership Interests. The Chief Executive Officer, the President, any Vice Chair, any Executive Officer, the S Board of Directors or such designated Officers may direct are authorized to vote, represent and exercise on behalf of the Corporation in any Affiliate or any other corporations, associations, limited liability companies, partnerships, or other entities standing in the name of

authority herein granted to the individuals to vote or represent on behalf of the Corporation any and all ownership interests held by the duly executed proxy or power of attorney.

Section 3. Distributions. The Board of Directors may from time to time authorize, and the Corporation may pay or distribute, divi upon such terms and conditions as are permitted by the Certificate of Incorporation and the DGCL.

Section 4. Seal and Attestation. Any Officer of the Corporation is empowered to affix the corporate seal on all documents, and n the Corporation. In the execution on behalf of the Corporation of any instrument, document, writing, notice or paper, it shall not be ne instrument, document, writing, notice or paper when executed without said seal affixed thereon shall be of the same force and effect a thereon in each instance.

Section 5. Amendments. The Board of Directors may amend or repeal these Bylaws and may adopt new Bylaws; provided, I inconsistent with, Article III, Section 10 of these Bylaws shall also require the approval of the Stockholders of the Corporation. The S may adopt new Bylaws.

Section 6. Exclusive Forum. Unless the Corporation consents in writing to the selection of an alternative forum, (i) any derivativ asserting a claim of breach of a fiduciary duty owed by any current or former director, officer, or other employee or agent or stockhol including a claim alleging the aiding and abetting of such a breach of fiduciary duty, (iii) any action asserting a claim against the Corpo the Corporation arising pursuant to any provision of the DGCL or the Corporation's Certificate of Incorporation or these Bylaws (as a

- Depositary Shares, each representing a 1/1,000th interest in a share of 6.00% Non-Cumulative Preferred Stock, Series GG
- Depositary Shares, each representing a 1/1,000th interest in a share of 5.875% Non-Cumulative Preferred Stock, Series HH
- Depositary Shares, each representing a 1/1,200th interest in a share of Bank of America Corporation Floating Rate Non-Cumulative Preferred Stock, Series II
- Depositary Shares, each representing a 1/1,200th interest in a share of Bank of America Corporation Floating Rate Non-Cumulative Preferred Stock, Series JJ
- Depositary Shares, each representing a 1/1,200th interest in a share of Bank of America Corporation Floating Rate Non-Cumulative Preferred Stock, Series KK
- Depositary Shares, each representing a 1/1,000th interest in a share of 5.375% Non-Cumulative Preferred Stock, Series LL
- Depositary Shares, each representing a 1/1,000th interest in a share of 5.000% Non-Cumulative Preferred Stock, Series MM
- Depositary Shares, each representing a 1/1,000th interest in a share of 4.375% Non-Cumulative Preferred Stock, Series NN
- Depositary Shares, each representing a 1/1,000th interest in a share of 4.125% Non-Cumulative Preferred Stock, Series PP
- Depositary Shares, each representing a 1/1,000th interest in a share of 4.250% Non-Cumulative Preferred Stock, Series QQ
- Depositary Shares, each representing a 1/1,000th interest in a share of 4.750% Non-Cumulative Preferred Stock, Series SS
- 7.25% Non-Cumulative Perpetual Convertible Preferred Stock, Series L
- Floating Rate Preferred Hybrid Income Term Securities of BAC Capital Trust XIII (and the guarantee related thereto)
- 5.63% Fixed to Floating Rate Preferred Hybrid Income Term Securities of BAC Capital Trust XIV (and the guarantee related thereto)
- Income Capital Obligation Notes initially due December 15, 2066 of Bank of America Corporation
- Senior Medium-Term Notes, Series A, Step Up Callable Notes, due November 28, 2031, of BofA Finance LLC (and the guarantee related thereto)

1

DESCRIPTION OF COMMON STOCK

This section describes the general terms and provisions of the shares of the Company's common stock. You should read the Company's Certificate of Incorporation (the "Certificate of Incorporation") and the Company's by-laws (the "Bylaws") for additional information about the common stock. The Restated Certificate of Incorporation is included as an exhibit to the Company's Annual Report on Form 10-K, to which this exhibit also is attached.

General

As of **December 31, 2022** **December 31, 2023**, under the Restated Certificate of Incorporation, the Company is authorized to issue 1 billion shares of common stock, par value \$.01 per share (the "Common Stock"), of which approximately **8.0 billion** **7.9 billion** shares were outstanding. The Company's common stock is listed on the New York Stock Exchange under the symbol "BAC." As of **December 31, 2022** **December 31, 2023**, approximately **490.9 million** **496.9 million** shares were reserved for use in employee benefit plans, the conversion of outstanding securities convertible into shares of the Common Stock, and for other purposes. After taking into account the above, there are approximately **4.4 billion** **4.4 billion** authorized shares of Common Stock available for issuance as of **December 31, 2022** **December 31, 2023**.

Shares of newly issued Common Stock will be uncertificated unless the Company's board of directors (the "Board") by resolution determines otherwise. Shares of Common Stock that are not so determined will remain certificated until such certificate is surrendered to the Company.

Voting and Other Rights

Holders of the Common Stock are entitled to one vote per share. There are no cumulative voting rights. In general, a majority of votes cast by holders of the Common Stock are required to elect directors in an uncontested election. However, (1) amendments to the Restated Certificate of Incorporation that modify the voting power of the outstanding stock, and (2) a merger, dissolution, or the sale of all or substantially all of the Company's assets, require the affirmative vote of a majority of the voting power of the outstanding stock.

In the event of the Company's liquidation, holders of the Common Stock will be entitled to receive pro rata any assets legally available to the Company after the payment of all claims of preferred stock then outstanding.

The Common Stock does not have any preemptive rights, redemption privileges, sinking fund privileges, or conversion rights. Any conversion of any convertible securities, all of the shares of Common Stock into which those securities are converted will be, validly issued and fully paid.

Computershare Trust Company, N.A. is the transfer agent and registrar for the Common Stock.

Dividends

Subject to the preferential rights of any holders of any outstanding series of preferred stock, the holders of the Common Stock are entitled to dividends, if any, as the Board may declare out of funds legally available for

2

payments. Stock dividends, if any are declared, may be paid from the Company's authorized but unissued shares of Common Stock.

Certain Anti-Takeover Matters

Certain provisions of Delaware law and of the Restated Certificate of Incorporation and Bylaws could make it more difficult for a third party from attempting to acquire control of the Company. For example, the Company is subject to Section 203 of the Delaware General Corporation Law, which may discourage or make more difficult attempts to take control of the Company by another party to acquire the Company without the approval of the Board. Certain provisions of the Restated Certificate of Incorporation and Bylaws could be changed or that someone would acquire voting control of the Company without the Board's consent. These provisions could be changed or amended in a way that might be in the best interest of the Company's stockholders.

Preferred Stock. The Board can, at any time, under the Restated Certificate of Incorporation and without stockholder approval, issue or cause to be issued preferred stock without stockholder approval could discourage or make more difficult attempts to take control of the Company. The issuance of preferred stock with special voting rights or other features issued to persons favoring the Company's management could stop a takeover by preventing enough voting shares necessary to take control. For a description of the outstanding series of the Company's preferred stock as of December 31, 2023, see the section titled "Description of Preferred Stock" below.

Advance Notice Requirements. The Bylaws establish advance notice procedures with regard to stockholder proposals relating to business to be brought before meetings of the Company's stockholders. These procedures provide that notice of such stockholder proposals must be timely given and that certain information must be included in the notice. The notice must contain certain information specified in the Bylaws and must otherwise comply with the Bylaws.

Vacancies. Under the Bylaws, a majority vote of the Board may increase or decrease the number of directors. Any director may be removed from office by a vote of the holders of a majority of the voting power of the outstanding shares then entitled to vote at an election of directors. Any vacancy on the Board of Directors may be filled by the affirmative vote of a majority of the remaining directors then in office, and those newly elected directors will serve for a term expiring at the next annual meeting of stockholders.

Amendment of Bylaws. The Bylaws may be adopted, amended or repealed by a majority of the Board, subject to certain limitations. The Board may also adopt, amend or repeal the Bylaws.

3

DESCRIPTION OF PREFERRED STOCK

This section summarizes the general terms and provisions of all series of the Company's preferred stock outstanding as of December 31, 2023. The terms of the Company's preferred stock (or depositary shares representing a fractional interest in a share of such series of preferred stock) are registered under Section 12(b)(1) of the Securities Act of 1933.

Reference is made to the Restated Certificate of Incorporation and the respective certificates of designations for each series of the Company's preferred stock. See also "Description of Common Stock – Certain Anti-Takeover Matters" above.

Existing Series of Preferred Stock

As of **December 31, 2022** **December 31, 2023**, under the Restated Certificate of Incorporation, the Company has authority to issue up to 100,000,000 shares of preferred stock. As of **December 31, 2022** **December 31, 2023**, the Company had approximately 4.1 million issued and outstanding shares of preferred stock. The total market value of the Company's outstanding preferred stock was approximately \$28.7 billion. All outstanding shares of the Company's preferred stock are fully paid in cash. As of **December 31, 2022** **December 31, 2023**:

- 35,045 shares were designated as 7% Cumulative Redeemable Preferred Stock, Series B (the "**Series B Preferred Stock**"), of which 35,045 shares were issued and outstanding;
- 85,100 shares were designated as Floating Rate Non-Cumulative Preferred Stock, Series E (the "**Series E Preferred Stock**"), of which 85,100 shares were issued and outstanding;
- 7,001 shares were designated as Floating Rate Non-Cumulative Preferred Stock, Series F (the "**Series F Preferred Stock**"), of which 7,001 shares were issued and outstanding;
- 8,501 shares were designated as Adjustable Rate Non-Cumulative Preferred Stock, Series G (the "**Series G Preferred Stock**"), of which 8,501 shares were issued and outstanding;
- 6,900,000 shares were designated as 7.25% Non-Cumulative Perpetual Convertible Preferred Stock, Series L (the "**Series L Preferred Stock**"), of which 3,080,182 shares were issued and outstanding;
- 40,000 shares were designated as Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series U (the "**Series U Preferred Stock**"), of which 40,000 shares were issued and outstanding;
- 80,000 shares were designated as Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series X (the "**Series X Preferred Stock**"), of which 80,000 shares were issued and outstanding;
- 56,000 shares were designated as Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series Z (the "**Series Z Preferred Stock**"), of which 56,000 shares were issued and outstanding;

4

- 76,000 shares were designated as Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series AA (the "**Series AA Preferred Stock**"), of which 76,000 shares were issued and outstanding;
- 40,000 shares were designated as Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series DD (the "**Series DD Preferred Stock**"), of which 40,000 shares were issued and outstanding;
- 94,000 shares were designated as Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series FF (the "**Series FF Preferred Stock**"), of which 94,000 shares were issued and outstanding;
- 55,200 shares were designated as 6.000% Non-Cumulative Preferred Stock, Series GG (the "**Series GG Preferred Stock**"), of which 55,200 shares were issued and outstanding;
- 34,160 shares were designated as 5.875% Non-Cumulative Preferred Stock, Series HH (the "**Series HH Preferred Stock**"), of which 34,160 shares were issued and outstanding;
- 40,000 shares were designated as Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series JJ (the "**Series JJ Preferred Stock**"), of which 40,000 shares were issued and outstanding;

- 60,950 shares were designated as 5.375% Non-Cumulative Preferred Stock, Series KK (the “**Series KK Preferred Stock**”), have been issued and outstanding;
- 52,400 shares were designated as 5.000% Non-Cumulative Preferred Stock, Series LL (the “**Series LL Preferred Stock**”), have been issued and outstanding;
- 44,000 shares were designated as Fixed-to-Floating Rate Non-Cumulative Preferred Stock, Series MM (the “**Series MM Preferred Stock**”), have been issued and outstanding;
- 44,000 shares were designated as 4.375% Non-Cumulative Preferred Stock, Series NN (the “**Series NN Preferred Stock**”), have been issued and outstanding;
- 36,600 shares were designated as 4.125% Non-Cumulative Preferred Stock, Series PP (the “**Series PP Preferred Stock**”), have been issued and outstanding;
- 52,000 shares were designated as 4.250% Non-Cumulative Preferred Stock, Series QQ (the “**Series QQ Preferred Stock**”), have been issued and outstanding;
- 70,000 shares were designated as 4.375% Fixed-Rate Reset Non-Cumulative Preferred Stock, Series RR (the “**Series RR Preferred Stock**”), have been issued and outstanding; 66,738 shares of which were issued and outstanding;

5

- 28,000 shares were designated as 4.750% Non-Cumulative Preferred Stock, Series SS (the “**Series SS Preferred Stock**”), have been issued and outstanding;
- 80,000 shares were designated as 6.125% Fixed-Rate Reset Non-Cumulative Preferred Stock, Series TT (the “**Series TT Preferred Stock**”), have been issued and outstanding;
- 21,000 shares were designated as Floating Rate Non-Cumulative Preferred Stock, Series 1 (the “**Series 1 Preferred Stock**”), have been issued and outstanding;
- 37,000 shares were designated as Floating Rate Non-Cumulative Preferred Stock, Series 2 (the “**Series 2 Preferred Stock**”), have been issued and outstanding;
- 20,000 shares were designated as Floating Rate Non-Cumulative Preferred Stock, Series 4 (the “**Series 4 Preferred Stock**”), have been issued and outstanding; and
- 50,000 shares were designated as Floating Rate Non-Cumulative Preferred Stock, Series 5 (the “**Series 5 Preferred Stock**”), have been issued and outstanding.

In addition, as of **December 31, 2022** **December 31, 2023**, the following series of preferred stock were designated, but no shares of ESOP Convertible Preferred Stock, Series C; (2) approximately 20 million shares of \$2.50 Cumulative Convertible Preferred Stock, Series T; (4) 44,000 shares of 6.500% Non-Cumulative Preferred Stock, Series Y; (5) 44,000 shares of 6.200% Non-Cumulative Preferred Stock, Series EE.

As of their respective original issue dates, the terms of the Series E Preferred Stock, Series F Preferred Stock, Series G Preferred Stock, Series AA Preferred Stock, Series DD Preferred Stock, Series FF Preferred Stock, Series JJ Preferred Stock, Series 4 Preferred Stock and Series 5 Preferred Stock (together, the “**LIBOR Preferred Stock**”) provided for dividend rates to be determined by the **LIBOR** for some or all applicable dividend periods. Three-Month USD LIBOR ceased publication following June 30, 2023. In accordance with the provisions promulgated thereunder by the Board of Governors of the Federal Reserve System, and/or the applicable fallback provisions relating to the **LIBOR Preferred Stock**, the three-month CME Term SOFR Reference Rate, as administered by CME Group Benchmark Administration, Ltd. (the “**CME Term SOFR**”), replaced Three-Month USD LIBOR as the applicable benchmark rate. The **CME Term SOFR** rate, including such tenor spread adjustment, “**Adjusted Three-Month Term SOFR**”) replaced Three-Month USD LIBOR as the applicable benchmark rate.

6

6

7

Stock, Series PP Preferred Stock, Series QQ Preferred Stock, Series RR Preferred Stock, Series SS Preferred Stock, Series TT Preferred Stock, and Series 5 Preferred Stock as to dividends and distributions on the Company's liquidation, dissolution, or winding up of the Company's Common Stock or any other class of its capital stock. Holders of the Series E Preferred Stock do not have an operation of any sinking fund. The Company may issue stock with preferences superior or equal to the Series E Preferred Stock without

Dividends. Holders of the Series E Preferred Stock are entitled to receive non-cumulative cash dividends when, as, and if declared legally available for payment, on the liquidation preference of \$25,000 per share of Series E Preferred Stock, payable quarterly in arrears to holders as of the last business day (as defined in the certificate of designations for the Series E Preferred Stock) of the calendar month in which the dividend payment date falls. Dividends on each share of Series E Preferred Stock accrue on the liquidation preference of \$25,000 per share at an annual rate of (a) Month Term SOFR¹ plus a spread of 0.35%, and (b) 4.00%. The amount of dividends shall be computed on the basis of a 360-day year. If the dividend payment date is not a business day, then that dividend payment will be made on the next succeeding day that is a business day.

7

falls in the next calendar year in which case payment will occur on the immediately preceding business day, in either case without any

As long as shares of Series E Preferred Stock remain outstanding, the Company cannot declare or pay cash dividends or distributions on any shares of its Common Stock or other capital stock ranking junior to the Series E Preferred Stock, or generally repurchase or otherwise acquire any shares of its Common Stock or other capital stock ranking equally with the Series E Preferred Stock other than on a pro rata basis, in each case unless full dividends on all outstanding shares of Series E Preferred Stock for the then-current dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. The Company cannot declare or pay dividends on any shares of its Common Stock or other capital stock ranking equally with the Series E Preferred Stock for the then-current dividend period unless full dividends on all outstanding shares of Series E Preferred Stock for the then-current dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. If the Company declares dividends on the Series E Preferred Stock and on any capital stock ranking equally with the Series E Preferred Stock, the Company will allocate the dividend payments on a pro rata basis among the holders of the shares of Series E Preferred Stock and the shares of the other capital stock ranking equally with the Series E Preferred Stock.

Voting Rights. Holders of Series E Preferred Stock do not have voting rights, except as specifically required by Delaware law applicable to the Series E Preferred Stock. Whenever dividends payable on the Series E Preferred Stock or any other series of the Company's preferred stock rank for payment, and as to which voting rights equivalent to those described in this paragraph have been conferred and are exercisable, have been exercised, or will be exercised, at least six quarterly dividend periods, whether or not for consecutive dividend periods, the holders of the Series E Preferred Stock shall have the right to elect two additional directors of the Board to fill two of the Company's preferred stock having equivalent voting rights, for the election of two additional directors of the Board to fill two

¹ For dividend periods commencing prior to the LIBOR Replacement Date, the dividend rate was determined by reference to Three-Month USD LIBOR.

8

newly-created directorships (the "**Preferred Stock Directors**"). When the Company has paid full dividends on the Series E Preferred Stock for the then-current dividend period, these voting rights will terminate.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series E Preferred Stock shall be entitled to receive, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital stock or other securities ranking senior to or on a parity with the Series E Preferred Stock upon liquidation and the rights of the Company's common stock, the amount of the liquidation preference of \$25,000 per share, plus any declared and unpaid dividends, without accumulation of any undistributed dividends. Shares of Series E Preferred Stock are not subject to a sinking fund.

Redemption. The Company may redeem the Series F Preferred Stock, in whole or in part, at its option, on any dividend payment date, at a price of \$100,000 per share, plus dividends that have been declared but not paid plus any accrued and unpaid dividends for the then-current calendar year. The Series F Preferred Stock do not have any optional redemption rights.

Preferential Rights. The Series G Preferred Stock ranks senior to the Common Stock and ranks equally with the Series B Preferred Stock, Series U Preferred Stock, Series X Preferred Stock, Series Z Preferred Stock, Series AA Preferred Stock, Series DD Preferred Stock, Series HH Preferred Stock, Series JJ Preferred Stock, Series KK Preferred Stock, Series LL Preferred Stock, Series MM Preferred Stock, Series RR Preferred Stock, Series SS Preferred Stock, Series TT Preferred Stock, Series 1 Preferred Stock, Series 2 Preferred Stock as to dividends and distributions on the Company's liquidation, dissolution, or winding up. The Series G Preferred Stock is not convertible into Common Stock. The Series G Preferred Stock does not have preemptive rights, and the Series G Preferred Stock is not a class of the Company's capital stock. Holders of the Series G Preferred Stock do not have any preemptive rights, and the Series G Preferred Stock may issue stock with preferences superior or equal to the Series G Preferred Stock without the consent of the holders of the

10

As long as shares of Series G Preferred Stock remain outstanding, the Company cannot declare or pay cash dividends or distribute any shares of its Common Stock or other capital stock ranking junior to the Series G Preferred Stock, or generally repurchase or redeem any shares of its Common Stock or other capital stock ranking equally with the Series G Preferred Stock other than on a pro rata basis, in each case unless full dividends on all outstanding shares of Series G Preferred Stock have been paid in full or declared and a sum sufficient for the payment thereof is set aside. The Company cannot declare or pay dividends on the Series G Preferred Stock unless full dividends on all outstanding shares of Series G Preferred Stock for the then-current dividend period have been paid in full or declared. If the Company declares dividends on the Series G Preferred Stock and on any capital stock ranking equally with the Series G Preferred Stock, the Company will allocate the dividend payments on a pro rata basis among the holders of the shares.

10

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series G 1 distribution to stockholders, before any distribution or payment out of its assets may be made to or set aside for the holders of capital s of holders of securities ranking senior to or on a parity with the Series G Preferred Stock upon liquidation and the rights of the Compar

the liquidation preference of \$100,000 per share, plus any declared and unpaid dividends, without accumulation of any undeclared dividends, and not subject to a sinking fund.

Redemption. The Company may redeem the Series G Preferred Stock, in whole or in part, at its option, on any dividend payment date, by paying to the holders of the Series G Preferred Stock to be redeemed \$100,000 per share, plus dividends that have been declared but not paid plus any accrued and unpaid dividends for the then-current calendar year. The Series G Preferred Stock do not have any optional redemption rights.

³ For dividend periods commencing prior to the LIBOR Replacement Date, the dividend rate was determined by reference to Three-Month USD LIBOR.

11

Series L Preferred Stock

Listing. The Series L Preferred Stock is listed on the NYSE under the symbol “BAC PrL”.

Preferential Rights. The Series L Preferred Stock ranks senior to the Common Stock and equally with the Series B Preferred Stock, Series C Preferred Stock, Series D Preferred Stock, Series E Preferred Stock, Series F Preferred Stock, Series G Preferred Stock, Series H Preferred Stock, Series I Preferred Stock, Series J Preferred Stock, Series K Preferred Stock, Series M Preferred Stock, Series N Preferred Stock, Series O Preferred Stock, Series P Preferred Stock, Series Q Preferred Stock, Series R Preferred Stock, Series S Preferred Stock, Series T Preferred Stock, Series U Preferred Stock, Series V Preferred Stock, Series W Preferred Stock, Series X Preferred Stock, Series Y Preferred Stock, Series Z Preferred Stock, Series AA Preferred Stock, Series BB Preferred Stock, Series CC Preferred Stock, Series DD Preferred Stock, Series EE Preferred Stock, Series FF Preferred Stock, Series GG Preferred Stock, Series HH Preferred Stock, Series II Preferred Stock, Series JJ Preferred Stock, Series KK Preferred Stock, Series LL Preferred Stock, Series MM Preferred Stock, Series NN Preferred Stock, Series OO Preferred Stock, Series PP Preferred Stock, Series QQ Preferred Stock, Series RR Preferred Stock, Series SS Preferred Stock, Series TT Preferred Stock, Series 1 Preferred Stock, Series 2 Preferred Stock, Series 3 Preferred Stock, Series 4 Preferred Stock, Series 5 Preferred Stock, Series 6 Preferred Stock, Series 7 Preferred Stock, Series 8 Preferred Stock, Series 9 Preferred Stock as to dividends and distributions on the Company's liquidation, dissolution, or winding up. Holders of the Series L Preferred Stock do not have any voting rights except as may be required by law. The Series L Preferred Stock is not subject to the operation of any sinking fund. The Company may issue stock with preferences superior or equal to the Series L Preferred Stock without the approval of the holders of the Series L Preferred Stock.

Dividends. Holders of the Series L Preferred Stock are entitled to receive non-cumulative cash dividends, when, as, and if declared by the Board of Directors out of funds legally available for payment, at an annual dividend rate per share of 7.25% on the liquidation preference of \$1,000 per share of Series L Preferred Stock. Dividend payments will be made on January 15, July 15 and October 15 to record holders as of the first day of the calendar month in which the dividend payment date falls. The annual dividend will be paid in three equal payments over the twelve 30-day months. If any dividend payment date is not a business day (as defined in the certificate of designations for the Series L Preferred Stock), the dividend will be paid on the succeeding day that is a business day, unless that day falls in the next calendar year in which case payment will occur on the immediate business day following the dividend payment in respect of such delay.

As long as shares of Series L Preferred Stock remain outstanding, the Company cannot declare or pay cash dividends on any s

11

junior to the Series L Preferred Stock or generally repurchase, redeem or otherwise acquire for consideration any shares of its Common Stock, or generally repurchase, redeem or otherwise acquire for consideration any capital stock ranking equally with the Series L Preferred Stock, dividends on all outstanding shares of Series L Preferred Stock for the then-current dividend period have been paid in full or declared and the Company cannot declare or pay dividends on capital stock ranking equally with the Series L Preferred Stock for any period unless full dividends on all outstanding shares of Series L Preferred Stock for the then-current dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. If the Company declares dividends on capital stock ranking equally with the Series L Preferred Stock but cannot make full payment of those declared dividends, the Company will allocate the dividends so declared to the Series L Preferred Stock and the holders of any capital stock ranking equally with the Series L Preferred Stock.

Conversion Right. Each share of the Series L Preferred Stock may be converted at any time, at the option of the holder, into 20 \$50.00 per share of Common Stock) plus cash in lieu of fractional shares, subject to anti-dilution adjustments.

Conversion at the Company's Option. The Company may, at its option, at any time or from time to time, cause some or all of the

12

of its Common Stock at the then-applicable conversion rate if, for 20 trading days during any period of 30 consecutive trading days, the conversion price of the Series L Preferred Stock.

Conversion Upon Certain Acquisitions. If a make-whole acquisition occurs, holders of Series L Preferred Stock may cause the Company to convert the Common Stock, and the Company will, under certain circumstances, increase the conversion rate in respect of such conversions of the Common Stock to the effective date of the make-whole acquisition and ending on the date that is 30 days after the effective date by a number of additional shares of Common Stock. The conversion rate will be based upon the price per share of the Common Stock and the effective date of the make-whole acquisition. Subject to certain exceptions, the conversion rate will be based upon the price per share of the Common Stock on the date of the acquisition by a person or group of more than 50% of the voting power of the Common Stock or (2) the Company's consolidation or merger with another company.

Conversion Upon Fundamental Change. In lieu of receiving the make-whole shares described above, if the reference price (as applicable conversion price (a “fundamental change”), a holder may elect to convert each share of the Series L Preferred Stock during the period ending on the date that is 30 days after the effective date of such fundamental change at an adjusted conversion price equal to the greater of (1) the Common Stock paid in the event of a fundamental change, and (2) \$19.95, which is 50% of the closing price of the Common Stock on the date of the fundamental change, subject to adjustment (the “base price”). If the reference price is less than the base price, holders of the Series L Preferred Stock may convert their share of Series L Preferred Stock, subject to adjustment, which may result in a holder receiving value that is less than the liquidation value of their share of Series L Preferred Stock.

Anti-Dilution Adjustments. The conversion rate may be adjusted in the event of, among other things, (1) stock dividend distribution, (2) stock splits, (3) stock repurchases, (4) debt or asset distributions, (5) increases in cash dividends, and (6) tender or exchange offers to

12

Voting Rights. Holders of Series L Preferred Stock do not have voting rights, except as specifically required by Delaware law and the Certificate of Incorporation of the Company. Holders of Series L Preferred Stock shall have the right to elect two directors of the Company, provided that the holders of Series L Preferred Stock have received dividends for at least four consecutive dividend periods. Whenever dividends payable on the Series L Preferred Stock or any other series of the Company's preferred stock rank for dividends, and as to which voting rights equivalent to those described in this paragraph have been conferred and are exercisable, have not been exercised for at least four consecutive dividend periods, whether or not for consecutive dividend periods, the holders of the Series L Preferred Stock will be entitled to vote as a class, having equivalent voting rights, for the election of two Preferred Stock Directors. Upon the conversion of all of the Series L Preferred Stock into common stock, the holders of Series L Preferred Stock shall have the right to elect two directors of the Company, provided that the holders of Series L Preferred Stock have received dividends for at least four consecutive dividend periods following a dividend payment on the Series L Preferred Stock and any other such series of preferred stock for the equivalent of at least four quarterly dividend periods following a dividend payment on the Series L Preferred Stock and any other such series of preferred stock.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series L Preferred Stock shall be entitled to receive a dividend or distribution of the assets of the Company, in preference to any distribution to stockholders, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital stock, except to the extent of the unpaid dividends or distributions on such stock, and after satisfaction of the contractual rights of holders of securities ranking senior to or on a parity with the Series L Preferred Stock and after satisfaction of all liabilities to creditors of the Company, of \$1,000 per share, plus any

13

declared and unpaid dividends, without accumulation of any undeclared dividends, to the date of liquidation.

Redemption. The Company does not have any rights to redeem the Series L Preferred Stock, and holders of the Series L Preferred Stock do not have any redemption rights.

Preferential Rights. The Series U Preferred Stock ranks senior to the Common Stock and equally with the Series B Preferred Stock, Series L Preferred Stock, Series X Preferred Stock, , Series Z Preferred Stock, Series AA Preferred Stock, Series DD Preferred Stock, Series HH Preferred Stock, Series JJ Preferred Stock, Series KK Preferred Stock, Series LL Preferred Stock, Series MM Preferred Stock

Dividends. Holders of the Series U Preferred Stock are entitled to receive non-cumulative cash dividends, when, as, and if declared by the Board of Directors, up to the amount of cash or other assets legally available for payment, on the liquidation preference of \$25,000 per share, payable (a) for the “fixed rate period”, semi-annually on each March 1, June 1, September 1 and December 1, beginning September 1, 2023, in each case to the extent of cash or other assets legally available for payment, on the preceding month in which the dividend payment date falls. Dividends on each share of Series U Preferred Stock will accrue on the basis of the stated rate of interest on the principal amount of such stock from the issue date to, but excluding, June 1, 2023 (the “fixed rate period”), and (2) thereafter, at a variable rate equal to the SOFR plus a spread of 3.135%, for each dividend period from, and including, June 1, 2023 (the “floating rate period”). The amount

13

of dividends shall be computed (x) for the fixed rate period, on the basis of a 360-day year of twelve 30-day months, and (y) for the floating rate period, on the basis of the actual number of days in the year in which the dividend is payable, and (z) for the floating rate period, on the basis of the actual number of days elapsed in the dividend period. If any dividend payment date is not a business day (as defined in the certificate of designations for the securities), then the dividend payment shall be made on the next succeeding day that is a business day (unless, for the fixed rate period, that day falls in the next calendar year or, for the floating rate period, that day falls in the next interest period), and in such case payment will occur on the immediately preceding business day), (i) on or prior to June 1, 2023, without any interest or other adjustments, and (ii) on or after June 1, 2023, without any interest or other dividends accruing to the actual payment date.

As long as shares of Series U Preferred Stock remain outstanding, the Company cannot declare or pay cash dividends or distribute any shares of its Common Stock or other capital stock ranking junior to the Series U Preferred Stock, or generally repurchase or redeem any shares of its Common Stock or other capital stock ranking equally with the Series U Preferred Stock other than on a pro rata basis, in each case unless full dividends on all outstanding shares of the Series U Preferred Stock for the preceding 12-month period have been paid in full or declared and a dividend for the period has been paid in full or declared and a

⁴ For the dividend period commencing June 1, 2023, the dividend rate was determined by reference to Three-Month USD LIBOR.

14

sum sufficient for the payment thereof is set aside. The Company cannot declare or pay dividends on capital stock ranking equally with the Series U Preferred Stock for the immediately preceding dividend period have been paid in full or declared and the Company declares dividends on the Series U Preferred Stock and on any capital stock ranking equally with the Series U Preferred Stock but cannot allocate the dividend payments on a pro rata basis among the holders of the shares of Series U Preferred Stock and the holders of any other capital stock ranking equally with the Series U Preferred Stock.

Voting Rights. Holders of Series U Preferred Stock do not have voting rights, except as described herein and as specifically required by the Certificate of Incorporation. If dividends on the Series U Preferred Stock or any other series of the Company's preferred stock ranking equally with the Series U Preferred Stock as to payment of dividends have been declared but not paid in full, the dividends in arrears on the Series U Preferred Stock at the end of each dividend period have been conferred and are exercisable, have not been declared and paid in an amount equal to, as to any series, the dividends in arrears on the Series U Preferred Stock at the end of each dividend period, as applicable, whether or not for consecutive dividend periods, the holders of the Series U Preferred Stock will be entitled to vote on the election of two Preferred Stock Directors. When the Company has paid dividends on all series of preferred stock for the equivalent of at least two semi-annual or four quarterly dividend periods following a dividend arrearage, the holders of the Series U Preferred Stock will not have the right to vote on the election of Preferred Stock Directors.

As long as the Series U Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least 66 2/3% stock, voting as a class, shall be necessary to authorize, create or issue any capital stock ranking senior to the Series U Preferred Stock or winding-up, or to reclassify any authorized capital stock into any such shares of such capital stock or issue any obligation or security capital stock. In addition, so long as any shares of the Series U Preferred Stock remain outstanding, the affirmative vote of the holders

shall be necessary to amend, alter or repeal any provision of the certificate of designations for the Series U Preferred Stock or the Res preferences or special rights of the Series U Preferred Stock.

14

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series U Preferred Stock shall be entitled to a pro rata distribution to stockholders, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital stock, of the net assets of the Company after payment of the rights of holders of securities ranking senior to or on a parity with the Series U Preferred Stock upon liquidation and the rights of the Company to the extent of the amount of the liquidation preference of \$25,000 per share, plus any declared and unpaid dividends, without accumulation of any undistributed dividends.

Redemption. The Company may redeem the Series U Preferred Stock, in whole or in part, at its option, at any time on or after J accrued and unpaid dividends, for the then-current dividend period to, but excluding, the redemption date, without accumulation of any “capital treatment event,” as described in the certificate of designations for the Series U Preferred Stock, the Company may redeem the equal to \$25,000 per share, plus any accrued and unpaid dividends for the then-current dividend period to, but excluding, the

15

redemption date, without accumulation of any undeclared dividends. Holders of the Series U Preferred Stock do not have any optional

Series X Preferred Stock

Preferential Rights. The Series X Preferred Stock ranks senior to the Common Stock and equally with the Series B Preferred Stock, Series L Preferred Stock, Series U Preferred Stock, Series Z Preferred Stock, Series AA Preferred Stock, Series DD Preferred Stock, Series HH Preferred Stock, Series JJ Preferred Stock, Series KK Preferred Stock, Series LL Preferred Stock, Series MM Preferred Stock, Series RR Preferred Stock, Series SS Preferred Stock, Series TT Preferred Stock, Series 1 Preferred Stock, Series 2 Preferred Stock as to dividends and distributions on the Company's liquidation, dissolution, or winding up. Series X Preferred Stock is not convertible into any other class of its capital stock. Holders of the Series X Preferred Stock do not have any preemptive rights, and the Series X Preferred Stock is not redeemable by the Company without the consent of the holders of the Series X Preferred Stock.

Dividends. Holders of the Series X Preferred Stock are entitled to receive non-cumulative cash dividends, when, as, and if declared by the Board of Directors out of funds legally available for payment, on the liquidation preference of \$25,000 per share of Series X Preferred Stock, payable (a) for the “fixed rate period”, quarterly in arrears on each March 5, June 5, September 5 and December 5, beginning December 5, 2023, and (b) for the “floating rate period”, quarterly in arrears on each March 5, June 5, September 5 and December 5, beginning December 5, 2024, in each case on the fifth day of the calendar month immediately preceding the month in which the dividend payment date falls (or such date fixed by the Board or a duly authorized committee of the Board not more than 30 days before the dividend payment date). Dividends on each share of Series X Preferred Stock will accrue on the liquidation preference amount of \$25,000 per share of Series X Preferred Stock during the dividend period from the issue date to, but excluding, September 5, 2024 (the “fixed rate period”), and (2) thereafter, at a floating rate equal to the sum of (i) a fixed rate of 3.705% per annum, compounded annually, and a spread of 3.705%, for each dividend period from, and including, September 5, 2024 (the “floating rate period”). The amount of dividends will be paid quarterly in arrears on a calendar year of twelve 30-day months, and (ii) for the floating rate period, on the basis of a 360-day year and the actual number of days elapsed in the period.

15

payment date is not a business day (as defined in the certificate of designations for the Series X Preferred Stock), then that dividend payment date shall be the business day immediately following the date that would have been the dividend payment date (unless, for the fixed rate period, that day falls in the next calendar year or, for the floating rate period, that day falls in the next calendar year).

preceding business day), (i) on or prior to September 5, 2024, without any interest or other payment in respect of such delay, and (ii) a date.

As long as shares of Series X Preferred Stock remain outstanding, the Company cannot declare or pay cash dividends or distribute consideration any shares of its Common Stock or other capital stock ranking junior to the Series X Preferred Stock, or generally repurchase ranking equally with the Series X Preferred Stock other than on a pro rata basis, in each case unless full dividends on all outstanding shares for the period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. The Company cannot declare or pay dividends on Series X Preferred Stock for any period unless full dividends on all outstanding shares of Series X Preferred Stock for the immediately

16

preceding dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. If the Company cannot make full payment of those declared dividends, the Company will allocate the amount of such dividends to the holders of shares of Series X Preferred Stock ranking equally with the Series X Preferred Stock and the holders of any capital stock ranking equally with the Series X Preferred Stock.

Voting Rights. Holders of Series X Preferred Stock do not have voting rights, except as described herein and as specifically required by the terms of the Series X Preferred Stock or any other series of the Company's preferred stock ranking equally with the Series X Preferred Stock as to payment of dividends. If dividends for this paragraph have been conferred and are exercisable, have not been declared and paid in an aggregate amount equal to, as to any quarterly dividend periods, as applicable, whether or not for consecutive dividend periods, the holders of the Series X Preferred Stock shall have the right to elect the Company's preferred stock having equivalent voting rights, for the election of two Preferred Stock Directors. When the Company has not paid dividends for a series of preferred stock for the equivalent of at least two semi-annual or four quarterly dividend periods following a dividend arrearage, the holders of the Series X Preferred Stock shall have the right to elect the Company's preferred stock having equivalent voting rights, for the election of two Preferred Stock Directors.

As long as the Series X Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least 66 2/3% of the Series X Preferred Stock, voting as a class, shall be necessary to authorize, create or issue any capital stock ranking senior to the Series X Preferred Stock or winding-up, or to reclassify any authorized capital stock into any such shares of such capital stock or issue any obligation or security interest in any capital stock. In addition, so long as any shares of the Series X Preferred Stock remain outstanding, the affirmative vote of the holders of at least 66 2/3% of the Series X Preferred Stock shall be necessary to amend, alter or repeal any provision of the certificate of designations for the Series X Preferred Stock or the Resolutions of the Board of Directors relating to the Series X Preferred Stock or the Series X Preferred Stock's preferences or special rights of the Series X Preferred Stock.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series X Preferred Stock shall be entitled to a distribution to stockholders, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital stock ranking junior to the Series X Preferred Stock.

16

Series X Preferred Stock and subject to the rights of holders of securities ranking senior to or on a parity with the Series X Preferred Stock, the holders of Series X Preferred Stock shall be entitled to a liquidating distribution in the amount of the liquidation preference of \$25,000 per share, plus any declared and unpaid dividends, with interest thereon from the date of the liquidation preference to the date of payment.

Redemption. The Company may redeem the Series X Preferred Stock, in whole or in part, at its option, at any time on or after September 5, 2024, plus any accrued and unpaid dividends for the then-current dividend period to, but excluding, the redemption date, without accumulation of dividends. If, at any time, the Company determines that a "capital treatment event," as described in the certificate of designations for the Series X Preferred Stock, the Company may redeem the Series X Preferred Stock, in whole or in part, at its option, at any time on or after September 5, 2024, plus any accrued and unpaid dividends for the then-current dividend period to, but excluding, the redemption date, without accumulation of dividends. The Series X Preferred Stock do not have any optional redemption rights.

17

Series Z Preferred Stock

[illegible]

Dividends. Holders of the Series Z Preferred Stock are entitled to receive non-cumulative cash dividends, when, as, and if declared by the Board of Directors, out of funds legally available for payment, on the liquidation preference of \$25,000 per share, payable (a) for the “fixed rate period”, semiannually in arrears on each January 23 and July 23, and (b) for the “floating rate period”, quarterly in arrears on each January 23, April 23, July 23 and October 23, beginning on January 23, 2025, in each case to the extent of funds legally available for payment on the payment date falls (or such record date fixed by the Board or a duly authorized Board committee that is not more than 60 days nor less than 30 days before the payment date). Dividends of Series Z Preferred Stock will accrue on the on the liquidation preference of \$25,000 per share at a rate per annum equal to (1) 6.50% per annum from January 23, 2023, 2024 (the “fixed rate period”), and (2) thereafter, at a floating rate equal to three-month LIBOR **Adjusted Three-Month Term SOFR** plus 1.00% per annum from October 23, 2024 (the “floating rate period”). The amount of dividends shall be computed (i) for the fixed rate period, on the basis of a 360-day year and the actual number of days elapsed in the dividend period. If any dividend payment date is not a business day (or such record date fixed by the Board or a duly authorized Board committee that is not more than 60 days nor less than 30 days before the payment date), then that dividend payment will be made on the next succeeding day that is a business day (unless, for the fixed rate period, that day falls in the next calendar month, in which each such case payment will occur on the immediately preceding business day). Dividends in arrears as of the record date for a dividend payment shall be paid on the next dividend payment date.

17

2024, October 23, 2024, without any interest or other payment in respect of such delay, and (ii) after October 23, 2024, with dividends

As long as shares of Series Z Preferred Stock remain outstanding, the Company cannot declare or pay cash dividends or distributions on any shares of its Common Stock or other capital stock ranking junior to the Series Z Preferred Stock, or generally repurchase any shares of its Common Stock or other capital stock ranking equally with the Series Z Preferred Stock other than on a pro rata basis, in each case unless full dividends on all outstanding shares of Series Z Preferred Stock for the immediately preceding dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. The Company cannot declare or pay cash dividends or distributions on any shares of its Common Stock or other capital stock for any period unless full dividends on all outstanding shares of Series Z Preferred Stock for the immediately preceding dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. If the Company declares dividends on the Series Z Preferred Stock and on any capital stock ranking equally with the Series Z Preferred Stock, then, in addition to those declared dividends, the Company will allocate the dividend payments on a pro

18

rata basis among the holders of the shares of Series Z Preferred Stock and the holders of any capital stock ranking equally with the S

Voting Rights. Holders of Series Z Preferred Stock do not have voting rights, except as described herein and as specifically required by the Certificate of Incorporation. No dividends on the Series Z Preferred Stock or any other series of the Company's preferred stock ranking equally with the Series Z Preferred Stock as to payment of dividends have been declared or paid in an aggregate amount equal to, as to any quarterly dividend periods, as applicable, whether or not for consecutive dividend periods, the holders of the Series Z Preferred Stock

the Company's preferred stock having equivalent voting rights, for the election of two Preferred Stock Directors. When the Company has a series of preferred stock for the equivalent of at least two semi-annual or four quarterly dividend periods following a dividend arrearage.

As long as the Series Z Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least 66 2/3% of the Series Z Preferred Stock, voting as a class, shall be necessary to authorize, create or issue any capital stock ranking senior to the Series Z Preferred Stock or winding-up, or to reclassify any authorized capital stock into any such shares of such capital stock or issue any obligation or security of such capital stock. In addition, so long as any shares of the Series Z Preferred Stock remain outstanding, the affirmative vote of the holders shall be necessary to amend, alter or repeal any provision of the certificate of designations for the Series Z Preferred Stock or the Resolutions of the Board of Directors relating to the Series Z Preferred Stock or the Series Z Preferred Stock's preferences or special rights of the Series Z Preferred Stock.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series Z Preferred Stock shall be entitled to a distribution to stockholders, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital stock, of the assets of the Company, in full payment of the Series Z Preferred Stock upon liquidation and the rights of the Company. The amount of the liquidation preference of \$25,000 per share, plus any declared and unpaid dividends, without accumulation of any undistributed dividends.

18

Redemption. The Company may redeem the Series Z Preferred Stock, in whole or in part, at its option, at any time on or after the date of the Series Z Preferred Stock, for any accrued and unpaid dividends, for the then-current dividend period to, but excluding, the redemption date, without accumulation of any dividends. "capital treatment event," as described in the certificate of designations for the Series Z Preferred Stock, the Company may redeem the Series Z Preferred Stock, in whole or in part, at its option, at any time on or after the date of the Series Z Preferred Stock, for any accrued and unpaid dividends for the then-current dividend period to, but excluding, the redemption date. The Series Z Preferred Stock do not have any optional redemption rights.

Series AA Preferred Stock

Preferential Rights. The Series AA Preferred Stock ranks senior to the Common Stock and equally with the Series B Preferred Stock, Series L Preferred Stock, Series U Preferred Stock, Series X Preferred Stock, Series Z Preferred Stock, Series DD Preferred Stock, Series GG Preferred Stock, Series HH Preferred Stock, Series JJ Preferred Stock, Series KK Preferred Stock, Series LL Preferred Stock, Series PP Preferred Stock, Series QQ Preferred Stock, Series RR Preferred Stock, Series SS Preferred Stock, Series TT Preferred Stock, Series VV Preferred Stock and Series 5 Preferred Stock as to dividends and distributions on the Company's liquidation, dissolution, or winding up. Series AA Preferred Stock ranks senior to the Common Stock or any other class of its capital stock. Holders of the Series AA Preferred Stock do not have any preemptive rights, and the Series AA Preferred Stock is not sinking fund. The Company may issue stock with preferences equal to the Series AA Preferred Stock without the consent of the holders of the Series AA Preferred Stock.

19

Series, Series GG Preferred Stock, Series HH Preferred Stock, Series JJ Preferred Stock, Series KK Preferred Stock, Series LL Preferred Stock, Series PP Preferred Stock, Series QQ Preferred Stock, Series RR Preferred Stock, Series SS Preferred Stock, Series TT Preferred Stock, Series VV Preferred Stock and Series 5 Preferred Stock as to dividends and distributions on the Company's liquidation, dissolution, or winding up. Series AA Preferred Stock ranks senior to the Common Stock or any other class of its capital stock. Holders of the Series AA Preferred Stock do not have any preemptive rights, and the Series AA Preferred Stock is not sinking fund. The Company may issue stock with preferences equal to the Series AA Preferred Stock without the consent of the holders of the Series AA Preferred Stock.

Dividends. Holders of the Series AA Preferred Stock are entitled to receive non-cumulative cash dividends, when, as, and if declared by the Board of Directors out of the funds legally available for payment, on the liquidation preference of \$25,000 per share of Series AA Preferred Stock, payable (a) for the first dividend period from, and including, September 17, 2025 (the "fixed rate period"), and (b) for the "floating rate period", quarterly in arrears on each March 17, June 17, September 17 and December 17, of the calendar month in which the dividend payment date falls (or such record date fixed by the Board or a duly authorized Board of Directors dividend payment date). Dividends on each share of Series AA Preferred Stock will accrue on the liquidation preference of \$25,000 per share from the issue date to, but excluding, March 17, 2025 (the "fixed rate period"), and (2) thereafter, at a floating rate equal to three-month LIBOR plus 1% per annum, compounded quarterly, each dividend period from, and including, March 17, 2025 (the "floating rate period"). The amount of dividends shall be computed (i) during the fixed rate period, on the basis of a 360-day year and the actual number of days elapsed in the dividend period, and (ii) during the floating rate period, on the basis of a 360-day year and the actual number of days elapsed in the dividend period. Dividend payment will be made on the next succeeding day thereafter, or, for the floating rate period, that day falls in the next calendar month, in which each such case payment will occur on or before the next calendar month, without any interest or other payment in respect of such delay, and (ii) after March 17, 2025, with dividends accruing to the actual date of payment.

As long as shares of Series AA Preferred Stock remain outstanding, the Company cannot declare or pay cash dividends or distributions on the Common Stock or any other class of its capital stock.

acquire for consideration any shares of its Common Stock or other capital stock ranking junior to the Series AA Preferred Stock, or get capital stock ranking equally with the Series AA Preferred Stock other than on a pro rata basis, in each case unless full dividends on a preceding dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. The Company c Series AA Preferred Stock for any period unless full dividends on all outstanding shares of Series AA Preferred Stock for the immediate sufficient for the payment thereof is set aside. If the Company declares dividends on the Series AA Preferred Stock and on any capital full payment of those declared dividends, the Company will allocate the dividend payments on a pro rata basis among the holders of t ranking equally with the Series AA Preferred Stock.

Voting Rights. Holders of Series AA Preferred Stock do not have voting rights, except as described herein and as specifically re Preferred Stock or any other series of the Company's preferred stock ranking equally with the Series AA Preferred Stock as to payment in this paragraph have been conferred and are exercisable, have not been declared and paid in an aggregate amount equal to, as to a more quarterly dividend periods, as applicable, whether or not for consecutive dividend periods, the holders of the Series AA Preferred series of the Company's preferred stock having equivalent voting rights, for the election of two Preferred Stock Directors. When the Cc other such series of preferred stock for the equivalent of at least two semi-annual or four quarterly dividend periods following a dividend

As long as the Series AA Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least 66 2/3% stock, voting as a class, shall be necessary to authorize, create or issue any capital stock ranking senior to the Series AA Preferred St or winding-up, or to reclassify any authorized capital stock into any such shares of such capital stock or issue any obligation or security capital stock. In addition, so long as any shares of the Series AA Preferred Stock remain outstanding, the affirmative vote of the holder shall be necessary to amend, alter or repeal any provision of the certificate of designations for the Series AA Preferred Stock or the R preferences or special rights of the Series AA Preferred Stock.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series AA distribution to stockholders, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital rights of holders of securities ranking senior to or on a parity with the Series AA Preferred Stock upon liquidation and the rights of the C amount of the liquidation preference of \$25,000 per share, plus any declared and unpaid dividends, without accumulation of any unde

Redemption. The Company may redeem the Series AA Preferred Stock, in whole or in part, at its option, at any time on or after any accrued and unpaid dividends, for the then-current dividend period to, but excluding, the redemption date, without accumulation o

addition, at any time within 90 days after a "capital treatment event," as described in the certificate of designations for the Series AA P in whole but not in part, at a redemption price equal to \$25,000 per share, plus any accrued and unpaid dividends for the then-current

accumulation of any undeclared dividends. Holders of the Series AA Preferred Stock do not have any optional redemption rights.

Series DD Preferred Stock

Preferential Rights. The Series DD Preferred Stock ranks senior to the Common Stock and equally with the Series B Preferred Preferred Stock, Series L Preferred Stock, Series U Preferred Stock, Series X Preferred Stock, Series Z Preferred Stock, Series AA Preferred Stock, Series HH Preferred Stock, Series JJ Preferred Stock, Series KK Preferred Stock, Series LL Preferred Stock, Series MM Preferred Stock, Series RR Preferred Stock, Series

21

SS Preferred Stock, Series TT Preferred Stock, Series 1 Preferred Stock, Series 2 Preferred Stock, Series 4 Preferred Stock, and Series 5 Preferred Stock in liquidation, dissolution, or winding up. Series DD Preferred Stock is not convertible into or exchangeable for any shares of its Common Stock. Holders of the Series DD Preferred Stock do not have any preemptive rights, and the Series DD Preferred Stock is not subject to the operation of any sinking fund provision of the Series DD Preferred Stock without the consent of the holders of the Series DD Preferred Stock.

Dividends. Holders of the Series DD Preferred Stock are entitled to receive non-cumulative cash dividends, when, as, and if declared, out of the funds legally available for payment, on the liquidation preference of \$25,000 per share of Series DD Preferred Stock, payable (a) for the period from the issue date to September 10, and (b) for the "floating rate period", quarterly in arrears on each March 10, June 10, September 10 and December 10, or the fifteenth day of the calendar month preceding the month in which the dividend payment date falls (or such record date fixed by the Board of Directors not less than 10 days before the dividend payment date). Dividends on each share of Series DD Preferred Stock will accrue on the liquidation preference of 6.300%, for each dividend period from the issue date to, but excluding, March 10, 2026 (the "fixed rate period"), and (2) thereafter, at a rate equal to the SOFR plus a spread of 4.553%, for each dividend period from, and including, March 10, 2026 (the "floating rate period"). The amount of each dividend payment will be made on a 360-day year of twelve 30-day months, and (ii) for the floating rate period, on the basis of a 360-day year and the actual number of days in the dividend period, business day (as defined in the certificate of designations for the Series DD Preferred Stock), then that dividend payment will be made on or prior to the dividend payment date, that day falls in the next calendar year or, for the floating rate period, that day falls in the next calendar month, in which case the dividend payment will be made on or prior to March 10, 2026, without any interest or other payment in respect of such delay, and (ii) after March 10, 2026, with interest.

As long as shares of Series DD Preferred Stock remain outstanding, the Company cannot declare or pay cash dividends or distributions on any shares of its Common Stock or other capital stock ranking junior to the Series DD Preferred Stock, or generally repurchase any shares of its Common Stock or other capital stock ranking junior to the Series DD Preferred Stock, or generally repurchase any shares of its Common Stock or other capital stock ranking equally with the Series DD Preferred Stock other than on a pro rata basis, in each case unless full dividends on all outstanding shares of the Series DD Preferred Stock for the immediately preceding dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside.

21

Preferred Stock for the immediately preceding dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. If the Company declares dividends on the Series DD Preferred Stock but cannot make full payment of those declared dividends, the Company will allocate the dividend payment first to the Series DD Preferred Stock and the holders of any capital stock ranking equally with the Series DD Preferred Stock.

Voting Rights. Holders of Series DD Preferred Stock do not have voting rights, except as described herein and as specifically required by the certificate of designations for the Series DD Preferred Stock or any other series of the Company's preferred stock ranking equally with the Series DD Preferred Stock as to payment of dividends.

22

rights equivalent to those described in this paragraph have been conferred and are exercisable, have not been declared and paid in at least three or more semi-annual or six or more quarterly dividend periods, as applicable, whether or not for consecutive dividend periods, then the holders of all series of the Company's preferred stock having equivalent voting rights, for the election of two Preferred Stock, together with the holders of all series of the Company's preferred stock having equivalent voting rights, for the election of two Preferred Stock and any other such series of preferred stock for the equivalent of at least two semi-annual or four quarterly dividend periods, shall have the right to elect two directors to the Board of Directors. If the holders of the Company's preferred stock having equivalent voting rights, for the election of two Preferred Stock, shall not elect two directors to the Board of Directors, then the right to elect two directors to the Board of Directors shall terminate.

As long as the Series DD Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least 66 2/3% stock, voting as a class, shall be necessary to authorize, create or issue any capital stock ranking senior to the Series DD Preferred Stock or winding-up, or to reclassify any authorized capital stock into any such shares of such capital stock or issue any obligation or security capital stock. In addition, so long as any shares of the Series DD Preferred Stock remain outstanding, the affirmative vote of the holders shall be necessary to amend, alter or repeal any provision of the certificate of designations for the Series DD Preferred Stock or the rights, preferences or special rights of the Series DD Preferred Stock.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series DC distribution to stockholders, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital rights of holders of securities ranking senior to or on a parity with the Series DD Preferred Stock upon liquidation and the rights of the amount of the liquidation preference of \$25,000 per share, plus any declared and unpaid dividends, without accumulation of any undistributed

Redemption. The Company may redeem the Series DD Preferred Stock, in whole or in part, at its option, at any time on or after any accrued and unpaid dividends, for the then-current dividend period to, but excluding, the redemption date, without accumulation of dividends, and, if the Company redeems the Series DD Preferred Stock, the Company may redeem the Series DD Preferred Stock at a price equal to \$25,000 per share, plus any accrued and unpaid dividends for the then-current dividend period to, but

22

excluding, the redemption date, without accumulation of any undeclared dividends. Holders of the Series DD Preferred Stock do not have

Series EE Preferred Stock

Preferential Rights. The Series FF Preferred Stock ranks senior to the Common Stock and equally with the Series B Preferred Stock, Series L Preferred Stock, Series U Preferred Stock, Series X Preferred Stock, Series Z Preferred Stock, Series AA Preferred Stock, Series HH Preferred Stock, Series JJ Preferred Stock, Series KK Preferred Stock, Series LL Preferred Stock, Series MM Preferred Stock, Series RR Preferred Stock, Series SS Preferred Stock, Series TT Preferred Stock, Series 1 Preferred Stock, Series 2 Preferred Stock as to dividends and distributions on the Company's liquidation, dissolution, or winding up. Series FF Preferred Stock is not convertible into any class of its

23

capital stock. Holders of the Series FF Preferred Stock do not have any preemptive rights, and the Series FF Preferred Stock is not subject to the provisions of the Charter of the Corporation relating to the rights of holders of common stock with preferences equal to the Series FF Preferred Stock without the consent of the holders of the Series FF Preferred Stock.

Dividends. Holders of the Series FF Preferred Stock are entitled to receive non-cumulative cash dividends, when, as, and if declared by the Board of Directors out of the funds legally available for payment, on the liquidation preference of \$25,000 per share of Series FF Preferred Stock, payable (a) for the

As long as shares of Series FF Preferred Stock remain outstanding, the Company cannot declare or pay cash dividends or distribute consideration on any shares of its Common Stock or other capital stock ranking junior to the Series FF Preferred Stock, or generally repurchase or acquire any shares of its Common Stock or other capital stock ranking equally with the Series FF Preferred Stock other than on a pro rata basis, in each case unless full dividends on all outstanding shares of Series FF Preferred Stock have been paid in full or declared and a sum sufficient for the payment thereof is set aside. The Company cannot declare or pay cash dividends or distribute consideration on any shares of its Common Stock or other capital stock ranking junior to the Series FF Preferred Stock for any period unless full dividends on all outstanding shares of Series FF Preferred Stock for the immediately preceding period have been paid in full or declared and a sum sufficient for the payment thereof is set aside.

23

preceding dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. If the Company stock ranking equally with the Series FF Preferred Stock but cannot make full payment of those declared dividends, the Company will the shares of Series FF Preferred Stock and the holders of any capital stock ranking equally with the Series FF Preferred Stock.

Voting Rights. Holders of Series FF Preferred Stock do not have voting rights, except as described herein and as specifically re Preferred Stock or any other series of the Company's preferred stock ranking equally with the Series FF Preferred Stock as to paymer in this paragraph have been conferred and are exercisable, have not been declared and paid in an aggregate amount equal to, as to a more quarterly dividend periods, as applicable, whether or not for consecutive dividend periods, the holders of the Series FF Preferrec

24

be entitled to vote as a class, together with the holders of all series of the Company's preferred stock having equivalent voting rights, for the payment of the dividends in arrears on the Series FF Preferred Stock and any other such series of preferred stock for the equivalent of at least two semi-annual dividend periods. If, after the date of the filing of this Certificate of Designation, the Company has not paid full dividends on the Series FF Preferred Stock and any other such series of preferred stock for the equivalent of at least two semi-annual dividend periods, then, after the date of the filing of this Certificate of Designation, these voting rights will terminate.

As long as the Series FF Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least 66 2/3% of the Series FF Preferred Stock, voting as a class, shall be necessary to authorize, create or issue any capital stock ranking senior to the Series FF Preferred Stock, to amend, alter or repeal any provision of the certificate of designations for the Series FF Preferred Stock or the Reorganization Agreement, to effect a merger or consolidation, to effect a winding-up, or to reclassify any authorized capital stock into any such shares of such capital stock or issue any obligation or security ranking senior to the Series FF Preferred Stock. In addition, so long as any shares of the Series FF Preferred Stock remain outstanding, the affirmative vote of the holders of at least 66 2/3% of the Series FF Preferred Stock, voting as a class, shall be necessary to amend, alter or repeal any provision of the certificate of designations for the Series FF Preferred Stock or the Reorganization Agreement, to effect a merger or consolidation, to effect a winding-up, or to reclassify any authorized capital stock into any such shares of such capital stock or issue any obligation or security ranking senior to the Series FF Preferred Stock. In addition, so long as any shares of the Series FF Preferred Stock remain outstanding, the affirmative vote of the holders of at least 66 2/3% of the Series FF Preferred Stock, voting as a class, shall be necessary to amend, alter or repeal any provision of the certificate of designations for the Series FF Preferred Stock or the Reorganization Agreement, to effect a merger or consolidation, to effect a winding-up, or to reclassify any authorized capital stock into any such shares of such capital stock or issue any obligation or security ranking senior to the Series FF Preferred Stock.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series FF distribution to stockholders, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital rights of holders of securities ranking senior to or on a parity with the Series FF Preferred Stock upon liquidation and the rights of the Company amount of the liquidation preference of \$25,000 per share, plus any declared and unpaid dividends, without accumulation of any undistributed

Redemption. The Company may redeem the Series FF Preferred Stock, in whole or in part, at its option, at any time on or after any accrued and unpaid dividends, for the then-current dividend period to, but excluding, the redemption date, without accumulation of

Series GG Preferred Stock

Listing. Depositary shares representing fractional interests in a share of Series GG Preferred Stock are listed on the NYSE and

25

Voting Rights. Holders of Series GG Preferred Stock do not have voting rights, except as described herein and as specifically provided in the Certificate of Designations for Series GG Preferred Stock or any other series of the Company's preferred stock ranking equally with the Series GG Preferred Stock as to payment of dividends. No other voting rights or preferences have been conferred and are exercisable,

REFINITIV 

have not been declared and paid in an aggregate amount equal to, as to any series, the equivalent of at least six or more quarterly dividends of the Series GG Preferred Stock will be entitled to vote as a class, together with the holders of all series of the Company's preferred stock, in the election of Directors. When the Company has paid full dividends on the Series GG Preferred Stock and any other such series of preferred stock for the dividend arrearage described above, these voting rights will terminate.

As long as the Series GG Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least 66 2/3% of the Series GG Preferred Stock, voting as a class, shall be necessary to authorize, create or issue any capital stock ranking senior to the Series GG Preferred Stock, to dissolve or liquidate the Company, to reclassify any authorized capital stock into any such shares of such capital stock or issue any obligation of the Company.

26

evidencing the right to purchase any such shares of capital stock. In addition, so long as any shares of the Series GG Preferred Stock remain outstanding, the affirmative vote or consent of the holders of at least 66 2/3% of the Series GG Preferred Stock shall be necessary to amend, alter or repeal any provision of the certificate of incorporation or the bylaws of the Company so as to adversely affect the powers, preferences or special rights of the Series GG Preferred Stock.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series GG Preferred Stock shall be entitled to receive, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital stock, a dividend in cash or property equal to the liquidation preference of \$25,000 per share, plus any declared and unpaid dividends, without accumulation of any undistributed dividends.

Redemption. The Company may redeem the Series GG Preferred Stock, in whole or in part, at its option, at any time on or after the date of the Company's next annual meeting, for the then-current dividend period to, but excluding, the redemption date, without accumulation of dividends. If the Company redeems the Series GG Preferred Stock, the Company may redeem the Series GG Preferred Stock at a price equal to \$25,000 per share, plus any accrued and unpaid dividends for the then-current dividend period to, but excluding, the redemption date. The Series GG Preferred Stock do not have any optional redemption rights.

Series HH Preferred Stock

Listing. Depositary shares representing fractional interests in a share of Series HH Preferred Stock are listed on the NYSE under the symbol "REFH".

Preferential Rights. The Series HH Preferred Stock ranks senior to the Common Stock and equally with the Series B Preferred Stock, Series L Preferred Stock, Series U Preferred Stock, Series X Preferred Stock, Series Z Preferred Stock, Series AA Preferred Stock, Series GG Preferred Stock, Series JJ Preferred Stock, Series KK Preferred Stock, Series LL Preferred Stock, Series MM Preferred Stock, Series RR Preferred Stock, Series SS Preferred Stock, Series TT Preferred Stock, Series 1 Preferred Stock, Series 2 Preferred Stock, Series 3 Preferred Stock, Series 4 Preferred Stock, and Series 5 Preferred Stock as to dividends and distributions on the Company's liquidation, dissolution, or winding up.

26

Stock, Series 4 Preferred Stock, and Series 5 Preferred Stock as to dividends and distributions on the Company's liquidation, dissolution, or winding up. The Series HH Preferred Stock is not convertible into any shares of its Common Stock or any other class of its capital stock. Holders of the Series HH Preferred Stock do not have any preemptive or subscription rights. The Series HH Preferred Stock is subject to the operation of any sinking fund. The Company may issue stock with preferences equal to the Series HH Preferred Stock.

Dividends. Holders of the Series HH Preferred Stock are entitled to receive non-cumulative cash dividends, when, as, and if declared by the Board of Directors out of funds legally available for payment, at an annual dividend rate per share of 5.875% on the liquidation preference of \$25,000 per share. Dividends shall be payable on or before October 24, to record holders as of the first day of the calendar month in which the dividend payment date falls (or such other record date as may be determined by the Board of Directors) more than 60 days nor less than 10 days before the dividend payment date.

As long as shares of Series HH Preferred Stock remain outstanding, the Company cannot declare or pay cash dividends or distribute in liquidation any shares of its Common Stock or other capital stock ranking junior to the Series HH Preferred Stock, or generally repurchase or redeem any shares of its Common Stock or other capital stock ranking equally with the Series HH Preferred Stock other than on a pro rata basis, in each case unless full dividends on all outstanding shares of Series HH Preferred Stock for the immediately preceding dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. The Company cannot declare or pay cash dividends or distribute in liquidation any shares of its Common Stock or other capital stock ranking junior to the Series HH Preferred Stock for any period unless full dividends on all outstanding shares of Series HH Preferred Stock for the immediately preceding dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. If the Company declares dividends on the Series HH Preferred Stock and on any capital stock ranking junior to the Series HH Preferred Stock, in payment of those declared dividends, the Company will allocate the dividend payments on a pro rata basis among the holders of the shares of its Common Stock or other capital stock ranking equally with the Series HH Preferred Stock.

Voting Rights. Holders of Series HH Preferred Stock do not have voting rights, except as described herein and as specifically re Preferred Stock or any other series of the Company's preferred stock ranking equally with the Series HH Preferred Stock as to payme in this paragraph have been conferred and are exercisable, have not been declared and paid in an aggregate amount equal to, as to a whether or not for consecutive dividend periods, the holders of the Series HH Preferred Stock will be entitled to vote as a class, togeth equivalent voting rights, for the election of two Preferred Stock Directors. When the Company has paid full dividends on the Series HH equivalent of at least four quarterly dividend periods following a dividend arrearage described above, these voting rights will terminate.

As long as the Series HH Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least 66 2/3% of the Series HH Preferred Stock, voting as a class, shall be necessary to authorize, create or issue any

capital stock ranking senior to the Series HH Preferred Stock as to dividends or the distribution of assets upon liquidation, dissolution or winding up of the Company, shall not be deemed to constitute shares of such capital stock or issue any obligation or security convertible into or evidencing the right to purchase any such shares of capital stock of the Company. If the Series HH Preferred Stock remain outstanding, the affirmative vote of the holders of at least 66 2/3% of the voting power of the Series HH Preferred Stock shall be required to amend or repeal any provision of the Certificate of Incorporation or of designations for the Series HH Preferred Stock or the Restated Certificate of Incorporation so as to adversely affect the powers, preferences or rights of the Series HH Preferred Stock.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series H-1 have the right to participate in the distribution of the assets of the Company on a pro rata basis, after the payment of all debts and liabilities of the Company, in preference to the holders of any other class of securities of the Company. The right of holders of securities ranking senior to or on

Redemption. The Company may redeem the Series HH Preferred Stock, in whole or in part, at its option, at any time on or after any accrued and unpaid dividends for the then-current dividend period to, but excluding, the redemption date, without accumulation of “capital treatment event,” as described in the certificate of designations for the Series HH Preferred Stock, the Company may redeem price equal to \$25,000 per share, plus any accrued and unpaid dividends for the then-current dividend period to, but excluding, the rec of the Series HH Preferred Stock do not have any optional redemption rights.

Preferential Rights. The Series JJ Preferred Stock ranks senior to the Common Stock and equally with the Series B Preferred S Preferred Stock, Series L Preferred Stock, Series U Preferred Stock, Series X Preferred Stock, Series Z Preferred Stock, Series AA P Series GG Preferred Stock, Series HH Preferred Stock, Series KK Preferred Stock, Series LL Preferred Stock, Series MM Preferred S Preferred Stock, Series RR Preferred Stock, Series SS Preferred Stock, Series TT Preferred Stock, Series 1 Preferred Stock, Series 2 as to dividends and distributions on the Company's liquidation, dissolution, or winding up. Series JJ Preferred Stock is not convertible class of its capital stock. Holders of the Series JJ Preferred Stock do not have any preemptive rights, and the Series JJ Preferred Stoc issue stock with preferences equal to the Series JJ Preferred Stock without the consent of the holders of the Series JJ Preferred Stock

28

29

As long as shares of Series JJ Preferred Stock remain outstanding, the Company cannot declare or pay cash dividends or distribute consideration on any shares of the Common Stock or other capital stock ranking junior to the Series JJ Preferred Stock, or generally participate in any dividends or distributions of the Company ranking equally with the Series JJ Preferred Stock other than on a pro rata basis, in each case unless full dividends on all outstanding shares of the Common Stock for the immediately preceding dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. The Company cannot declare or pay cash dividends on any shares of the Common Stock for any period unless full dividends on all outstanding shares of Series JJ Preferred Stock for the immediately preceding dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. If the Company declares dividends on the Series JJ Preferred Stock and on any capital stock ranking equally with the Series JJ Preferred Stock, the Company will first pay dividends on the Series JJ Preferred Stock until the holders of Series JJ Preferred Stock have received dividends in full on all shares of Series JJ Preferred Stock then outstanding. If the Company declares dividends on the Series JJ Preferred Stock and on any capital stock ranking equally with the Series JJ Preferred Stock, the Company will first pay dividends on the Series JJ Preferred Stock until the holders of Series JJ Preferred Stock have received dividends in full on all shares of Series JJ Preferred Stock then outstanding.

those declared dividends, the Company will allocate the dividend payments on a pro rata basis among the holders of the shares of the Series JJ Preferred Stock.

Voting Rights. Holders of Series JJ Preferred Stock do not have voting rights, except as described herein and as specifically required by the Certificate of Incorporation. Holders of Series JJ Preferred Stock or any other series of the Company's preferred stock ranking equally with the Series JJ Preferred Stock as to payment of dividends shall, if the holders of such series of preferred stock for the equivalent of at least two semi-annual or four quarterly dividend periods following a dividend arrearage on such series of preferred stock have been conferred and are exercisable, have not been declared and paid in an aggregate amount equal to, as to any such series of preferred stock, the amount of such dividend arrearage, for more quarterly dividend periods, whether or not for consecutive dividend periods, the holders of the Series JJ Preferred Stock will be entitled to elect two directors to the Board of Directors of the Company, and the Company's preferred stock having equivalent voting rights, for the election of two Preferred Stock Directors. When the Company has paid dividends on all series of preferred stock for the equivalent of at least two semi-annual or four quarterly dividend periods following a dividend arrearage on such series of preferred stock, the holders of the Series JJ Preferred Stock will not have the right to elect directors to the Board of Directors of the Company.

29

As long as the Series JJ Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least 66 2/3% stock, voting as a class, shall be necessary to authorize, create or issue any capital stock ranking senior to the Series JJ Preferred Stock or winding-up, or to reclassify any authorized capital stock into any such shares of such capital stock or issue any obligation or security of the Company out of its capital stock. In addition, so long as any shares of the Series JJ Preferred Stock remain outstanding, the affirmative vote of the holders of at least 66 2/3% stock, voting as a class, shall be necessary to amend, alter or repeal any provision of the certificate of designations for the Series JJ Preferred Stock or the Regulations of the Series JJ Preferred Stock.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series JJ distribution to stockholders, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital rights of holders of securities ranking senior to or on a parity with the Series JJ Preferred Stock upon liquidation and the rights of the C

30

depositors and other creditors, a liquidating distribution in the amount of the liquidation preference of \$25,000 per share, plus any declared dividends, to the date of liquidation.

Redemption. The Company may redeem the Series JJ Preferred Stock, in whole or in part, at its option, at any time on or after . . . any accrued and unpaid dividends for the then-current dividend period to, but excluding, the redemption date, without accumulation of “capital treatment event,” as described in the certificate of designations for the Series JJ Preferred Stock, the Company may redeem the Series JJ Preferred Stock, in whole or in part, at its option, at any time on or after the date of the dividend payment, without accumulation of dividends, if the Company has sufficient funds available to pay dividends equal to \$25,000 per share, plus any accrued and unpaid dividends for the then-current dividend period to, but excluding, the redemption date. The Series JJ Preferred Stock do not have any optional redemption rights.

Series KK Preferred Stock

Listing. Depositary shares representing fractional interests in a share of Series KK Preferred Stock are listed on the NYSE under

Preferential Rights. The Series KK Preferred Stock ranks senior to the Common Stock and equally with the Series B Preferred : Preferred Stock, Series L Preferred Stock, Series U Preferred Stock, Series X Preferred Stock, Series Z Preferred Stock, Series AA P Series GG Preferred Stock, Series HH Preferred Stock, Series JJ Preferred Stock, Series LL Preferred Stock, Series MM Preferred St Preferred Stock, Series RR Preferred Stock, Series SS Preferred Stock, Series TT Preferred Stock, Series 1 Preferred Stock, Series 2 as to dividends and distributions on the Company's liquidation, dissolution, or winding up. Series KK Preferred Stock is not convertible class of its capital stock. Holders of the Series KK Preferred Stock do not have any preemptive rights, and the Series KK Preferred Stock issue stock with preferences equal to the Series KK Preferred Stock without the consent of the holders of the Series KK Preferred Stock

30

Dividends. Holders of the Series KK Preferred Stock are entitled to receive non-cumulative cash dividends, when, as, and if declared, out of the funds legally available for payment, at an annual dividend rate per share of 5.375% on the liquidation preference of \$25,000 per share and December 25, to record holders as of the first day of the calendar month in which the dividend payment date falls (or such other record date not more than 60 days nor less than 10 days prior to the dividend payment date). The amount of dividends shall be computed on the basis of the record date is not a business day (as defined in the certificate of designations for the Series KK Preferred Stock), then that dividend payment shall be made on the next business day that day falls in the next calendar year in which case payment will occur on the immediately preceding business day), in each case with the relevant dividend period will not be adjusted.

As long as shares of Series KK Preferred Stock remain outstanding, the Company cannot declare or pay cash dividends or distributions on any shares of its Common Stock or other capital stock ranking junior to the Series KK Preferred Stock, or generally repurchase shares ranking equally with the Series KK Preferred Stock other than on

31

on a pro rata basis, in each case unless full dividends on all outstanding shares of Series KK Preferred Stock for the immediately preceding dividend period for the payment thereof is set aside. The Company cannot declare or pay dividends on capital stock ranking equally with the Series KK Preferred Stock if shares of Series KK Preferred Stock for the immediately preceding dividend period have been paid in full or declared and a sum sufficient to pay dividends on the Series KK Preferred Stock and on any capital stock ranking equally with the Series KK Preferred Stock but cannot make full payments on a pro rata basis among the holders of the shares of Series KK Preferred Stock and the holders of any capital stock ranking

Voting Rights. Holders of Series KK Preferred Stock do not have voting rights, except as described herein and as specifically required by the Series KK Preferred Stock or any other series of the Company's preferred stock ranking equally with the Series KK Preferred Stock as to payment of dividends. In this paragraph are conferred and are exercisable, have not been declared and paid in an aggregate amount equal to, as to any series of the Company's preferred stock, for consecutive dividend periods, the holders of the Series KK Preferred Stock will be entitled to vote as a class, together with the holders of any other series of the Company's preferred stock ranking equally with the Series KK Preferred Stock as to payment of dividends, for the election of two Preferred Stock Directors. When the Company has paid full dividends on the Series KK Preferred Stock for at least four quarterly dividend periods following a dividend arrearage described above, these voting rights will terminate.

As long as the Series KK Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least 66 2/3% of the Series KK Preferred Stock, voting as a class, shall be necessary to authorize, create or issue any capital stock ranking senior to the Series KK Preferred Stock or winding-up, or to reclassify any authorized capital stock into any such shares of such capital stock or issue any obligation or security ranking senior to the Series KK Preferred Stock. In addition, so long as any shares of the Series KK Preferred Stock remain outstanding, the affirmative vote of the holders of at least 66 2/3% of the Series KK Preferred Stock shall be necessary to

31

amend, alter or repeal any provision of the certificate of designations for the Series KK Preferred Stock or the Restated Certificate of Incorporation of the Company insofar as it relates to the rights of the Series KK Preferred Stock.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series KK Preferred Stock shall be entitled to receive, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital stock, the amount of the liquidation preference of \$25,000 per share, plus any declared and unpaid dividends, without accumulation of any undistributed

Voting Rights. Holders of Series LL Preferred Stock do not have voting rights, except as described herein and as specifically re Preferred Stock or any other series of the Company's preferred stock ranking equally with the Series LL Preferred Stock as to payment in this paragraph have been conferred and are exercisable, have not been declared and paid in an aggregate amount equal to, as to whether or not for consecutive dividend periods, the holders of the Series LL Preferred Stock will be entitled to vote as a class, together equivalent voting rights, for the election of two Preferred Stock Directors. When the Company has paid full dividends on the Series LL equivalent of at least four quarterly dividend periods following a dividend arrearage described above, these voting rights will terminate.

As long as the Series LL Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least 66 2/3% stock, voting as a class, shall be necessary to authorize, create or issue any capital stock ranking senior to the Series LL Preferred Stock or winding-up, or to reclassify any authorized capital stock into any such shares of such capital stock or issue any obligation or security capital stock. In addition, so long as any shares of the Series LL Preferred Stock remain outstanding, the affirmative vote of the holder shall be necessary to amend, alter or repeal any provision of the certificate of designations for the Series LL Preferred Stock or the preferences or special rights of the Series LL Preferred Stock.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series LL distribution to stockholders, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital rights of holders of securities ranking senior to or on a parity with the Series LL Preferred Stock upon liquidation and the rights of the Company amount of the liquidation

33

preference of \$25,000 per share, plus any declared and unpaid dividends, without accumulation of any undeclared dividends, to the dividend

Redemption. The Company may redeem the Series LL Preferred Stock, in whole or in part, at its option, at any time on or after plus any accrued and unpaid dividends for the then-current dividend period to, but excluding, the redemption date, without accumulation a "capital treatment event," as described in the certificate of designations for the Series LL Preferred Stock, the Company may redeem price equal to \$25,000 per share, plus any accrued and unpaid dividends for the then-current dividend period to, but excluding, the redemption of the Series LL Preferred Stock do not have any optional redemption rights.

Series MM Preferred Stock

Preferential Rights. The Series MM Preferred Stock ranks senior to the Common Stock and equally with the Series B Preferred Preferred Stock, Series L Preferred Stock, Series U Preferred Stock, Series X Preferred Stock, Series Z Preferred Stock, Series AA Preferred Stock, Series GG Preferred Stock, Series HH Preferred Stock, Series JJ Preferred Stock, Series KK Preferred Stock, Series LL Preferred Stock Preferred Stock, Series RR Preferred Stock, Series

34

SS Preferred Stock, Series TT Preferred Stock, Series 1 Preferred Stock, Series 2 Preferred Stock, Series 4 Preferred Stock, and Series liquidation, dissolution, or winding up. Series MM Preferred Stock is not convertible into or exchangeable for any shares of its Common Preferred Stock do not have any preemptive rights, and the Series MM Preferred Stock is not subject to the operation of any sinking fund MM Preferred Stock without the consent of the holders of the Series MM Preferred Stock.

34

35

35

36

36

consideration any capital stock ranking equally with the Series NN Preferred Stock other than on a pro rata basis, in each case unless the immediately preceding dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. equally with the Series NN Preferred Stock for any period unless full dividends on all outstanding shares of Series NN Preferred Stock declared and a sum sufficient for the payment thereof is set aside. If the Company declares dividends on the Series NN Preferred Stock but cannot make full payment of those declared dividends, the Company will allocate the dividend payments on a pro rata basis holders of any capital stock ranking equally with the Series NN Preferred Stock.

Voting Rights. Holders of Series NN Preferred Stock do not have voting rights, except as described herein and as specifically re Preferred Stock or any other series of the Company's preferred stock ranking equally with the Series NN Preferred Stock as to payme in this paragraph have been conferred and are exercisable, have not been declared and paid in an aggregate amount equal to, as to a whether or not for consecutive dividend periods, the holders of the Series NN Preferred Stock will be entitled to vote as a class, togeth equivalent voting rights, for the election of two Preferred Stock Directors. When the Company has paid full dividends on

37

the Series NN Preferred Stock and any other such series of preferred stock for the equivalent of at least four quarterly dividend period terminate.

As long as the Series NN Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least 66 2/3% stock, voting as a class, shall be necessary to authorize, create or issue any capital stock ranking senior to the Series NN Preferred Stock or winding-up, or to reclassify any authorized capital stock into any such shares of such capital stock or issue any obligation or security capital stock. In addition, so long as any shares of the Series NN Preferred Stock remain outstanding, the affirmative vote of the holders shall be necessary to amend, alter or repeal any provision of the certificate of designations for the Series NN Preferred Stock or the Rights preferences or special rights of the Series NN Preferred Stock.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series NN Preferred Stock shall be entitled to a distribution to stockholders, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital rights of holders of securities ranking senior to or on a parity with the Series NN Preferred Stock upon liquidation and the rights of the holders amount of the liquidation preference of \$25,000 per share, plus any declared and unpaid dividends, without accumulation of any undistributed

Redemption. The Company may redeem the Series NN Preferred Stock, in whole or in part, at its option, at any time on or after plus any accrued and unpaid dividends for the then-current dividend period to, but excluding, the redemption date, without accumulation of a "capital treatment event," as described in the certificate of designations for the Series NN Preferred Stock, the Company may redeem

37

Series NN Preferred Stock, in whole but not in part, at a redemption price equal to \$25,000 per share, plus any accrued and unpaid dividends on the redemption date, without accumulation of any undeclared dividends. Holders of the Series NN Preferred Stock do not have any option

Series PP Preferred Stock

Listing. Depositary shares representing fractional interests in a share of Series PP Preferred Stock are listed on the NYSE under the symbol

Preferential Rights. The Series PP Preferred Stock ranks senior to the Common Stock and equally with the Series B Preferred Stock, Series L Preferred Stock, Series U Preferred Stock, Series X Preferred Stock, Series Z Preferred Stock, Series AA Preferred Stock, Series GG Preferred Stock, Series HH Preferred Stock, Series JJ Preferred Stock, Series KK Preferred Stock, Series LL Preferred Stock

Preferred Stock, Series RR Preferred Stock, Series SS Preferred Stock, Series TT Preferred Stock, Series 1 Preferred Stock, Series 2 as to dividends and distributions on the Company's liquidation, dissolution, or winding up. Series PP Preferred Stock is not convertible class of its capital stock. Holders of the Series PP Preferred Stock do not have any preemptive rights, and the Series PP Preferred Stock

38

may issue stock with preferences equal to the Series PP Preferred Stock without the consent of the holders of the Series PP Preferred Stock.

Dividends. Holders of the Series PP Preferred Stock are entitled to receive non-cumulative cash dividends, when, as, and if declared, out of funds legally available for payment, at an annual dividend rate per share of 4.125% on the liquidation preference of \$25,000 per share on November 2, to record holders as of the fifteenth day of the calendar month preceding the month in which the dividend payment date falls (the "dividend payment date"). The amount of dividends shall be computed on the basis of the dividend payment date. If the dividend payment date is not a business day (as defined in the certificate of designations for the Series PP Preferred Stock), then that dividend payment shall be made on the next business day (or, if that day falls in the next calendar year in which case payment will occur on the immediately preceding business day), in each case with the relevant dividend period will not be adjusted.

As long as shares of Series PP Preferred Stock remain outstanding, the Company cannot declare or pay cash dividends or distributions on any shares of its Common Stock or other capital stock ranking junior to the Series PP Preferred Stock, or generally repurchase any shares of its Common Stock or other capital stock ranking equally with the Series PP Preferred Stock other than on a pro rata basis, in each case unless full dividends on all outstanding shares of Series PP Preferred Stock for the immediately preceding dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. The Company cannot declare or pay cash dividends on any shares of Series PP Preferred Stock for any period unless full dividends on all outstanding shares of Series PP Preferred Stock for the immediately preceding dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. If the Company declares dividends on the Series PP Preferred Stock and on any capital stock ranking junior to the Series PP Preferred Stock, the Company will allocate the dividend payments on a pro

38

pro rata basis among the holders of the shares of Series PP Preferred Stock and the holders of any capital stock ranking equally with the Series PP Preferred Stock.

Voting Rights. Holders of Series PP Preferred Stock do not have voting rights, except as described herein and as specifically referred to in the certificate of designations for the Series PP Preferred Stock or any other series of the Company's preferred stock ranking equally with the Series PP Preferred Stock as to payment of dividends. If dividends have been declared and paid in an aggregate amount equal to, as to, or in excess of the liquidation preference of the Series PP Preferred Stock, then, whether or not for consecutive dividend periods, the holders of the Series PP Preferred Stock will be entitled to vote as a class, together with the holders of any other series of the Company's preferred stock ranking equally with the Series PP Preferred Stock as to payment of dividends, for the election of two Preferred Stock Directors. When the Company has paid full dividends on the Series PP Preferred Stock for at least four quarterly dividend periods following a dividend arrearage described above, these voting rights will terminate.

As long as the Series PP Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least 66 2/3% of the Series PP Preferred Stock, voting as a class, shall be necessary to authorize, create or issue any capital stock ranking senior to the Series PP Preferred Stock, or winding-up, or to reclassify any authorized capital stock into any such shares of such capital stock or issue any obligation or security interest in any capital stock. In addition, so long as any

39

shares of the Series PP Preferred Stock remain outstanding, the affirmative vote of the holders of at least 66 2/3% of the voting power repeal any provision of the certificate of designations for the Series PP Preferred Stock or the Restated Certificate of Incorporation so Series PP Preferred Stock.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series PP distribution to stockholders, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital rights of holders of securities ranking senior to or on a parity with the Series PP Preferred Stock upon liquidation and the rights of the (amount of the liquidation preference of \$25,000 per share, plus any declared and unpaid dividends, without accumulation of any under

Redemption. The Company may redeem the Series PP Preferred Stock, in whole or in part, at its option, at any time on or after any accrued and unpaid dividends for the then-current dividend period to, but excluding, the redemption date, without accumulation of "capital treatment event," as described in the certificate of designations for the Series PP Preferred Stock, the Company may redeem i price equal to \$25,000 per share, plus any accrued and unpaid dividends for the then-current dividend period to, but excluding, the rec of the Series PP Preferred Stock do not have any optional redemption rights.

Series QQ Preferred Stock

Listing. Depositary shares representing fractional interests in a share of Series QQ Preferred Stock are listed on the NYSE and

39

Preferential Rights. The Series QQ Preferred Stock ranks senior to the Common Stock and equally with the Series B Preferred Preferred Stock, Series L Preferred Stock, Series U Preferred Stock, Series X Preferred Stock, Series Z Preferred Stock, Series AA P Series GG Preferred Stock, Series HH Preferred Stock, Series JJ Preferred Stock, Series KK Preferred Stock, Series LL Preferred St Preferred Stock, Series RR Preferred Stock, Series SS Preferred Stock, Series TT Preferred Stock, Series 1 Preferred Stock, Series 2 as to dividends and distributions on the Company's liquidation, dissolution, or winding up. Series QQ Preferred Stock is not convertible class of its capital stock. Holders of the Series QQ Preferred Stock do not have any preemptive rights, and the Series QQ Preferred St issue stock with preferences equal to the Series QQ Preferred Stock without the consent of the holders of the Series QQ Preferred St

Dividends. Holders of the Series QQ Preferred Stock are entitled to receive non-cumulative cash dividends, when, as, and if de funds legally available for payment, at an annual dividend rate per share of 4.250% on the liquidation preference of \$25,000 per share November 17, to record holders as of the first day of the calendar month in which the dividend payment date falls (or such other record more than 60 days prior to the dividend payment date). The amount of dividends shall be computed on the basis of a 360-day

40

year of twelve 30-day months. If any dividend payment date is not a business day (as defined in the certificate of designations for the the next succeeding day that is a business day (unless that day falls in the next calendar year in which case payment will occur on the dividends accruing or other payment adjustment and the relevant dividend period will not be adjusted.

As long as shares of Series QQ Preferred Stock remain outstanding, the Company cannot declare or pay cash dividends or dis consideration any shares of its Common Stock or other capital stock ranking junior to the Series QQ Preferred Stock, or generally rep ranking equally with the Series QQ Preferred Stock other than on a pro rata basis, in each case unless full dividends on all outstanding dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. The Company cannot decl Preferred Stock for any period unless full dividends on all outstanding shares of Series QQ Preferred Stock for the immediately prece

for the payment thereof is set aside. If the Company declares dividends on the Series QQ Preferred Stock and on any capital stock ranking equally with the Series QQ Preferred Stock, the Company will allocate the dividend payments on a pro rata basis among the holders of the Series QQ Preferred Stock.

Voting Rights. Holders of Series QQ Preferred Stock do not have voting rights, except as described herein and as specifically provided in the certificate of designations for the Series QQ Preferred Stock or any other series of the Company's preferred stock ranking equally with the Series QQ Preferred Stock as to payment of dividends. If dividends in this paragraph have been conferred and are exercisable, have not been declared and paid in an aggregate amount equal to, as to, or in excess of the amount payable whether or not for consecutive dividend periods.

40

periods, the holders of the Series QQ Preferred Stock will be entitled to vote as a class, together with the holders of all series of the Company's preferred stock ranking equally with the Series QQ Preferred Stock, to elect two Preferred Stock Directors. When the Company has paid full dividends on the Series QQ Preferred Stock and any other such series of the Company's preferred stock ranking equally with the Series QQ Preferred Stock for two consecutive dividend periods following a dividend arrearage described above, these voting rights will terminate.

As long as the Series QQ Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least 66 2/3% of the Series QQ Preferred Stock, voting as a class, shall be necessary to authorize, create or issue any capital stock ranking senior to the Series QQ Preferred Stock, to dissolve or liquidate the Company, to reclassify any authorized capital stock into any such shares of such capital stock or issue any obligation in respect of any such shares of capital stock. In addition, so long as any shares of the Series QQ Preferred Stock remain outstanding, the affirmative vote or consent of the holders of at least 66 2/3% of the Series QQ Preferred Stock shall be necessary to amend, alter or repeal any provision of the certificate of designations for the Series QQ Preferred Stock that affects the powers, preferences or special rights of the Series QQ Preferred Stock.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series QQ Preferred Stock shall be entitled to receive, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital stock ranking junior to the Series QQ Preferred Stock, a distribution of assets, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital stock ranking junior to the Series QQ Preferred Stock, in full payment of the principal amount of the Series QQ Preferred Stock, plus any accrued and unpaid dividends, without accumulation of any undeclared dividends, to the date of liquidation.

41

on a parity with the Series QQ Preferred Stock upon liquidation and the rights of the Company's depositors and other creditors, a liquidation of the Company, the holders of the Series QQ Preferred Stock shall be entitled to receive, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital stock ranking junior to the Series QQ Preferred Stock, a distribution of assets, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital stock ranking junior to the Series QQ Preferred Stock, in full payment of the principal amount of the Series QQ Preferred Stock, plus any accrued and unpaid dividends, without accumulation of any undeclared dividends, to the date of liquidation.

Redemption. The Company may redeem the Series QQ Preferred Stock, in whole or in part, at its option, at any time on or after the date of the certificate of designations for the Series QQ Preferred Stock, plus any accrued and unpaid dividends for the then-current dividend period to, but excluding, the redemption date, without accumulation of any undeclared dividends, to the date of liquidation. If the Company redeems the Series QQ Preferred Stock, the Company may redeem the Series QQ Preferred Stock at a price equal to \$25,000 per share, plus any accrued and unpaid dividends for the then-current dividend period to, but excluding, the redemption date. The holders of the Series QQ Preferred Stock do not have any optional redemption rights.

41

Preferential Rights. The Series RR Preferred Stock ranks senior to the Common Stock and equally with the Series B Preferred Preferred Stock, Series L Preferred Stock, Series U Preferred Stock, Series X Preferred Stock, Series Z Preferred Stock, Series AA Preferred Stock, Series GG Preferred Stock, Series HH Preferred Stock, Series JJ Preferred Stock, Series KK Preferred Stock, Series LL Preferred Stock, Series MM Preferred Stock, Series NN Preferred Stock, Series PP Preferred Stock, Series QQ Preferred Stock, Series SS Preferred Stock, Series TT Preferred Stock, Series 1 Preferred Stock, Series 2 Preferred Stock as to dividends and distributions on the Company's liquidation, dissolution, or winding up. Series RR Preferred Stock is not convertible into common stock. No new shares of preferred stock may be issued without the consent of the holders of the outstanding shares of each class of its capital stock. Holders of the Series RR Preferred Stock do not have any preemptive rights, and the Series RR Preferred Stock may issue stock with preferences equal to the Series RR Preferred Stock without the consent of the holders of the Series RR Preferred Stock.

42

42

As long as the Series RR Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least 66 2/3% of the Series RR Preferred Stock, voting as a class, shall be necessary to authorize, create or issue any capital stock ranking senior to the Series RR Preferred Stock, to amend or repeal any provision of the Charter or the Bylaws, to effect a merger or consolidation, to effect a winding-up, or to reclassify any authorized capital stock into any such shares of such capital stock or issue any obligation or security ranking senior to the Series RR Preferred Stock. In addition, so long as any shares of the Series RR Preferred Stock remain outstanding, the affirmative vote of the holders of at least 66 2/3% of the Series RR Preferred Stock, voting as a class, shall be necessary to amend or repeal any provision of the Charter or the Bylaws.

shall be necessary to amend, alter or repeal any provision of the certificate of designations for the Series RR Preferred Stock or the R preferences or special rights of the Series RR Preferred Stock.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series RF distribution to stockholders, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital rights of holders of securities ranking senior to or on a parity with the Series RR Preferred Stock upon liquidation and the rights of the amount of the liquidation preference of \$25,000 per share, plus any declared and unpaid dividends for the then-current dividend period liquidation.

Redemption. The Company may redeem the Series RR Preferred Stock, in whole or in part, at its option, at any time on or after

43

\$25,000 per share, plus any accrued and unpaid dividends for the then-current dividend period to, but excluding, the redemption date, within 90 days after a “capital treatment event,” as described in the certificate of designations for the Series RR Preferred Stock, the C part, at a redemption price equal to \$25,000 per share, plus any accrued and unpaid dividends for the then-current dividend period to, undeclared dividends. Holders of the Series RR Preferred Stock do not have any optional redemption rights.

Series SS Preferred Stock

Listing. Depositary shares representing fractional interests in a share of Series SS Preferred Stock are listed on the NYSE under

43

Preferential Rights. The Series SS Preferred Stock ranks senior to the Common Stock and equally with the Series B Preferred : Preferred Stock, Series L Preferred Stock, Series U Preferred Stock, Series X Preferred Stock, Series Z Preferred Stock, Series AA P Series GG Preferred Stock, Series HH Preferred Stock, Series JJ Preferred Stock, Series KK Preferred Stock, Series LL Preferred Stc Preferred Stock, Series QQ Preferred Stock, Series RR Preferred Stock, Series TT Preferred Stock, Series 1 Preferred Stock, Series : as to dividends and distributions on the Company's liquidation, dissolution, or winding up. Series SS Preferred Stock is not convertible class of its capital stock. Holders of the Series SS Preferred Stock do not have any preemptive rights, and the Series SS Preferred Stc issue stock with preferences equal to the Series SS Preferred Stock without the consent of the holders of the Series SS Preferred Stock

Dividends. Holders of the Series SS Preferred Stock are entitled to receive non-cumulative cash dividends, when, as, and if declared by the Board of Directors out of the assets and funds legally available for payment, at an annual dividend rate per share of 4.750% on the liquidation preference of \$25,000 per share of the Series SS Preferred Stock, payable on or before November 17, to record holders as of the first day of the calendar month in which the dividend payment date falls (or such other record date as may be determined by the Board of Directors not more than 60 days prior to the dividend payment date). The amount of dividends shall be computed on the basis of a 360-day year of the Series SS Preferred Stock (as defined in the certificate of designations for the Series SS Preferred Stock), then that dividend payment will be made on the next scheduled dividend payment date (or, if no dividend is declared in the calendar year in which case payment will occur on the immediately preceding business day), in each case without any additional dividend payment being made. If a dividend payment period will not be adjusted.

As long as shares of Series SS Preferred Stock remain outstanding, the Company cannot declare or pay cash dividends or distribute any shares of its Common Stock or other capital stock ranking junior to the Series SS Preferred Stock, or generally repurchase any shares of its Common Stock or other capital stock ranking equally with the Series SS Preferred Stock other than on a pro rata basis, in each case unless full dividends on all outstanding shares of Series SS Preferred Stock for the immediately preceding dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside. The Company cannot declare or pay cash dividends on its Common Stock or other capital stock ranking junior to the Series SS Preferred Stock for any period unless full dividends on all outstanding shares of Series SS Preferred Stock for the immediately preceding dividend period have been paid in full or declared and a sum sufficient for the payment thereof is set aside.

44

payment thereof is set aside. If the Company declares dividends on the Series SS Preferred Stock and on any capital stock ranking equally with those declared dividends, the Company will allocate the dividend payments on a pro rata basis among the holders of the shares of Series SS Preferred Stock.

Voting Rights. Holders of Series SS Preferred Stock do not have voting rights, except as described herein and as specifically required by the Series SS Preferred Stock or any other series of the Company's preferred stock ranking equally with the Series SS Preferred Stock as to payment of dividends. If dividends in this paragraph have been conferred and are exercisable, have not been declared and paid in an aggregate amount equal to, as to a dividend, whether or not for consecutive dividend

44

periods, the holders of the Series SS Preferred Stock will be entitled to vote as a class, together with the holders of all series of the Company's Preferred Stock, as to the election of two Preferred Stock Directors. When the Company has paid full dividends on the Series SS Preferred Stock and any other such series of the Company's Preferred Stock for two consecutive dividend periods following a dividend arrearage described above, these voting rights will terminate.

As long as the Series SS Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least 66 2/3% of the Series SS Preferred Stock, voting as a class, shall be necessary to authorize, create or issue any capital stock ranking senior to the Series SS Preferred Stock, or winding-up, or to reclassify any authorized capital stock into any such shares of such capital stock or issue any obligation or security interest in the Company's capital stock. In addition, so long as any shares of the Series SS Preferred Stock remain outstanding, the affirmative vote of the holders of at least 66 2/3% of the Series SS Preferred Stock shall be necessary to amend, alter or repeal any provision of the certificate of designations for the Series SS Preferred Stock or the Restated Certificate of Incorporation of the Company that relates to the preferences or special rights of the Series SS Preferred Stock.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series SS Preferred Stock shall be entitled to a distribution to stockholders, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital stock, of the amount of the liquidation preference of \$25,000 per share, plus any declared and unpaid dividends, without accumulation of any undistributed dividends.

Redemption. The Company may redeem the Series SS Preferred Stock, in whole or in part, at its option, at any time on or after January 1, 2025, plus any accrued and unpaid dividends for the then-current dividend period to, but excluding, the redemption date, without accumulation of any undistributed dividends. If, after a "capital treatment event," as described in the certificate of designations for the Series SS Preferred Stock, the Company may redeem the Series SS Preferred Stock at a price equal to \$25,000 per share, plus any accrued and unpaid dividends for the then-current dividend period to, but excluding, the redemption date. The holders of the Series SS Preferred Stock do not have any optional redemption rights.

45

Series TT Preferred Stock

Preferential Rights. The Series TT Preferred Stock ranks senior to the Common Stock and equally with the Series B Preferred Stock, Series L Preferred Stock, Series U Preferred Stock, Series X Preferred Stock, Series Z Preferred Stock, Series AA Preferred Stock, and Series PP Preferred Stock.

45

Dividends. Holders of Series TT Preferred Stock shall be entitled to receive non-cumulative cash dividends, when, as and if declared by the Board of Directors, out of the assets of the Company, to the extent of the funds legally available for payment, based on the liquidation preference of \$25,000 per share of Series TT Preferred Stock, payable quarterly on the first day of the calendar month following each dividend payment date (or such record date fixed by the Board of Directors in each case to record holders as of the first day of the calendar month in which the dividend payment date falls (or such record date fixed by the Board of Directors, in each case, not more than 60 days nor less than 10 days before the dividend payment date). Dividends on each share of Series TT Preferred Stock will accrue on a non-cumulative basis from the issue date to, but excluding, April 27, 2027, and (2) from, and including, April 27, 2027, to the Series TT Preferred Stock) at a rate per annum equal to the “Five-Year U.S. Treasury Rate” (as described in the certificate of designation for the Series TT Preferred Stock) (as defined in the certificate of designations for the Series TT Preferred Stock), plus a spread of 3.231% per annum, compounded annually, over the yield of the U.S. Treasury Rate for the year of twelve 30-day months. If any dividend payment date is not a business day (as defined in the certificate of designations for the Series TT Preferred Stock), then payment will be made on the next succeeding day that is a business day, unless that day falls in the next calendar year, in which case payment will occur on the immediately following business day. No dividend payment shall be made if the Company is not accruing or other payment adjustment and the relevant dividend period will not be adjusted.

46

46

As long as the Series TT Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least 66 2/3% stock, voting as a class, shall be necessary to authorize, create or issue any capital stock ranking senior to the Series TT Preferred Stock or winding-up, or to reclassify any authorized capital stock into any such shares of such capital stock or issue any obligation or security capital stock. In addition, so long as any shares of the Series TT Preferred Stock remain outstanding, the affirmative vote of the holder shall be necessary to amend, alter or repeal any provision of the certificate of designations for the Series TT Preferred Stock or the Re preferences or special rights of the Series TT Preferred Stock.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series TT distribution to stockholders, before any distribution or payment out of its assets may be made to or set aside for the holders of its capital rights of holders of securities ranking senior to or on a parity with the Series TT Preferred Stock upon liquidation and the rights of the C amount of the liquidation preference of \$25,000 per share, plus any declared and unpaid dividends for the then-current dividend period liquidation.

Redemption. The Company may redeem the Series TT Preferred Stock, in whole or in part, at its option, at any time on or after any accrued and unpaid dividends for the then-current dividend period to, but excluding, the redemption date, without accumulation of "capital treatment event," as described in the certificate of designations for the Series TT Preferred Stock, the Company may redeem t price equal to \$25,000 per share, plus any accrued and unpaid dividends for the then-current dividend period to, but excluding, the rec of the Series TT Preferred Stock do not have any optional redemption rights.

Series 1 Preferred Stock

Listing. Depositary shares representing fractional interests in a share of Series 1 Preferred Stock are listed on the NYSE under

Preferential Rights. The Series 1 Preferred Stock ranks senior to the Common Stock and equally with the Series B Preferred Stock Preferred Stock, Series L Preferred Stock, Series U Preferred Stock, Series X Preferred

47

Stock, Series Z Preferred Stock, Series AA Preferred Stock, Series DD Preferred Stock, Series FF Preferred Stock, Series GG Preferred Stock, Series LL Preferred Stock, Series MM Preferred Stock, Series NN Preferred Stock, Series PP Preferred Stock, Series TT Preferred Stock, Series 2 Preferred Stock, Series 4 Preferred Stock, and Series 5 Preferred Stock as to dividends and Shares of the Series 1 Preferred Stock are not convertible into or exchangeable for any shares of Common Stock or any other class of not have any preemptive rights, and the Series 1 Preferred Stock is not subject to the operation of any sinking fund. The Company may without the consent of the holders of the Series 1 Preferred Stock.

47

Dividends. Holders of the Series 1 Preferred Stock are entitled to receive non-cumulative cash dividends, when, as, and if declared legally available for payment, on the liquidation preference of \$30,000 per share at an annual floating rate per share equal to the greater spread of (a) 0.75% and (b) 3.00%, payable quarterly, if declared, on each February 28, May 28, August 28 and November 28, to record by committee that is a date not more than 30 nor less than 10 days preceding the applicable payment date. The amount of dividends payable the basis of a 360-day year of twelve 30-day months and the actual number of days elapsed in any period of less than one month. If a business day (each as defined in the certificate of designations for the Series 1 Preferred Stock), then that dividend payment will be made a London business day (unless that day falls in the next calendar month, in which each such case payment will occur on the immediately business day).

Voting Rights. Holders of Series 1 Preferred Stock do not have voting rights, except as provided herein and as specifically required by the Board of Directors. Holders of Series 1 Preferred Stock shall vote on all matters submitted to a vote of the holders of Common Stock, voting together with the holders of Common Stock as one class, and shall not be entitled to vote as a class, together with the holders of all series of preferred stock ranking equally with the Series 1 Preferred Stock, except as follows: (i) if the quarterly dividend payable on the Series 1 Preferred Stock is in arrears for six or more quarterly dividend periods, whether or not for cause, the holders of Series 1 Preferred Stock shall be entitled to vote as a class, together with the holders of all series of preferred stock ranking equally with the Series 1 Preferred Stock, on any matter relating to the payment of dividends; and (ii) if the Series 1 Preferred Stock is not being redeemed in accordance with the terms of the Series 1 Preferred Stock, the holders of Series 1 Preferred Stock shall be entitled to vote as a class, together with the holders of all series of preferred stock ranking equally with the Series 1 Preferred Stock, on any matter relating to the redemption of the Series 1 Preferred Stock.

Dividends. Holders of the Series 2 Preferred Stock are entitled to receive non-cumulative cash dividends, when, as, and if declared, out of the assets of the Company legally available for payment, on the liquidation preference of \$30,000 per share at an annual floating rate per share equal to the greater of (a) the spread of 0.65% and (b) 3.00%, payable quarterly in arrears, if declared, on each

49

February 28, May 28, August 28 and November 28, to record holders as of the date fixed by the Board or a duly authorized Board committee on the applicable payment date. The amount of dividends payable shall be computed on the basis of a 360-day year and the actual number of days between the New York business day and a London business day (each as defined in the certificate of designations for the Series 2 Preferred Stock) if the day is both a New York business day and a London business day (unless that day falls in the next calendar month, in which case the day shall be the New York business day and a London business day).

As long as shares of Series 2 Preferred Stock remain outstanding, generally the Company cannot declare or pay cash dividends on any shares of

49

shares of Common Stock or other capital stock ranking junior to the Series 2 Preferred Stock unless full dividends on all outstanding shares of Series 2 Preferred Stock have been paid for the immediately preceding dividend period. The Company cannot declare or pay dividends or distributions on or redeem, or otherwise acquire, Series 2 Preferred Stock for any period unless for such dividend period full dividends on all outstanding shares of Series 2 Preferred Stock for that period have been set aside for payment. When dividends are not paid in full upon the shares of the Series 2 Preferred Stock and any capital stock ranking equally with the shares of the Series 2 Preferred Stock and all shares of capital stock ranking equally with the Series 2 Preferred Stock shall be declared on the Series 2 Preferred Stock and all such other stock of the Company shall in all cases bear to each other the same ratio that accrued dividends on all other stock bear to each other.

Voting Rights. Holders of Series 2 Preferred Stock do not have voting rights, except as provided herein and as specifically required by the terms of all matters submitted to a vote of the holders of Common Stock, voting together with the holders of Common Stock as one class, and until the next quarterly dividend payable on the Series 2 Preferred Stock is in arrears for six or more quarterly dividend periods, whether or not for cause. If the Company is not entitled to vote as a class, together with the holders of all series of preferred stock ranking equally with the Series 2 Preferred Stock, then those granted to the holders of Series 2 Preferred Stock have been conferred and are exercisable, for the election of two Preferred Stock Directors and three votes for the election of such Preferred Stock Directors. When the Company has paid full dividends on the Series 2 Preferred Stock for the period in arrears described above, these voting rights will terminate.

As long as the Series 2 Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least two-thirds of the shares of Series 2 Preferred Stock (as a class with all other series of preferred stock ranking equally with the Series 2 Preferred Stock), shall be necessary to permit, effect or carry out the authorized or issued amount, of any class or series of stock ranking prior to the Series 2 Preferred Stock or (ii) the amendment, alteration or modification of the provisions of the Restated Certificate of Incorporation or of the resolutions set forth in a certificate of designations for the Series 2 Preferred Stock or the privilege or voting power of the Series 2 Preferred Stock, or of the holders thereof.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series 2 Preferred Stock shall be entitled to receive, in full, the liquidation preference of \$30,000 per share, plus any dividends not previously paid, before any distribution of assets to the holders of any other class of stock.

50

Redemption. The Company may redeem the Series 2 Preferred Stock, in whole or in part, at its option, at the redemption price without accumulation of any undeclared dividends. Holders of the Series 2 Preferred Stock do not have any optional redemption rights.

Series 4 Preferred Stock

[illegible]

As long as shares of Series 4 Preferred Stock remain outstanding, generally the Company cannot declare or pay cash dividend on Common Stock or other capital stock ranking junior to the Series 4 Preferred Stock unless full dividends on all outstanding shares of Series 4 Preferred Stock have been paid for the immediately preceding dividend period. The Company cannot declare or pay dividends or distributions on or redeem, purchase or otherwise acquire any shares of Common Stock or other capital stock ranking junior to the Series 4 Preferred Stock for any period unless for such dividend period full dividends on all outstanding shares of Series 4 Preferred Stock for the immediately preceding dividend period have been paid.

51

Voting Rights. Holders of Series 4 Preferred Stock do not have voting rights, except as provided herein and as specifically requ

51

As long as the Series 4 Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least two-thirds as a class with all other series of preferred stock ranking equally with the Series 4 Preferred Stock), shall be necessary to permit, effect the authorized or issued amount, of any class or series of stock ranking prior to the Series 4 Preferred Stock or (ii) the amendment, alter the provisions of the Restated Certificate of Incorporation or of the resolutions set forth in a certificate of designations for the Series 4 Preferred Stock, or the privilege or voting power of the Series 4 Preferred Stock, or of the holders thereof.

Redemption. The Company may redeem the Series 4 Preferred Stock, in whole or in part, at its option, at the redemption price without accumulation of any undeclared dividends. Holders of the Series 4 Preferred Stock do not have any optional redemption rights

Preferential Rights. The Series 5 Preferred Stock ranks senior to the Common Stock and equally with the Series B Preferred Stock, Series L Preferred Stock, Series U Preferred Stock, Series X Preferred Stock, Series Z Preferred Stock, Series AA P

[illegible]

Dividends. Holders of the Series 5 Preferred Stock are entitled to receive non-cumulative cash dividends, when, as, and if declared by the Board of Directors out of funds legally available for payment, on the liquidation preference of \$30,000 per share at an annual floating rate per share equal to the greater of (a) the prime rate plus 0.50% and (b) 4.00%, payable quarterly in arrears, if declared, on each February 21, May 21, August 21 and November 21, of each year.

Board committee that is a date not more than 30 nor less than 10 days preceding the applicable payment date. The amount of dividend shall be the actual number of days elapsed in the dividend period. If any dividend payment date is not a New York business day and a London business day (the "Dividend Payment Date"), then that dividend payment will be made on the next succeeding day that is both a New York business day and a London business day, which each such case payment will occur on the immediately preceding day that is both a New York business day and a London business day.

As long as shares of Series 5 Preferred Stock remain outstanding, the Company cannot declare or pay cash dividends or distributions on any other capital stock ranking junior to the Series 5 Preferred Stock unless full dividends on all outstanding shares of Series 5 Preferred Stock have been paid for the immediately preceding dividend period. The Company cannot declare or pay dividends or distributions on or redeem, purchase or acquire capital stock ranking junior to the Series 5 Preferred Stock for such dividend period full dividends on all outstanding shares of Series 5 Preferred Stock for the immediately preceding dividend period. If any dividend payment date is not a New York business day and a London business day (the "Dividend Payment Date"), then that dividend payment will be made on the next succeeding day that is both a New York business day and a London business day, which each such case payment will occur on the immediately preceding day that is both a New York business day and a London business day.

Voting Rights. Holders of Series 5 Preferred Stock do not have voting rights, except as provided herein and as specifically required by the Board of Directors. All matters submitted to a vote of the holders of Common Stock, voting together with the holders of Common Stock as one class, and all shares of capital stock ranking equally with the Series 5 Preferred Stock shall be declared pro rata so that the amount of dividend payable on the Series 5 Preferred Stock is in arrears for six or more quarterly dividend periods, whether or not for cause, shall be entitled to vote as a class, together with the holders of all series of preferred stock ranking equally with the Series 5 Preferred Stock, on those matters on which those granted to the holders of Series 5 Preferred Stock have been conferred and are exercisable, for

53

the election of two Preferred Stock Directors; each share of Series 5 Preferred Stock shall be entitled to three votes for the election of directors. If any dividend payment date is not a New York business day and a London business day (the "Dividend Payment Date"), then that dividend payment will be made on the next succeeding day that is both a New York business day and a London business day, which each such case payment will occur on the immediately preceding day that is both a New York business day and a London business day.

As long as the Series 5 Preferred Stock remains outstanding, the affirmative vote or consent of the holders of at least two-thirds of the Series 5 Preferred Stock (as a class with all other series of preferred stock ranking equally with the Series 5 Preferred Stock), shall be necessary to permit, effect or authorize the Company to increase the authorized or issued amount, of any class or series of

53

stock ranking prior to the Series 5 Preferred Stock or (ii) the amendment, alteration, or repeal, whether by merger, consolidation, or otherwise, of the resolutions set forth in a certificate of designations for the Series 5 Preferred Stock, which would adversely affect any right, privilege or preference of the holders thereof.

Distributions. In the event of the Company's voluntary or involuntary liquidation, dissolution, or winding up, holders of Series 5 Preferred Stock shall be entitled to a distribution to stockholders, before any distribution or payment out of its assets may be made to or set aside for the holders of the Common Stock, in the amount of the liquidation preference of \$30,000 per share, plus any declared and unpaid dividends, without accumulation of any undeclared dividends. Holders of the Series 5 Preferred Stock do not have any optional redemption rights.

Redemption. The Company may redeem the Series 5 Preferred Stock, in whole or in part, at its option, at the redemption price of \$30,000 per share, plus any declared and unpaid dividends, without accumulation of any undeclared dividends. Holders of the Series 5 Preferred Stock do not have any optional redemption rights.

54

DESCRIPTION OF DEPOSITARY SHARES

[illegible]

General

The Company has deposited the shares of preferred stock of each series of preferred stock represented by depositary shares into the Series 1 Preferred Stock, the Series 2 Preferred Stock, the Series 4 Preferred Stock and the Series 5 Preferred Stock (collectively, the “**Legacy Bank of America Preferred Stock**”), between the Company and each of Computershare Inc. and its wholly owned subsidiaries, and the holders from time to time of the depositary receipts issued thereunder and evidencing such depositary shares; and (b) in the case of the Series 3 Preferred Stock and Series 5 Preferred Stock (referred to collectively as the “**Legacy ML Preferred Stock**”), between the Company (as successor to JPMorgan Chase Bank, N.A. or The Bank of New York, N.A., as applicable), acting as depository, and the holders from time to time of the depositary receipts issued thereunder and evidencing such depositary shares, as amended pursuant to the assignment, assumption and amendment agreement among the Company and the holders of the Series 3 Preferred Stock and Series 5 Preferred Stock, the Series 3 Preferred Stock, May 29, 2013 (Series U Preferred Stock), September 5, 2014 (Series X Preferred Stock), October 23, 2014 (Series Z Preferred Stock), May 29, 2013 (Series U Preferred Stock), September 5, 2014 (Series X Preferred Stock), October 23, 2014 (Series Z Preferred Stock), January 24, 2021 (Series DD Preferred Stock), March 15, 2018 (Series FF Preferred Stock), June 20, 2019 (Series JJ Preferred Stock), January 24, 2021 (Series LL Preferred Stock) and April 22, 2022 (Series TT Preferred Stock) or its Registration Statements on Form 8-A filed with the SEC on January 2, 2020 (Series HH Preferred Stock), July 24, 2018 (Series HH Preferred Stock), June 25, 2019 (Series KK Preferred Stock), September 17, 2019 (Series LL Preferred Stock), January 24, 2021 (Series PP Preferred Stock), October 26, 2021 (Series QQ Preferred Stock), and January 31, 2022 (Series SS Preferred Stock).

With respect to each series of Legacy Bank of America Preferred Stock represented by depositary shares listed on the NYSE (the “**Listed Legacy Bank of America Depositary Shares**”), each depositary share represents a 1/1,000th interest in a share of the related series of preferred stock. With respect to each series of Legacy Bank of America Preferred Stock that is not listed on the NYSE (the “**Unlisted Legacy Bank of America Depositary Shares**”), each depositary share represents a 1/25th interest in a share of the related series of preferred stock. With respect to each series of Legacy ML Preferred Stock, each depositary share represents a 1/1,200th interest in a share of the related series of preferred stock. See the table below for more information regarding the Legacy Bank of America Preferred Stock and Legacy ML Preferred Stock depositary shares.

55

entitled, in proportion to the fractional interest of a share of the series of preferred stock represented by the depositary share, to all the including dividend, voting, redemption, conversion, and liquidation rights.

Withdrawal of Preferred Stock

Unless the depositary shares have been called for redemption, generally a holder of depositary shares may surrender his or her depositary shares and comply with any other terms as provided in the related deposit agreement, and in exchange be entitled to delivery of the number of shares underlying the depositary shares. However, generally holders of whole shares of the relevant series of preferred stock are not entitled to deposit those shares under the deposit agreement and receive depositary shares in exchange. If the depositary shares surrendered by the holder in connection with the withdrawal exceed the number of shares to be withdrawn, the depositary will deliver to the holder at the same time a new depositary receipt evidencing the excess number of shares.

Dividends and Other Distributions

Each dividend on a Listed Legacy Bank of America Depositary Share will be in an amount equal to 1/1,000th of the dividend declared on a share of the relevant underlying series of preferred stock. A dividend on an Unlisted Legacy Bank of America Depositary Share will be in an amount equal to 1/25th of the dividend declared on a share of the relevant underlying series of preferred stock. A dividend on a Legacy ML Depositary Share will be in an amount equal to 1/1,200th of the dividend declared on a share of the relevant underlying series of preferred stock. Dividends or other cash distributions received in respect of the relevant underlying series of preferred stock to the record holders of depositary shares owned by those holders. If there is a distribution other than in cash, the depository will distribute property received in respect of the relevant underlying series of preferred stock to the record holders of depositary shares owned by those holders. However, if the depository determines that it is not feasible to distribute the property, it may, with the Company's approval, sell that property and distribute the net proceeds to the holders of the depositary shares.

Generally, in the case of each series of Legacy Bank of America Preferred Stock, if the calculation of a dividend or other cash distribution is equal to or greater than \$0.005, the depository will round that amount up to the next highest whole cent and will request that the Company pay that amount in cash. If the fractional amount is less than \$0.005, the depository will disregard that fractional amount.

In the case of each series of Legacy ML Preferred Stock, the depository will not distribute any fraction of a cent and will instead round down to the next lowest whole cent and will request that the Company pay that amount in cash. The amount paid will be treated as part of the next sum received by the depository for distribution to the holders.

Record dates for the payment of dividends and other matters relating to depositary shares will be the same as the corresponding record dates for the relevant underlying series of preferred stock.

The amount paid as dividends or otherwise distributable by the depository with respect to depositary shares or the relevant underlying series of preferred stock may be withheld by the Company or the depository on account of taxes or other governmental charges.

56

governmental charges. The depository may refuse to make any payment or distribution, or to effect any transfer, exchange, or withdrawal of stock, until such taxes or other governmental charges are paid.

Redemption of Depositary Shares

If a series of preferred stock that relates to depositary shares is redeemed, the related depositary shares will be redeemed with respect to the relevant underlying series of preferred stock. Generally, the depository will mail notice of redemption at least 30 (5 in the case of Series 4 Preferred Stock and Series 5 Preferred Stock) and not more than 60 calendar days before the shares are redeemed at their addresses appearing in the depository's books (unless the depositary shares are held through DTC in which case, the depository will mail notice to the relevant clearing corporation). With respect to (i) the Listed Legacy Bank of America Depositary Shares, the redemption price per depositary share will be equal to 1/1,000th of the redemption price per share of the relevant underlying series of preferred stock, (ii) the Unlisted Legacy Bank of America Depositary Shares, the redemption price per depositary share will be equal to 1/25th of the redemption price per share of the relevant underlying series of preferred stock, and (iii) the Legacy ML Depositary Shares, the redemption price per depositary share will be equal to 1/1,200th of the redemption price per share of the relevant underlying series of preferred stock.

Whenever the Company redeems shares of a series of preferred stock held by the depository under a deposit agreement, the related depositary shares representing the shares of preferred stock that are redeemed. If less than all of the depositary shares are redeemed, the shares will be redeemed by lot or pro rata.

After the date fixed for redemption, the depositary shares called for redemption will no longer be deemed to be outstanding. At the time of redemption, the holders of the depositary shares will be entitled to receive upon surrender to the depository of the depositary receipts the cash or other property to which they are entitled.

Voting the Deposited Preferred Stock

Holders of depositary receipts are entitled to a fraction of a vote per depositary share (1/1,000th in the case of the Listed Legacy Bank of America Depositary Shares, and 1/1,200th in the case of the Legacy ML Depositary Shares) under those limited circumstances in which the holders of the relevant underlying series of preferred stock are entitled to a vote. When the depository receives notice of any meeting at which holders of a series of preferred stock held by the Company are entitled to vote, the depository will mail notice of the meeting to the record holders of the related depositary shares. Each record holder of depositary shares on the record date for the meeting will be entitled to instruct the depository as to the exercise of the voting rights pertaining to the amount of preferred stock underlying the depositary shares. The depository will, insofar as practicable, vote the amount of preferred stock underlying the depositary shares in accordance with these instructions. The depository will not vote any depositary shares for which it does not receive instructions from the record holder.

the depository to enable the depository to do so. The depository will not vote any shares of preferred stock except to the extent it receives that number of shares of the related preferred stock (provided that with respect to the Series E Preferred Stock, the depository will vote

57

represented by such depository shares proportionately with votes cast pursuant to instructions received from the other holders).

Amendment and Termination of a Deposit Agreement

The form of depository receipt evidencing depository shares and any provision of the related deposit agreement may be amended. An amendment that materially and adversely alters the rights of the existing holders of depository shares will not be effective unless the amendment is approved by a majority of the holders of depository shares (or, with respect to the Legacy ML Depository Shares, in the case of amendments relating to or affecting rights to receive dividends or shares then outstanding. Either the Company or the depository may terminate a deposit agreement if all of the outstanding depository shares represent less than two-thirds of the related preferred stock in connection with the Company's liquidation, dissolution, or winding up or, with respect to the Legacy ML Depository Shares, if all of the outstanding depository receipts representing not less than two-thirds of the depository shares then outstanding.

Charges of Depository

The Company will pay all transfer and other taxes, assessments and governmental charges arising solely from the existence of depository in connection with the initial deposit of the underlying series of preferred stock and any redemption of such preferred stock. The depository will pay all assessments and governmental charges and any other charges as are expressly provided in the related deposit agreement to be for the benefit of the holders of depository shares, or effect any transfer of a depository receipt or any withdrawals of preferred stock evidenced by, a depository receipt or preferred stock are paid by their holders.

Miscellaneous

The depository will forward to the record holders of depository shares all of the Company's reports and communications that are sent to the holders of its preferred stock or depository shares.

Neither the Company nor the depository will be liable if the Company is prevented or delayed by law or any circumstance beyond its control from performing its obligations as well as the depository's obligations under each deposit agreement are limited to performance of its respective obligations. Neither the Company nor the depository will be obligated to prosecute or defend any legal proceeding relating to any depository shares or preferred stock unless the depository, may rely on written advice of counsel or accountants, or information provided by persons presenting preferred stock for deposit. The depository will not be deemed to have acted in bad faith if it is competent and on documents believed to be genuine.

Resignation and Removal of Depository

The depository may resign at any time by delivering to the Company notice of its election to do so, and the Company may remove the depository only upon the appointment of a successor depository and the successor

58

depository's acceptance of the appointment. Any successor depository must be a U.S. bank or trust company.

59

DESCRIPTION OF FLOATING RATE PREFERRED HYBRID INCOME TERM SECURITIES OF BAC CAPITAL TRUST XIII (AT

This section describes the Floating Rate Preferred Hybrid Income Term Securities of BAC Capital Trust XIII (the “**Trust XIII HITS**”) and their listing on the NYSE under the symbol “BAC/PF”.

General

The Trust XIII HITS are a class of preferred beneficial interests in BAC Capital Trust XIII, a Delaware statutory trust (“**Trust XIII**”). The Trust XIII Declaration of Trust of BAC Capital Trust XIII (the “**Trust XIII Declaration of Trust**”) dated as of February 16, 2007 among the Company, as sponsor and as property trustee, BNY Mellon Trust of Delaware (formerly known as The Bank of New York (Delaware)), as Delaware trustee, the terms of the Trust XIII HITS include those stated in the Trust XIII Declaration of Trust, any amendments thereto, and those made a part of the Trust XIII Declaration of Trust (the “**Trust Indenture Act**”) and the Delaware Statutory Trust Act. The Trust XIII Declaration of Trust is included as an exhibit to the Company’s 2007. As of **December 31, 2022** **December 31, 2023**, 140,922 Trust XIII HITS (having an aggregate liquidation amount of approximately

The common securities of Trust XIII (“**Trust XIII Common Securities**”) are held directly or indirectly by the Company. The Trust XIII Declaration of Trust provides that liquidation or otherwise will be made on a proportionate basis, with the Trust XIII HITS, except as set forth below in “—Ranking of Trust XIII Securities.” The Trust XIII Declaration of Trust permit Trust XIII to issue any securities other than the Trust XIII Common Securities and the Trust XIII HITS or to incur any indebtedness.

The assets of Trust XIII consist of shares of the Company’s Floating Rate Non-Cumulative Preferred Stock, Series F (the “**Series F Preferred Stock**”) and Trust XIII Common Securities (together, the “**Trust XIII securities**”). Each Trust XIII HITS has a liquidation amount that corresponds to 1/100th of a share of Series F Preferred Stock. Because Trust XIII is a pass-through vehicle, Trust XIII will distribute to its holders its proportionate share of the distributions on the Series F Preferred Stock. For a description of the terms of the Series F Preferred Stock, see “Description of Preferred Stock – Series F Preferred Stock.”

Trust XIII’s business and affairs are conducted by its trustees, each appointed by the Company as sponsor of Trust XIII.

The Trust XIII HITS are issued in registered book-entry only form and are held in the name of The Depository Trust Company (“**DTCC**”).

Trust XIII must make distributions on the Trust XIII HITS on relevant distribution dates to the extent that it has funds available therefor. Distributions are made on September 15 and December 15 of each year. A distribution period is each period beginning on a distribution date and continuing to, but excluding, the next distribution date. If a distribution date is not a business day (as defined in the Trust XIII Declaration of Trust), Trust XIII will make the distribution on the next business day.

60

without interest. Distributions are calculated on the basis of a 360-day year and the number of days actually elapsed in a distribution period.

Holders of Trust XIII HITS will be entitled to receive distributions corresponding to dividends on the Series F Preferred Stock. Dividends on the Series F Preferred Stock are declared when declared by the Board (or a committee of the Board) on the quarterly dividend payment dates, which are each March 15, June 15, September 15 and December 15 (or the next business day). For additional information about dividends on the Series F Preferred Stock, see “Description of Preferred Stock – Series F Preferred Stock.”

Trust XIII will make distributions on the Trust XIII HITS only to the extent it has received dividends on the Series F Preferred Stock.

Distributions on the Trust XIII HITS will be payable to the holders as they appear in the security register of Trust XIII on the relevant distribution date. Distributions will be made on or before the 15th day of the month preceding the month in which the relevant distribution date falls.

Mandatory Redemption of Trust XIII HITS upon Redemption of Series F Preferred Stock

The Trust XIII HITS have no stated maturity but must be redeemed on the date the Company redeems the Series F Preferred Stock. Such repayment or redemption to redeem a like amount, as defined below, of the Trust XIII HITS. The Series F Preferred Stock is payable at the redemption price per Trust XIII HITS will equal the liquidation amount per Trust XIII HITS plus accumulated and unpaid distributions to

If less than all of the shares of Series F Preferred Stock held by Trust XIII are to be redeemed on a redemption date, then the portion of the Trust XIII HITS and the Trust XIII Common Securities, except as set forth below under “— Ranking of Trust XIII Common Securities

The term “*like amount*” as used above means Trust XIII HITS having a liquidation amount equal to that portion of the liquidation amount redeemed, the proceeds of which will be used to pay the redemption price of such Trust XIII HITS.

Redemption Procedures. Notice of any redemption will be mailed at least 15 days but not more than 60 days before the redemption is redeemed.

If (1) Trust XIII gives an irrevocable notice of redemption of Trust XIII HITS for cash and (2) the Company has paid to the proper party the redemption of the Series F Preferred Stock, then on the redemption date, the property trustee will irrevocably deposit with DTC funds sufficient to redeem the Trust XIII HITS. Trust XIII will also give DTC irrevocable instructions and authority to pay the redemption amount in immediately available funds on or before the redemption date for any Trust XIII HITS called for redemption will be payable to the holders as of the record dates for which there are no longer in book-entry form, the property trustee, to the extent funds are available, will irrevocably deposit with the paying agent funds and will give such paying agent irrevocable instructions and authority to pay the

61

redemption price to the holders thereof upon surrender of their certificates evidencing the Trust XIII HITS.

If notice of redemption shall have been given and funds deposited as required, then upon the date of such deposit:

- all rights of the holders of such Trust XIII HITS called for redemption will cease, except the right of the holders of such Trust XIII HITS to receive the redemption price of the Trust XIII HITS on or prior to the redemption date, but without interest on such redemption price; and
- the Trust XIII HITS called for redemption will cease to be outstanding.

If any redemption date is not a business day, then the redemption amount will be payable on the next business day (and without interest on the redemption amount) or, if payment on the next business day causes payment of the redemption amount to be in the next calendar month, then payment will be made on the next business day.

If payment of the redemption amount for any shares of Series F Preferred Stock called for redemption is improperly withheld or not paid either by Trust XIII or by the Company under the Trust XIII Guarantee (as defined below), then dividends on the Series F Preferred Stock called for redemption will continue to accumulate at the applicable rate then borne by such Trust XIII HITS from the original redemption date. The date of payment will be considered the redemption date for purposes of calculating the redemption amount.

If less than all of the outstanding shares of Series F Preferred Stock are to be redeemed on a redemption date, then the aggregate amount to be redeemed shall be allocated *pro rata* to the Trust XIII HITS and Trust XIII Common Securities based upon the relative liquidation amounts of the Trust XIII HITS and Trust XIII Common Securities. The property trustee will select the particular Trust XIII HITS to be redeemed on a *pro rata* basis not more than the amount of Trust XIII HITS not previously called for redemption by any method the property trustee deems fair and appropriate, or, if the Trust XIII HITS are not to be redeemed, the property trustee shall promptly notify the transfer agent in writing of the Trust XIII HITS selected for redemption and, in the case of any shares not to be redeemed.

For all purposes of the Trust XIII Declaration of Trust, unless the context otherwise requires, all provisions relating to the redemption of the Series F Preferred Stock shall apply to the redemption of the Trust XIII HITS, whether the Trust XIII HITS are to be redeemed or to be redeemed only in part, to the portion of the aggregate liquidation amount of Trust XIII HITS that has been or is to be redeemed. Trust XIII HITS held through the facilities of DTC will be redeemed *pro rata* in accordance with DTC's internal procedures.

The holders of the Trust XIII HITS do not have any optional redemption rights.

Company Guarantee of Trust XIII HITS

The Company has irrevocably guaranteed (the “**Trust XIII Guarantee**”), on a junior subordinated basis, the payment in full of any amount due on the Trust XIII HITS and the redemption price for any Trust XIII HITS called for

62

redemption, in each case to the extent Trust XIII has funds available to make the payment, as well as upon a voluntary or involuntary liquidation of the Company (with a distribution of corresponding assets to the holders of the Trust XIII HITS), the lesser of (i) the aggregate of the liquidation amount due on the Trust XIII HITS as of the date of payment to the extent Trust XIII has funds available to make the payment, and (ii) the amount of assets of Trust XIII remaining after the payment to the holders of the Trust XIII HITS. The Trust XIII Guarantee is a guarantee of payment and not of collection.

The Trust XIII Guarantee may be amended only with the prior approval of the holders of not less than a majority in aggregate liquidation amount of the Trust XIII HITS; however, for any changes that do not adversely affect the rights of the holders of the Trust XIII HITS in any material respect.

The Company's obligations under the Trust XIII Guarantee are unsecured, are subordinated to and junior in right of payment to and rank on a parity with all other similar guarantees issued by the Company.

The Trust XIII HITS and the Trust XIII Guarantee do not limit the Company's ability or the ability of its subsidiaries to incur additional debt or other obligations in addition to the Trust XIII Guarantee.

The Trust XIII Guarantee, when taken together with the Company's obligations under the Trust XIII Declaration of Trust, including the Company's obligations under the Trust XIII Declaration of Trust, including other than liabilities with respect to the Trust XIII securities, has the effect of providing a full and unconditional guarantee on an unsecured basis of the payment in full of any amount due on the Trust XIII HITS.

The HITS Guarantee Agreement dated as of February 16, 2007 between the Company, as guarantor, and The Bank of New York Mellon, as trustee, related to the Trust XIII HITS, is included as an exhibit to the Company's Current Report on Form 8-K filed with the SEC on February 16, 2007.

Liquidation Distribution upon Dissolution

The Company can at any time dissolve and liquidate Trust XIII. Pursuant to the Trust XIII Declaration of Trust, Trust XIII shall distribute the assets of Trust XIII to the holders of the Trust XIII HITS in the following order:

- upon the Company's bankruptcy, dissolution or liquidation;
- upon the filing of a certificate of dissolution or its equivalent with respect to the Company;
- upon the consent of the holders of at least a majority in aggregate liquidation amount of Trust XIII securities voting together as a class;
- upon the revocation of the Company's charter and the expiration of 90 days after the date of revocation without a reinstatement;
- at the Company's election at any time pursuant to which Trust XIII has been dissolved in accordance with the terms of the Trust XIII Declaration of Trust corresponding to its securities to the holders of Trust XIII securities;

63

- upon the entry of a decree of judicial dissolution of the holder of the Trust XIII Common Securities, the Company or Trust XIII; or
- upon the redemption of all of the Trust XIII HITS.

Except as set forth in the next paragraph, if an early dissolution occurs as a result of certain events of the Company's bankruptcy, the entry of an order for the dissolution of Trust XIII by a court of competent jurisdiction, the property trustee and the regular trustees will be distributing, after satisfaction of liabilities to creditors of Trust XIII as provided by applicable law, to each holder of Trust XIII HITS a like amount. Trust XIII shall give notice of liquidation to each holder of Trust XIII HITS at least 15 days and not more than 60 days before the date of liquidation.

If, whether because of an order for dissolution entered by a court of competent jurisdiction or otherwise, the property trustee determines that the distribution provided above is not practical, or if the early dissolution occurs as a result of the redemption of all the Trust XIII HITS, the property trustee will wind up its affairs in such manner as they determine. In that case, upon the winding-up of Trust XIII, except with respect to an early dissolution, the holders of the Trust XIII securities will be entitled to receive out of the assets of Trust XIII available for distribution to holders and as provided by applicable law, an amount equal to the liquidation amount per Trust XIII security plus accumulated and unpaid distributions to the date of liquidation available to pay in full such aggregate liquidation distribution, then the amounts payable directly by Trust XIII on the Trust XIII securities will be the Ranking of Trust XIII Common Securities."

The term "*like amount*" as used above means, with respect to a distribution of Series F Preferred Stock to holders of Trust XIII HITS, the amount of Series F Preferred Stock having a liquidation preference equal to the liquidation amount of the Trust XIII securities of the holder to whom the distribution is made.

Distribution of Trust Assets

Upon liquidation of Trust XIII other than as a result of an early dissolution upon the redemption of all the Trust XIII HITS and after the expiration of the applicable law, the assets of Trust XIII will be distributed to the holders of the Trust XIII securities in exchange therefor.

After the liquidation date fixed for any distribution of assets of Trust XIII:

- the Trust XIII HITS will no longer be deemed to be outstanding;
- if the assets to be distributed are shares of Series F Preferred Stock, DTC or its nominee, as the record holder of the Trust XIII HITS, will deliver to the holders of the shares of Series F Preferred Stock to be delivered upon such distribution;
- any certificates representing the Trust XIII HITS not held by DTC or its nominee or surrendered to the exchange agent will be deemed to be cancelled.

64

Preferred Stock having a liquidation preference equal to the Trust XIII HITS until such certificates are so surrendered for transfer.

- all rights of the holders of the Trust XIII HITS will cease, except the right to receive Series F Preferred Stock upon such surrender.

As each Trust XIII HITS corresponds to 1/100th of a share of Series F Preferred Stock, holders of Trust XIII HITS may receive dividends representing the Series F Preferred Stock upon this distribution. Since holders of the Series F Preferred Stock are not entitled to vote in the election of directors for six quarterly dividend periods, the Series F Preferred Stock (or depositary shares representing the Series F Preferred Stock) will not have any voting rights.

Ranking of Trust XIII Common Securities

If on any distribution date Trust XIII does not have funds available from payments of dividends on the Series F Preferred Stock and Trust XIII Common Securities, then, if the deficiency in funds results from the Company's failure to pay a full dividend on shares of Series F Preferred Stock, the Series F Preferred Stock will be applied first to make distributions then due on the Trust XIII HITS on a pro rata basis on such distribution date.

dividends on the Series F Preferred Stock (or, if less, the amount of the corresponding distributions that would have been made on the Preferred Stock) before any such amount is applied to make a distribution on Trust XIII Common Securities on such distribution date.

If, on any date where Trust XIII HITS and Trust XIII Common Securities must be redeemed because the Company is redeeming the Company's redemption of shares of Series F Preferred Stock to pay the full redemption price then due on all of the outstanding Trust XIII HITS, the available funds shall be applied first to pay the redemption price on the Trust XIII HITS to be redeemed on such redemption date and only the funds are available for such purpose after the payment of the full redemption price on the Trust XIII HITS to be redeemed.

If an early dissolution event occurs in respect of Trust XIII, no liquidation distributions will be made on the Trust XIII Common Securities or Trust XIII HITS.

In the case of any event of default under the Trust XIII Declaration of Trust resulting from the Company's failure to comply in any material respect with its obligations as issuer of the Series F Preferred Stock, including obligations set forth in the Company's Restated Certificate of Incorporation, of or arising under applicable law, the Company shall be deemed to have waived any right to act with respect to any such event of default under the Trust XIII Declaration of Trust until the event is cured, waived or otherwise eliminated. Until all events of default under the Trust XIII Declaration of Trust have been so cured, waived or otherwise eliminated, the holders of the Trust XIII HITS and not on the Company's behalf, and only the holders of the Trust XIII HITS will have the right to direct the Company.

65

Events of Default; Notice

Any one of the following events constitutes an event of default under the Trust XIII Declaration of Trust (a "**Trust XIII Event of Default**") which shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any other competent authority:

- the Company's failure to comply in any material respect with its obligations as issuer of the Series F Preferred Stock, under the Trust XIII Declaration of Trust;
- the default by Trust XIII in the payment of any distribution on any trust security of Trust XIII when such becomes due and payable;
- the default by Trust XIII in the payment of any redemption price of any trust security of Trust XIII when such becomes due and payable;
- the failure to perform or the breach, in any material respect, of any other covenant or warranty of the trustees in the Trust XIII Declaration of Trust 30 days after the Company and the trustees have received written notice of the failure to perform or breach in the manner specified in the Trust XIII Declaration of Trust;
- the occurrence of certain events of bankruptcy or insolvency with respect to the property trustee and the Company's failure to pay the full redemption price of the Trust XIII HITS.

Within 30 days after any Trust XIII Event of Default actually known to the property trustee occurs, the property trustee will transmit a certificate to the holders of the Trust XIII Common Securities and to the regular trustees, unless such Trust XIII Event of Default shall have been cured or waived. The certificate shall state, with the property trustee a certificate as to whether or not the Company or the regular are in compliance with all the conditions and covenants of the Trust XIII Declaration of Trust.

Removal of Trustees

The property trustee and/or the Delaware trustee may be removed at any time by the holder of the Trust XIII Common Securities or the holders of a majority in liquidation amount of the outstanding Trust XIII HITS for cause. In no event will the holders of the Trust XIII HITS have any voting rights which voting rights are vested exclusively in the Company, as the holder of the Trust XIII Common Securities. No resignation or removal of a trustee shall be effective until the acceptance of appointment by the successor trustee in accordance with the provisions of the Trust XIII Declaration of Trust.

Co-Trustees and Separate Property Trustee

At any time or from time to time, for the purpose of meeting the legal requirements of the Trust Indenture Act or of any jurisdiction, the Company, as the holder of the Trust XIII Common Securities, and the

66

Mergers, Consolidations, Amalgamations or Replacements of Trust XIII

- the successor entity, if not Trust XIII, either:
 - expressly assumes all of the obligations of Trust XIII with respect to the Trust XIII securities, or
 - substitutes for the Trust XIII securities other securities having substantially the same terms as the Trust XIII securities in priority with respect to distributions and payments upon liquidation, redemption, and otherwise;
- the Trust XIII HITS or any successor securities are listed, or any successor securities will be listed upon notification of issuing organization, if any, on which the Trust XIII HITS are then listed or quoted;
- the merger, consolidation, amalgamation, or replacement does not cause the Trust XIII HITS, including any successor securities, to be listed on any other organization;
- the merger, consolidation, amalgamation, or replacement does not adversely affect the rights, preferences, and privileges of the holders of the Trust XIII securities in any material respect, other than in connection with any dilution of the holders' interest in the new entity;
- the successor entity has a purpose identical to that of Trust XIII;
- prior to the merger, consolidation, amalgamation, or replacement, the Company has received an opinion of counsel to Trust XIII that:
 - the merger, consolidation, amalgamation, or replacement does not adversely affect the rights, preferences, and privileges of the holders of the Trust XIII securities, in any material respect, other than in connection with any dilution of the holders' interest in the new entity;
 - following the merger, consolidation, amalgamation, or replacement, neither Trust XIII nor the successor entity will be required to register securities under the Securities Act;

than a grantor trust for U.S. federal income tax purposes.

Voting Rights; Amendment of the Trust XIII Declaration of Trust

Except as provided herein and under “—Company Guarantee of Trust XIII HITS” above and as otherwise required by law and the terms of the Trust XIII Declaration of Trust, the Company shall have no voting rights or control over the administration, operation or management of Trust XIII or the obligations of the parties to the Trust XIII Declaration of Trust beneficially owned by Trust XIII. Under the Trust XIII Declaration of Trust, however, the property trustee will be required to obtain their

Trust XIII Declaration of Trust. The Company and the regular trustees may amend the Trust XIII Declaration of Trust without the approval of the Delaware trustee, unless in the case of the first two bullets below such amendment will materially and adversely affect the interests of the Delaware trustee, to:

- cure any ambiguity, correct or supplement any provisions in the Trust XIII Declaration of Trust that may be inconsistent with the terms of the Trust XIII Declaration of Trust or questions arising under such Trust XIII Declaration of Trust, which may not be inconsistent with the other provisions of the Trust XIII Declaration of Trust;
- modify, eliminate or add to any provisions of the Trust XIII Declaration of Trust to such extent as shall be necessary to ensure that one or more grantor trusts and/or agency arrangements and not as an association or a publicly traded partnership taxable as a partnership to ensure that Trust XIII will not be required to register as an “investment company” under the Investment Company Act of 1940, as amended, or under prevailing Federal Reserve rules and regulations;
- provide that certificates for Trust XIII HITS may be executed by a regular trustee by facsimile signature instead of manual signature and by appointment by the Company of an authentication agent and certain related provisions;

68

- require that holders that are not U.S. persons for U.S. federal income tax purposes irrevocably appoint a U.S. person to execute the Trust XIII Declaration of Trust for U.S. federal income tax purposes; or
- conform the terms of the Trust XIII Declaration of Trust to the description of the Trust XIII Declaration of Trust, the Trust XIII Declaration of Trust relating to the initial offering of the Trust XIII HITS, in the manner provided in the Trust XIII Declaration of Trust.

Any such amendment shall become effective when notice thereof is given to the property trustee, the Delaware Trustee and the holders of Trust XIII HITS.

The Company and the regular trustees may generally amend the Trust XIII Declaration of Trust with:

- the consent of holders representing not less than a majority, based upon liquidation amounts, of each outstanding class of Trust XIII HITS;
- receipt by the trustees of Trust XIII of an opinion of counsel to the effect that such amendment or the exercise of any power with such amendment will not affect Trust XIII's status as one or more grantor trusts and/or agency arrangements for U.S. federal income tax purposes as an “investment company” under the Investment Company Act.

However, without the consent of each affected holder of Trust securities, the Trust XIII Declaration of Trust may not be amended to:

- change the amount or timing, or otherwise adversely affect the amount, of any distribution required to be made in respect of Trust XIII HITS;
- restrict the right of a holder of Trust XIII securities to institute a suit for the enforcement of any such payment on or after such date.

Series F Preferred Stock. So long as the Series F Preferred Stock is held by the property trustee on behalf of Trust XIII, the trust shall not be amended to cause Trust XIII to be taxable as a corporation or classified as a partnership for U.S. federal income tax purposes without obtaining the prior approval of the holders of at least a majority in liquidation amount of the Trust XIII HITS the amendment to Trust XIII's or the Company's governing documents that would change the dates on which dividends are payable or the terms of the Trust XIII HITS. In addition to obtaining the foregoing approvals from holders, the trustees of Trust XIII shall obtain, at the Company's request, the approval of the Delaware trustee to cause Trust XIII to be taxable as a corporation or classified as a partnership for U.S. federal income tax purposes.

General. Any required approval of holders of Trust XIII HITS may be given at a meeting of holders of such class of Trust XIII HITS. If the property trustee will cause a notice of any meeting at which holders of Trust XIII HITS are entitled to vote, or of any matter upon which action by a holder of such Trust XIII HITS in the manner set forth in the Trust XIII Declaration of Trust.

69

No vote or consent of the holders of Trust XIII HITS will be required for Trust XIII to redeem and cancel the Trust XIII HITS in accordance with the terms of the Trust XIII Declaration of Trust.

Notwithstanding that holders of the Trust XIII HITS are entitled to vote or consent under any of the circumstances described above, the holders of the Trust XIII HITS, their affiliates or the trustees or any of their affiliates shall, for purposes of such vote or consent, be treated as if they were not outstanding.

Payment and Paying Agent

Payments on the Trust XIII HITS shall be made to DTC by the paying agent, which shall credit the relevant accounts on the applicable payment system. The paying agent shall make such payments by check mailed to the address of the holder as such address shall appear on the register.

The "paying agent" is The Bank of New York Mellon Trust Company, N.A. (formerly known as The Bank of New York Trust Company, N.A.) or any other entity acceptable to the Company and to the regular trustees. The paying agent shall be permitted to resign as paying agent upon 30 days written notice. If at any time that The Bank of New York Mellon Trust Company, N.A. shall no longer be the paying agent, the property trustee will appoint a successor paying agent acceptable to the regular trustees and to the Company.

Registrar and Transfer Agent

The Bank of New York Mellon Trust Company, N.A. acts as registrar and transfer agent for the Trust XIII HITS.

Registration of transfers of Trust XIII HITS will be effected without charge by or on behalf of Trust XIII but after payment of any taxes or other governmental charges. Neither Trust XIII nor the transfer agent shall be required to register the transfer of or exchange any trust security until the day of selection for redemption of Trust XIII securities and ending at the close of business on the day of mailing of notice of redemption. Redemption in whole or in part, except, in the case of any trust security to be redeemed in part, any portion thereof not to be redeemed.

Any Trust XIII HITS can be exchanged for other Trust XIII HITS so long as such other Trust XIII HITS are denominated in the same terms as the Trust XIII HITS that were surrendered for exchange. The Trust XIII HITS may be presented for registration of transfer, at the office or agency maintained by the Company for that purpose in a place of payment. There will be no service charge for the exchange. The Company may require holders to pay any tax or other governmental charge payable in connection with a transfer or exchange of the Trust XIII HITS. The Company may approve a change in the location of any office or agency, in addition to the security registrar, designated by the Company where holders may present Trust XIII HITS for exchange. However, Trust XIII will be required to maintain an office or agency in each place of payment for the Trust XIII HITS.

70

Information Concerning the Property Trustee

The Company and certain of its affiliates have from time to time maintained deposit accounts and conducted other banking transactions in the ordinary course of business. The Company expects to continue those business transactions. The property trustee or its affiliates also serve as agents for the Company under other indentures.

General

The Trust XIV HITS are a class of preferred beneficial interests in BAC Capital Trust XIV, a Delaware statutory trust (“**Trust XIV**” or “**Trust**” of BAC Capital Trust XIV (the “**Trust XIV Declaration of Trust**”) dated as of February 16, 2007 among the Company, as sponsor and as property trustee, BNY Mellon Trust of Delaware (formerly known as The Bank of New York (Delaware)), as Delaware Trustee, the terms of the Trust XIV HITS include those stated in the Trust XIV Declaration of Trust, any amendments thereto, and those made in accordance with the Delaware Statutory Trust Act. The Trust XIV Declaration of Trust is included as an exhibit to the Company’s Current Report on Form 8-K filed on **2022 December 31, 2023**, 492,537 Trust XIV HITS (having an aggregate liquidation amount of approximately \$492.5 million) were outstanding.

The common securities of Trust XIV (“**Trust XIV Common Securities**”) are held directly or indirectly by the Company. The Trust XIV HITS will be made on a proportionate basis, with the Trust XIV HITS, except as set forth below in “—Ranking of Trust XIV HITS.” The Trust XIV HITS permit Trust XIV to issue any securities other than the Trust XIV Common Securities and the Trust XIV HITS or to incur any indebtedness.

The assets of Trust XIV consist of shares of the Company’s Adjustable Rate Non-Cumulative Preferred Stock, Series G (the “**Series G**”) and the holders of its Trust XIV HITS and Trust XIV Common Securities (together, the “**Trust XIV securities**”). Each Trust XIV HITS has a liquidation preference that corresponds to 1/100th of a share of Series G Preferred Stock. Because Trust XIV is a pass-through vehicle, Trust XIV will distribute the assets of Trust XIV as Series G Preferred Stock. For a description of the terms of the Series G Preferred Stock, see “Description of Preferred Stock – Series G Preferred Stock.”

Trust XIV’s business and affairs are conducted by its trustees, each appointed by the Company as sponsor of Trust XIV.

The Trust XIV HITS are issued in registered book-entry only form and are held in the name of DTC or its nominee.

Distributions

Trust XIV must make distributions on the Trust XIV HITS on relevant distribution dates to the extent that it has funds available therefor. Distributions will be made on September 15 and December 15 of each year. A distribution period is each period beginning on a distribution date and continuing to, but not including, the next distribution date, unless such date is not a business day (as defined in the

73

Trust XIV Declaration of Trust), Trust XIV will make the distribution on the next business day

73

without interest. Distributions are calculated on the basis of a 360-day year and the number of days actually elapsed in a distribution period.

Holders of Trust XIV HITS will be entitled to receive distributions corresponding to dividends on the Series G Preferred Stock. Trust XIV will make distributions when declared by the Board (or a committee of the Board) on the quarterly dividend payment dates, which are each March 15, June 15, September 15, and December 15, or the next business day). For additional information about dividends on the Series G Preferred Stock, see “Description of Preferred Stock – Series G Preferred Stock.”

Trust XIV will make distributions on the Trust XIV HITS only to the extent it has received dividends on the Series G Preferred Stock.

Distributions on the Trust XIV HITS will be payable to the holders as they appear in the security register of Trust XIV on the relevant distribution date. Distributions will be made on the relevant distribution date, unless such date is not a business day (as defined in the Trust XIV Declaration of Trust), in which case the distribution will be made on the next business day.

Mandatory Redemption of Trust XIV HITS upon Redemption of Series G Preferred Stock

The Trust XIV HITS have no stated maturity but must be redeemed on the date the Company redeems the Series G Preferred Stock. Such repayment or redemption to redeem a like amount, as defined below, of the Trust XIV HITS. The Series G Preferred Stock is per redemption price per Trust XIV HITS will equal the liquidation amount per Trust XIV HITS plus accumulated and unpaid distributions to

If less than all of the shares of Series G Preferred Stock held by Trust XIV are to be redeemed on a redemption date, then the portion of the Trust XIV HITS and the Trust XIV Common Securities, except as set forth below under “— Ranking of Trust XIV Common Securities

The term “*like amount*” as used above means Trust XIV HITS having a liquidation amount equal to that portion of the liquidation amount redeemed, the proceeds of which will be used to pay the redemption price of such Trust XIV HITS.

Redemption Procedures. Notice of any redemption will be mailed at least 15 days but not more than 60 days before the redemption is redeemed.

If (1) Trust XIV gives an irrevocable notice of redemption of Trust XIV HITS for cash and (2) the Company has paid to the property trustee the redemption of the Series G Preferred Stock, then on the redemption date, the property trustee will irrevocably deposit with DTC funds the redemption amount. Trust XIV will also give DTC irrevocable instructions and authority to pay the redemption amount in immediately available form on or before the redemption date for any Trust XIV HITS called for redemption will be payable to the holders as of the record dates for which they are no longer in book-entry form, the property trustee, to the extent funds are available, will irrevocably deposit with the paying agent for

74

price and will give such paying agent irrevocable instructions and authority to pay the

74

redemption price to the holders thereof upon surrender of their certificates evidencing the Trust XIV HITS.

If notice of redemption shall have been given and funds deposited as required, then upon the date of such deposit:

- all rights of the holders of such Trust XIV HITS called for redemption will cease, except the right of the holders of such Trust XIV HITS to receive interest on such redemption price in respect of the Trust XIV HITS on or prior to the redemption date, but without interest on such redemption price; and
- the Trust XIV HITS called for redemption will cease to be outstanding.

If any redemption date is not a business day, then the redemption amount will be payable on the next business day (and without payment on the next business day causes payment of the redemption amount to be in the next calendar month, then payment will be made

If payment of the redemption amount for any shares of Series G Preferred Stock called for redemption is improperly withheld or not paid either by Trust XIV or by the Company under the Trust XIV Guarantee (as defined below), then dividends on the Series G Preferred Stock called for redemption will continue to accumulate at the applicable rate then borne by such Trust XIV HITS from the original redemption date. The actual payment date will be considered the redemption date for purposes of calculating the redemption amount.

If less than all of the outstanding shares of Series G Preferred Stock are to be redeemed on a redemption date, then the aggregate Securities to be redeemed shall be allocated *pro rata* to the Trust XIV HITS and Trust XIV Common Securities based upon the relative Ranking of Trust XIV Common Securities." The property trustee will select the particular Trust XIV HITS to be redeemed on a *pro rata* outstanding Trust XIV HITS not previously called for redemption by any method the property trustee deems fair and appropriate, or, if the procedures of DTC. The property trustee shall promptly notify the Transfer Agent in writing of the Trust XIV HITS selected for redemption the liquidation amount to be redeemed.

For all purposes of the Trust XIV Declaration of Trust, unless the context otherwise requires, all provisions relating to the redemption redeemed or to be redeemed only in part, to the portion of the aggregate liquidation amount of Trust XIV HITS that has been or is to be Trust XIV HITS held through the facilities of DTC will be redeemed *pro rata* in accordance with DTC's internal procedures.

The holders of the Trust XIV HITS do not have any optional redemption rights.

Company Guarantee of Trust XIV HITS

The Company has irrevocably guaranteed (the "**Trust XIV Guarantee**"), on a junior subordinated basis, the payment in full of any and

75

the paid on the Trust XIV HITS and the redemption price for any Trust XIV HITS called for

75

redemption, in each case to the extent Trust XIV has funds available to make the payment, as well as upon a voluntary or involuntary liquidation with a distribution of corresponding assets to the holders of the Trust XIV HITS), the lesser of (i) the aggregate of the liquidation amount the date of payment to the extent Trust XIV has funds available to make the payment, and (ii) the amount of assets of Trust XIV remaining of Trust XIV. The Trust XIV Guarantee is a guarantee of payment and not of collection.

The Trust XIV Guarantee may be amended only with the prior approval of the holders of not less than a majority in aggregate liquidation; however, for any changes that do not adversely affect the rights of the holders of the Trust XIV HITS in any material respect.

The Company's obligations under the Trust XIV Guarantee are unsecured, are subordinated to and junior in right of payment to and rank on a parity with all other similar guarantees issued by the Company.

The Trust XIV HITS and the Trust XIV Guarantee do not limit the Company's ability or the ability of its subsidiaries to incur additional debt with the Trust XIV Guarantee.

The Trust XIV Guarantee, when taken together with the Company's obligations under the Trust XIV Declaration of Trust, including other than liabilities with respect to the Trust XIV securities, has the effect of providing a full and unconditional guarantee on an unsecured basis.

The HITS Guarantee Agreement dated as of February 16, 2007 between the Company, as guarantor, and The Bank of New York related to the Trust XIV HITS, is included as an exhibit to the Company's Current Report on Form 8-K filed with the SEC on February 16, 2007.

Liquidation Distribution upon Dissolution

The Company can at any time dissolve and liquidate Trust XIV. Pursuant to the Trust XIV Declaration of Trust, Trust XIV shall d

- upon the Company's bankruptcy, dissolution or winding up;
- upon the filing of a certificate of dissolution or its equivalent with respect to the Company;
- upon the consent of the holders of at least a majority in aggregate liquidation amount of Trust XIV securities voting together as ;
- upon the revocation of the Company's charter and the expiration of 90 days after the date of revocation without a reinstatement
- at the Company's election at any time pursuant to which Trust XIV has been dissolved in accordance with the terms of the Trus
corresponding to its securities to the holders of Trust XIV securities;

76

- upon the entry of a decree of judicial dissolution of the holder of the Trust XIV Common Securities, the Company or Trust XIV; c
- upon the redemption of all of the Trust XIV HITS.

Except as set forth in the next paragraph, if an early dissolution occurs as a result of certain events of the Company's bankruptc
the entry of an order for the dissolution of Trust XIV by a court of competent jurisdiction, the property trustee and the regular trustees v
distributing, after satisfaction of liabilities to creditors of Trust XIV as provided by applicable law, to each holder of Trust XIV HITS a lik
XIV shall give notice of liquidation to each holder of Trust XIV HITS at least 15 days and not more than 60 days before the date of liqu

If, whether because of an order for dissolution entered by a court of competent jurisdiction or otherwise, the property trustee de
provided above is not practical, or if the early dissolution occurs as a result of the redemption of all the Trust XIV HITS, the property tr
wind up its affairs in such manner as they determine. In that case, upon the winding-up of Trust XIV, except with respect to an early di
the holders will be entitled to receive out of the assets of Trust XIV available for distribution to holders of the Trust XIV securities and a
applicable law, an amount equal to the liquidation amount per Trust XIV security plus accumulated and unpaid distributions to the date
available to pay in full such aggregate liquidation distribution, then the amounts payable directly by Trust XIV on the Trust XIV securitie
Ranking of Trust XIV Common Securities."

The term "*like amount*" as used above means, with respect to a distribution of Series G Preferred Stock to holders of Trust XIV
therefor, Series G Preferred Stock having a liquidation preference equal to the liquidation amount of the Trust XIV securities of the hol

Distribution of Trust Assets

Upon liquidation of Trust XIV other than as a result of an early dissolution upon the redemption of all the Trust XIV HITS and aft
applicable law, the assets of Trust XIV will be distributed to the holders of the Trust XIV securities in exchange therefor.

After the liquidation date fixed for any distribution of assets of Trust XIV:

- the Trust XIV HITS will no longer be deemed to be outstanding;
- if the assets to be distributed are shares of Series G Preferred Stock, DTC or its nominee, as the record holder of the Trust XIV
the shares of Series G Preferred Stock to be delivered upon such distribution;
- any certificates representing the Trust XIV HITS not held by DTC or its nominee or surrendered to the exchange agent will be d

77

Preferred Stock having a liquidation preference equal to the Trust XIV HITS until such certificates are so surrendered for transfer.

- all rights of the holders of the Trust XIV HITS will cease, except the right to receive Series G Preferred Stock upon such surrender.

As each Trust XIV HITS corresponds to 1/100th of a share of Series G Preferred Stock, holders of Trust XIV HITS may receive certificates representing the Series G Preferred Stock upon this distribution. Since holders of the Series G Preferred Stock are not entitled to vote or receive dividends for six quarterly dividend periods, the Series G Preferred Stock (or depositary shares representing the Series G Preferred Stock) will be applied first to make distributions then due on the Trust XIV HITS on a pro rata basis on such distribution date.

Ranking of Trust XIV Common Securities

If on any distribution date Trust XIV does not have funds available from payments of dividends on the Series G Preferred Stock Securities, then, if the deficiency in funds results from the Company's failure to pay a full dividend on shares of Series G Preferred Stock, the Series G Preferred Stock will be applied first to make distributions then due on the Trust XIV HITS on a pro rata basis on such distribution date. If the deficiency in funds results from the Company's failure to pay a full dividend on shares of Series G Preferred Stock (or, if less, the amount of the corresponding distributions that would have been made on the Series G Preferred Stock) before any such amount is applied to make a distribution on Trust XIV Common Securities on such distribution date.

If, on any date where Trust XIV HITS and Trust XIV Common Securities must be redeemed because the Company is redeeming the Company's redemption of shares of Series G Preferred Stock to pay the full redemption price then due on all of the outstanding Trust XIV HITS, the available funds shall be applied first to pay the redemption price on the Trust XIV HITS to be redeemed on such redemption date and then on the Trust XIV Common Securities to be redeemed. If funds are available for such purpose after the payment of the full redemption price on the Trust XIV HITS to be redeemed.

If an early dissolution event occurs in respect of Trust XIV, no liquidation distributions will be made on the Trust XIV Common Securities until the Trust XIV HITS are fully paid.

In the case of any event of default under the Trust XIV Declaration of Trust resulting from the Company's failure to comply in any material respect with its obligations as issuer of the Series G Preferred Stock, including obligations set forth in the Company's Restated Certificate of Incorporation or arising under applicable law, the Company shall be deemed to have waived any right to act with respect to any such event of default under the Trust XIV Declaration of Trust until the event has been cured, waived or otherwise eliminated. Until all events of default under the Trust XIV Declaration of Trust have been so cured, waived or otherwise eliminated, the holders of the Trust XIV HITS and not on the Company's behalf, and only the holders of the Trust XIV HITS will have the right to vote or receive dividends on the Series G Preferred Stock.

Events of Default; Notice

Any one of the following events constitutes an event of default under the Trust XIV Declaration of Trust (a "**Trust XIV Event of Default**"). Such event of default shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any other competent authority.

- the Company's failure to comply in any material respect with its obligations as issuer of the Series G Preferred Stock, under the Trust XIV Declaration of Trust;
- the default by Trust XIV in the payment of any distribution on any trust security of Trust XIV when such becomes due and payable;
- the default by Trust XIV in the payment of any redemption price of any trust security of Trust XIV when such becomes due and payable;
- the failure to perform or the breach, in any material respect, of any other covenant or warranty of the trustees in the Trust XIV Declaration of Trust within 30 days after the Company and the trustees have received written notice of the failure to perform or breach in the manner specified in the Trust XIV Declaration of Trust.

- the occurrence of certain events of bankruptcy or insolvency with respect to the property trustee and the Company's failure to

Within 30 days after any Trust XIV Event of Default actually known to the property trustee occurs, the property trustee will transfer the class of Trust XIV securities and to the regular trustees, unless such Trust XIV Event of Default shall have been cured or waived. The property trustee will deliver to the regular trustees a certificate as to whether or not the Company or the regular trustees are in compliance with all the conditions of the Trust XIV Declaration of Trust.

Removal of Trustees

The property trustee and/or the Delaware trustee may be removed at any time by the holder of the Trust XIV Common Securities or the holders of a majority in liquidation amount of the outstanding Trust XIV HITS for cause. In no event will the holders of the Trust XIV HITS have which voting rights are vested exclusively in the Company, as the holder of the Trust XIV Common Securities. No resignation or removal until the acceptance of appointment by the successor trustee in accordance with the provisions of the Trust XIV Declaration of Trust.

Co-Trustees and Separate Property Trustee

At any time or from time to time, for the purpose of meeting the legal requirements of the Trust Indenture Act or of any jurisdiction, the Company, as the holder of the Trust XIV Common Securities, and the

79

regular trustees shall have the power to appoint one or more persons either to act as a co-trustee, jointly with the property trustee, of such property, in either case with such powers as may be provided in the instrument of appointment, and to vest in such person or persons as may be desirable, subject to the provisions of such Trust XIV Declaration of Trust.

Mergers, Consolidations, Amalgamations or Replacements of Trust XIV

Trust XIV may not consolidate, amalgamate, or merge with or into, or be replaced by, or convey, transfer, or lease its properties to any person, except as described below. Trust XIV may, with the consent of the regular trustees but without the consent of the holders of the Trust XIV HITS, trustee, consolidate, amalgamate, or merge with or into, or be replaced by, a trust organized under the laws of any state if:

- the successor entity, if not Trust XIV, either:
 - expressly assumes all of the obligations of Trust XIV with respect to the Trust XIV securities, or
 - substitutes for the Trust XIV securities other securities having substantially the same terms as the Trust XIV securities, and the new securities in priority with respect to distributions and payments upon liquidation, redemption, and otherwise;
- the Trust XIV HITS or any successor securities are listed, or any successor securities will be listed upon notification of issuance by the organization, if any, on which the Trust XIV HITS are then listed or quoted;
- the merger, consolidation, amalgamation, or replacement does not cause the Trust XIV HITS, including any successor securities, to be listed on any organization;
- the merger, consolidation, amalgamation, or replacement does not adversely affect the rights, preferences, and privileges of the holders of the Trust XIV HITS in any material respect, other than in connection with any dilution of the holders' interest in the new entity;
- the successor entity has a purpose identical to that of Trust XIV;
- prior to the merger, consolidation, amalgamation, or replacement, the Company has received an opinion of counsel to Trust XIV that:
 - the merger, consolidation, amalgamation, or replacement does not adversely affect the rights, preferences, and privileges of the holders of the Trust XIV securities, in any material respect, other than in connection with any dilution of the holders' interest in the new entity;

- following the merger, consolidation, amalgamation, or replacement, neither Trust XIV nor the successor entity will be a company under the Company Act; and
- following the merger, consolidation, amalgamation, or replacement, Trust XIV or the successor entity will continue to be a company under the Company Act;
- the Company guarantees the obligations of the successor entity under the successor securities at least to the extent of the obligations of Trust XIV under the Trust XIV securities.

Trust XIV may not, except with the consent of holders of 100% in liquidation amount of its Trust XIV securities, consolidate, amalgamate, merge with or into, or replace it if that consolidation, merger, amalgamation, or replacement would result in the Trust XIV being treated as an entity other than a grantor trust for U.S. federal income tax purposes.

Voting Rights; Amendment of the Trust XIV Declaration of Trust

Except as provided herein and under “—Company Guarantee of Trust XIV HITS” above and as otherwise required by law and the terms of the Trust XIV Declaration of Trust, the parties to the Trust XIV Declaration of Trust shall not have any voting rights or control over the administration, operation or management of Trust XIV or the obligations of the parties to the Trust XIV Declaration of Trust. The parties to the Trust XIV Declaration of Trust shall not be entitled to any of the assets or Stock beneficially owned by Trust XIV. Under the Trust XIV Declaration of Trust, however, the property trustee will be required to obtain the consent of the parties to the Trust XIV Declaration of Trust in order to sell, lease, convey, mortgage, pledge or otherwise dispose of any of the assets or securities of Trust XIV.

Trust XIV Declaration of Trust. The Company and the regular trustees may amend the Trust XIV Declaration of Trust without the Delaware trustee, unless in the case of the first two bullets below such amendment will materially and adversely affect the interests of trustee, to:

- cure any ambiguity, correct or supplement any provisions in the Trust XIV Declaration of Trust that may be inconsistent with or questions arising under such Trust XIV Declaration of Trust, which may not be inconsistent with the other provisions of the Trust XIV Declaration of Trust;
- modify, eliminate or add to any provisions of the Trust XIV Declaration of Trust to such extent as shall be necessary to ensure one or more grantor trusts and/or agency arrangements and not as an association or a publicly traded partnership taxable entity to ensure that Trust XIV will not be required to register as an “investment company” under the Investment Company Act of 1933, as amended, or under prevailing Federal Reserve rules and regulations;
- provide that certificates for Trust XIV HITS may be executed by a regular trustee by facsimile signature instead of manual signature and appointment by the Company of an authentication agent and certain related provisions;

- require that holders that are not U.S. persons for U.S. federal income tax purposes irrevocably appoint a U.S. person to exercise powers over the assets held by the foreign trust for U.S. federal income tax purposes; or

- conform the terms of the Trust XIV Declaration of Trust to the description of the Trust XIV Declaration of Trust, the Trust XIV Agreement, the Trust XIV HITS, and the Trust XIV HATS, in the manner provided in the Trust XIV Declaration of Trust.

Any such amendment shall become effective when notice thereof is given to the property trustee, the Delaware Trustee and the holder

The Company and the regular trustees may generally amend the Trust XIV Declaration of Trust with:

- the consent of holders representing not less than a majority, based upon liquidation amounts, of each outstanding class of T
- receipt by the trustees of Trust XIV of an opinion of counsel to the effect that such amendment or the exercise of any power with such amendment will not affect Trust XIV's status as one or more grantor trusts and/or agency arrangements for U.S. as an "investment company" under the Investment Company Act.

However, without the consent of each affected holder of Trust XIV securities, the Trust XIV Declaration of Trust may not be ame

- change the amount or timing, or otherwise adversely affect the amount, of any distribution required to be made in respect of
- restrict the right of a holder of Trust XIV securities to institute a suit for the enforcement of any such payment on or after suc

Series G Preferred Stock. So long as the Series G Preferred Stock is held by the property trustee on behalf of Trust XIV, the tru Preferred Stock without obtaining the prior approval of the holders of at least a majority in liquidation amount of the Trust XIV HITS the amendment to Trust XIV's or the Company's governing documents that would change the dates on which dividends are payable or the of Trust XIV HITS. In addition to obtaining the foregoing approvals from holders, the trustees of Trust XIV shall obtain, at the Company cause Trust XIV to be taxable as a corporation or classified as a partnership for U.S. federal income tax purposes.

General. Any required approval of holders of Trust XIV HITS may be given at a meeting of holders of such class of Trust XIV HI trustee will cause a notice of any meeting at which holders of Trust XIV HITS are entitled to vote, or of any matter upon which action b holder of such Trust XIV HITS in the manner set forth in the Trust XIV Declaration of Trust.

82

No vote or consent of the holders of Trust XIV HITS will be required for Trust XIV to redeem and cancel the Trust XIV HITS in a

Notwithstanding that holders of the Trust XIV HITS are entitled to vote or consent under any of the circumstances described ab affiliates or the trustees or any of their affiliates shall, for purposes of such vote or consent, be treated as if they were not outstanding.

Payment and Paying Agent

Payments on the Trust XIV HITS shall be made to DTC by the paying agent, which shall credit the relevant accounts on the app paying agent shall make such payments by check mailed to the address of the holder as such address shall appear on the register.

The "paying agent" is The Bank of New York Mellon Trust Company, N.A. (formerly known as The Bank of New York Trust Com acceptable to the Company and to the regular trustees. The paying agent shall be permitted to resign as paying agent upon 30 days w that The Bank of New York Trust Company, N.A. shall no longer be the paying agent, the property trustee will appoint a successor to a regular trustees and to the Company.

Registrar and Transfer Agent

The Bank of New York Mellon Trust Company, N.A. acts registrar and transfer agent for the Trust XIV HITS.

Registration of transfers of Trust XIV HITS will be effected without charge by or on behalf of Trust XIV but after payment of any any transfer or exchange. Neither Trust XIV nor the transfer agent shall be required to register the transfer of or exchange any trust se the day of selection for redemption of Trust XIV securities and ending at the close of business on the day of mailing of notice of redem redemption in whole or in part, except, in the case of any trust security to be redeemed in part, any portion thereof not to be redeemed

Any Trust XIV HITS can be exchanged for other Trust XIV HITS so long as such other Trust XIV HITS are denominated in the same terms as the Trust XIV HITS that were surrendered for exchange. The Trust XIV HITS may be presented for registration of transfer, at the office or agency maintained by the Company for that purpose in a place of payment. There will be no service charge for the transfer. The Company may require holders to pay any tax or other governmental charge payable in connection with a transfer or exchange of the Trust XIV HITS. The Company may approve a change in the location of any office or agency, in addition to the security registrar, designated by the Company where holders may present Trust XIV HITS for exchange. However, Trust XIV will be required to maintain an office or agency in each place of payment for the Trust XIV HITS.

83

Information Concerning the Property Trustee

Other than during the occurrence and continuance of a Trust Event of Default, the property trustee undertakes to perform only the duties specified in the Trust XIV Declaration of Trust. After a Trust XIV Event of Default, the property trustee must exercise the same degree of care and skill as a prudent individual would exercise in the management of the property. If the property trustee is not satisfied with the exercise of the powers vested in it by the Trust XIV Declaration of Trust, the property trustee is under no obligation to exercise any of the powers vested in it by the Trust XIV Declaration of Trust if the exercise of such powers is not in the best interests of the Trust XIV HITS. However, the holders of the Trust XIV HITS may, by exercising their voting rights, direct the property trustee to take any action following an event of default under the Trust XIV Declaration of Trust, and the property trustee is required to decide between alternative courses of action, construe ambiguous provisions in the Trust XIV Declaration of Trust, and the matter is not one upon which holders of Trust XIV HITS are entitled under the Trust XIV Declaration of Trust to direct the property trustee. If the Company does not provide direction, the property trustee may take any action that it deems advisable and in the best interests of the Trust XIV HITS, except for its own bad faith, negligence or willful misconduct.

The Company and certain of its affiliates have from time to time maintained deposit accounts and conducted other banking transactions in the ordinary course of business. The Company expects to continue those business transactions. The property trustee or its affiliates also serve as agents for the Company under other indentures.

Trust Expenses

Pursuant to the Trust XIV Declaration of Trust, the Company, as sponsor, agrees to pay:

- all debts and other obligations of Trust XIV (other than with respect to the Trust XIV HITS);
- all costs and expenses of Trust XIV, including costs and expenses relating to the organization of Trust XIV, the fees and expenses of the property trustee, the fees and expenses of the Trust XIV HITS, and
- any and all taxes and costs and expenses with respect thereto, other than U.S. withholding taxes, to which Trust XIV might be subject.

Miscellaneous

The regular trustees are authorized and directed to conduct the affairs of and to operate Trust XIV in such a way that it will not be treated as a partnership for U.S. federal income tax purposes. The Company Act or characterized as other than one or more grantor trusts and/or agency arrangements for U.S. federal income tax purposes. The regular trustees are authorized to take any action, not inconsistent with applicable law, the certificate of trust of Trust XIV or the Trust XIV Declaration of Trust, that is necessary or desirable to achieve such end, as long as such action does not materially and adversely affect the interests of the holders of Trust XIV HITS.

84

Holders of the Trust XIV HITS have no preemptive or similar rights. The Trust XIV HITS are not convertible into or exchangeable preferred stock (including the Series G Preferred Stock).

85

DESCRIPTION OF INCOME CAPITAL OBLIGATION NOTES INITIALLY DUE DECEMBER 15, 2066

This section describes the Company's Income Capital Obligations Notes initially due December 15, 2066 (the "ICONS"). The ICONS were issued in 2014, 2006 between the Company (successor by merger to Merrill Lynch & Co., Inc.) and The Bank of New York Mellon (formerly known as The Bank of New York). The ICONS Indenture is included as an exhibit to the Company's Registration Statement on Form 8-A filed with the SEC.

General

The ICONS are unsecured junior subordinated debt securities of the Company. An aggregate principal amount of \$1,050,000,000 of the ICONS are listed on the NYSE under the symbol "MER PrK". The ICONS are issued in registered book-entry only form, representing

Unless the ICONS are redeemed prior to maturity, the ICONS will mature on December 15, 2066 (the "Initial Scheduled Maturity Date") described below.

Interest Rate

The ICONS will bear interest at 6.45% per annum through the Initial Scheduled Maturity Date or any earlier redemption date (the "Fixed Rate Period"). During the Fixed Rate Period interest is payable quarterly in arrears, on March 15, June 15, September 15 and December 15. If interest is otherwise not paid during the Fixed Rate Period, the interest will accrue and compound until paid at the annual rate of 6.45%. The amount of interest is compounded on the basis of a 360-day year consisting of twelve 30-day months.

If the Company elects to extend the maturity date of the ICONS as described below, the ICONS will bear interest at the Adjusted Floating Rate. During the Floating Rate Period, interest is payable quarterly in arrears, on March 15, June 15, September 15 and December 15. If interest is otherwise not paid during the Floating Rate Period, the interest will accrue and compound until paid at the annual rate of the Adjusted Floating Rate. The amount of interest payable for any accrual period during the Floating Rate Period will be computed on the basis of a 360-day year and

As of their original issue, the terms of the ICONS provided for applicable interest rates (if any) to be determined by reference to three-month U.S. dollar LIBOR (as published by the CME Group Benchmark Administration, Ltd. (or any successor administrator thereof), plus a tenor spread adjustment of 0.26161% (such rate, including such tenor spread adjustment, shall be the reference rate for calculations of interest payments (if any) for the ICONS.

86

During the Fixed Rate Period if an interest payment date or a redemption date of the ICONS falls on a day that is not a business day, then the interest payment date or the redemption date shall be the immediately preceding business day, and no interest on such payment will accrue for the period from and after the interest payment date or the redemption date, other than a redemption date or the maturity date of the ICONS, falls on a day that is not a business day, the interest payment date or the redemption date shall be the immediately preceding business day, except that if that business day is in the next succeeding calendar month, the interest payment date will be the immediately preceding business day.

day. Also during the Floating Rate Period, if a redemption date or the maturity date of the ICONs falls on a day that is not a business day, the payment will be made on the next succeeding business day, and no interest on such payment will accrue for the period from and after the redemption date or the maturity date.

A “**business day**” means any day other than a day on which banking institutions in The City of New York are authorized or required to close. A “**London banking day**” means a day on which commercial banks are open for business, including dealing days.

The “**Three-Month LIBOR Rate**” means the rate determined in accordance with the following provisions. On the LIBOR interest determination date, the calculation agent or its affiliate will determine the Three-Month LIBOR Rate which will be the rate for deposits in U.S. Dollars having a three-month maturity which appears on the Telerate Page 3750 on the LIBOR interest determination date. If no rate appears on Telerate Page 3750 on the LIBOR interest determination date, the calculation agent or its affiliate will determine the Three-Month LIBOR Rate by surveying the London Inter-Bank Market to provide it with their offered quotations for deposits in U.S. Dollars for the period of three months, commencing on the interest determination date, to prime banks in the London Inter-Bank Market at approximately 11:00 a.m., London time, on that LIBOR interest determination date. If at least two quotations are provided, the Three-Month LIBOR Rate will be the average (rounded to the nearest basis point) of those quotations. If fewer than two quotations are provided, then the Three-Month LIBOR Rate will be the average (rounded to the nearest basis point) of rates quoted at approximately 11:00 a.m., New York City time, on the LIBOR interest determination date by three major banks in New York City. If the calculation agent or its affiliate are not providing quotations in the manner described by this paragraph, the rate for the quarterly interest payment will be the Three-Month LIBOR Rate in effect on that LIBOR interest determination date.

“**Telerate Page 3750**” means the display designated as “Telerate page 3750” on Moneyline Telerate, Inc. (or such other page as may be designated by the calculation agent) displaying the London Inter-Bank offered rates of major banks, as may replace Moneyline Telerate, Inc.

“**LIBOR interest determination date**” means the second London banking day preceding each interest payment date in the Floating Rate Period.

“**Calculation agent**” means The Bank of New York Mellon, or its successor appointed by the Company, acting as calculation agent.

Interest payable at any interest payment date other than the maturity date will be paid to the registered holder of the ICON on that date. Interest payable at maturity will be paid to the holder of the ICON at the time of payment by the paying agent.

Maturity; Extension of Maturity

The ICONs do not have a sinking fund. This means that the Company is not required to make any principal payments prior to the maturity date.

The ICONs will mature on December 15, 2066 unless the Company elects to extend the maturity date as described in the following section.

On December 15, 2026, the Company may, at its sole option, elect to extend the maturity date of the ICONs for an additional term of up to 10 years, to December 15, 2076. The Company will provide irrevocable notice of any such election not less than 30 days, nor more than 60 days, prior to the maturity date of the ICONs only if the following conditions are met at the time it provides irrevocable notice of any such election:

any, and interest in respect of indebtedness for money borrowed and indebtedness evidenced by securities, notes, debentures, bonds or other securities, on a pari passu basis.

Because the Company is a holding company, its right and the rights of its creditors, including the holders of the ICONs, to participate in the assets of the Company or reorganization or otherwise is necessarily subject to the prior claims of creditors of the subsidiary, except to the extent that a bankruptcy proceeding is commenced against the subsidiary. In addition, dividends, loans and advances from certain subsidiaries are restricted by net capital requirements under the Exchange Act and other applicable laws.

The ICONs do not limit the Company's or its subsidiaries' ability to incur additional debt or liabilities, including debt or other liabilities, in the future.

Redemption

Subject to obtaining any required regulatory approval, the Company may redeem the ICONs before their maturity in whole or in part at any time. Notice of any redemption will be given at least 30 days but not more than 60 days before the redemption date. The holders of the ICONs do not have any optional redemption rights.

Option to Defer Interest Payments

As long as no event of default that would permit acceleration of the ICONs has occurred and is continuing, the Company can defer interest payments on the ICONs for up to 40 consecutive quarters, or 10 years, if no event of default that would permit acceleration of the ICONs has occurred and is continuing.

89

more periods (each an "Optional Deferral Period") for up to 40 consecutive quarters, or 10 years, if no event of default that would permit acceleration of the ICONs has occurred and is continuing. During the Optional Deferral Period, interest will continue to accrue on the ICONs. Interest payments cannot extend, however, beyond the maturity date of the ICONs. During the Optional Deferral Period, interest will continue to accrue on the ICONs. Interest payments will accrue additional interest at the annual interest rate then applicable to the ICONs to the extent permitted by applicable law. The Company will not make any payment of interest during the Optional Deferral Period except upon a redemption of the ICONs during a deferral period.

The Company may pay at any time all or any portion of the interest accrued to that point during an Optional Deferral Period. At the end of the Optional Deferral Period, the Company will be obligated to pay all accrued and unpaid interest.

Once the Company pays all accrued and unpaid deferred interest on the ICONs, the Company again can defer interest payments on the ICONs for up to 40 consecutive quarters, or 10 years, if no event of default that would permit acceleration of the ICONs has occurred and is continuing. The Company may pay the accrued and unpaid interest at any time during an Optional Deferral Period.

Certain Limitations During a Deferral Period. During any deferral period, the Company will not and its subsidiaries will not be permitted to:

- declare or pay any dividends or distributions, or redeem, purchase, acquire, or make a liquidation payment on any of the Company's subsidiaries.

89

- make any payment of principal of or interest or premium, if any, on or repay, repurchase or redeem any of the Company's debt securities other than pro rata payments of accrued and unpaid amounts on the ICONs and any other of the Company's debt securities that rank equally with the guarantee;
- make any guarantee payments on any guarantee by the Company of debt securities of any of its subsidiaries if the guarantee is in connection with Merrill Lynch Capital Trust I other than pro rata payments of accrued and unpaid amounts on the guarantee subsidiaries that rank equally with the guarantee.

However, at any time, including during a deferral period, the Company will be permitted to:

- pay dividends or distributions on its capital stock in additional shares of its capital stock;
- declare or pay a dividend in connection with the implementation of a shareholders' rights plan, or issue stock under such a plan;
- purchase Common Stock for issuance pursuant to any employee benefit plans.

Notice. The Company will provide to the trustee written notice of any optional deferral of interest at least ten and not more than thirty days before the interest due date. The trustee shall promptly give notice of the election to the holders of the ICONs.

Events of Default and Rights of Acceleration

90

The ICONs Indenture provides that any one or more of the following events with respect to the ICONs that has occurred and is continuing shall constitute an event of default:

- default in the payment of interest, including compounded interest, in full on any ICONs for a period of 30 days after the conclusion of the Deferral Period; or
- some events of bankruptcy, insolvency and reorganization involving the Company.

If an event of default and acceleration under the ICONs Indenture of the type described in the first bullet point above has occurred, the holders of the principal amount of the ICONs will have the right to declare the principal of, and accrued interest (including compounded interest) on the outstanding principal amount of the ICONs. If the trustee or the holders of at least 25% of the outstanding principal amount of the ICONs fail to make that declaration, then the holders of the principal amount of the ICONs will have the right to do so. If an event of default and acceleration under the ICONs Indenture arising from events of bankruptcy, insolvency and reorganization involving the Company occurs, the principal of and accrued interest on the ICONs will automatically, and without any declaration or other action on the part of the trustee or the holders, be declared due and payable. If any default that is not an event of default and acceleration, there is no right to declare the principal amount of the junior subordinated debt. The principal amount of the ICONs then outstanding, in some circumstances, may annul the declaration of acceleration and waive past default.

90

Modification of ICONs Indenture

The Company and the trustee may change the indenture without the holders' consent for specified purposes, including:

- to fix any ambiguity, defect or inconsistency, provided that the change does not materially adversely affect the interest of
- to qualify or maintain the qualification of the ICONs Indenture under the Trust Indenture Act.

In addition, under the ICONs Indenture, the Company and the trustee may modify the ICONs Indenture to affect the rights of the principal amount of the outstanding ICONs that are affected. However, neither the Company nor the trustee may take the following act

- change the maturity date of the ICONs (other than in connection with any election by the Company to extend the maturity amount, rate of interest, or extend the time of payment of interest;
- reduce the percentage in principal amount of the ICONs necessary to modify the ICONs Indenture;
- modify some provisions of the ICONs Indenture relating to modification or waiver, except to increase the required percent

91

- modify the provisions of the ICONs Indenture relating to the subordination of the ICONs in a manner adverse to the holder

Consolidation, Merger, Sale of Assets and Other Transactions

The ICONs Indenture provides that the Company cannot consolidate with or merge into any other person or convey, transfer or lease its properties and assets substantially as a

- the Company is the continuing entity or the successor is organized under the laws of the United States or any state or the obligations under the ICONs Indenture;
- immediately after the transaction, no event of default, and no event which, after notice or lapse of time or both, would be
- certain other conditions specified in the ICONs Indenture are met.

Collection of Indebtedness

If the Company fails to pay the principal of or any premium on any securities, or if it is over 30 calendar days late on any interest payment or other amounts payable at maturity or upon redemption) on the

91

securities, the trustee can demand that the Company pay to it, for the benefit of the holders of those securities, the amount which is due of the Company's failure to make that payment. If the Company fails to pay the required amount on demand, the trustee may take appropriate action against the Company.

The holders of a majority of the aggregate outstanding principal amount of the ICONs have the right to direct the time, method and amount of payment of the principal of the ICONs, but the trustee will be entitled to receive from the holders indemnity reasonably satisfactory to the trustee with respect to the ICONs, but the trustee will be entitled to receive from the holders indemnity reasonably satisfactory to the trustee

The Company is required periodically to file with the trustee under the ICONs Indenture a certificate stating that the Company is

Limitation on Suits

The ICONs Indenture provides that no individual holder of ICONs may institute any action against the Company under the indenture interest or other amounts due, unless the following actions have occurred:

- the holder must have previously given written notice to the trustee of a continuing event of default;
- the holders of not less than 25% in principal amount of such outstanding securities issued under the ICONs Indenture must have (1) demanded payment of principal and interest due and (2) offered the trustee indemnity against liabilities

92

incurred by the trustee for taking such action, which indemnity is reasonably satisfactory to the trustee;

- the trustee must have failed to institute proceedings within 60 days after receipt of the request referred to above; and
- the holders of a majority in principal amount of such outstanding ICONs must not have given direction to the trustee inconsistent with the foregoing.

However, the holder of any securities will have an absolute right to receive payment of principal of and any premium and interest or to enforce this payment.

93 92

DESCRIPTION OF SENIOR MEDIUM TERM NOTES, SERIES A, STEP UP CALLABLE NOTES, DUE NOVEMBER 28, 2031 OF WHICH THE COMPANY HAS GUARANTEED THE PAYMENT OF PRINCIPAL AND INTEREST THEREON (AND RELATED THERETO)

This section describes the Senior Medium-Term Notes, Series A, Step Up Callable Notes, due November 28, 2031 (the "Step Up Callable Notes") guaranteed by the Company. The Step Up Callable Notes were issued under the Indenture dated as of August 23, 2016 among BofA Finance, LLC, as issuer, BofA Finance, LLC, as guarantor, and BofA Finance, LLC, as trustee (the "**BofA Finance Indenture**"). The BofA Finance Indenture is filed as an exhibit to the Company's registration statement with the SEC, pursuant to which the Step Up Callable Notes were issued.

Principal Terms of the Step Up Callable Notes

The Step Up Callable Notes are unsecured senior debt securities issued by BofA Finance, which are fully and unconditionally guaranteed by the Company. The Step Up Callable Notes were issued on November 28, 2016 in the aggregate principal amount of \$5,000,000, all of which is outstanding as of **December 31, 2022** (the "Maturity Date"). The Step Up Callable Notes are issued in registered book-entry only form, represented by a global security register maintained by the trustee under the name of the Company with the symbol "BAC/31B".

Unless the Step Up Callable Notes are redeemed prior to maturity, the Step Up Callable Notes will mature on November 28, 2031. The Step Up Callable Notes are not redeemable prior to maturity.

Interest on the Step Up Callable Notes is payable semiannually in arrears, on May 28 and November 28 of each year, with the first interest payment date (which is the first day of the first interest period, which began on the issue date) will begin on, and will include, an interest payment date, and will extend to the maturity date, as applicable). Interest on the Step Up Callable Notes is computed and paid on the basis of a 360-day year consisting of the following rates per annum during the indicated periods of their term:

- November 28, 2016 to, but excluding, November 28, 2021: 3.00%
- November 28, 2021 to, but excluding, November 28, 2026: 3.50%
- November 28, 2026 to, but excluding, November 28, 2028: 4.00%
- November 28, 2028 to, but excluding, November 28, 2030: 5.00%
- November 28, 2030 to, but excluding, November 28, 2031: 7.00%

Interest payable at any interest payment date other than the maturity date will be paid to the registered holder of the note on the regular interest payment date. Interest payable at maturity will be paid to the holder of the note at the time of payment by the paying agent.

BofA Finance has the right to redeem all, but not less than all, of the Step Up Callable Notes on November 28, 2019 and on each subsequent November 28, 2019 through November 28, 2031. The redemption price will be 100% of the principal amount of the Step Up Callable Notes, plus any accrued and unpaid interest. In order to exercise the right to redeem, BofA Finance must give notice of redemption at least 60 business days but not more than 60 calendar days before the specified early redemption date.

94 93

If any interest payment date, any early redemption date or the maturity date of the Step Up Callable Notes occurs on a day that is not a business day in New York, New York, the interest payment date, any early redemption date or the maturity date will be postponed until the next business day in New York, New York. No additional interest will accrue on the Step Up Callable Notes as a result of the postponement of the interest payment date, any early redemption date or the maturity date. As long as the Step Up Callable Notes are held in book-entry only form, the record dates for interest payments will be the interest payment date, any early redemption date or the maturity date.

The trustee serves as the sole paying agent, security registrar and transfer agent for the Step Up Callable Notes through the trust agreement. BofA Finance may, at any time, by the designation of paying agent, appoint a successor or an additional paying agent, or approve a change in the office through which the trustee serves as the sole paying agent, security registrar and transfer agent for the Step Up Callable Notes through the trust agreement. BofA Finance also may decide to act as its own paying agent, and the paying agent may resign.

The Company and certain of its affiliates have from time to time maintained deposit accounts and conducted other banking transactions with banks and other financial institutions in the ordinary course of business. The Company and its affiliates expect to continue these business transactions. The Bank of America is the trustee for a number of series of outstanding indebtedness of the Company and its affiliates under other indentures.

Company Guarantee

The Company has fully and unconditionally guaranteed, on an unsecured basis, the due and punctual payment of the principal of (and interest on) the Step Up Callable Notes issued by BofA Finance, when the same becomes due and payable, whether at maturity or upon redemption of the Step Up Callable Notes and the BofA Finance Indenture. If for any reason BofA Finance does not make any required payment on the securities, the Company will make such payment at the same place and in the same manner that applies to payments made by BofA Finance under the BofA Finance Indenture. The guarantee of the securities are unconditional and absolute.

95 94

Sale or Issuance of Capital Stock of Principal Subsidiary Banks

The BofA Finance Indenture provides that, subject to the provisions of the BofA Finance Indenture described below relating to the assignment, transfer or otherwise dispose of, or permit the issuance of, or permit a subsidiary to sell, assign, transfer or dispose of, any shares or rights to acquire capital stock, of any “principal subsidiary bank” (as described below) or of any subsidiary which owns shares of capital stock, of any principal subsidiary bank, with the following exceptions:

- sales of directors’ qualifying shares;
- sales or other dispositions for fair market value, if, after giving effect to the disposition and to conversion of any shares of the Company would own at least 80% of each class of the capital stock of that principal subsidiary bank;
- sales or other dispositions made in compliance with an order of a court or regulatory authority of competent jurisdiction;
- any sale by a principal subsidiary bank of additional shares of its capital stock, securities convertible into shares of its capital stock, to its stockholders at any price, so long as before that sale the Company owned, directly or indirectly, at least as great a percentage of each class of securities of the principal subsidiary bank;
- any issuance of shares of capital stock, or securities convertible into or options, warrants or rights to subscribe for or purchase shares of capital stock, or securities convertible into or options, warrants or rights to acquire capital stock, of any principal subsidiary bank, owned subsidiary.

A “**principal subsidiary bank**” is defined in the BofA Finance Indenture as any bank or trust company subsidiary of the Company, with total assets equal to more than 10% of the Company’s total consolidated assets.

Limitation on Mergers and Sales of Assets

Under the terms of the BofA Finance Indenture, each of BofA Finance and the Company generally is permitted to merge or consolidate with another entity, or to sell, assign, transfer or otherwise dispose of, or permit the sale, assignment, transfer or disposition of, all or substantially all of its assets. These transactions are permitted if:

- With respect to BofA Finance:
 - the resulting or acquiring entity, if other than BofA Finance, is organized and existing under the laws of the United States and the Company’s obligations under the BofA Finance Indenture and the debt securities issued under the BofA Finance Indenture will not be materially and adversely affected;
 - immediately after the transaction, BofA Finance (or any successor entity) is not in default in the performance of any covered obligation.

9695

- With respect to the Company:
 - the resulting or acquiring entity, if other than the Company, is organized and existing under the laws of the United States and the Company’s obligations under the BofA Finance Indenture; and
 - immediately after the transaction, the Company (or any successor guarantor) is not in default in the performance of any covered obligation.

Upon any consolidation, merger, sale, or transfer of this kind, the resulting or acquiring entity will be substituted for BofA Finance or the Company with the same effect as if it had been an original party to that indenture. As a result, the successor entity may exercise BofA Finance’s or the Company’s rights under the BofA Finance Indenture. If BofA Finance were to merge into the Company, under the terms of the BofA Finance Indenture, the guarantee would terminate.

Waiver of Covenants

The holders of a majority in aggregate principal amount of all affected securities then outstanding under the BofA Finance Indenture may waive any covenant under the BofA Finance Indenture.

BoFA Finance, the Company and the trustee may modify the BoFA Finance Indenture and the rights of the holders of the securities with respect to the principal amount of all outstanding securities under the BoFA Finance Indenture affected by the modification. However, no modification may increase the principal amount of, or reduce the rate, or extend the time of payment, of interest on, any security or reduce any amount payable on redemption of, any security without the consent of all holders of each outstanding security affected by the modification. No modification may reduce the percentage of principal of the securities outstanding under the BoFA Finance Indenture without the consent of all holders of the securities outstanding under the BoFA Finance Indenture.

For purposes of determining the aggregate principal amount of securities outstanding at any time in connection with any request, the Finance Indenture, (1) the principal amount of any security issued with original issue discount is that amount that would be due and payable at maturity, and (2) the principal amount of securities denominated in a foreign currency or currency unit is the U.S. dollar equivalent of the security.

The trustee may call a meeting in its discretion, or upon request by BofA Finance or the holders of at least 10% in principal amount of holders is duly held, any resolution raised or decision taken in

If BofA Finance fails to pay the principal or of any premium on any securities, or if it is over 30 calendar days late on any interest payments (including any amounts payable at maturity or upon redemption) on the securities, the trustee can demand that BofA Finance pay to it, for the benefit of the investors, the amount of such principal or premium or interest.

payable on those securities, including any interest incurred because of BofA Finance's failure to make that payment. If BofA Finance fails to take appropriate action, including instituting judicial proceedings against BofA Finance.

In addition, a holder of a security also may file suit to enforce BofA Finance's obligations to make payment of principal, any premium taken by the trustee.

The holders of a majority in principal amount of the affected securities then outstanding under the BofA Finance Indenture may direct the trustee to use any cash or other assets available to the trustee under the BofA Finance Indenture, but the trustee will be entitled to receive from the holders indemnity reasonably

9897

BofA Finance and the Company are required periodically to file with the trustee under the BofA Finance Indenture a certificate stating whether or not the Company is in compliance with any of the terms of the BofA Finance Indenture.

Limitation on Suits

The BofA Finance Indenture provides that no individual holder of securities of any series may institute any action against BofA Finance for principal, any premium, interest or other amounts due, unless the following actions have occurred:

- the holder must have previously given written notice to the trustee of a continuing event of default;
- the holders of not less than 25% in principal amount of such outstanding securities issued under the BofA Finance Indenture must have (1) demanded that the trustee take such action and (2) offered the trustee indemnity against liabilities incurred by the trustee for taking such action, which offer must be accepted by the holders of a majority in principal amount of such outstanding securities;
- the trustee must have failed to institute proceedings within 60 days after receipt of the request referred to above; and
- the holders of a majority in principal amount of such outstanding securities issued under the BofA Finance Indenture must not have waived the right to enforce this limitation on suits.

However, the holder of any securities will have an absolute right to receive payment of principal of and any premium and interest or to enforce this payment.

9998

0000070858-23-000092image.jpg

Certain identified information has been redacted from this exhibit because it is both (i) not material and (ii) a type that the registrant treats as private or confidential. The redacted information is indicated by the placeholder identified by the mark "[***]."

01/12/2022

Mr. Paul Donofrio
[***]

Dear Paul,

Letter of Appointment

The Board of Directors (the “**Board**”) of Bank of America Europe Designated Activity Company (the “**Company**” or “**BofA Europe**”) is pleased to appoint you as Chair and a Non-Executive director. Schedule 1 of this letter sets out the conditions to which this offer is subject and explains what you will be required to do.

This letter sets out the main terms of your offer. It is agreed between us that when formally accepted, this will be a contract for services.

By accepting this appointment, you confirm that you are not subject to any restrictions which prevent you from holding office as a director of the Company.

1. APPOINTMENT

1.1 Subject to the remaining provisions of this letter, your appointment as Non-Executive director commenced on the date of this letter and will continue until terminated by either party giving the other one month's prior written notice (or, at the Company's discretion, by making a new appointment as Chair of the Board of BofA Europe will commence on 1 January 2023. The Board may invite you to serve for a further period of appointment which will automatically renew for such further period of appointment as approved by the Board and the term specified in this paragraph.

1.2 Your appointment is subject to the articles of association of the Company, as amended from time to time (the “**Articles**”). The Articles as they apply to you as a director of the Company.

Bank of America Europe Designated Activity Company is registered in Ireland. Registered Office: Two Park Place, Hatch Street, Dublin 4. It is a wholly owned subsidiary of Bank of America Corporation. A list of names and personal details of every director of the company is available for inspection on request without fee. Bank of America Europe Designated Activity Company is regulated by the Central Bank of Ireland.

 0000070858-23-000092image.jpg

1.3 Your appointment is also subject to all applicable laws or regulations, including, without limitation, the Companies Act 2014. If there are any applicable laws or regulations, then the applicable laws or regulations shall prevail.

1.4 Notwithstanding the above paragraphs the Company may terminate your appointment with immediate effect:

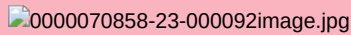
- (a) if you have committed any serious or repeated breach or non-observance of your obligations to the Company (which includes your legal duties); or
- (b) if you have not complied with the Company's anti-corruption and bribery policy and procedures and/or the Prevention of Bribery Regulations; or
- (c) if you have been guilty of any fraud or dishonesty or acted in any manner or engaged in any conduct which, in the opinion of the Board, is likely to bring the Company into disrepute or is materially adverse to the interests of the Company whether or not connected with your engagement with the Company; or
- (d) if you have been declared bankrupt or have made an arrangement with or for the benefit of your creditors; or
- (e) if you have been restricted or disqualified from acting as a director; or
- (f) if the Company determines that it is or may at any time be unable to satisfy itself that you are fit and proper for whatever office you are appointed to; or
- (g) immediately in the event that your status as a Pre-Approval Control Function (“**PCF**”) in respect of the Company is withdrawn for any reason at any time; or
- (h) if you fail to satisfy at the sole discretion of the Company any of the conditions contained within this appointment letter.

1.5 On the termination of your appointment as a director (howsoever arising), you shall only be entitled to accrued fees as at the date of termination and to documented expenses properly incurred prior to that date.

- 1.6 On the termination of your appointment, you shall cease to hold yourself out as in any way connected with the Company the this letter notwithstanding such termination.

2. TIME COMMITMENT

- 2.1 From the date of your appointment under the terms of this letter, you will be required to devote such time as is necessary minimum of six board meetings (which may be more frequent, where required),



and attendance at other committee meetings as required. In addition, you will be required to consider all relevant papers prior

- 2.2 By accepting this appointment, you confirm that you are able to allocate sufficient time to meet the expectations of your role. S 2.1), you will inform the Company immediately. For avoidance of doubt, the Company reserves the right at its absolute discreti

3. ROLE AND DUTIES

- 3.1 As a non-executive director you shall have the same general legal responsibilities to the Company as any other director. Company. The Board's role is to:

- (a) provide leadership of the Company within a framework of prudent and effective controls which enable risk to be asses
- (b) set the Company's strategic aims, ensure that the necessary financial and human resources are in place for the Comp
- (c) set the Company's values and standards and ensure that its obligations to its shareholders and others are understood

- 3.2 All directors must act in the way they consider, in good faith, in the interests of the Company as a whole. In doing so, as a dire

- (a) the likely consequences of any decision in the long term;
- (b) the interests of the Company's employees;
- (c) the need to foster the Company's business relationships with suppliers, customers and others;
- (d) the impact of the Company's operations on the community and the environment;
- (e) the desirability of the Company maintaining a reputation for high standards of business conduct; and
- (f) the need to act fairly as between the members of the Company.

- 3.3 In your role as Chair and a non-executive director, you shall also be required to:

- (a) lead the Board of the Company;
- (b) encourage critical discussion and challenge mindsets;
- (c) promote effective communication between executive and non-executive directors;
- (d) attend and chair board meetings;
- (e) constructively challenge and contribute to the development of strategy;

- (f) scrutinise the performance of management in meeting agreed goals and objectives and monitor the reporting of performance;
- (g) satisfy yourself that financial information is accurate and that financial controls and systems of risk management are robust;
- (h) have a role in appointments and in succession planning, where applicable;
- (i) at all times comply with the Articles of the Company;
- (j) abide by your statutory, fiduciary or common-law duties as a director of the Company, including any duties or obligations imposed by regulatory authorities from time to time;
- (k) diligently perform your duties and use your best endeavours to promote, protect, develop and extend the business of the Company;
- (l) immediately report your own wrongdoing or the wrongdoing or proposed wrongdoing of any employee or other director to the Company's Compliance of the Company; and
- (m) inform the Company Secretary if you intend to take on any additional directorships other than those already noted.

3.4 You represent and warrant to the Company that you are not engaged in, or currently intending to engage in, any lawsuit or other legal proceedings that may adversely affect, in any material respect, your ability to perform your obligations hereunder and to the best of your knowledge, no such proceedings are threatened against you.

3.5 You shall be entitled to request relevant information about the Company's affairs as is reasonably necessary in order to enable you to discharge your duties.

4. FEES

From the date of your appointment as non-executive director and Chair, you shall be paid annual fees totalling one hundred thousand euro (€100,000) of which is attributable to your role as non-executive director of the Company and €60,000 to your role as Chair of the Board. These annual fees will be prorated for the portion of the calendar year in which you are appointed to the Board and as Chair, respectively, and shall be paid in equal instalments monthly in arrears after deduction of any taxes and other amounts payable by you, less any reasonable and properly documented expenses that you incur in performing the duties of your office.

5. INDEPENDENT LEGAL ADVICE

In some circumstances you may consider that you need professional advice in the furtherance of your duties as a director. You may seek such advice from independent advisors at the Company's expense. In these circumstances you should notify the General Counsel, EMEA in advance of seeking such advice and obtain such advice and the procedure for doing so.

6. OUTSIDE INTERESTS

6.1 It is accepted and acknowledged that you have business interests other than those of the Company and have declared all such interests. If, in the course of your duties, you become aware of potential conflicts of interest, these should be disclosed to the Chief Executive Officer and Company Secretary as soon as you become aware of them, and you should refrain from making on any matter on which there is a conflict.

- 6.2 During your appointment you will not without the prior written consent of the Company, which shall not be unreasonably withheld, engage in any business or work activity that may conflict with your appointment with the Company. In considering whether to give consent the Company shall consider what types of activities may be in conflict. Any questions, clarification or doubts regarding other activities by you and potential conflicts of interest shall be referred to the Company. You and the Company agree that the prior approval of the CBI (and other relevant regulatory authorities) will be required prior to you taking on any other role.

7. CONFIDENTIALITY

- 7.1 All information acquired prior to and during your appointment is confidential to the Company and should not be disclosed to any third party, either before, during or following termination of your appointment (by whatever means), without prior written clearance from the Company.
- 7.2 Your attention is also drawn to the requirements under both legislation and regulation as to the disclosure of inside information. You shall not risk a breach of these requirements without prior clearance from the Chief Executive Officer or the Company Secretary.
- 7.3 In line with local regulations and the Bank of America Code of Conduct, the Company acts in compliance with the Irish Whistleblowing Regulations. Under Irish rules Pre-Approval Controlled Functions ("PCFs") are required to report certain types of misconduct to the relevant services legislation; or (ii) the destruction or concealment of relevant evidence related to such breaches. The affirmative obligation to report such breaches to the CBI applies except where: (i) the report would lead to self-incrimination; or (ii) where the disclosure of such contraventions could result in an investigation by the CBI into the PCF.

 0000070858-23-000092image.jpg

disclose this information to the CBI applies except where: (i) the report would lead to self-incrimination; or (ii) where the disclosure of such contraventions could result in an investigation by the CBI into the PCF.

8. REVIEW PROCESS

The performance of individual directors and the whole Board is evaluated annually. If, in the interim, there are any matters which the Chair of the Nominations Committee as soon as possible.

9. INDEMNITY

The details of your right to indemnification as a director of the Company are contained in Article VIII of the bylaws of the Company, which are provided with. The Company routinely receives requests from regulatory authorities to provide information in relation to an investigation by the CBI or any other regulatory authority, the Company has policies and processes in place to collate and safeguard such information to produce and will provide such additional support and assistance as is reasonable in all the circumstances, subject to any applicable law.

10. INSURANCE

The Company has directors' and officers' liability insurance and it intends to maintain such cover for the full term of your appointment. It has been renewed and advised of any material change in coverage.

11. THIRD PARTY RIGHTS

No person other than you and the Company shall have any rights under this letter and the terms of this letter shall not be enforceable by any third party.

12. MISCELLANEOUS

- 12.1 Your appointment with the Company and any dispute or claim arising out of or in connection with it or its subject matter or formation, shall be governed by and construed in accordance with the laws of Ireland and you and the Company irrevocably agree that the courts of Ireland shall have exclusive jurisdiction to settle any such dispute or claim.

arises out of or in connection with this appointment or its subject matter or formation (including non-contractual disputes or clai

 0000070858-23-000092image.jpg

12.2 This letter constitutes the entire terms and conditions of your appointment and supersedes all previous discussions, correspon
between you and the Company relating to its subject matter.

Please indicate your acceptance of these terms by signing and returning one copy of this letter to Sarah McGuinness, Company Sec

Yours sincerely

/s/ Jennifer Becker

.....

Jennifer Becker, Head of International Human Resources

For and on behalf of Bank of America Europe Designated Activity Company

I agree to the above terms of appointment as Chair and a Non-Executive Director.

/s/ Paul Donofrio

.....

Paul Donofrio
Chair and Non-Executive Director

23 January 2023

Signed on

 0000070858-23-000092image.jpg

Schedule 1
Conditions of the offer

Conditions of this offer are that:

1. You sign and return all required documentation as set out in this Schedule;
2. You are able to provide evidence of your right to work and remain in Ireland, in accordance with legal requirements, if required;
3. You will comply with Bank of America Corporation policies and any other Company procedures and policies that may apply to

4. You also meet any further requirements as stated in this Schedule and the letter of appointment.

We reserve the right to withdraw this offer if any of the above conditions are not met.

If, as we hope, you wish to accept the offer, you will need to sign and return one copy of this letter.

0000070858-23-000092image.jpg

Non-Executive Director Data Protection Notice

NON-EXECUTIVE DIRECTOR DATA PROTECTION NOTICE

I. INTRODUCTION

The legal entity named in the letter of appointment of the Non-Executive Director (collectively, the "Bank") have prepared this Non-Executive Director Data Protection Notice regarding the collection, use, storage, transfer and other processing of individually identifiable information about Non-Executive Directors. "Individually identifiable information" means information regarding an identified or identifiable Non-Executive Director. For the purposes of this Notice, a Non-Executive Director is any director of any Bank entity who is not an employee of the Bank or its affiliates and has no executive responsibilities for the Bank. You will receive additional data protection or privacy notices from time to time.

In the event this Notice is provided to a Non-Executive Director in a language other than English, any discrepancy, conflict or inconsistency between the English version and the translated version shall be resolved in favor of the English version, subject to applicable law.

II. PERSONAL DATA COLLECTION AND PURPOSES OF USE

Best practice and the effective running of our business require the Bank to collect, use, store, transfer and otherwise process certain personal data.

The Bank collects Personal Data that is directly relevant to its business, required to meet its legal obligations, or otherwise permitted by law. The categories of Personal Data that we collect and the purposes for which we use the data that we collect except where restricted by law, such as referees and background check providers, and public sources.

We collect and process Personal Data about you: (i) because we are required or permitted to do so by local applicable law, (ii) because we need it to fulfill your appointment and to facilitate your relationship with the Bank, (iii) because such information is of particular importance to the Bank, (iv) where a public interest requires it, (v) where the Personal Data is necessary for the establishment, exercise or defence of legal rights or another person.

Where necessary, we obtain your consent for collection and processing of Personal Data.

If you do not provide certain categories of Personal Data, the Bank may not be able to accomplish some of the purposes outlined in this Notice and the Corporate Secretary to deal with as appropriate.

0000070858-23-000092image.jpg

SENSITIVE PERSONAL DATA

The Bank may collect and process certain special categories of Personal Data ("Sensitive Personal Data") about Non-Executive Director's establishment, exercise or defence of legal claims, or, where necessary, the Non-Executive Director has provided explicit consent. Such categories include:

- physical and/or mental health in order to address workplace health, safety and accommodation issues and to monitor absence
- racial or ethnic origin or religious or similar beliefs in order to monitor compliance with equal opportunities legislation
- information relating to any criminal proceedings in which you have been involved for insurance purposes and in order to comply with legal obligations
- biometric data, such as fingerprints and iris scans, for the purposes of electronic identification, authentication and corporate security

PERSONAL DATA ABOUT FAMILY AND DEPENDENTS

If a Non-Executive Director provides the Bank with Personal Data about members of his/her family and/or other dependents (e.g., for the purpose of providing benefits), the Bank will inform such individuals of their rights (see Section VII) and to obtain their explicit consent, where necessary, to the processing (including disclosure) of their Personal Data.

III. COOKIES

Non-essential and essential cookies are collected on some websites and mobile applications that the Bank uses. Please refer to the Bank's Privacy Policy for more information.

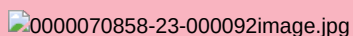
IV. ACCESS BY BANK PERSONNEL

Where permitted by law, access to Personal Data is restricted to those individuals who need such access for the purposes listed in this Notice. Access is granted to the Bank's Human Resources Department and to authorised representatives of the Bank's internal control functions such as Corporate Secretary, Compliance, Internal Audit, Security, Audit and Legal. Access may also be granted on a strict need-to-know basis to others where permitted by law.

V. DISCLOSURE

To the extent permitted by applicable law and as appropriate to achieve the purposes described in this Notice, Personal Data may be disclosed to:

Given the global nature of the Bank's activities, the Bank may (subject to applicable law) transmit for the purposes described in this Notice Personal Data to:



Bank of America affiliates or operations located in the United States or other jurisdictions where data protection laws may not provide the same level of protection as the Non-Executive Director's home jurisdiction. The affiliates belonging to the Bank of America Corporation group are listed at the link below. The listing is for informational purposes only. [***]

The Bank may disclose in accordance with applicable law relevant Personal Data to certain third parties in connection with the provision of services. If the Bank delegates processing of Personal Data to a third party data processor, such as those listed in [Appendix A](#), the Bank will delegate such processing in writing, will conduct due diligence and will implement appropriate technical and organisational security measures, such as data protection and information security requirements, governing the relationship on the Bank's behalf and under the Bank's instructions.

Personal Data also may be disclosed, where permitted by applicable law, in connection with a corporate restructuring, sale, or assignment of assets, or the liquidation or insolvency of the Bank or any of its subsidiary or affiliated companies. Personal Data also may be released to protect the vital interests of the Bank or its affiliates (unless this would prejudice the rights and freedoms or interests of the Non-Executive Director), or in the Bank's judgement to comply with legal obligations or requests.

VI. SECURITY

The Bank maintains appropriate technical and organisational measures designed to protect against unauthorised or unlawful processing of Personal Data, disclosure or access, or accidental or unlawful destruction of or damage to Personal Data.

VII. ACCESS, PORTABILITY, RECTIFICATION AND SUPPRESSION, LIMITATION AND RESTRICTION OF PROCESSING AND /

Non-Executive Directors are entitled to access Personal Data held about them (with the exception of any documents that are subject to legal privilege, such as other directors or any Employees, or that otherwise are not subject to data subject access rights). Any Non-Executive Director wishing to exercise their right under applicable law) request portability of their data should contact a member of the Human Resources Department or Corporate Secretary.

To the extent required by applicable law, Non-Executive Directors have the right to have inaccurate data corrected or removed (at the Bank's discretion) or to restrict processing of their data.

0000070858-23-000092image.jpg

To assist the Bank in maintaining accurate Personal Data, Non-Executive Directors must ensure they provide the Bank with updated information. If the Bank identifies an inaccuracy in the Personal Data it has recorded, it will correct that inaccuracy at the earliest practical opportunity.

To the extent available under applicable law, Non-Executive Directors may also have the following rights (including but not limited to):

- to request a copy of Personal Data held by the Bank (as part of an access request above);
- to request further information or complain about the Bank's practices and processes regarding their Personal Data;
- to object to, withdraw consent to, restrict, or request discontinuance of collection, use, disclosure and other processing of their Personal Data by the Bank.

For all inquiries, Non-Executive Directors should contact a member of the Human Resources Department or Corporate Secretary. Under applicable law, in certain circumstances, the Bank may be exempt from or entitled to refuse the above requests or rights. Certain additional terms may apply, such as requiring communications to be in writing or requiring proof of identity.

VIII. MODALITIES OF THE PROCESSING AND DATA RETENTION

The Bank does not use automated decision making on Non-Executive Director processes.

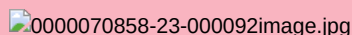
'Automated decision-making' is the process of making a decision by automated means without any human involvement.

Collection, use, disclosure, transfer and other processing, including storage, of Personal Data may be by electronic or manual means or by any combination of technology. Personal Data may be stored in a Non-Executive Director's home jurisdiction and/or other jurisdictions in which the Bank operates.

The Bank will maintain Personal Data for as long as it is required to do so by applicable law(s) or for as long as necessary for the purposes for which it was collected. The maximum storage term set forth by applicable law will prevail. The Bank will delete Personal Data after the applicable retention period expires.

The criteria used to determine our retention periods include:

- As long as we have an ongoing relationship with you;
- As required by a legal obligation to which we are subject;
- As advisable in light of our legal position (such as in regard of applicable statutes of limitations, litigation, or regulatory investigations).



IX. QUESTIONS

Should any Non-Executive Director have any questions, concerns or complaints about this Notice, please contact:

- For EMEA: Human Resources Service Center by phone at [***]or [***]
- For APAC:[***]

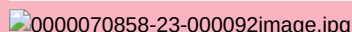
In certain countries, if you have additional queries about the way in which the Bank processes your Personal Data more broadly you can contact details:

EMEA Region	[***]
APAC Jurisdictions	[***]

You may have the right to lodge a complaint with the Data Protection authority for your country.

X. CHANGES TO THIS NOTICE

Should the Bank substantially modify the manner in which it collects or uses Personal Data, the type of Personal Data it collects or processes, or the way in which it discloses Personal Data, it will notify you as soon as reasonably possible by reissuing a revised Notice or taking other steps in accordance with applicable laws including obtaining your consent.



EMEA & Hong Kong Acknowledgement of the Notice

I have read the “Non-Executive Director Data Protection Notice” dated January 2018 describing the collection, processing and use of my Personal Data and the international transfer of my Personal Data to jurisdictions where data protection laws may not provide an equivalent level of protection to that in my home country. I understand its contents and expressly and voluntarily consent to the application of its terms to my appointment as a Non-Executive Director.

Please refer to instructions for how to acknowledge the Notice.

APAC

Consent to the Notice

I have read the “Non-Executive Director Data Protection Notice” dated January 2018 describing the collection, processing and use of my Personal Data and the international transfer of my Personal Data to jurisdictions where data protection laws may not provide an equivalent level of protection to that in my home country. I understand its contents and expressly and voluntarily consent to the application of its terms to my appointment as a Non-Executive Director. I understand its contents and expressly and voluntarily consent to the application of its terms to my appointment as a Non-Executive Director.

I also confirm that I have duly provided my family members and dependents (if any) with all information regarding the processing of their Personal Data and that I have obtained the explicit consent of those individuals, where necessary, to the processing of their Personal Data.

Please sign below to indicate your consent to the Notice.

Paul M. Donofrio

Name

/s/ Paul M. Donofrio

Signature

23 January 2023

Date

0000070858-23-000092image.jpg

13. APPENDIX A

The Categories of Personal Data We May Collect, Use, Transfer And Disclose:

- **Personal Demographic Information:** Date and place of birth; gender; name (including birth surname and any other former name)
- **Visa/ Citizenship Details:** Passport details; Nationality; Resident details; National ID
- **Primary Address:** Service address; home address and past addresses; telephone and email
- **Emergency contact details:** name, address, telephone number
- **Appointment and Position Information:** Occupation; Appointment Letter; Biography; pre- appointment references; post-appoint
- **Payroll:** Social insurance number or other tax identifier number; bank account details; tax and social security contributions; payroll e.g. P60 (UK)
- **Expenses administration**
- **Global Mobility:** Business travel information (including business visa details and travel logs and itineraries)
- **Absence Data:** Absence details e.g. sickness
- **Physical Security and Life Safety Data:** Swipe card entry data; CCTV; photograph (Security ID Card); Accident and Incident Re
- **Compensation:** Compensation information
- **Education and Training:** Academic Record, Professional Qualifications and Memberships; professional training; Bank internal tra
- **Regulatory Data (where applicable):** Licenses and certifications; financial regulatory registration
- **Technical information:** Including username and passwords, IP address, domain, browser type, operating system, click-stream d
- **Documents created or produced by you using Bank systems or in the performance of your role with the Bank**
- **Securities and Stock Trading:** Details of outside business activities and directorship(s) (appointments held, external appointmen
- **Sensitive Personal Data:** (e.g. physical health, criminal charges/convictions)

The Purposes For Which We May Collect, Use, Transfer And Disclose Personal Data:

- **Administering and managing the Non-Executive Director relationship, general administration and budgeting**
- **Authentication/identification of Non-Executive Directors** (e.g. for help desk)
- **Information technology and information security support** (including firewall monitoring, anti- spam and virus protection, and o
- **Cyber Security Monitoring Notices)**
- **Management of internal business operations** (including monitoring compliance with Bank policies and procedures, for exampl
- **Notices)**

- **Complying with applicable government reporting and other local and foreign law requirements** (including the requirements regulations and in such areas as immigration, tax or statutory financial regulation) and other legal obligations
- **Payroll and compensation management, administration and processing**
- **Complying with local or foreign state and/or country specific tax and immigration laws and regulations and payroll reporting**
- **Training and advice purposes**
- **Defending, preparing for, participating in and responding to potential legal claims, investigations and regulatory inquiries**
- **Managing relationships with third parties** (including licensing and registration bodies, legal counsel, stock exchanges, or business
- **Post-Non-Executive Director appointment purposes** (for example, providing Non-Executive Director references, and any of appointment period).

The Categories Of Unaffiliated Third Parties With Whom We May Share Personal Information

- **Professional Advisors:** Accountants, auditors, lawyers, insurers, bankers, tax advisors and other outside professional advisors in
- **Service Providers:** Companies that provide products and services to the Bank in the countries in which the Bank operates, such support; reception and security, catering and logistics services providers, translation services, third parties assisting with event or bodies and associations, and other service providers.
- **Public and Governmental Authorities:** Entities that regulate or have jurisdiction over the Bank in the countries in which the Bank operates, licensing and registration bodies, judicial bodies and third parties appointed by such authorities.
- **Parties Related to a Corporate Transaction:** A third party in connection with any proposed or actual reorganization, merger, sale or portion of the Bank's business, assets or stock (including in connection with any bankruptcy or similar proceedings), e.g., stock exchange

Direct and Indirect Subsidiaries of Bank of America Corporation
As of **December 31, 2022** **December 31, 2023**

Name	Location
BA Continuum India Private Limited	Hyderabad, India
BA Electronic Data Processing (Guangzhou) Ltd.	Guangzhou, PRC
BAC Canada Finance Company	Toronto, Ontario, Canada
BAC North America Holding Company	Charlotte, NC
BAL Investment & Advisory, Inc. LLC	San Francisco, CA
Banc of America FSC Holdings, Inc.	San Francisco, CA
Banc of America Leasing & Capital, LLC	San Francisco, CA
Banc of America Securities Asia Limited	Hong Kong, PRC
Bank of America California, National Association	San Francisco, CA
Bank of America Custodial Services (Ireland) Limited	Dublin, Ireland
Bank of America Europe Designated Activity Company	Dublin, Ireland
Bank of America Malaysia Berhad	Kuala Lumpur, Malaysia
Bank of America Merrill Lynch Banco Múltiplo S.A.	Sao Paulo, Brazil
Bank of America Mexico, S.A., Institución de Banca Múltiple	Mexico City, Mexico
Bank of America, National Association	Charlotte, NC
Bank of America Singapore Limited	Singapore, Singapore
Bank of America Yatirim Bank A.S.	Istanbul, Turkey
BankAmerica International Financial Corporation	San Francisco, CA
Blue Ridge Investments, L.L.C.	Charlotte, NC New York, NY
BofA Finance LLC	Charlotte, NC
BofA Securities Europe SA	Paris, France
BofA Securities, Inc.	New York, NY
BofA Securities India Limited	Mumbai, India
BofA Securities Japan Co., Ltd.	Tokyo, Japan
BofA Securities Prime, Inc.	New York, NY
Countrywide Financial Corporation	Calabasas, CA
Countrywide Home Loans, Inc.	Calabasas, CA
Managed Account Advisors LLC	Jersey City, NJ
Merrill Lynch (Asia Pacific) Limited	Hong Kong, PRC
Merrill Lynch (Australia) Futures Limited	Sydney, Australia
Merrill Lynch (Singapore) Pte. Ltd.	Singapore, Singapore
Merrill Lynch Argentina S.A.	Capital Federal, Argentina
Merrill Lynch B.V.	Amsterdam, Netherlands
Merrill Lynch Bank and Trust Company (Cayman) Limited	George Town, Grand Cayman, Cayman Is.
Merrill Lynch Canada Inc.	Toronto, Ontario, Canada
Merrill Lynch Capital Services, Inc.	New York, NY
Merrill Lynch Commodities Canada, ULC	Toronto, Ontario, Canada
Merrill Lynch Commodities, Inc.	Houston, TX
Merrill Lynch Corredores de Bolsa SpA	Santiago, Chile
Merrill Lynch Credit Reinsurance Limited	Hamilton, Bermuda
Merrill Lynch Derivative Products AG	Zurich, Switzerland
Merrill Lynch Equities (Australia) Limited	Sydney, Australia
Merrill Lynch Far East Limited	Hong Kong, PRC
Merrill Lynch Global Services Pte. Ltd.	Singapore, Singapore
Merrill Lynch International	London, U.K.
Merrill Lynch International & Co. C.V.	Curacao, Netherlands Antilles
Merrill Lynch International, LLC	New York, NY Charlotte, NC
Merrill Lynch Israel Ltd.	Tel Aviv, Israel
Merrill Lynch, Kingdom of Saudi Arabia Company	Kingdom of Saudi Arabia
Merrill Lynch Malaysian Advisory Sdn. Bhd.	Kuala Lumpur, Malaysia
Merrill Lynch Markets (Australia) Pty. Limited	Sydney, Australia
Merrill Lynch Mexico, S.A. de C.V., Casa de Bolsa	Mexico City, Mexico
Merrill Lynch, Pierce, Fenner & Smith Incorporated	New York, NY
Merrill Lynch Professional Clearing Corp.	New York, NY
Merrill Lynch S.A. Corretora de Títulos e Valores Mobiliários	Sao Paulo, Brazil
Merrill Lynch Securities (Taiwan) Ltd.	Taipei, Taiwan
Merrill Lynch Securities (Thailand) Limited	Bangkok, Thailand
Merrill Lynch South Africa Proprietary Limited	Gauteng, South Africa
ML UK Capital Holdings Limited	London, U.K.
Mortgages 1 Limited	London, U.K.
Mortgages plc	London, U.K.
NB Holdings Corporation	Charlotte, NC
PT Merrill Lynch Sekuritas Indonesia	Jakarta, Indonesia
U.S. Trust Company of Delaware	Wilmington, DE
Wave Lending Limited	London, U.K.

Pursuant to Item 601(b)(21)(ii) of Regulation S-K, the names of certain other subsidiaries of Bank of America Corporation are omitted as they are not "significant subsidiary" under SEC rules.

Subsidiary Issuers of Guaranteed Securities

The finance subsidiaries of Bank of America Corporation ("BAC") identified in the table below, have issued (and, in the case of BofA F listed opposite each such subsidiary issuer in the table below. BAC has fully and unconditionally guaranteed (or effectively provided f

Subsidiary Issuer	Guaranteed Securities
BofA Finance, a consolidated finance subsidiary	Senior Debt Securities issued und 333-234425, 333-213265-01 and 3
BAC Capital Trust XIII, a 100% owned finance subsidiary	Floating Rate Preferred Hybrid Inc
BAC Capital Trust XIV, a 100% owned finance subsidiary	5.63% Fixed to Floating Rate Prefe
BAC Capital Trust XV, a 100% owned finance subsidiary	Floating Rate Capital Securities

† Includes securities that have been issued/outstanding and may no longer be subject to requirements of Regulation S-X Rules 3-10 and 13-01

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNT

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (Nos. 333-268718 and 333-257 157085; 333-133566; 333-121513; 333-102043; 333-234780; 333-231107; 333-251608; 333-256008; 333-271554; and 333-256008) 22, 2023 February 20, 2024 relating to the financial statements and the effectiveness of internal control over financial reporting, which

0000070858-24-000122pwccconsenta02a.jpg

Charlotte, North Carolina
February 22, 2023 20, 2024

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each of the several undersigned officers and directors of Bank of America Corporation whose signatures appear bel of them acting individually, his or her true and lawful attorneys attorneys-in-fact and agents with power to act without any the other and with full power of substitution, to prepare, ex her behalf, and in each of the undersigned officer's and director's capacity or capacities as shown below, an Annual Report on Form 10-K for the yearended December 31, 2022 C thereto, and any and all amendments or supplements to the foregoing, granting unto said attorneys-in-fact and agents full power and authority to do and perform every act necess confirming all acts and things which said attorneys attorneys-in-fact or attorney attorney-in-fact might do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, each of the undersigned officers and directors, in the capacity or capacities noted, has hereunto set his o

SignatureTitle/s/ Brian T. Moynihan

Brian T. Moynihan

Chief Executive Officer, President,
Chair and Director
(Principal Executive Officer)/s/ Alastair M. Borthwick

Alastair M. Borthwick

Chief Financial Officer
(Principal Financial Officer)/s/ Rudolf A. Bless

Rudolf A. Bless

Chief Accounting Officer
(Principal Accounting Officer)/s/ Sharon L. Allen

Sharon L. Allen

Director

/s/ José E. Almeida

José E. Almeida

Director

/s/ Frank P. Bramble, Sr.

Frank P. Bramble, Sr.

Director

/s/ Pierre J.P. de Weck

Pierre J.P. de Weck

Director

/s/ Arnold W. Donald

Arnold W. Donald

Director

/s/ Linda P. Hudson

Linda P. Hudson

Director

Monica C. Lozano

Director

February 1, 2023

<u>/s/ Monica C. Lozano</u> Monica C. Lozano	Director
<u>/s/ Lionel L. Nowell III</u> Lionel L. Nowell III	Director
<u>/s/ Denise L. Ramos</u> Denise L. Ramos	Director
<u>/s/ Clayton S. Rose</u> Dr. Clayton S. Rose	Director
<u>/s/ Michael D. White</u> Michael D. White	Director
<u>/s/ Thomas D. Woods</u> Thomas D. Woods	Director
<u>/s/ R. David Yost</u> R. David Yost	Director
<u>/s/ Maria T. Zuber</u> Dr. Maria T. Zuber	Director

CERTIFICATION PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002
FOR THE CHIEF EXECUTIVE OFFICER

I, Brian T. Moynihan, certify that:

1. I have reviewed this Annual Report on Form 10-K of Bank of America Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in connection with this report, true and accurate in all material respects for the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations, and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that information required to be disclosed by the registrant in this report is recorded, processed, summarized and reported within the time periods specified in the applicable SEC rules and forms;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance that information required to be disclosed by the registrant in this report is recorded, processed, summarized and reported within the time periods specified in the applicable SEC rules and forms;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report;
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (or during the registrant's most recent fiscal year if no change occurred) that reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditor (or auditors), the deficiencies in the internal control over financial reporting that we believe could result in a material misstatement of the registrant's financial statements and the registrant's response to those deficiencies.

- a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record and report financial results in accordance with generally accepted accounting principles;
- b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 22, 2023 20, 2024

/s/ Brian T. Moynihan
Brian T. Moynihan
Chief Executive Officer

CERTIFICATION PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002
FOR THE CHIEF FINANCIAL OFFICER

I, Alastair M. Borthwick, certify that:

1. I have reviewed this Annual Report on Form 10-K of Bank of America Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which they were made, truthful, for the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations, and cash flows of the registrant as of, or for, the period indicated;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is recorded, processed, summarized and reported, within the time period specified in the applicable securities exchange act;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance that financial statements for external purposes in accordance with generally accepted accounting principles are prepared;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures as of the end of the period covered by this report;
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (or during the registrant's most recent fiscal year if no change occurred) that has reasonably likely to materially affect the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors (and, if applicable, the audit committee of the registrant's board of directors), all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record and report financial results in accordance with generally accepted accounting principles, and any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 22, 2023 20, 2024

/s/ Alastair M. Borthwick
Alastair M. Borthwick
Chief Financial Officer

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 135
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002

I, Brian T. Moynihan, state and attest that:

1. I am the Chief Executive Officer of Bank of America Corporation (the registrant).
2. I hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:
 - the Annual Report on Form 10-K of the registrant for the year ended December 31, 2022 December 31, 2023 (the periodic report) containing financial statements (15 U.S.C. 78m or 78o(d)); and
 - the information contained in the periodic report fairly presents, in all material respects, the financial condition and results of operations of the registrant.

Date: February 22, 2023 20, 2024

/s/ Brian T. Moynihan
Brian T. Moynihan
Chief Executive Officer

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 135
AS ADOPTED PURSUANT TO SECTION 906
OF THE SARBANES-OXLEY ACT OF 2002

I, Alastair M. Borthwick, state and attest that:

1. I am the Chief Financial Officer of Bank of America Corporation (the registrant).
2. I hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:
 - the Annual Report on Form 10-K of the registrant for the year ended December 31, 2022 December 31, 2023 (the periodic report) containing financial statements (15 U.S.C. 78m or 78o(d)); and
 - the information contained in the periodic report fairly presents, in all material respects, the financial condition and results of operations of the registrant.

Date: February 22, 2023 20, 2024

/s/ Alastair M. Borthwick
Alastair M. Borthwick
Chief Financial Officer

Incentive Compensation Recoupment Policy

This Incentive Compensation Recoupment Policy ("Policy") shall be administered by the Board of Directors (the "Board") of Bank of America Corporation. Any determinations made by the Board or committee shall be final and binding on all affected individuals. Additionally, this Policy incorporates the provisions of the Wall Street Reform and Consumer Protection Act (regarding recovery of erroneously awarded compensation) and its implementing regulations.

standards. This Policy operates in addition to any (a) recoupment provisions contained in the terms of other compensation awards laws.

Covered Officers

This Policy applies to all of the Company's current and former "executive officers," as determined by the Board pursuant to Rule 10D-1 of the Exchange Act and the New York Stock Exchange listing standards. This Policy shall be binding on the Covered Officers, their heirs, executors, administrators or other legal representatives.

Compensation Subject to Recoupment

For purposes of this Policy, covered compensation subject to recoupment includes any non-equity incentive plan awards, bonuses or other incentive-based awards, or proceeds received upon sale of shares acquired through an incentive plan; provided that, such compensation is a financial reporting measure ("Incentive-based Compensation"). For purposes of this Policy, Incentive-based Compensation will also include any compensation calculated by reference to Incentive-based Compensation. A financial reporting measure includes those found in financial statements, in whole or in part from such measure (e.g., total shareholder return, stock price, revenue, net income, return on assets, tangible book value).

Incentive-based Compensation shall not include any salaries, discretionary cash bonuses, non-equity incentive plan awards earned on a non-financial measure (e.g., completion of a project), or equity-based awards that are not contingent on achieving any financial reporting measure.

Required Recoupment: Accounting Restatement

In the event the Company is required to prepare an accounting restatement of its financial statements due to the Company's misstatements in its financial statements, securities laws or regulations issued by the Securities and Exchange Commission, the Board or applicable committee shall require the Covered Officers to repay the Incentive-based Compensation (described below) received by any Covered Officer during the applicable look-back period (described below). Covered Officers shall be required to repay previously issued financial statement that is material to such previously issued financial statement or (b) correct an error that is not material to such previously issued financial statement.

BANK OF AMERICA CORPORATION

CORPORATE POLICY REGARDING SEEKING
STOCKHOLDER APPROVAL OF FUTURE SEVERANCE AGREEMENTS

1. Policy Statement: It shall be the policy of the Board to seek Stockholder Approval for Future Severance Agreements with Senior Executive Officers. Limitation.

2. Definitions: As used in this Policy Statement the following terms shall have the following meanings:

"Accrued Benefits" means compensation and benefits earned, accrued or otherwise provided for employment services rendered by the Covered Officer (e.g., vacation, accrued retirement benefits, etc.) or any post-termination benefits provided under plans, programs or arrangements of the Corporation and its subsidiaries (e.g., retiree medical). In that regard, "Accrued Benefits" includes any sign-on bonus paid to an executive intended to attract the executive to the Corporation's common stock), regardless of whether there is any potential repayment obligation related to such sign-on bonus.

"Base Salary" means:

- (i) with respect to an Employment Agreement, the annual rate of base salary payable from time to time to the Senior Executive Officer;
- (ii) with respect to a Severance Agreement, the annual rate of base salary payable to the Senior Executive Officer immediately prior to the termination of the Covered Officer's employment.

1

a material misstatement if left uncorrected in a current report or the error correction was not recognized in the current period.

"Board" means The amount of excess Incentive-based Compensation to be recouped due to a covered accounting restatement will be the amount of Incentive-based Compensation received by the Covered Officer had the Incentive-based Compensation been determined based on the restated amounts, calculated as if the Covered Officer had received the excess compensation received by the Covered Officer directly from the information in the accounting restatement, then it shall make its determination of the amount of excess compensation to be recouped based on the restated amounts.

"Bonus" means the greater of (i) the highest Total Annual Incentive Award actually awarded to the Senior Executive by the Corporation in the year of the accounting restatement, or (ii) the highest Total Annual Incentive Award actually awarded to the Senior Executive by the Corporation in the year immediately preceding the year of the accounting restatement.

The look-back period will be the three (3) completed fiscal years of the Corporation immediately preceding the fiscal year earlier of the date on which an accounting restatement is required or (b) a court, regulator, or other legally authorized body directs a restatement.

Additional Recoupment; Fraud or Intentional Misconduct

If the Board or an appropriate committee has determined that any fraud or intentional misconduct by one or more Covered Officers caused, and the committee shall take, in its sole discretion, such additional action, if any, as it deems necessary to remedy the misconduct and prevent its recurrence. In addition to the "Recoupment; Accounting Restatement" sections above, this may include requiring reimbursement of any bonus or incentive compensation previously granted to such Covered Officers in the amount by which compensation exceeded any lower payment that would have been made based on the results.

Recoupment Method

The Board or (ii) committee may determine, in its sole discretion, the "target" Total Annual Incentive Award method for such Senior Executive for the Corporation. "Corporation" means Bank of America Corporation, recouping compensation from a Delaware corporation.

"Effective Date" means April 24, 2002, the effective date of Covered Officer reasonably promptly under this Policy Statement.

"Employment Agreement" means an agreement between including, without limitation: (a) requiring reimbursement of cash previously received by a Senior Executive (including, without limitation, cash received upon the vesting, exercise, settlement, sale, transfer, or other disposition of its subsidiaries) and a Senior Executive pursuant to which any equity or other award is made to the Senior Executive (including, without limitation, any equity or other award) from any compensation otherwise owed to the Corporation (or one of its subsidiaries) as an employee (and not as a consultant) for the purposes of this definition, a person shall be considered a Senior Executive if the person is a Senior Executive for the year that the agreement is entered into and the immediately following year.

"Future Severance Agreement" means an Employment Agreement or Severance Agreement entered into after the Effective Date of the Policy Statement. "Future Severance Agreement" includes any renewal, modification or extension made after the Effective Date to an Employment Agreement or Severance Agreement.

"Permitted Equity Vesting" means the accelerated vesting pursuant to a Future Severance Agreement related to:

- (i) any equity award that was outstanding as of the Effective Date, or

2

- (ii) any equity award granted after the Effective Date to the extent it would have vested during the twenty-four (24) month period ending on the Effective Date.

"Senior Executive" means an executive officer of the Corporation whose compensation is reported in an annual proxy statement of the Corporation for the year ending on the Effective Date.

"Severance Agreement" means an agreement between the Corporation (or one of its subsidiaries) and a Senior Executive related to the termination of the Senior Executive's employment with the Corporation (or one of its subsidiaries). For purposes of this definition, a person shall be considered a Senior Executive if the person is a Senior Executive for the year that the agreement is entered into and the immediately preceding year. A Severance Agreement does not include an agreement for future services to be rendered to the Corporation (e.g., non-competition covenants, covenants not to compete, covenants not to solicit, etc.)

"Severance Benefits" means and includes (i) severance benefits payable in cash (including cash amounts payable for the unearned portion of any bonus or incentive compensation), (ii) the value of any accelerated vesting of equity awards, and (iii) the value of any other benefits payable to a Senior Executive upon termination of employment other than any Permitted Equity Vesting. The term "Severance Benefits" does not include any Accrued Benefits.

"Severance Benefit Limitation" means, with respect to a Senior Executive, two (2) times the sum of such Senior Executive's Base Salary for the year that the Severance Agreement is entered into. If the Severance Benefits payable to a Senior Executive under a Severance Agreement exceed the Severance Benefit Limitation shall be determined by ascertaining whether the Severance Benefits payable to a Senior Executive under a Severance Agreement exceed the Severance Benefit Limitation.

3

termination of employment would exceed the Severance Benefit Limitation. Whether the Severance Benefits provided under a determined by ascertaining whether the Severance Benefits payable to a Senior Executive under such Severance Agreement exceed than one Future Severance Agreement (e.g., both an Employment Agreement and a Severance Agreement), the Severance Benefits payable under all such agreements.

"*Stockholder Approval*" means, with respect to a Future Severance Agreement, the approval by the affirmative vote of a majority Series B Preferred Stock and ESOP Preferred Stock of the Corporation cast with respect to such Future Severance Agreement at a duly convened

"*Total Annual Incentive Award*" means the total annual incentive awarded to a Senior Executive for a fiscal year of the Corporation such amount is deferred under any qualified or non-qualified deferred compensation plan of the Corporation) account balances; and/or (f) taking stock or restricted stock units.

3. Valuations. The determinations of the value of non-cash items, recoupment action permitted by law, as well as the present value of; by the Board in its sole discretion using commercially reasonable valuation techniques and principles.

4. Examples:

Example A: or committee. The Board determines that it is in the best interest or committee shall not be required to seek to recoup compensation home country laws, or (iii) likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees of the requirements of Section 401(a)(13) or Section 411(a) of the U.S. Internal Revenue Code of 1986, as amended; each as determined by the Board after New York Stock Exchange listing standards. Any such determination that recoupment is not required shall be evidenced by the Effective Board

The Company shall not indemnify any Covered Officers against the loss of any compensation resulting from the application of this Policy

4

Date. Upon a Senior Executive's qualifying termination of employment following the occurrence of a "change in control," Severance These agreements would constitute Future Severance Agreements for purposes of this Policy Statement. Under the Policy Statement Stockholder Approval.

Example B: The Corporation enters into an agreement and plan of merger with XYZ Corporation after the Effective Date. Under the terms Senior Executive of the Corporation on the effective date of the merger (because the executive's compensation will be reported in the Corporation proposed employment agreement with the chief executive officer of XYZ Corporation would have a term of five years and provides that in the "without cause" or the chief executive officer terminates employment with the Corporation for "good reason" during the term, then the chief executive for in the employment agreement for the remainder of the employment agreement term. This employment agreement would constitute a Future possible for Severance Benefits to be paid in an amount more than the Severance Benefit Limitation, the Corporation would condition the agreement

Example C: The Corporation recruits an executive laterally from another organization after the Effective Date and enters into an employment certain circumstances, provide Severance Benefits following a qualifying termination of employment in excess of the Severance Benefit Limitation is not reported in the Corporation's proxy for the year

5

in which the executive is hired or the following year). This employment agreement would not be subject to Stockholder Approval because

Example D: Same facts as Example C above except that five years after initial employment the executive is promoted and becomes a Senior Executive of the Corporation. The original employment agreement remain in effect. The original employment agreement would not be subject to Stockholder Approval under the Policy Statement because the executive was not a Senior Executive of the Corporation.

Example E: The Corporation desires to laterally recruit a high-level executive from a competitive financial services organization after initial employment (because the executive's compensation will be reported in the Corporation's proxy for the year in which the executive is first entered into with the executive, the executive receives (i) a guaranteed level of Base Salary and Bonus for a period of two years, (ii) a "sign-on bonus" that would be forfeited upon the executive's separation from service, (iii) a supplemental retirement arrangement under which the executive accrues additional equity awards that have vesting schedules associated with them in excess of the two-year term of the agreement but which provide for full vesting of the awards would have vested during the twenty-four (24) month period following termination of employment. The Board determines at the time the executive enters into the agreement do not exceed the Severance Benefit Limitation because (i) the guaranteed Base Salary and Bonus could not result in the payment of !

6

Benefits in excess of the Severance Benefit Limitation and (ii) the other elements of the agreement would not constitute Severance Benefits. Benefits accrued under the supplemental retirement arrangement would constitute Accrued Benefits, and any additional vesting of the equity awards under the employment agreement would not be submitted for Stockholder Approval.

5. Reservation of Right to Amend. The Board reserves the right to amend this Policy Statement from time to time in its sole discretion.

7

DISCLAIMER

THE INFORMATION CONTAINED IN THE REFINITIV CORPORATE DISCLOSURES DELTA REPORT™ IS A COMPARISON MATERIAL ERRORS, OMISSIONS, OR INACCURACIES IN THE REPORT INCLUDING THE TEXT AND THE COMPARISON APPLICABLE COMPANY ASSUME ANY RESPONSIBILITY FOR ANY INVESTMENT OR OTHER DECISIONS MADE BASED ON THE INFORMATION. USERS ARE ADVISED TO REVIEW THE APPLICABLE COMPANY'S ACTUAL SEC FILINGS BEFORE MAKING ANY INVESTMENT DECISIONS.

©2024, Refinitiv. All rights reserved. Patents Pending.