**Annual Report** 

As of and for the Years Ended December 31, 2022 and 2021

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# ANNUAL REPORT

# Morgan Stanley Bank, N.A.

For the year ended December 31, 2022

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#### Forward-Looking Statements

We have included in or incorporated by reference into this report, certain statements, including, without limitation, those under "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Quantitative and Qualitative Disclosures about Risk", and from time to time may make in our public filings, or in Morgan Stanley's public filings, press releases or other public statements, certain statements that may constitute "forward-looking statements". Unless the context otherwise requires, the terms "Morgan Stanley" and "the Firm" mean Morgan Stanley (the "Parent") together with its consolidated subsidiaries, including Morgan Stanley Bank, N.A. In addition, Morgan Stanley's or our management may make forward-looking statements to analysts, investors, representatives of the media and others. These forward-looking statements are not historical facts and represent only our beliefs regarding future events, many of which, by their nature, are inherently uncertain and beyond our control.

The nature of our business makes predicting the future trends of our revenues, expenses, and net income difficult. The risks and uncertainties involved in our businesses could affect the matters referred to in such statements, and it is possible that our actual results may differ, possibly materially, from the anticipated results indicated in these forward-looking statements. Important factors that could cause actual results to differ from those in the forward-looking statements made by Morgan Stanley or us include, without limitation:

- the effect of market conditions, particularly in the global credit markets, including corporate, commercial and residential mortgage lending, as well as global equity, fixed income, currency and commodities markets;
- the level of individual investor participation in the global markets as well as the level and mix of client assets held at Morgan Stanley and placed with us as deposits;
- the level and volatility of interest rates, inflation and currency values, as well as equity, fixed income and commodity prices and other market indices or other market factors, such as market liquidity;
- the availability and cost of both credit and capital, as well as the credit ratings assigned to our unsecured short-term, and long-term debt:
- technological changes instituted by Morgan Stanley or us, Morgan Stanley's or our competitors or counterparties and technological risks, business continuity and related operational risks, including breaches or other disruptions of Morgan Stanley's, our or a thirdparty's (or third-parties thereof) operations or systems;
- risk associated with cybersecurity threats, including data protection and cybersecurity risk management;
- Morgan Stanley's or our ability to effectively manage capital and liquidity;
- the impact of current, pending and future legislation or changes thereto, regulation (including capital, leverage, funding, liquidity, consumer protection and resolution requirements) and Morgan Stanley's or our ability to address such requirements;
- uncertainty concerning fiscal or monetary policies established by central banks and financial regulators, government shutdowns, debt ceilings or funding;
- changes to global trade policies, tariffs, interest rates, replacements of LIBOR and replacement or reform of other interest rate benchmarks;
- legal and regulatory actions, including litigation and enforcement, in the U.S. and worldwide;
- changes in tax laws and regulations globally;
- the effectiveness of Morgan Stanley's or our risk management processes and related controls, including climate risk;
- Morgan Stanley's or our ability to effectively respond to an economic downturn, or other market disruptions;
- the effect of social, economic and political conditions and geopolitical events, including as a result of changes in U.S. presidential administrations or Congress, and sovereign risk;
- the actions and initiatives of current and potential competitors as well as governments, central banks, regulators and self-regulatory organizations;
- Morgan Stanley's or our ability to provide innovative products and services and execute strategic initiatives, and costs related thereto, including with respect to the operational or technological integration related to such innovative and strategic initiatives;
- the performance and results of Morgan Stanley's acquisitions, divestitures, joint ventures, partnerships, minority stakes or strategic alliances, or other strategic arrangements and related integrations;
- investor, consumer and business sentiment and confidence in the financial markets;
- · Morgan Stanley's or our reputation and the general perception of the financial services industry;
- Morgan Stanley's or our ability to retain, integrate and attract qualified employees;
- climate-related incidents and other environmental and sustainability matters, global pandemics (including impacts of the coronavirus disease ("COVID-19")), acts of war or aggression (including the war between Russia and Ukraine), and terrorist activities or military actions; and
- other risks and uncertainties detailed under "Business—Competition," "Business—Supervision and Regulation," "Risk Factors" and elsewhere throughout this report.

Accordingly, you are cautioned not to place undue reliance on forward-looking statements, which speak only as of the date on which they are made. We undertake no obligation to update publicly or revise any forward-looking statements to reflect the impact of circumstances or events that arise after the dates they are made, whether as a result of new information, future events or otherwise except as required by applicable law. You should, however, consult future disclosures we may make.

# **Available Information**

This Annual Report is available at www.morganstanley.com/about-us-ir/subsidiaries. In addition, certain of our affiliates, including the Parent, provide annual and periodic reports relating to their businesses and activities, which are available at www.morganstanley.com/about-us-ir. Information contained on such website is not part of, nor is it incorporated by reference into, this Annual Report.

#### **Business**

#### Overview

Morgan Stanley Bank, N.A. ("MSBNA") is a national bank with its headquarters and main office in Salt Lake City, Utah, and is an indirect, wholly owned subsidiary of the Parent. MSBNA is subject to regulation, supervision and examination by the OCC and its qualifying deposits are insured by the FDIC. MSBNA is provisionally registered as a swap dealer with the CFTC and conditionally registered as a security-based swap dealer with the SEC. MSBNA has no branches or automated teller machines ("ATMs"), and it does not engage in retail deposit activities. Unless the context otherwise requires, the terms "Bank", "us", "we" and "our" mean Morgan Stanley Bank, N.A. See the "Glossary of Common Terms and Acronyms" for the definition of certain terms and acronyms used throughout the 2022 Annual Report.

Financial information concerning the Bank for each of the years ended December 31, 2022 and December 31, 2021 is included in "Financial Statements and Supplementary Data".

The Parent is a financial holding company regulated by the Board of Governors of the Federal Reserve System ("Federal Reserve") under the Bank Holding Company Act of 1956, as amended ("BHC Act"), and is subject to comprehensive, consolidated supervision and examination by the Federal Reserve, as its primary regulator.

# **Business Description**

The Bank is primarily a wholesale commercial bank that offers corporate lending and certain retail securities-based lending services in addition to deposit products, which are principally used to fund lending activities and our investment portfolio. Additional information related to our business lines, investment portfolio, deposit taking, and other activities is included under "Management's Discussion and Analysis of Financial Condition and Results of Operations."

# Competition

All aspects of our businesses are highly competitive, and we expect them to remain so. We compete in the U.S. and globally for clients, market share and human talent. Operating within the financial services industry on a global basis presents, among other things, technological, risk management, regulatory infrastructure and other challenges that require effective resource allocation in order for us to remain competitive. Our competitive position depends on a number of factors, including our reputation, client experience, the quality and consistency of our long-term investment performance, innovation, execution, relative pricing and other factors, including entering into new or expanding current businesses as a result of Morgan Stanley's acquisitions and other strategic initiatives and the reputation of Morgan Stanley as a whole, as well as the quality and consistency of Morgan Stanley's long-term performance. Our ability to sustain or improve our competitive position also depends substantially on our and Morgan Stanley's ability to continue to attract and retain highly qualified

employees while managing compensation and other costs. We compete with commercial banks, investment banking firms, brokerage firms and other companies offering lending and deposit products and services in the U.S. and globally, including through the internet. In addition, restrictive laws and regulations applicable to certain global financial services institutions, which have been increasing in complexity and volume, may prohibit us from engaging in certain transactions, impose more stringent capital and liquidity requirements, increase costs, and can put us at a competitive disadvantage to competitors in certain businesses not subject to these same requirements. See also "Supervision and Regulation" herein and "Risk Factors."

It is possible that competition may become even more intense as we continue to compete with financial or other institutions that may be larger, or better capitalized, or may have a stronger local presence and longer operating history in certain geographies or products. Many of these firms have the ability to offer a wide range of products and services through different platforms, that may enhance their competitive position and could result in additional pricing pressure on our businesses.

#### **Parent Relationship**

#### Our Relationship with the Parent and our Affiliates

We are an indirect wholly owned insured depository institution ("IDI") subsidiary of the Parent. We rely on the Parent and our affiliates for business relationships, certain processes, support systems and infrastructure, and financial support. In turn we provide similar support services to our affiliates. Our affiliates are sources of business for our lending and other business activities, and they often are counterparties to derivatives transactions with us.

#### Support Services

We receive operational, administrative, and risk management support services from our affiliates including loan origination and servicing, operational and infrastructure services, trade execution, relationship management, risk management and control, and administrative as well as other miscellaneous support services. All support services we receive from our affiliates are overseen by our direct employees, or employees of our affiliates who are also Bank officers. We also provide certain operational, administrative and risk management support services to our affiliates. The services we receive and provide to our affiliates are governed under master services agreements, and supplemented by task orders (collectively, the "Service Level Agreements"). We benefit from our affiliates' access to thirdparty vendors, experience and knowledge, and services provided to us by employees of affiliates. For further information about our relationship with our affiliates, see "Risk Factors-Operational Risk" and Note 10 to the financial statements.

## **Funding Sources**

Deposits are our primary source of funding for our assets. We source deposits through clients of Morgan Stanley's Wealth Management segment via affiliated entities, as well as through unaffiliated third-parties. Our deposits are sourced primarily

through a "sweep" program whereby certain cash balances associated with affiliate and third-party relationships, such as cash balances in accounts of MSSB, ETS and MSPBNA customers, or accounts of third-party customers, are swept into DDAs. We also issue time deposits, and accept deposits from the Parent and our affiliates. In addition, we have access to funding facilities primarily from the Parent. See Note 10 to the financial statements for further information about funding facilities with affiliates.

# **Supervision and Regulation**

We are an FDIC-insured depository institution subject to supervision, regulation and examination by the OCC and are subject to the OCC's risk governance guidelines, which establish heightened standards for a large IDI's risk governance framework and the oversight of that framework by the IDI's board of directors. We are also subject to prompt corrective action standards, which require the relevant federal banking regulator to take prompt corrective action with respect to an IDI if that institution does not meet certain capital adequacy standards. Our swap dealer activities are also regulated by the CFTC, and our security-based swap dealer activities are regulated by the SEC. In addition, the Consumer Financial Protection Bureau ("CFPB") has primary rulemaking, enforcement and examination authority over us with respect to federal consumer protection laws, to the extent applicable.

We continue to monitor the changing political, tax and regulatory environment. While it is likely that there will be changes in the way major financial institutions are regulated in the U.S., it remains difficult to predict the exact impact these changes will have on our business, financial condition, results of operations and cash flows for a particular future period. We expect to remain subject to extensive supervision and regulation.

The Federal Deposit Insurance Corporation Improvement Act of 1991 ("FDICIA") establishes five capital categories for FDICinsured banks, such as us: well-capitalized, adequately capitalized, undercapitalized, significantly undercapitalized and critically undercapitalized. An IDI may be downgraded to, or deemed to be in, a capital category that is lower than is indicated by its capital ratios if it is determined to be in an unsafe or unsound condition or if it receives an unsatisfactory examination rating with respect to certain matters. FDICIA imposes progressively more restrictive constraints on operations, management and capital distributions, as the capital category of an institution declines. Failure to meet the capital requirements could also require an IDI to raise capital. An IDI also is prohibited from accepting, renewing or rolling over deposits by or through a "deposit broker" (as defined in FDICIA) unless the institution is well-capitalized. The FDIC may waive this prohibition if the IDI is adequately capitalized; however, the prohibition cannot be waived if the institution undercapitalized, significantly undercapitalized or critically undercapitalized. An IDI also is restricted with respect to the deposit interest rates it may offer if it is not well-capitalized. Ultimately, critically undercapitalized IDIs are subject to the appointment of a receiver or conservator, as described in "Insolvency of an Insured Depository Institution" below. At

December 31, 2022 and December 31, 2021 the Bank maintained capital levels in excess of the well-capitalized requirements.

Transactions with Affiliates. We are subject to Sections 23A and 23B of the Federal Reserve Act and their implementing rule, the Federal Reserve's Regulation W, which impose restrictions on certain transactions between us and our affiliates, including any extension of credit to, or purchase of assets from an affiliate. These restrictions limit the total amount of credit exposure that we may have to any one affiliate and to all affiliates and require collateral for covered credit exposures. Section 23B requires affiliate transactions to be on market terms.

Lending and Credit Limits. The OCC imposes lending limits on the Bank (which also take into account credit exposure from derivative transactions and securities financing transactions of securities representing debt obligations) and other requirements that could impact the manner and scope of our activities.

The Federal Reserve also imposes single-counterparty credit limits for large banking organizations. U.S. G-SIBs, including Morgan Stanley, are subject to a limit of 15% of Tier 1 capital for aggregate net credit exposures to any "major counterparty" (defined to include other U.S. G-SIBs, foreign G-SIBs and non-bank systemically important financial institutions supervised by the Federal Reserve). In addition, Morgan Stanley is subject to a limit of 25% of Tier 1 capital for aggregate net credit exposures to any other unaffiliated counterparty. Unlike the OCC's lending limits, which apply to the Bank on a standalone basis, the limits imposed by the Federal Reserve apply to the Parent and its subsidiaries on a consolidated basis. Accordingly, the application of the consolidated limits could also impact the level of credit exposures of the Bank.

The U.S. federal bank regulatory agencies have issued interagency guidance that focuses on transaction structures and risk management frameworks and that outlines high-level principles for safe-and-sound leveraged lending, including underwriting standards, valuation and stress testing. The agencies have also issued interagency guidance relating to underwriting standards and general risk management standards in the area of commercial real estate addressing the need for prudent risk management practices by financial institutions engaging in commercial real estate lending activity.

Capital Requirements. The OCC establishes minimum capital requirements largely based on the Basel III capital standards established by the Basel Committee on Banking Supervision ("Basel Committee"), including well-capitalized standards.

The Basel Committee has published a comprehensive set of revisions to its Basel III Framework. The impact on us of any revisions to the Basel Committee's capital standards is uncertain and depends on future rulemakings by the U.S. banking agencies.

For more information about the specific capital requirements applicable to us, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Regulatory Requirements" and Note 14 to the financial statements.

Liquidity Requirements. In addition to capital regulations, the U.S. banking agencies have adopted liquidity and funding standards, including the LCR, the NSFR, liquidity stress testing and associated liquidity reserve requirements.

For more information see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Balance Sheet—Regulatory Liquidity Framework."

Stress Tests. Under rules adopted by the U.S. federal bank regulatory agencies, implementing 2018 amendments to the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Dodd-Frank Act"), IDIs with total consolidated assets between \$100 billion and \$250 billion, such as us, are no longer required to conduct annual company run stress tests. We are still required to have our own capital planning process.

Insolvency of an Insured Depository Institution. Under the Federal Deposit Insurance Act of 1950 ("FDIA"), if the FDIC is appointed as conservator or receiver for an IDI such as us, upon the IDI's insolvency or in certain other events, the FDIC has broad powers, including the power:

- To transfer any of the IDI's assets and liabilities to a new obligor, including a newly formed "bridge" bank, without the approval of the IDI's creditors;
- To enforce the IDI's contracts pursuant to their terms without regard to any provisions triggered by the appointment of the FDIC in that capacity; or
- To repudiate or disaffirm any contract or lease to which the IDI is a party, the performance of which is determined by the FDIC to be burdensome and the repudiation or disaffirmance of which is determined by the FDIC to promote the orderly administration of the IDI.

In addition, the claims of holders of domestic deposit liabilities and certain claims for administrative expenses against an IDI would be afforded a priority over other general unsecured claims, including claims of debtholders of the institution, in the "liquidation or other resolution" of such an institution by any receiver. As a result, whether or not the FDIC ever sought to repudiate any of our debt obligations, the debtholders (other than depositors at U.S. branches) would be treated differently from, and could receive, if anything, substantially less than, our depositors.

As commonly controlled FDIC-insured depository institutions, each of Morgan Stanley's U.S. bank subsidiaries (MSBNA and MSPBNA) could be responsible for any loss to the FDIC from the failure of the other.

Resolution Planning. We are required to submit once every three years to the FDIC a resolution plan that describes our strategy for a rapid and orderly resolution in the event of material financial distress or failure. We submitted our most recent resolution plan on July 1. 2018. The FDIC released an advanced notice of proposed rulemaking in April 2019 about potential changes to its resolution planning requirements for IDIs, including us, and delayed the next round of IDI resolution plan submissions until the rulemaking process is complete. Although the rulemaking

process is still pending, in January 2021, the FDIC announced its intention to resume requiring resolution plan submissions for IDIs with \$100 billion or more in assets, including us. In June 2021, the FDIC issued guidance for IDI resolution plans. The guidance splits covered IDIs into two groups for purposes of the timing of resolution plan submissions: we are in the second group with a later submission date and will file our next resolution plan on the schedule determined by the FDIC which currently has a due date of December 1, 2023.

Morgan Stanley is also required to submit once every two years to the Federal Reserve and the FDIC a resolution plan that describes its strategy for a rapid and orderly resolution under the U.S. Bankruptcy Code in the event of its material financial distress or failure. Interim updates are required in certain limited circumstances, including material mergers or acquisitions or fundamental changes to our resolution strategy. Morgan Stanley submitted the 2021 targeted resolution plan on June 30, 2021 and its next resolution plan is due July 1, 2023.

Morgan Stanley's preferred strategy, which is set out in its most recent resolution plan, is an SPOE strategy, which generally contemplates the provision of adequate capital and liquidity by the Parent to certain of its subsidiaries so that such subsidiaries have the resources necessary to implement the resolution strategy after the Parent has filed for bankruptcy. Within that strategy we, and associated Wealth Management businesses of Morgan Stanley, would be sold. In the event that we file for insolvency under the FDIA, the preferred strategy would be the liquidation of the Bank.

Community Reinvestment Act. The Community Reinvestment Act ("CRA") requires our primary federal bank regulatory agency, the OCC, to assess our record in meeting the credit needs of the communities we serve, including low- and moderate-income neighborhoods and persons. This assessment is considered for any bank that applies to merge or consolidate with or acquire the assets or assume the liabilities of an IDI, or to open or relocate a branch office. During the most recent CRA evaluation, the OCC rated us as "outstanding," which is the highest possible rating. In May 2022, the Federal Reserve, OCC and FDIC issued a proposed rulemaking seeking public comment on different approaches to modernizing the regulations implementing the CRA. Industry comments on the proposed rule are under review by the Agencies and it is not clear when a final rule will be issued.

Deposit Insurance. Our deposits have the benefit of FDIC insurance up to the applicable limits. The FDIC's Deposit Insurance Fund is funded by assessments on IDIs. Our assessment (subject to adjustment by the FDIC) is currently based on our average total consolidated assets less our average tangible equity during the assessment period, our supervisory ratings and specified forward-looking financial measures used to calculate the assessment rate.

Activities Restrictions under the Volcker Rule. The Volcker Rule prohibits banking entities, including us, from engaging in certain proprietary trading activities, as defined in the Volcker Rule, subject to exemptions for underwriting, market-making, risk-mitigating hedging and certain other activities. The Volcker Rule

also prohibits certain investments and relationships by banking entities with covered funds, as defined in the Volcker Rule, subject to a number of exemptions and exclusions.

Derivatives Regulation. We are provisionally registered as a swap dealer with the CFTC and conditionally registered with the SEC as a security-based swap dealer and therefore our derivatives business is subject to regulations imposed by the CFTC, the SEC and U.S. banking regulators as applicable, including regulations that impose margin requirements, public and regulatory reporting, central clearing and mandatory trading on regulated exchanges or execution facilities for certain types of swaps and security-based swaps (collectively, "Swaps").

CFTC and SEC rules require registration of swap dealers and security-based swap dealers, respectively, and impose numerous obligations on such registrants including adherence to business conduct standards for all in-scope Swaps. Swap dealers and security-based swap dealers regulated by a prudential regulator, including us, are subject to uncleared Swap margin requirements and minimum capital requirements established by the prudential regulator.

Cyber and Information Security Risk Management and Protection of Client Information. The financial services industry faces increased regulatory focus regarding cyber and information security risk management practices. Many aspects of our businesses are subject to cybersecurity legal and regulatory requirements enacted by U.S. federal and state governments. These requirements are generally aimed at codifying basic cybersecurity protections and mandating data breach notification requirements.

We are also subject to increasing privacy and data protection legal requirements concerning the use and protection of certain personal information with regard to clients, employees and others. These requirements impose mandatory privacy and data protection obligations, including providing for individual rights, enhanced governance and accountability requirements, and significant fines and litigation risk for noncompliance. In addition, several jurisdictions have enacted or proposed personal data localization requirements and restrictions on cross-border transfer of personal data that may restrict our ability to conduct business in those jurisdictions or create additional financial and regulatory burdens to do so.

Numerous jurisdictions have passed laws, rules and regulations in these areas and many are considering new or updated ones that could impact our businesses, particularly as the application, interpretation and enforcement of these laws, rules and regulations are often uncertain and evolving. Many aspects of our businesses are subject to legal requirements concerning the use and protection of certain customer information, as well as the privacy and cybersecurity laws referenced above. We have adopted measures designed to comply with these and related applicable requirements in all relevant jurisdictions.

U.S. Consumer Protection. We are subject to supervision and regulation by the CFPB with respect to U.S. federal consumer protection laws. Federal consumer protection laws to which we are subject include the Gramm-Leach-Bliley Act, Equal Credit

Opportunity Act, Home Mortgage Disclosure Act, Electronic Fund Transfer Act, Fair Credit Reporting Act, Real Estate Settlement Procedures Act, and Truth in Lending Act's privacy provisions, all of which are enforced by the CFPB. We are also subject to certain federal consumer protection laws enforced by the OCC, including the Service members Civil Relief Act. Furthermore, we are subject to certain state consumer protection laws, and under the Dodd-Frank Act, state attorneys general and other state officials are empowered to enforce certain federal consumer protection laws and regulations. These federal and state consumer protection laws apply to a range of our activities.

Financial Crimes Program. Morgan Stanley's Financial Crimes program is coordinated and implemented on an enterprise-wide basis and supports our financial crime prevention efforts across all regions and business units with responsibility for governance and oversight, as well as execution of our anti-money laundering, economic sanctions ("Sanctions"), anti-boycott, anti-corruption, anti-tax evasion, and government and political activities compliance programs.

In the U.S., the Bank Secrecy Act, as amended by the USA PATRIOT Act of 2001, and the Anti-Money Laundering Act of 2020, imposes significant obligations on financial institutions to detect and deter money laundering and terrorist financing activity, including requiring banks, BHCs and their subsidiaries, broker-dealers, futures commission merchants, introducing brokers and mutual funds to develop and implement AML programs, verify the identity of customers that maintain accounts, and monitor and report suspicious activity to appropriate law enforcement or regulatory authorities.

We are also subject to Sanctions, such as regulations and economic sanctions programs administered by the U.S. government including the U.S. Treasury Department's Office of Foreign Assets Control ("OFAC") and the U.S. Department of State, and similar sanctions programs imposed by foreign governments or global or regional multilateral organizations. In addition, we are subject to anti-corruption laws, such as the U.S. Foreign Corrupt Practices Act. Anti-corruption laws generally prohibit offering, promising, giving or authorizing others to give anything of value, either directly or indirectly, to a government official or private party in order to influence official action or otherwise gain an unfair business advantage, such as to obtain or retain business.

# **Human Capital**

# **Employees and Culture**

As of December 31, 2022, we had 327 direct employees. In addition, 269 employees of our affiliates, who are also officers of the Bank, provide services to us under Service Level Agreements or other cost sharing agreements.

Our employees are our most important asset, whom we depend upon to build value for our clients. To facilitate talent attraction and retention, we strive to make the Bank a diverse and inclusive workplace, with a strong culture and opportunities for our employees to grow and develop in their career. We support our employees with competitive compensation, benefits, and health and wellbeing programs.

The following sections discuss the approach to human capital and related programs at Morgan Stanley, which also apply to employees at the Bank.

Morgan Stanley's core values guide decision making aligned to the expectations of its employees, clients, shareholders, regulators, directors and the communities in which Morgan Stanley operates. These guiding values—Put Clients First, Do the Right Thing, Lead with Exceptional Ideas, Commit to Diversity and Inclusion, and Give Back—are at the heart of Morgan Stanley's workplace culture and underpin its success. Morgan Stanley's Code of Conduct is central to its expectation that employees embody its values. Every new hire and every employee annually is required to certify to their understanding of and adherence to the Code of Conduct. Morgan Stanley also invites employee feedback on its culture and workplace through its ongoing employee engagement surveys.

#### Diversity and Inclusion

Morgan Stanley believes a diverse and inclusive workforce is important to its continued success and its ability to serve its clients. Morgan Stanley's programming to support its workforce helps build a sense of community and belonging for all colleagues. Morgan Stanley has deepened its investments to recruit, advance and retain diverse talent through a holistic approach, focused on professional development, health and wellbeing, benefits, and culture. Consistent with this approach, Morgan Stanley strives to increase diverse representation among its workforce and drive greater accountability for leaders. The Morgan Stanley Institute for Inclusion is also a key part of Morgan Stanley's strategy.

# Talent Development and Retention

Morgan Stanley is committed to the development of its workforce and supporting mobility and career growth. The Firm's talent development programs are designed to provide employees with the resources they need to help achieve their career goals, build management skills and lead their organizations. Morgan Stanley believes that supporting employee development and growth will help retention in the long run. As the work environment continues to evolve, Morgan Stanley is making investments across technology platforms to modernize its approach to talent development, workforce planning and internal mobility.

Morgan Stanley continues to focus on unlocking the potential of its employees by providing differentiated leadership programs. For these programs, Morgan Stanley has curated content to support employees as they progress in their career at the Firm.

#### Compensation, Financial and Employee Wellbeing

Morgan Stanley provides responsible and effective compensation programs that reinforce its values and culture through four key objectives: deliver pay for sustainable performance, attract and retain top talent, align with shareholder interests and mitigate excessive risk taking. In addition to salaries, these programs (which vary by location) include annual bonuses, retirement savings plans with matching contributions, an employee stock purchase plan, student loan refinancing and a financial wellbeing program in the U.S. and the U.K. To promote equitable rewards for all employees, Morgan Stanley has enhanced its practices to support fair and consistent compensation and reward decisions based on merit, perform ongoing reviews of compensation decisions, and conduct regular assessments of its rewards structure.

Morgan Stanley's employees' health is also central to its ongoing success. Morgan Stanley supports the physical, mental and financial wellbeing of its global workforce and their families by offering programs focusing on awareness, prevention and access. Offerings include: health care and insurance benefits; mental health resources; flexible spending and health savings accounts; paid time-off; flexible work schedules; family leave; child and elder care resources; financial help with fertility; adoption and surrogacy services; and tuition assistance, among many others. Onsite services in Morgan Stanley's principal locations include health centers, mental health counseling, fitness centers and physical therapy.

In 2022, Morgan Stanley enhanced its programs to further support employees. Globally, Morgan Stanley increased the amount of paid leave for new parents, introduced paid family caregiver leave and enhanced its fitness subsidy. In the U.S., Morgan Stanley expanded its mental health benefit and partnered with a national provider that delivers concierge in-person and virtual primary care for adults and children. Additionally, Morgan Stanley's new Health Assistants help employees understand and maximize Morgan Stanley's resources and guide them through complex health issues.

#### **Risk Factors**

For a discussion of the risks and uncertainties that may affect our future results and strategic objectives, see "Forward-Looking Statements."

#### Credit Risk

Credit risk refers to the risk of loss arising when a borrower, counterparty or issuer does not meet its financial obligations to us. For more information on how we monitor and manage credit risk, see "Quantitative and Qualitative Disclosures about Risk—Credit Risk."

# We are exposed to the risk that third-parties that are indebted to us will not perform their obligations.

We incur significant credit risk exposure through a variety of business activities, including, but not limited to: extending credit to clients through various lending commitments; entering into swap or other derivative contracts under which counterparties have obligations to make payments to us; providing short- or long-term funding that is secured by physical or financial collateral whose value may at times be insufficient to fully cover the loan repayment amount; posting margin and/or collateral and other commitments to clearing houses, clearing agencies,

exchanges, banks, securities firms and other financial counterparties; and investing and trading in securities and loan pools, whereby the value of these assets may fluctuate based on realized or expected defaults on the underlying obligations or loans.

Our valuations related to, and reserves for losses on, credit exposures rely on complex models, estimates, and subjective judgments about the future. While we believe current valuations and reserves adequately address our perceived levels of risk, future economic conditions, including inflation and changes in real estate values, that differ from or are more severe than forecast, inaccurate models or assumptions, or external factors such as global pandemics, natural disasters, or geopolitical events, could lead to inaccurate measurement of or deterioration of credit quality of our counterparties or the value of collateral and result in unexpected losses. We may also incur higher than anticipated credit losses as a result of (i) disputes with counterparties over the valuation of collateral or (ii) actions taken by other lenders that may negatively impact the valuation of collateral. In cases where we foreclose on collateral, sudden declines in the value or liquidity of collateral may result in significant losses to us despite our (i) credit monitoring; (ii) overcollateralization; (iii) ability to call for additional collateral; or (iv) ability to force repayment of the underlying obligation, especially where there is a single type of collateral supporting the obligation. In addition, in the longer term, climate change may have a negative impact on the financial condition of our clients, which may decrease revenues from those clients and increase the credit risk associated with loans and other credit exposures to those clients.

Although we regularly review our credit exposures, default risk may arise from events or circumstances that are difficult to detect or foresee.

#### Market Risk

Market risk refers to the risk that a change in the level of one or more market prices, rates, spreads, indices, volatilities, correlations or other market factors, such as market liquidity, will result in losses for a position or portfolio owned by us. For more information on how we monitor and manage market risk, see "Quantitative and Qualitative Disclosures about Risk—Market Risk."

# Our results of operations may be materially affected by market fluctuations and by global financial market and economic conditions and other factors.

Our results of operations have been in the past and may, in the future, be materially affected by global financial market and economic conditions, both directly and indirectly through their impact on client activity levels. These include the level and volatility of equity, fixed income and commodity prices, the level and term structure of interest rates, inflation and currency values, the level of other market indices, fiscal or monetary policies established by central banks and financial regulators, and uncertainty concerning government shutdowns, debt ceilings or funding, which may be driven by economic conditions, market uncertainty or lack of confidence among investors and clients

due to the effects of widespread events such as global pandemics, natural disasters, climate-related incidents, acts of war or aggression, geopolitical instability, changes to global trade policies and the implementation of tariffs or protectionist trade policies and other factors, or a combination of these or other factors. For example, in 2022, the global economic and geopolitical environment was characterized by persistent inflation, rising interest rates, volatility in global financial markets (leading to, among other things, a decline in equity prices), supply chain complications, recessionary fears, and geopolitical uncertainty regarding the war between Russia and Ukraine and its impact on the global markets, including the energy markets.

The value of our financial instruments may be materially affected by market fluctuations. Market volatility, illiquid market conditions and disruptions in the markets may make it difficult to value and monetize certain of our financial instruments, particularly during periods of market uncertainty or displacement. Subsequent valuations in future periods, in light of factors then prevailing, may result in significant changes in the value of these instruments. In addition, at the time of any sales and settlements of these financial instruments, the price we ultimately realize will depend on the demand and liquidity in the market at that time and may be materially lower than their current fair value. Any of these factors could cause a decline in the value of our financial instruments, which may adversely affect our results of operations in future periods.

In addition, financial markets are susceptible to severe events evidenced by rapid depreciation in asset values accompanied by a reduction in asset liquidity. Under these extreme conditions, hedging and other risk management strategies may not be as effective at mitigating losses as they would be under more normal market conditions. Moreover, under these conditions, market participants are particularly exposed to trading strategies employed by many market participants simultaneously and on a large scale, which could lead to increased individual counterparty risk for our businesses. Although our risk management and monitoring processes seek to quantify and mitigate risk to more extreme market moves, severe market events have historically been difficult to predict, and we could realize significant losses if extreme market events were to occur.

A significant portion of our businesses involve transactions with, through, arising from, involving, or otherwise related to the Parent and our affiliates, and any adverse change in the businesses or activity levels of Morgan Stanley more broadly can have an adverse impact on us. Accordingly, we are materially affected by conditions in the global financial markets and economic conditions generally, both directly through their impact on our business levels and indirectly through their impact on the business levels of our affiliates. These conditions can change suddenly and negatively.

# Holding large and concentrated positions may expose us to losses.

Concentration of risk may reduce revenues or result in losses in the event of unfavorable market movements. We commit substantial amounts of capital to our lending businesses, which may result in our making large loans to a particular issuer or issuers in a particular industry, country or region. In the event we hold a concentrated position larger than those held by competitors, we may incur larger losses. For further information regarding our country risk exposure, see also "Quantitative and Qualitative Disclosures about Risk—Country and Other Risks."

#### Liquidity Risk

Liquidity risk refers to the risk that we will be unable to finance our operations due to a loss of access to the capital markets, a reduction in deposit balances, or difficulty in liquidating our assets. Liquidity risk also encompasses our ability (or perceived ability) to meet our financial obligations without experiencing significant business disruption or reputational damage that may threaten our viability as a going concern as well as the associated funding risks triggered by the market or idiosyncratic stress events that may negatively affect our liquidity and may impact our ability to raise new funding. For more information on how we monitor and manage liquidity risk, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources" and "Quantitative and Qualitative Disclosures about Risk—Liquidity Risk."

# Liquidity is essential to our businesses and we rely on external sources to finance a significant portion of our operations.

Liquidity is essential to our business. Our liquidity could be negatively affected by our inability to attract and retain deposits or raise other sources of funding. We require funding to carry our lending and investment portfolios, to satisfy client drawdowns of our unfunded lending commitments, and to continue to grow our business.

The majority of our funding consists of sweep deposits from customers of our broker-dealer affiliates MSSB and ETS, as well as Savings deposits from customers of MSPBNA. The amount of such deposits is not within our control and depends on client growth, client trading activity and market conditions. We also rely on substantial funding through brokered deposits, including brokered sweep deposits sourced from unaffiliated broker-dealers and through brokered CDs.

We compete with banks and other financial services companies for deposits. Competitors may raise the rates they pay on deposits, and we may be required to raise our rates to avoid losing deposits. Our ability to obtain new brokered deposits may be limited if we are, or are perceived to be, in financial distress, and in some cases, existing brokered sweep deposits from unaffiliated parties may be withdrawn if our financial viability is in question. Further, under federal banking law, we may not be able to accept or roll over brokered deposits if we become less than well-capitalized. Our ability to raise funding through any of these sources could be impaired if clients or counterparties develop a negative perception of our long-term or short-term financial prospects due to factors such as a downgrade by the rating agencies, a decline in the level of our business activity, if regulatory authorities take significant action against us or our industry, or if we discover significant employee misconduct or illegal activity.

Other factors that we cannot control, such as disruption of the financial markets or negative views about the financial services industry generally, including concerns regarding fiscal matters in the U.S. and other geographic areas, could impair our ability to raise funding through deposits or otherwise and at the same time could increase client demand to draw on our unfunded lending commitments.

If we are unable to raise funding using the methods described above, if we experience significant withdrawals, or we have unexpected client demand to draw on our unfunded lending commitments, for any reason, we would likely need to finance or liquidate unencumbered assets, such as our investment portfolios or trading assets, to meet maturing liabilities or other obligations. We may be unable to sell some of our assets or we may have to sell assets at a discount to market value, either of which could adversely affect our results of operations, cash flows and financial condition.

# Our borrowing costs and access to the debt capital markets depend on our credit ratings.

The cost and availability of unsecured financing generally are impacted by (among other things) our or the Parent's long-term and short-term credit ratings. The rating agencies continue to monitor certain Firm-specific, Bank-specific and industry-wide factors that are important to the determination of our credit ratings. These include governance, capital adequacy, the level and quality of earnings, liquidity and funding, risk appetite and management, asset quality, strategic direction, business mix, regulatory or legislative changes, macroeconomic environment, and perceived levels of support, and it is possible that the rating agencies could downgrade our ratings and those of similar institutions.

# Our liquidity and financial condition could be adversely affected by U.S. and international markets and economic conditions.

Our ability to raise funding in the long-term or short-term debt capital markets or to access secured lending markets could be adversely affected by conditions in the U.S. and international markets and economies.

In particular, our cost and availability of funding may be adversely affected by illiquid credit markets, interest rates, and wider credit spreads. Significant turbulence in the U.S., the E.U. and other international markets and economies could adversely affect our liquidity and financial condition and the willingness of certain counterparties and customers to do business with us.

#### **Operational Risk**

Operational risk refers to the risk of loss, or of damage to our reputation, resulting from inadequate or failed processes or systems, from human factors or from external events (e.g., cyberattacks or third-party vulnerabilities) that may manifest as, for example, loss of information, business disruption, theft and fraud, legal and compliance risks, or damage to physical assets. We may incur operational risk across the full scope of our business activities, including revenue-generating activities and

support and control groups (e.g., information technology and trade processing). Legal, regulatory and compliance risk is included in the scope of operational risk and is discussed below under "Legal, Regulatory and Compliance Risk." For more information on how we monitor and manage operational risk, see "Quantitative and Qualitative Disclosures about Risk—Operational Risk."

We are subject to operational risks, including a failure, breach or other disruption of our operations or security systems or those of our third-parties (or third-parties thereof), as well as human error or malfeasance, which could adversely affect our businesses or reputation.

Our business is highly dependent on our and Morgan Stanley's ability to process and report, on a daily basis, a large number of transactions, including to regulators, lending clients, depositors and counterparties. We may introduce new products or services or change processes or reporting, including in connection with new regulatory requirements, resulting in new operational risk that we may not fully appreciate or identify. We rely on the ability of our and our affiliates' employees, consultants, internal systems and systems at technology centers maintained by unaffiliated third-parties to operate our different businesses and process a high volume of transactions.

Unusually high trading volumes or site usage could cause Morgan Stanley's and our systems to operate at an unacceptably slow speed or even fail. Disruptions to, destruction of, instability of or other failure to effectively maintain our information technology systems or external technology that allows our clients and customers to use our products and services could harm our business and our reputation.

We also face the risk of operational failure or disruption of any of the clearing agents, exchanges, clearing houses or other financial intermediaries we use to facilitate our lending, securities and derivatives transactions. In addition, in the event of a breakdown or improper operation or disposal of our or a direct or indirect third-party's systems (or third-parties thereof), processes or information assets, or improper or unauthorized action by third-parties, including consultants and subcontractors or Morgan Stanley's or our employees, Morgan Stanley and we have in the past received and may receive regulatory sanctions, and could suffer financial loss, an impairment to our liquidity position, a disruption of our businesses, or damage to our reputation.

In addition, the interconnectivity of multiple financial institutions with central agents, exchanges and clearing houses, and the increased importance of these entities, increases the risk that an operational failure at one institution or entity may cause an industry-wide operational failure that could materially impact our ability to conduct business. Furthermore, the concentration of Morgan Stanley and personal information held by a handful of third-parties increases the risk that a breach at a key third-party may cause an industry-wide event that could significantly increase the cost and risk of conducting business.

There can be no assurance that our business contingency and security response plans fully mitigate all potential risks to us.

Our ability to conduct business may be adversely affected by a disruption in the infrastructure that supports our business and the communities where we are located. This may include a disruption involving physical site access; software flaws and vulnerabilities; cybersecurity incidents; terrorist activities; political unrest; disease pandemics; catastrophic events; climaterelated incidents and natural disasters (such as earthquakes, tornadoes, hurricanes and wildfires); electrical outages; environmental hazards; computer servers; communication platforms or other services Morgan Stanley or we use; and Morgan Stanley's or our employees or third-parties with whom we conduct business. Although Morgan Stanley and we employ backup systems for our data, those backup systems may be unavailable following a disruption, the affected data may not have been backed up or may not be recoverable from the backup, or the backup data may be costly to recover, which could adversely affect our business.

Notwithstanding evolving technology and technology-based risk and control systems, our businesses ultimately rely on people, including our and our affiliates' employees and those of thirdparties with which we conduct business. As a result of human error or engagement in violations of applicable policies, laws, rules or procedures, certain errors or violations are not always discovered immediately by our technological processes or by our controls and other procedures, which are intended to prevent and detect such errors or violations. These can include calculation or input errors, inadvertent or duplicate payments, mistakes in addressing emails or other communications, errors in software or model development or implementation, or errors in judgment, as well as intentional efforts to disregard or circumvent applicable policies, laws, rules or procedures. Human errors and malfeasance, even if promptly discovered and remediated, can result in material losses and liabilities for us.

# We are dependent on the Parent and certain affiliates for client business, various services and capital.

As an indirect wholly owned subsidiary of the Parent, we rely on the Parent and affiliates for various business relationships, including the ability to receive various services, as well as, in part, the capital and liquidity of the Parent. As we are dependent on these relationships, risks that affect these entities could also have a significant impact on us.

As the primary commercial lender of Morgan Stanley, many of the clients to which we lend become our clients based on their other relationships with our affiliates. Similarly, clients of our affiliates, as well as the affiliates themselves, often serve as our counterparties to derivative transactions. We may be materially affected by damage to the reputation of Morgan Stanley, as clients ceasing to do business with our affiliates would result in fewer lending opportunities for us. Any adverse change in the businesses or activity levels of Morgan Stanley more broadly can also have an adverse impact on us. We are therefore, materially affected by both conditions in the global financial markets and economic conditions generally, either through their impact on our business levels or indirectly through their impact on the business levels of our affiliates. These conditions can change suddenly and negatively.

We rely upon certain of our affiliates for various support services, including, but not limited to, loan origination and servicing, operational and infrastructure services, trade execution, relationship management, risk management and other control, administrative and support services. Such services are provided to us pursuant to the Service Level Agreements, which are generally terminable at will by us and only under limited circumstances by the service provider, including material breach of the agreement.

We have also issued a standby letter of credit to an unaffiliated borrower that has been partially participated to an affiliate in an aggregate notional amount of \$1.9 billion. If this standby letter of credit were ever drawn and our affiliate did not fund its participation, we would nevertheless be obligated to fund the draw.

As a consequence of the above, our interest and non-interest revenues may decline, the cost of operating and funding our business may increase and our business, financial condition and earnings may be materially and adversely affected in the event our relationships with our affiliates are not maintained, for any reason, including as a result of possible strategic decisions that Morgan Stanley may make from time-to-time or as a result of material adverse changes in Morgan Stanley's performance.

A cyber-attack, information or security breach or a technology failure of ours or a third-party could adversely affect our ability to conduct our business, manage our exposure to risk, or result in disclosure or misuse of confidential or proprietary information and otherwise adversely impact our results of operations, liquidity and financial condition, as well as cause reputational harm.

Cybersecurity risks for financial institutions have significantly increased in recent years in part because of the proliferation of new technologies, the use of the internet, mobile telecommunications and cloud technologies to conduct financial transactions, and the increased sophistication and activities of organized crime, hackers, terrorists and other external extremist parties, including foreign state actors, in some circumstances as a means to promote political ends. Global events and geopolitical instability (including the war between Russia and Ukraine) may lead to increased nation state targeting of financial institutions in the U.S. and abroad. Any of these parties may also attempt to fraudulently induce Morgan Stanley's or our employees, customers, clients, vendors, or other third-parties or users of our systems to disclose sensitive information in order to gain access to our data or that of our employees or clients.

Information security risks may also derive from human error, fraud or malice on the part of Morgan Stanley's or our employees or third-parties, or may result from accidental technological failure. For example, human error has led to the loss of the Bank's physical data-bearing devices in the past. These risks may be heightened by several factors, including remote work, or as a result of the integration of acquisitions and other strategic initiatives that may subject us to new technology, customers or third-party providers. In addition, third-parties with whom we do business or share information, our regulators, and each of their service providers, as well as the third-parties with

whom our customers and clients share information used for authentication, may also be sources of cybersecurity and information security risks, particularly where activities of customers are beyond our security and control systems. There is no guarantee that the measures we take will provide absolute security or recoverability given that the techniques used in cyberattacks are complex and frequently change, and are difficult to anticipate.

Like other financial services firms, Morgan Stanley, its third-party providers, and its clients continue to be the subject of unauthorized access attacks, mishandling or misuse of information, computer viruses or malware, cyber-attacks designed to obtain confidential information, destroy data, disrupt or degrade service, sabotage systems or cause other damage, ransomware, denial of service attacks, data breaches, social engineering attacks and other events. There can be no assurance that such unauthorized access, mishandling or misuse of information, or cyber incidents will not occur in the future, and they could occur more frequently and on a more significant scale.

Morgan Stanley and we maintain a significant amount of personal and confidential information on customers, clients and certain counterparties that we are required to protect under various state, federal and international data protection and privacy laws. These laws may be in conflict with one another or courts and regulators may interpret them in ways that we had not anticipated or that adversely affect our business. A cyber attack, information or security breach, or a technology failure of Morgan Stanley or of a third-party could jeopardize our or our clients', employees', partners', vendors' or counterparties' personal, confidential, proprietary or other information processed and stored in, and transmitted through, our, our affiliates and our third-parties' computer systems. Furthermore, such events could cause interruptions or malfunctions in Morgan Stanley's, clients', employees', partners', vendors', counterparties' or thirdparties' operations, as well as the unauthorized release, gathering, monitoring, misuse, loss or destruction of confidential, proprietary and other information of ours, our employees, our customers or of other third-parties. Any of these events could result in reputational damage with Morgan Stanley's and our clients and the market, client dissatisfaction, additional costs to us to maintain and update our operational and security systems and infrastructure, violation of the applicable data protection and privacy laws, regulatory investigations and enforcement actions, litigation exposure, or fines or penalties, any of which could adversely affect our business, financial condition or results of operations.

Given Morgan Stanley's global footprint and the high volume of transactions Morgan Stanley processes, the large number of clients, partners, vendors and counterparties with which Morgan Stanley does business, and the increasing sophistication of cyberattacks, a cyber-attack, information or security breach could occur and persist for an extended period of time without detection. It could take considerable time for us to determine the scope, extent, amount and type of information compromised, and the impact of such an attack may not be fully understood. During such time we would not necessarily know the extent of the harm

or how best to remediate it, and certain errors or actions could be repeated or compounded before they are discovered and remediated, all or any of which would further increase the costs and consequences of a cyber-attack or data breach.

While many of our agreements with partners and third-party vendors include indemnification provisions, we may not be able to recover sufficiently, or at all, under such provisions to adequately offset any losses we may incur. In addition, although we maintain insurance coverage that may, subject to policy terms and conditions, cover certain aspects of cyber and information security risks, such insurance coverage may be insufficient to cover all losses we may incur.

Morgan Stanley and we continue to make investments with a view toward maintaining and enhancing cybersecurity and information security posture. The cost of managing cyber and information security risks and attacks along with complying with new, increasingly expansive, and evolving regulatory requirements could adversely affect our results of operations and business.

#### Legal, Regulatory and Compliance Risk

Legal, regulatory and compliance risk includes the risk of legal or regulatory sanctions, material financial loss, including fines, penalties, judgments, damages and/or settlements, limitations on our business, or loss to reputation we may suffer as a result of our failure to comply with laws, regulations, rules, related self-regulatory organization standards and codes of conduct applicable to our business activities. This risk also includes contractual and commercial risk, such as the risk that a counterparty's performance obligations will be unenforceable. It also includes compliance with AML, anti-corruption and terrorist financing rules and regulations. For more information on how we monitor and manage legal, regulatory and compliance risk, see "Quantitative and Qualitative Disclosures about Risk—Legal and Compliance Risk."

# The financial services industry is subject to extensive regulation, and changes in regulation will impact our business.

Like other major banks, we are subject to extensive regulation by U.S. federal and state regulatory agencies and securities exchanges and by regulators and exchanges in major markets where we conduct our business, including an increasing number of complex sanctions regimes. These laws and regulations, which continue to increase in volume and complexity, significantly affect the way and costs of doing business and can restrict the scope of our existing businesses and limit our ability to expand our product offerings and pursue certain investments.

The Bank and its employees are subject to wide-ranging regulation and supervision, which, among other things, subject us to intensive scrutiny of our business and any plans for expansion, limitations on new activities, a systemic risk regime that imposes heightened capital and liquidity and funding requirements, resolution regimes and resolution planning requirements, restrictions on activities and investments imposed by the Volcker Rule, comprehensive derivatives regulation, market structure regulation, consumer protection regulation, tax

regulations, antitrust laws, trade and transaction reporting obligations.

Ongoing implementation of our efforts to comply with, and/or changes to laws and regulations, including changes in the breadth, application, interpretation or enforcement of, laws and regulations could materially impact the profitability of our businesses and the value of assets we hold, expose us to additional theories of liability and additional costs, require changes to business practices or force us to discontinue businesses or require us to raise capital, including in ways that may adversely impact our creditors.

Legal and regulatory requirements continue to be subject to ongoing interpretation and change, which may result in significant new costs to comply with new or revised requirements, as well as to monitor for compliance on an ongoing basis.

The application of regulatory requirements and strategies in the U.S. or other jurisdictions to facilitate the orderly resolution of large financial institutions may pose a greater risk of loss for our security holders, and subject us to other restrictions.

Morgan Stanley is required to submit once every two years to the Federal Reserve and the FDIC a resolution plan that describes Morgan Stanley's strategy for a rapid and orderly resolution under the U.S. Bankruptcy Code in the event of material financial distress or failure. In addition, provided that certain procedures are met, Morgan Stanley can be subject to a resolution proceeding under the orderly liquidation authority under Title II of the Dodd-Frank Act with the FDIC being appointed as receiver instead of being resolved under the U.S. Bankruptcy Code.

Under Morgan Stanley's most recent resolution plan, the Firm would seek to sell its Wealth Management business, the material operating entity for which is MSSB, along with the Bank and the Parent's other U.S. bank subsidiary, MSPBNA, to a strategic or financial buyer.

We cannot predict the outcome of a Morgan Stanley resolution or whether the sale of the Bank would be successful. Holders of our unsecured debt could be adversely affected even if a sale is successful, and if a sale is delayed or cannot be completed, the FDIC may have to place the Bank into receivership, in which case holders of our unsecured debt would likely bear a substantial or total loss of their investment. The Bank's possible actions in a FDIC receivership scenario are described in the Bank's IDI Resolution Plan.

The financial services industry faces substantial litigation and is subject to extensive regulatory and law enforcement investigations, and we may face damage to our reputation and legal liability.

As a subsidiary of a global financial services firm, we face the risk of investigations and proceedings by governmental and self-regulatory organizations in all countries in which we conduct our business. Investigations and proceedings initiated by these

authorities may result in adverse judgments, settlements, fines, penalties, injunctions or other relief. In addition to the monetary consequences, these measures could cause collateral consequences. For example, such matters could impact our ability to engage in, or impose limitations on, certain of our businesses.

These investigations and proceedings, as well as the amount of penalties and fines sought, continue to impact the financial services industry, and certain U.S. and international governmental entities have brought criminal actions against, or have sought criminal convictions, pleas or deferred prosecution agreements from, financial institutions. Significant regulatory or law enforcement action against Morgan Stanley or us could materially adversely affect our business, financial condition or results of operations or cause us significant reputational harm, which could seriously harm our business.

We may be named, from time to time, as a defendant in various legal actions, including arbitrations, class actions and other litigation, as well as investigations or proceedings brought by regulatory agencies, arising in connection with our activities as a national bank and a subsidiary of a global diversified financial services institution. Certain of the actual or threatened legal or regulatory actions include claims for substantial compensatory and/or punitive damages, claims for indeterminate amounts of damages, or may result in material penalties, fines, or other results adverse to us.

In some cases, including antitrust litigation, we may be subject to claims for joint and several liability with other defendants for treble damages or other relief related to alleged conspiracies involving other institutions. Like any large organization, we are also subject to risk from potential employee misconduct, including non-compliance with policies, laws, rules and regulations, and improper use or disclosure of confidential information, or improper sales practices or other conduct.

# A failure to address conflicts of interest appropriately could adversely affect our businesses and reputation.

As a subsidiary of a global financial services firm that provides products and services to a large and diversified group of clients, including corporations, governments, financial institutions and individuals, we face potential conflicts of interest in the normal course of business. For example, potential conflicts can occur when there is a divergence of interests between us and a client, among clients, between an employee on the one hand and us or a client on the other, or situations in which we may be a creditor of a client.

We have policies, procedures and controls that are designed to identify and address potential conflicts of interest, and we utilize various measures, such as the use of disclosure, to manage these potential conflicts. However, identifying and mitigating potential conflicts of interest can be complex and challenging and can become the focus of media and regulatory scrutiny. Indeed, actions that merely appear to create a conflict can put our reputation at risk even if the likelihood of an actual conflict has been mitigated. It is possible that potential conflicts could give rise to litigation or enforcement actions, which may lead to our

clients being less willing to enter into transactions in which a conflict may occur and could adversely affect our businesses and reputation.

Our regulators also have the ability to scrutinize our activities for potential conflicts of interest, including through detailed examinations of specific transactions. For example, our status as a national bank supervised by the OCC subjects us to direct OCC scrutiny with respect to transactions between us and our affiliates or insiders of the Bank.

#### Risk Management

Our risk management strategies, models and processes may not be fully effective in mitigating our risk exposures in all market environments or against all types of risk, which could result in unexpected losses.

We have devoted significant resources to develop our risk management capabilities and expect to continue to do so in the future. Nonetheless, our risk management strategies, models and processes, including our use of various risk models for assessing market, credit, liquidity and operational exposures and hedging strategies, stress testing and other analysis, may not be fully effective in mitigating our risk exposure in all market environments or against all types of risk, including risks that are unidentified or unanticipated.

As our businesses change and grow, including through Morgan Stanley's acquisitions, and the markets in which we operate evolve, our risk management strategies, models and processes may not always adapt with those changes. Some of our methods of managing risk are based upon our use of observed historical market behavior and management's judgment. As a result, these methods may not predict future risk exposures, which could be significantly greater than the historical measures indicate.

In addition, many models we use are based on assumptions or inputs regarding correlations among prices of various asset classes or other market indicators and, therefore, cannot anticipate sudden, unanticipated, or unidentified market or economic movements, such as the impact of a pandemic or a sudden geopolitical conflict, which could cause us to incur losses.

Management of market, credit, liquidity, operational, model, legal, regulatory and compliance risks requires, among other things, policies and procedures to record properly and verify a large number of transactions and events, and these policies and procedures may not be fully effective.

While we employ a broad and diversified set of risk monitoring and risk mitigation techniques, those techniques and the judgments that accompany their application cannot anticipate every economic and financial outcome or the timing of such outcomes. For example, to the extent that our trading or investing activities involve less liquid trading markets or are otherwise subject to restrictions on sales or hedging, we may not be able to reduce our positions and, therefore, reduce our risk associated with such positions. We may, therefore, incur losses in the course of our trading or investing activities. For more

information on how we monitor and manage market and certain other risks and related strategies, models and processes, see "Quantitative and Qualitative Disclosures about Risk—Market Risk."

Climate change manifesting as physical or transition risks could result in increased costs and risks and adversely affect our operations, businesses and clients.

There continues to be increasing concern over the risks of climate change and related environmental sustainability matters. The physical risks of climate change include harm to people and property arising from acute, climate-related events, such as floods, hurricanes, heatwaves, wildfires, and chronic, longer-term shifts in climate patterns, such as higher global average temperatures, rising sea levels, and droughts. Such events could disrupt our operations or those of our clients or third-parties on which we rely, including through direct damage to physical assets and indirect impacts from supply chain disruption and market volatility. Over the longer term, these events could impact the ability of certain of our clients or customers to repay their obligations, reduce the value of collateral, limit insurance coverage and result in other effects.

Additionally, transitioning to a low-carbon economy will likely require extensive policy, legal, technology and market changes. Transition risks, including changes in consumer and business sentiment, related technologies, and any additional regulatory and legislative requirements, including carbon taxes, could increase our expenses and adversely impact our strategies, including by limiting our ability to pursue certain business activities or offer certain products and services. Over the longer term, negative impacts to certain of our clients, such as decreased profitability and stranded assets, could also lead to increased credit and counterparty risk to us.

In addition, our reputation and client relationships may be adversely impacted as a result of Morgan Stanley's or our practices related to climate change, including our involvement, or our clients' involvement, in certain industries, projects, or initiatives associated with causing, or potentially slowing solutions to, climate change, as well as any decisions we make to continue to conduct or change our activities in response to considerations relating to climate change. Legislative or regulatory uncertainties and change regarding climate-related risks, including inconsistent perspectives or requirements, are likely to result in higher regulatory, compliance, credit, reputational and other risks and costs.

Morgan Stanley's ability to achieve its long-term climate-related goals and commitments could also result in reputational harm as a result of public sentiment, regulatory scrutiny, litigation and reduced investor and stakeholder confidence. If Morgan Stanley is unable to achieve its objectives relating to climate change or its current response to climate change is perceived to be ineffective or insufficient, our business and reputation may suffer.

The risks associated with, and the perspective of regulators, governments, shareholders, employees and other stakeholders regarding, climate change are continuing to evolve rapidly,

which can make it difficult to assess the ultimate impact on us of climate change-related risks and uncertainties. As climate risk is interconnected with other risk types, including geopolitical risks, we have developed and continue to enhance processes to embed climate risk considerations into our risk management strategies for risks such as market, credit and operational risks, as well as our governance structures. Despite our risk management strategies, the unpredictability surrounding the timing and severity of climate change events and societal or political changes in reaction to them make it difficult to predict, identify, monitor and effectively mitigate climate risk exposure.

In addition, the methodologies and data used to manage and monitor climate risk are still in early stages and continue to evolve. Current approaches utilize information and estimates that have been derived from information or factors released by thirdparty sources, which may not reflect the latest or most accurate data. Climate-related data, particularly greenhouse gas emissions for clients and counterparties, remains limited in availability and variable in quality. Certain third-party information may also change over time as methodologies evolve and are refined. While we believe this information is the best available at the time, we may only be able to complete limited validation. Furthermore, modeling capabilities and methodologies to analyze climaterelated risks, although improving, remain nascent and emerging. These and other factors could cause results to differ materially from those expressed in the estimates and beliefs made by thirdparties and by us, which could also impact our management of risk in this area.

Replacement of London Interbank Offered Rate and replacement or reform of other interest rate benchmarks could adversely affect our business, financial condition and results of operations.

Central banks around the world, including the Federal Reserve, have sponsored initiatives in recent years to replace LIBOR and replace or reform certain other interest rate benchmarks (collectively, the "IBORs"). A transition away from use of the IBORs to alternative rates and other potential interest rate benchmark reforms is underway and is a multi-year initiative. These reforms have caused and may in the future cause such rates to perform differently than in the past, or to cease entirely, or have other consequences that are contrary to market expectations.

The ongoing market transition away from IBORs and other interest rate benchmarks to alternative reference rates is complex and could have a range of adverse impacts on our business, financial condition and results of operations. In particular, such transition or reform could:

- Adversely impact the pricing, liquidity, value of, return on and trading for a broad array of financial products, including any IBOR-linked securities, loans and derivatives that are included in our financial assets and liabilities;
- Require further extensive changes to documentation that governs or references IBOR or IBOR-based products, including, for example, pursuant to time-consuming renegotiations of existing documentation to modify the terms of outstanding securities and related hedging transactions;

- Result in a population of products with documentation that governs or references IBOR or IBOR-based products but that cannot be amended due to an inability to obtain sufficient consent from counterparties or product owners;
- Result in inquiries, reviews or other actions from regulators in respect of our (or the market's) preparation, readiness, transition plans and actions regarding the replacement of an IBOR with one or more alternative reference rates, including regulatory guidance regarding constraints on the entry into new U.S. dollar IBOR-linked contracts after December 31, 2021;
- Result in disputes, litigation or other actions with clients, counterparties and investors in various scenarios, such as regarding the interpretation and enforceability of provisions in IBOR-based products such as fallback language or other related provisions, including in the case of fallbacks to the alternative reference rates, any economic, legal, operational or other impact resulting from the fundamental differences between the IBORs and the various alternative reference rates;
- Require the additional transition and/or further development
  of appropriate systems and analytics to effectively transition
  our risk management processes from IBORs to those based on
  one or more alternative reference rates in a timely manner,
  including by quantifying value and risk for various alternative
  reference rates, which may prove challenging given the
  limited history of the proposed alternative reference rates; and
- Cause us to incur additional costs in relation to any of the above factors.

Other factors include the pace of the transition to the alternative reference rates, timing mismatches between cash and derivative markets, the specific terms and parameters for and market acceptance of any alternative reference rate, market conventions for the use of any alternative reference rate in connection with a particular product (including the timing and market adoption of any conventions proposed or recommended by any industry or other group), prices of and the liquidity of trading markets for products based on alternative reference rates, and our ability to further transition and develop appropriate systems and analytics for one or more alternative reference rates.

See also "Management's Discussion and Analysis of Financial Condition and Results of Operations—Regulatory Requirements—Regulatory Developments and Other Matters" herein.

#### **Competitive Environment**

We face strong competition from financial services firms and others, which could lead to pricing pressures that could materially adversely affect our revenues and profitability.

The financial services industry and all aspects of our businesses are intensely competitive, and we expect them to remain so. We compete with commercial banks, brokerage firms, financial technology firms and other companies offering financial or ancillary services in the U.S. and globally, including through the internet. We compete on the basis of several factors, including transaction execution, capital or access to capital, products and services, innovation, technology, reputation, risk appetite and price.

Over time, certain sectors of the financial services industry have become more concentrated, as institutions involved in a broad range of financial services have left businesses, been acquired by or merged into other firms, or have declared bankruptcy. Such changes could result in our remaining competitors gaining greater capital and other resources, such as the ability to offer a broader range of products and services and geographic diversity, or new competitors may emerge.

We have experienced and may continue to experience pricing pressures as a result of these factors and as some of our competitors seek to obtain market share by reducing prices, eliminating commissions or other fees, or providing more favorable terms of business. In addition, certain of our competitors may be subject to different and, in some cases, less stringent, legal and regulatory regimes than we are, thereby putting us at a competitive disadvantage. Some new competitors in the financial technology sector have sought to target existing segments of our businesses that could be susceptible to disruption by innovative or less regulated business models. For more information regarding the competitive environment in which we operate, see "Business—Competition" and "Business—Supervision and Regulation."

Automated trading markets and the introduction and application of new technologies may adversely affect our business and may increase competition.

Morgan Stanley and we continue to experience price competition in some of our businesses. In particular, the ability to execute derivatives trades electronically on exchanges, swap execution facilities and other automated trading platforms, and the introduction and application of new technologies will likely continue the pressure on revenues. The trend toward direct access to automated, electronic markets will likely continue as additional markets move to more automated trading platforms. Morgan Stanley and we have experienced and will likely continue to experience competitive pressures in these and other areas in the future.

Our ability to retain and attract qualified employees is critical to the success of our business and the failure to do so may materially adversely affect our performance.

Our people are our most important asset. We compete with various other companies in attracting and retaining qualified and skilled personnel. If Morgan Stanley or we are unable to continue to attract, integrate and retain highly qualified employees, or do so at levels or in forms necessary to maintain our competitive position, or if compensation costs required to attract and retain employees become more expensive, or the competitive market for talent further intensifies, our performance, including our competitive position and results of operations, could be materially adversely affected.

The financial industry has experienced and may continue to experience more stringent regulation of employee compensation, including limitations relating to incentive-based compensation, clawback requirements and special taxation, which could have an adverse effect on Morgan Stanley's or our ability to hire or retain the most qualified employees.

#### **International Risk**

We are subject to numerous political, economic, legal, tax, operational, franchise and other risks as a result of our international operations that could adversely impact our businesses in many ways.

Although we are located in the United States and do not have offices abroad, 22% of our credit exposure from funded loans and unfunded commitments was to borrowers located outside the United States at December 31, 2022. We are subject to political, economic, legal, tax, operational, franchise and other risks that are inherent in transacting in many countries, including risks of possible nationalization, expropriation, price controls, capital controls, exchange controls, increased taxes and levies, cybersecurity, data transfer and outsourcing restrictions, prohibitions on certain types of foreign lending and capital market activities, limitations on cross- border listings and other restrictive governmental actions, as well as the outbreak of hostilities or political and governmental instability, including tensions between China and the U.S. In many countries, the laws and regulations applicable to the financial services industries are uncertain, evolving and subject to sudden change or may be inconsistent with U.S. law. It may also be difficult for us to determine the exact requirements of local laws in every market or adapt to changes in law, which could adversely impact our businesses.

Our inability to remain in compliance with local laws in a particular market could have a significant and negative effect not only on our business in that market but also on our reputation generally. We are also subject to the risk that transactions we structure might not be legally enforceable in all cases.

Various emerging market countries have experienced severe political, economic or financial disruptions, including significant devaluations of their currencies, defaults or potential defaults on sovereign debt, capital and currency exchange controls, high rates of inflation and low or negative growth rates in their economies. Crime and corruption, as well as issues of security and personal safety, also exist in certain of these countries. These conditions could adversely impact our businesses and increase volatility in financial markets generally.

A disease pandemic, such as COVID-19 and its variants, or other widespread health emergencies, natural disasters, climate-related incidents, terrorist activities or military actions, such as the war between Russia and Ukraine, or social or political tensions, could create economic and financial disruptions in emerging markets or in other areas of the global economy that could adversely affect our business, or could lead to operational difficulties, including travel limitations, that could impair our ability to manage or conduct our businesses around the world.

As a U.S. company, we are required to comply with the economic sanctions and embargo programs administered by OFAC and similar multinational bodies and governmental agencies worldwide, which may be inconsistent with local law. We are also subject to applicable AML and anti-corruption laws in the U.S., as well as in the jurisdictions in which we operate, including the Bank Secrecy Act, the U.S. Foreign Corrupt

Practices Act and the U.K. Bribery Act. A violation of a sanction, embargo program, AML, or anti-corruption law could subject us, and individual employees, to a regulatory enforcement action, as well as significant civil and criminal penalties.

#### Acquisition, Divestiture and Joint Venture Risk

Morgan Stanley may be unable to fully capture the expected value from acquisitions, divestitures, joint ventures, partnerships, minority stakes or strategic alliances, and certain acquisitions may subject our business to new or increased risk.

In connection with Morgan Stanley's past or future acquisitions, divestitures, joint ventures, partnerships, minority stakes or strategic alliances involving us or our affiliates, there are numerous risks and uncertainties in combining, transferring, separating or integrating the relevant businesses and systems that may present operational and other risks, including the need to combine or separate accounting, data processing and other systems, management controls and legal entities and to integrate relationships with clients, trading counterparties and business partners. Certain of these strategic initiatives, and integration thereof, may cause Morgan Stanley, including us, to incur incremental expenses and may also require incremental financial, management and other resources.

In the case of Morgan Stanley's joint ventures, partnerships and minority stakes, Morgan Stanley is subject to additional risks and uncertainties because it may be dependent upon, and subject to liability, losses or reputational damage relating to systems, controls and personnel that are not under Morgan Stanley's control and conflicts or disagreements between Morgan Stanley and any of its joint venture partners or partners may negatively impact the benefits to be achieved by the relevant joint venture or partnership and have an indirect impact on us.

There is no assurance that any of Morgan Stanley's acquisitions, divestitures or investments will be successfully integrated or disaggregated or yield all of the positive benefits and synergies anticipated. If Morgan Stanley is not able to integrate or disaggregate successfully its past and future acquisitions or dispositions, including aligning the processes, policies and procedures of the acquired entities with its standards, there is a risk that Morgan Stanley's and our results of operations, financial condition and cash flows may be materially and adversely affected.

Certain of our business initiatives, including expansions of existing businesses, may change our client or account profile or bring us into contact, directly or indirectly, with individuals and entities that are not within our traditional client and counterparty base and may expose us to new asset classes, services, competitors and new markets. These business activities expose us to new and enhanced risks, greater regulatory scrutiny of these activities, increased credit-related, sovereign, compliance and operational risks, as well as franchise and reputational concerns regarding the manner in which these assets are being operated or held, or services are being delivered.

For more information regarding the regulatory environment in which we operate, see also "Business—Supervision and Regulation."

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

#### Introduction

Morgan Stanley Bank, N.A., an indirect wholly owned subsidiary of the Parent, is primarily a wholesale commercial bank that offers commercial lending and certain retail securities-based lending services in addition to deposit products. Unless the context otherwise requires, the terms "Bank," "MSBNA", "us," "we" and "our" mean Morgan Stanley Bank, N.A., and "Morgan Stanley" and the "Firm" mean the Parent and its consolidated subsidiaries, including the Bank. See the "Glossary of Common Terms and Acronyms" for the definition of certain terms and acronyms used throughout the 2022 Annual Report.

A description of the business lines, investment portfolio, deposit taking and other activities is as follows:

The Bank's lending activities include lending to corporations for specific purposes, such as financing acquisitions and normal operating activities, secured lending facilities, commercial real estate lending, as well as extending securities-based financing to customers.

The Bank's loan portfolio consists of the types of loans listed below.

Corporate. Corporate loans comprise relationship and event-driven loans and lending commitments supporting general and event-driven financing needs for the Bank's institutional clients, which typically consist of revolving lines of credit, term loans and bridge loans; may have varying terms; may be senior or subordinated; may be secured or unsecured; are generally contingent upon representations, warranties and contractual conditions applicable to the borrower; and may be syndicated or hedged. Relationship loans and lending commitments are extended to select institutional clients, primarily for general corporate purposes and generally with the intent to hold for the foreseeable future. Event-driven loans and lending commitments are extended in connection with specific client transactions.

Secured Lending Facilities. Secured lending facilities include loans provided to clients which are collateralized by various assets, including residential and commercial real estate mortgage loans, investor commitments for capital calls, corporate loans and other assets. These facilities generally provide for overcollateralization. Credit risk with respect to these loans and lending commitments arises from the failure of a borrower to perform according to the terms of the loan agreement and/or a decline in the underlying collateral value. The Bank monitors collateral levels against the requirements of lending agreements.

Commercial Real Estate. Commercial real estate loans are primarily senior, secured by underlying real estate and typically in term loan form. Commercial real estate loans include owner-occupied loans and income-producing loans.

Securities-based lending and Other. Securities-based lending and Other includes loans that allow clients to borrow money against the value of qualifying securities, generally for any suitable purpose other than purchasing, trading, or carrying securities or refinancing margin debt. The majority of these loans are structured as revolving lines of credit. Also included here are Corporate loans purchased in the secondary market.

For a further discussion of our credit risks, see "Quantitative and Qualitative Disclosures about Risk—Credit Risk." For a further discussion about loans and lending commitments, see Note 3 to the financial statements.

Equity Financing. We provide financing services to our clients active in the equity markets through products including margin lending and swaps. Results from this business are largely driven by the difference between financing income earned and financing costs incurred, which are reflected in net interest for securities lending products, and in non-interest revenue for derivative products.

Other Activities. The Bank enters into derivative transactions with external counterparties and affiliates. Derivative transactions with external counterparties are primarily foreign currency swap and forward contracts with institutional clients that prefer or are required to face a rated U.S. bank counterparty. The Bank offsets the risk of these transactions by entering into back-to-back "mirror" derivative instruments with affiliates. The Bank also enters into other derivative transactions with affiliates primarily for hedging purposes, and the derivative instruments used for hedging primarily include interest rate and CDS. CDS are used to hedge the credit risk on certain investments, loan portfolios, and letters of credit; the Bank is not a net seller of credit protection. For further information about our derivative instruments, see Note 11 to the financial statements.

Investment Portfolio. The Bank maintains an investment portfolio to serve as a storehouse of liquidity to satisfy the Bank's current, projected, and contingent funding needs; to act as the primary means to manage the Bank's current and projected interest rate risk profile; and to produce interest income, while maintaining acceptable asset quality, diversification and risk profile. The investment portfolio consists of cash, investment securities, and securities held under repurchase agreements. Our investment securities consist primarily of U.S. Treasuries and agency mortgage-backed securities. For further information about our investment portfolio, see Note 5 to the financial statements.

The Bank provides liquidity to clients in fixed income products by purchasing securities under agreements to resell. These securities are principally securitized products and corporate credit securities.

Our trading activities are primarily comprised of derivatives described above, as well as Residential Real Estate and Corporate loans purchased in the secondary market.

# **Management's Discussion and Analysis**

Deposit Taking. We are one of Morgan Stanley's primary deposit-taking entities, along with our sister U.S. national bank, MSPBNA. Deposits are our primary source of funding for our assets. We source deposits through clients of Morgan Stanley's Wealth Management segment via affiliated entities, as well as through unaffiliated third-parties, primarily through "sweep" programs.

We also issue time deposits in the form of brokered CDs, substantially all of which are in FDIC-insurable amounts and distributed through third-party broker-dealers and MS&Co. Most of our CDs carry a fixed rate, and we also issue certain CDs that are structured in nature (e.g., performance may be linked to the performance of certain market indices). Deposits are primarily interest bearing.

For further information about our deposits, including the sources and types of our deposits, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Balance Sheet —Deposits" and Note 9 to the financial statements.

The results of operations in the past have been, and in the future may continue to be, materially affected by: competition; risk factors; legislative, legal and regulatory developments; and other factors. These factors also may have an adverse impact on our ability to achieve our strategic objectives. Additionally, the discussion of our results of operations herein may contain forward-looking statements. These statements, which reflect management's beliefs and expectations, are subject to risks and uncertainties that may cause actual results to differ materially. For a discussion of the risks and uncertainties that may affect our future results, see "Forward-Looking Statements," "Business—Competition," "Business—Supervision and Regulation," "Risk Factors" and "Liquidity and Capital Resources—Regulatory Requirements" herein.

#### **Overview of Financial Results**

\$ in millions	2022	2021	% Change
Interest income	\$ 4,958	\$ 3,042	63 %
Interest expense	884	207	327 %
Net interest	4,074	2,835	44 %
Non-interest revenue			
Fee income	1,059	630	68 %
Gains and losses on financial assets and liabilities <sup>1</sup>	556	460	21 %
Other	165	191	(14)%
Total non-interest revenue	1,780	1,281	39 %
Net revenues	5,854	4,116	42 %
Provision for credit losses	72	30	140 %
Non-interest expenses			
Compensation and benefits	109	105	4 %
General and administrative	901	607	48 %
FDIC and regulatory assessments	70	72	(3)%
Total non-interest expenses <sup>2</sup>	1,080	784	38 %
Income before provision for income taxes	4,702	3,302	42 %
Provision for income taxes	1,081	764	41 %
Net income	\$ 3,621	\$ 2,538	43 %

Includes net gains and losses from derivatives, loans, lending commitments, and hedges, all of which are primarily accounted for at fair value; also includes gains realized from the sale of investment securities.

#### 2022 compared with 2021

The global economic and geopolitical environment in 2022 was characterized by elevated inflation, rising interest rates and volatility in global financial markets and these factors have continued into 2023. This environment has impacted our businesses, as discussed further herein.

#### **Net Income**

#### Net interest

Net interest revenue of \$4,074 million in 2022 increased 44% compared with the prior year, primarily due to the net effect of higher interest rates and continued growth in the Bank's lending. The above increases in Net interest were partially offset by higher deposit costs.

#### Non-interest revenue

Non-interest revenue of \$1,780 million in 2022 increased 39% compared with the prior year, primarily due to higher revenues earned from affiliated entities to compensate the Bank for relationship priced loans granted to their clients, and growth in Securities-based Lending and Other. The above increases were partially offset by lower gains from sales of investment securities and from Commercial Real Estate loans.

<sup>2.</sup> Non-interest expenses are primarily influenced by compensation, headcount and levels of business activity. General and administrative expenses include employment related costs of employees of affiliates pursuant to Service Level Agreements. The above item also includes brokerage and clearing fees, and non-compensation expenses charged by affiliates and vendors who provide services to us pursuant to Service Level Agreements.

# **Management's Discussion and Analysis**

#### **Provision for Credit Losses**

The Provision for credit losses on loans and lending commitments of \$72 million in 2022 was primarily due to deterioration in macroeconomic outlook. The Provision for credit losses on loans and lending commitments of \$30 million in 2021 was primarily as a result of portfolio growth offset by the impact of changes in loan quality mix.

#### Non-interest expenses

Non-interest expenses of \$1,080 million in 2022 increased 38% compared with the prior year as a result of:

- General and administrative expenses increased primarily due to higher brokerage and clearing fees related to Securitiesbased Lending and Other activities, as well as service fees paid to affiliates as of result of growth in the Bank's share of lending and deposit volumes.
- Compensation and benefits of \$109 million in 2022 was relatively unchanged from \$105 million in 2021.
- FDIC and regulatory assessments of \$70 million in 2022 was relatively unchanged from \$72 million in 2021.

#### Income Taxes

The Bank's effective tax rate of 23.0% in 2022 was relatively unchanged from 23.1% in 2021.

#### Russia and Ukraine War

We continue to monitor the war in Ukraine and its impact on both the Ukrainian and Russian economies, as well as related impacts on other world economies and the financial markets. We have no direct exposure to either Russia or Ukraine.

Refer to "Risk Factors" and "Forward-Looking Statements" for more information on the potential effects of geopolitical events and acts of war or aggression.

# **Accounting Development Updates**

The Financial Accounting Standards Board has issued certain accounting updates that apply to us. Accounting updates not listed below were assessed and either determined to be not applicable or to not have a material impact on our financial condition or results of operations upon adoption.

We adopted the following accounting update on January 1, 2023:

• Financial Instruments—Credit Losses. This accounting update eliminates the accounting guidance for TDRs and requires new disclosures regarding certain modifications of financing receivables (i.e., principal forgiveness, interest rate reductions, other-than-insignificant payment delays and term extensions) to borrowers experiencing financial difficulty. The update also requires disclosure of current period gross charge-offs by year of origination for financing receivables measured at amortized cost. We adopted this update on a prospective basis and noted no impact on our financial condition or results of operation upon adoption.

## **Critical Accounting Estimates**

Our financial statements are prepared in accordance with U.S. GAAP, which requires us to make estimates and assumptions (see Note 1 to the financial statements). We believe that of our significant accounting policies (see Note 2 to the financial statements), the following policies involve a higher degree of judgment and complexity.

#### **Allowance for Credit Losses**

We estimate and record the expected allowance for credit losses for financial instruments measured at amortized cost and certain off-balance sheet exposures (e.g., HFI loans and lending commitments, HTM securities, customer and other receivables and certain guarantees) over the entire life of the financial instrument.

We apply judgment based on a variety of factors, including payment status, fair value of collateral, expected payments of principal and interest, as well as internal or external information relating to past events, current conditions and reasonable and supportable forecasts. The Bank uses three forecasts that include assumptions about certain macroeconomic variables including, but not limited to, U.S. gross domestic product ("GDP"), equity market indices, US Corporate BBB option-adjusted spreads, as well as commercial real estate and home price indices. At the conclusion of the Bank's reasonable and supportable forecast period of 13 quarters, there is a gradual reversion back to historical averages.

The ACL is measured on a collective basis when similar risk characteristics exist for multiple instruments considering all available information relevant to assessing the collectability of cash flows. Generally, the Bank applies a probability of default/loss given default model for instruments that are collectively assessed, under which the ACL is calculated as the product of probability of default, loss given default and exposure at default. These parameters are forecast for each collective group of assets using a scenario-based statistical model.

If the instrument does not share similar risk characteristics with other instruments, including when it is probable that the Bank will be unable to collect the full payment of principal and interest on the instrument when due, the ACL is measured on an individual basis. The Bank generally applies a discounted cash flow method for instruments that are individually assessed.

The Bank may also elect to use an approach that considers the fair value of the collateral when measuring the ACL if the loan is collateral dependent (i.e., repayment of the loan is expected to be provided substantially by the sale or operation of the underlying collateral and the borrower is experiencing financial difficulty).

Additionally, the Bank can elect to use an approach to measure the ACL that considers the fair value of collateral where the borrower is required to, and reasonably expected to, continually adjust and replenish the amount of collateral securing the instrument to reflect changes in the fair value of such collateral. The Bank has elected to use this approach for certain securities-based loans, and Securities purchased under agreements to resell.

# **Management's Discussion and Analysis**

Credit quality indicators considered in developing the ACL include Corporate loans, Secured lending facilities, Commercial real estate loans and securities, and Other loans: Internal risk ratings developed by the CRM that are refreshed at least annually, and more frequently as necessary. These ratings generally correspond to external ratings published by S&P. The Bank also considers transaction structure, including type of collateral, collateral terms, and position of the obligation within the capital structure. In addition, for Commercial real estate, the Bank considers property type and location, net operating income and LTV ratios, among other factors, as well as commercial real estate price and credit spread indices and capitalization rates.

Qualitative and environmental factors such as economic and business conditions, the nature and volume of the portfolio, and lending terms and the volume and severity of past due loans are also considered in the ACL calculations.

#### Fair Value

#### Financial Instruments Measured at Fair Value

A significant number of our financial instruments are carried at fair value. The use of fair value to measure financial instruments is fundamental to our risk management practices. We make estimates regarding the valuation of assets and liabilities measured at fair value in preparing the financial statements. These assets and liabilities include, but are not limited to:

- Trading assets and Trading liabilities;
- Investment Securities—AFS;
- Certain Securities purchased under agreements to resell;
- Loans held-for-sale (measured at the lower of amortized cost or fair value);
- Certain Deposits, primarily structured certificates of deposit.

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (i.e., the exit price) in an orderly transaction between market participants at the measurement date.

In determining fair value, we use various valuation approaches. A hierarchy for inputs is used in measuring fair value that maximizes the use of observable prices and inputs and minimizes the use of unobservable prices and inputs by requiring that the relevant observable inputs be used when available. The hierarchy is broken down into three levels, wherein Level 1 represents quoted prices in active markets, Level 2 represents valuations based on quoted prices in markets that are not active or for which all significant inputs are observable, and Level 3 consists of valuation techniques that incorporate significant unobservable inputs and, therefore, require the greatest use of judgment. The fair values for the substantial majority of our financial assets and liabilities carried at fair value are based on observable prices and inputs and are classified in level 1 or 2 of the fair value hierarchy. Level 3 financial assets represented 1.4% and 1.7% of our total assets, as of December 31, 2022 and December 31, 2021, respectively.

In periods of market disruption, the observability of prices and inputs, as well as market liquidity may be reduced for many

instruments, which could cause an instrument to be recategorized from Level 1 to Level 2 or from Level 2 to Level 3. In addition, a downturn in market conditions could lead to declines in the valuation of many instruments carried at fair value. Imprecision in estimating unobservable market inputs or other factors can affect the amount of gain or loss recorded for a particular position. The Bank uses various methodologies and assumptions in the determination of fair value. The use of methodologies or assumptions different than those used by the Bank could result in a different estimate of fair value at the reporting date. For further information on the definition of fair value, Level 1, Level 2, Level 3 and related valuation techniques, and quantitative information about and sensitivity of significant unobservable inputs used in Level 3 fair value measurements, see Notes 2 and 6 to the financial statements.

Where appropriate, valuation adjustments are made to account for various factors such as liquidity risk (bid-ask adjustments), credit quality, model uncertainty, concentration risk and funding in order to arrive at fair value. For a further discussion of valuation adjustments that we apply, see Note 2 to the financial statements.

#### **Income Taxes**

We are subject to the income and indirect tax laws of the U.S., its states and municipalities in which we have significant business operations. These tax laws are complex and subject to interpretation by the taxpayer and the relevant governmental taxing authorities. We must make judgments and interpretations about the application of these inherently complex tax laws when determining the provision for income taxes and the expense for indirect taxes and must also make estimates about when certain items affect taxable income in the various tax jurisdictions.

Disputes over interpretations of the tax laws may be settled with the taxing authority upon examination or audit. We periodically evaluate the likelihood of assessments in each taxing jurisdiction resulting from current and subsequent years' examinations, and unrecognized tax benefits related to potential losses that may arise from tax audits are established in accordance with the relevant accounting guidance. Once established, unrecognized tax benefits are adjusted when there is more information available or when an event occurs requiring a change.

Our provision for income taxes is composed of current and deferred taxes. Current income taxes approximate taxes to be paid or refunded for the current period. Deferred income taxes reflect the net tax effects of temporary differences between the financial reporting and tax bases of assets and liabilities and are measured using the applicable enacted tax rates and laws that will be in effect when such differences are expected to reverse.

Our deferred tax balances may also include deferred assets related to tax attribute carryforwards, such as tax credits that will be realized through reduction of future tax liabilities and, in some cases, are subject to expiration if not utilized within certain periods. We perform regular reviews to ascertain whether deferred tax assets are realizable. These reviews include management's estimates and assumptions regarding future taxable income and incorporate various tax planning strategies,

# **Management's Discussion and Analysis**

including strategies that may be available to tax attribute carryforwards before they expire.

Once the deferred tax asset balances have been determined, we may record a valuation allowance against the deferred tax asset balances to reflect the amount we estimate is more likely than not to be realized at a future date. Both current and deferred income taxes may reflect adjustments related to our unrecognized tax benefits.

Significant judgment is required in estimating the provision for (benefit from) income taxes, current and deferred tax balances (including valuation allowance, if any), accrued interest or penalties and uncertain tax positions. Revisions in estimates and/ or the actual costs of a tax assessment may ultimately be materially different from the recorded accruals and unrecognized tax benefits, if any.

See Note 2 to the financial statements for additional information on our significant assumptions, judgments and interpretations associated with the accounting for income taxes and Note 16 to the financial statements for additional information on our tax examinations.

# **Liquidity and Capital Resources**

Our liquidity and capital policies are established and maintained by the Bank's senior management, with oversight by the Bank Risk Committee ("Bank RC") and the Bank's Board of Directors ("Board"). Through various risk and control committees, senior management reviews business performance relative to these policies, monitors the availability of alternative sources of financing, and oversees the liquidity, interest rate and currency sensitivity of our asset and liability position. The Bank's Treasury department, the Bank's RC, the Bank's Asset/Liability Committee, and the Bank's other committees and control groups assist in evaluating, monitoring and managing the impact that the Bank's business activities have on the Bank's balance sheet, liquidity and capital structure. Liquidity and capital matters are reported regularly to the Bank's Board and the Risk Committee of the Bank's Board.

#### **Balance Sheet**

We monitor and evaluate the composition and size of our balance sheet on a regular basis. Our balance sheet management process includes quarterly planning, product-specific thresholds, monitoring of product-specific usage versus key performance metrics and new business impact assessments.

We monitor balance sheet utilization and review variances resulting from business activity and market fluctuations. On a regular basis, we review current performance versus established thresholds and assess balance sheet allocations versus performance and business requirements. We also monitor key metrics, including asset and liability size and capital usage.

#### **Total Assets**

\$ in millions	D	At ecember 31, 2022	At December 31, 2021	
Assets				
Cash and cash equivalents	\$	28,457	\$ 30,	099
Trading assets at fair value		12,975	15,	000
Investment securities:				
Available for sale securities at fair value		48,308	39,	227
Held-to-maturity securities at cost		25,584	26,	760
Securities purchased under agreements to resell		4,488	3,	809
Loans, before ACL:				
Corporate		6,949	6,	547
Secured lending facilities		37,289	33,	223
Commercial real estate		9,782	9,	714
Residential real estate		718	!	921
Securities-based lending and other		22,918	24,	059
Total loans, before ACL		77,656	74,	464
Allowance for credit losses		(468)	) (	400)
Total loans, net of ACL		77,188	74,	064
Affordable housing tax credit investments		922	-	863
Other assets <sup>1</sup>		3,441	2,	095
Total assets	\$	201,363	\$ 191,	917

Other assets primarily include deferred tax assets, receivables from customers and affiliates, as well as investments in the Federal Reserve Bank of New York and the Federal Home Loan Bank of New York.

Total assets increased to \$201 billion at December 31, 2022, compared with \$192 billion at December 31, 2021, driven by increases in Investment securities and Loans. The above increases were partially offset by decreases in Trading assets at fair value and Cash and cash equivalents.

# Liquidity Risk Management Framework

The primary goal of our Liquidity Risk Management Framework is to ensure that we have access to adequate funding across a wide range of market conditions and time horizons. The framework is designed to enable us to fulfill our financial obligations and support the execution of our business strategies.

The following principles guide our Liquidity Risk Management Framework:

- Sufficient Liquidity Resources should be maintained to cover maturing liabilities and other planned and contingent outflows;
- Source, counterparty, currency and term of funding should be diversified; and
- Liquidity Stress Tests should anticipate, and account for, periods of limited access to funding.

The core components of our Liquidity Risk Management Framework are the Required Liquidity Framework, Liquidity Stress Tests and Liquidity Resources, which support our target liquidity profile.

### **Management's Discussion and Analysis**

# Morgan Stanley Bank, N.A.

#### Required Liquidity Framework

Our Required Liquidity Framework establishes the amount of liquidity we must hold in both normal and stressed environments to ensure that our financial condition and overall soundness are not adversely affected by an inability (or perceived inability) to meet our financial obligations in a timely manner. The Required Liquidity Framework considers the most constraining liquidity requirement to satisfy all regulatory and internal limits at the Bank level.

#### Liquidity Stress Tests

We use Liquidity Stress Tests to model external and intercompany liquidity flows across multiple scenarios and a range of time horizons. These scenarios contain various combinations of idiosyncratic and systemic stress events of different severity and duration. The methodology, implementation, production and analysis of our Liquidity Stress Tests are important components of the Required Liquidity Framework.

The assumptions used in our various Liquidity Stress Test scenarios include, but are not limited to, the following:

- No government support;
- Limited access to unsecured debt markets;
- Repayment of unsecured debt maturing within the stress horizon:
- Higher haircuts for and significantly lower availability of secured funding;
- Additional collateral that would be required by trading counterparties, certain exchanges and clearing organizations related to credit rating downgrades;
- Additional collateral that would be required due to collateral substitutions, collateral disputes and uncalled collateral;
- Drawdowns on lending commitments provided to third-parties; and
- Deposit withdrawals both contractual and contingent.

Liquidity Stress Tests are produced and reported by each major operating subsidiary of the Parent. The Liquidity Stress Tests capture specific liquidity requirements and liquidity resources available across Morgan Stanley and include a limited number of asset sales in a stressed environment. The Liquidity Stress Tests assume the Bank will use its own liquidity first to fund its obligations before drawing liquidity from the Parent.

At December 31, 2022 and December 31, 2021, we maintained sufficient Liquidity Resources to meet current and contingent funding obligations as modeled in our Liquidity Stress Tests.

#### Liquidity Resources

We maintain sufficient liquidity resources, which consist of HQLA and cash deposits with banks ("Liquidity Resources") to cover daily funding needs and to meet strategic liquidity targets sized by the Required Liquidity Framework and Liquidity Stress Tests. We actively manage the amount of our Liquidity Resources considering the following components: balance sheet size and composition; funding needs in a stressed environment;

liquidity requirements; regulatory requirements; and collateral requirements.

The amount of Liquidity Resources we hold is based on our risk appetite and is calibrated to meet various internal and regulatory requirements and to fund prospective business activities. The Total HQLA values in the tables immediately following are different from Eligible HQLA, which, in accordance with the LCR rule, also takes into account certain regulatory weightings and other operational considerations.

#### **Liquidity Resources by Type of Investment**

	Average Daily Balance Three Months Ended							
\$ in millions		December 31, 2022	September 30, 2022					
Cash deposits with central banks	\$	17,255	\$	18,786				
Unencumbered HQLA securities <sup>1</sup> :								
U.S. government obligations		36,783		37,745				
U.S. agency and agency mortgage- backed securities		28,625		30,349				
Total HQLA <sup>1</sup>	\$	82,663	\$	86,880				
Cash deposits with banks (non-HQLA)		_		1				
Total Liquidity Resources	\$	82,663	\$	86,881				

1. HQLA is presented prior to applying weightings.

Liquidity Resources may fluctuate from period to period based on the overall size and composition of our balance sheet, the maturity profile of our funding and estimates of funding needs in a stressed environment, among other factors.

## Regulatory Liquidity Framework

#### Liquidity Coverage Ratio and Net Stable Funding Ratio

We are required to maintain a minimum LCR and NSFR of 100%. The LCR requires that we have sufficient Eligible HQLA to cover net cash outflows arising from significant stress over 30 calendar days, thus promoting the short-term resilience of our liquidity risk profile. In determining Eligible HQLA for LCR purposes, weightings (or asset haircuts) are applied to HQLA. The NSFR requires large banking organizations to maintain sufficiently stable sources of funding over a one-year time horizon.

As of December 31, 2022 and December 31, 2021, we were compliant with the minimum LCR and NSFR requirements of 100%.

### **Funding Management**

We manage our funding in a manner that reduces the risk of disruption to our operations. We pursue a strategy of diversification of retail and wholesale funding sources and attempt to ensure the tenor of our liabilities equals or exceeds the holding period of assets being financed.

We fund our balance sheet through diverse sources. These sources include our equity capital, deposits and borrowings. We have active financing programs for both standard and structured products.

### **Management's Discussion and Analysis**

#### **Unsecured Financing**

We view deposits and borrowings as stable sources of funding. Our unsecured financing is comprised of loans from MSPBNA and the Parent of \$0.7 billion and \$6.2 billion at December 31, 2022 and December 31, 2021, respectively. When appropriate, we may use derivative products to conduct asset and liability management and to make adjustments to our interest rate risk profile.

#### **Deposits**

\$ in millions	At December 31, 2022		De	At December 31, 2021	
Savings and demand deposits:					
Brokerage sweep deposits	\$	100,572	\$	129,434	
Savings and other <sup>1</sup>		56,342		25,691	
Total savings and demand deposits		156,914		155,125	
Time deposits <sup>2</sup>		20,442		8,896	
Total <sup>3</sup>	\$	177,356	\$	164,021	

- Includes deposits from the Parent and affiliates, see Note 10 to the financial statements.
- The contractual liability to depositors is \$20.4 billion and \$8.9 billion at December 31, 2022 and December 31, 2021, respectively.
- Total deposits subject to the FDIC insurance at December 31, 2022 and December 31, 2021 were \$124.8 billion and \$86.4 billion, respectively.

Deposits are primarily sourced from clients and are considered to have stable, low-cost funding characteristics. The increase in total deposits in 2022 was primarily driven by higher Savings and other deposits, as well as Time deposits, partially offset by a reduction in Brokerage sweep deposits.

#### Time Deposits by Remaining Maturity at December 31, 2022

\$ in millions	
2023	\$ 12,349
2024	4,837
2025	1,532
2026	552
2027	833
Thereafter	339
Total	\$ 20,442

Time Deposits of \$20 billion as of December 31, 2022 increased from \$9 billion at December 31, 2021 primarily as a result of new issuances.

We believe that accessing funding through multiple distribution channels provides consistent access to funding markets. In addition, the issuance of time deposits with longer dated contractual maturities allows us to manage the maturity profile, mitigate liquidity risk and maximize diversification through institutional and retail clients.

The availability and cost of financing to us can vary depending on market conditions (particularly with respect to interest rates), the volume of certain trading and lending activities, our credit ratings and the overall availability of credit. We also engage in, and may continue to engage in, repurchases of our borrowings in the ordinary course of business. For further information on Deposits, see Note 9 to the financial statements.

# **Credit Ratings**

Our credit ratings are one of the factors in the cost and availability of financing and can have an impact on certain trading income, particularly in those businesses where longer-term counterparty performance is a key consideration, such as certain OTC derivative transactions. When determining credit ratings, rating agencies consider both company-specific and industry-wide factors. See also "Risk Factors—Liquidity Risk."

### MSBNA Issuer Ratings at February 17, 2023

	Short-Term Debt	Long-Term Debt	Rating Outlook
Fitch Ratings, Inc.	F1+	AA-	Stable
Moody's Investors Service, Inc.	P-1	Aa3	Stable
S&P Global Ratings	A-1	A+	Stable

On November 4, 2022, Fitch Ratings, Inc. upgraded the issuer ratings of MSBNA from A+ to AA-, and revised MSBNA outlook from positive to stable. Fitch Ratings, Inc. also upgraded the short-term rating of MSBNA from F1 to F1+.

# **Capital Management**

We view capital as an important source of financial strength and actively manage our capital position based upon, among other things, business opportunities, risks, capital availability and rates of return together with internal capital policies and regulatory requirements. In the future, we may expand or contract our capital base to address the changing needs of our businesses.

The Bank is subject to various general regulatory policies and requirements relating to the payment of dividends, including requirements to maintain adequate capital above regulatory minimums. The OCC is authorized to determine under certain circumstances relating to the financial condition of the Bank that the payment of dividends would be an unsafe or unsound practice and to prohibit payment thereof. Federal regulatory authorities have indicated that paying dividends that deplete a bank's capital base to an inadequate level would be an unsafe and unsound banking practice and that banking organizations should generally pay dividends only out of current operating earnings.

The Bank may not declare a dividend if the total amount of all dividends, including the proposed dividend, declared by the Bank in any calendar year exceeds the total of the Bank's retained net income of that year to date, combined with its retained net income of the preceding two years, unless the dividend is approved by the OCC. Federal law also prohibits national banks from paying dividends that would be greater than the bank's undivided profits.

There was no cash dividend paid in 2022 or 2021.

### **Management's Discussion and Analysis**

## **Regulatory Requirements**

#### **Regulatory Capital Framework**

The OCC establishes capital requirements for us, including "well-capitalized" standards, and evaluates our compliance with such capital requirements. Regulatory capital requirements established by the OCC are largely based on the Basel III capital standards established by the Basel Committee and also implement certain provisions of the Dodd-Frank Act. Failure to meet minimum capital requirements can initiate certain mandatory and discretionary actions by regulators that, if undertaken, could have a direct material effect on the Bank's financial statements. Under FDICIA capital adequacy guidelines and regulatory framework for prompt corrective action (the "PCA Framework"), the Bank must meet specific capital guidelines that involve quantitative measures of the Bank's assets, liabilities and certain off-balance sheet items as calculated under regulatory accounting practices. For additional information on our regulatory capital requirements, see Note 14 to the financial statements.

# **Regulatory Capital Requirements**

We are required to maintain minimum risk-based and leveragebased capital.

Risk-Based Regulatory Capital. Risk-based capital ratio requirements apply to Common Equity Tier 1 capital, Tier 1 capital and Total capital (which includes Tier 2 capital), each as a percentage of RWA, and consist of regulatory minimum required ratios plus our capital buffer requirement. Capital requirements require certain adjustments to, and deductions from, capital for purposes of determining these ratios.

# Capital Buffer Requirements

The capital buffer requirement represents the amount of Common Equity Tier 1 capital we must maintain above the minimum risk-based capital requirements in order to avoid restrictions on our ability to make capital distributions, including the payment of dividends, and to pay discretionary bonuses to executive officers. Our capital buffer requirements computed under the standardized approaches for calculating credit risk and market risk RWAs ("Standardized Approach") and computed under the applicable advanced approaches for calculating credit risk, market risk and operational risk RWAs ("Advanced Approach") is equal to the sum of our 2.5% capital conservation buffer and CCyB. The CCyB can be set up to 2.5% but is currently set by U.S. banking agencies at zero.

#### **Risk-Based Regulatory Capital Ratio Requirements**

		December	
	Regulatory Minimum	Standardized	Advanced
Required ratios <sup>1</sup>			
Common Equity Tier 1 capital ratio	4.5 %	7.0 %	7.0 %
Tier 1 capital ratio	6.0 %	8.5 %	8.5 %
Total capital ratio	8.0 %	10.5 %	10.5 %

<sup>1.</sup> Required ratios represent the regulatory minimum plus the capital buffer requirement.

Risk-Weighted Assets. RWA reflects both our on- and offbalance sheet risk, as well as capital charges attributable to the risk of loss arising from the following:

- Credit risk: The failure of a borrower, counterparty or issuer to meet its financial obligations to us;
- Market risk: Adverse changes in the level of one or more market prices, rates, spreads, indices, volatilities, correlations or other market factors, such as market liquidity; and
- Operational risk: Inadequate or failed processes or systems, from human factors or from external events (e.g., fraud, theft, legal and compliance risks, cyber-attacks or damage to physical assets).

Our risk-based capital ratios are computed under each of (i) the Standardized Approach and (ii) the Advanced Approach. The credit risk RWA calculations between the two approaches differ in that the Standardized Approach requires calculation of RWA using prescribed risk weights and exposure methodologies, whereas the Advanced Approach utilizes models to calculate exposure amounts and risk weights. At December 31, 2022 and December 31, 2021, the differences between the actual and required ratios were lower under the Standardized Approach.

Leverage-Based Regulatory Capital. Leverage-based capital requirements include a minimum Tier 1 leverage ratio of 4% and SLR of 3%.

CECL Deferral. As of December 31, 2021, our risk-based and leverage-based capital amounts and ratios, as well as RWA, adjusted average assets and supplementary leverage exposure were calculated excluding the effect of the adoption of CECL based on our election to defer this effect over a five-year transition period that began on January 1, 2020. In 2022 the deferral impacts began to phase in at 25% per year and will become fully phased-in beginning in 2025.

Well-Capitalized Requirements. FDICIA, requires the federal bank regulatory agencies to take "prompt corrective action" in respect of IDIs that do not meet specified capital requirements. FDICIA establishes five capital categories for FDIC-insured banks: well-capitalized, adequately capitalized, undercapitalized, significantly undercapitalized and critically undercapitalized.

In addition, under the PCA Framework applicable to us, we must also meet the quantitative capital ratio requirements for a well-capitalized IDI; these are shown in the table below.

Our capital levels and prompt corrective action classification are also subject to qualitative judgments by the regulators about

# **Management's Discussion and Analysis**

components of capital, risk weightings and other factors. Failure to comply with the capital requirements, including a breach of the buffers described above, would result in restrictions being imposed by our regulators.

#### **Regulatory Capital Ratios**

\$ in millions	Well- Capitalized Requirements <sup>1</sup>	Required Ratio <sup>2</sup>	At December 31, 2022		At December 31, 2021	
Risk-based capital - Standardized						
Common Equity Tier 1 capital			\$	20,043	\$	18,960
Tier 1 capital				20,043		18,960
Total capital				20,694		19,544
Total RWA				97,931		92,554
Common Equity Tier 1 capital ratio	6.5 %	7.0 %		20.5 %	ı	20.5 %
Tier 1 capital ratio	8.0 %	8.5 %		20.5 %	ı	20.5 %
Total capital ratio	10.0 %	10.5 %		21.1 %	1	21.1 %

\$ in millions	Well- Capitalized Requirements <sup>1</sup>	Required Ratio <sup>2</sup>	At December 31, 2022		At December 31, 2021	
Risk-based capital - Advanced						
Common Equity Tier 1 capital			\$	20,043	\$	18,960
Tier 1 capital				20,043		18,960
Total capital				20,421		19,306
Total RWA				73,495		68,144
Common Equity Tier 1 capital ratio	6.5 %	7.0 %		27.3 %	ı	27.8 %
Tier 1 capital ratio	8.0 %	8.5 %		27.3 %	,	27.8 %
Total capital ratio	10.0 %	10.5 %		27.8 %	)	28.3 %
	10.0 70	.0.0 70		27.0 /	•	20.0 70

\$ in millions	Well- Capitalized Requirements <sup>1</sup>	Required Ratio <sup>2</sup>	D	At ecember 31, 2022	D	At ecember 31, 2021
Leverage- based capital						
Adjusted average assets <sup>3</sup>			\$	197,711	\$	185,120
Tier 1 leverage ratio	5.0 %	4.0 %		10.1 %	, ,	10.2 %
Supplementary leverage exposure <sup>4</sup>			\$	248,860	\$	233,358
SLR	6.0 %	3.0 %		8.1 %	,	8.1 %

- 1. The requirements to remain "well-capitalized" under the PCA framework.
- 2. Required ratios are inclusive of any buffers applicable as of the date presented.
- Adjusted average assets represents the denominator of the Tier 1 leverage ratio and is composed of the average daily balance of on-balance sheet assets for the quarters ending on the respective balance sheet dates, reduced by intangible assets, certain deferred tax assets and other capital deductions.
- 4. Supplementary leverage exposure is the sum of Adjusted average assets used in the Tier 1 leverage ratio and other adjustments, primarily: (i) for derivatives, potential future exposure and the effective notional principal amount of sold credit protection offset by qualifying purchased credit protection; (ii) the counterparty credit risk for repo-style transactions; and (iii) the credit equivalent amount for off-balance sheet exposures.

#### **Regulatory Capital**

A	De	At ecember 31, 2022	D	At ecember 31, 2021		Change
\$ in millions  Common Equity Tier 1 Capital		2022		2021		Change
Common stock and surplus	\$	8.005	\$	8.005	\$	_
Retained earnings	Ť	14,381	_	10,774	Ť	3,607
AOCI		(2,369)		166		(2,535)
Other adjustments and deductions <sup>1</sup>		(26)		(15)		(11)
Total Common Equity Tier 1 capital and Total Tier 1 capital	\$	20,043	\$	18,960	\$	1,083
Standardized Tier 2 capital						
Eligible ACL	\$	651	\$	584	\$	67
Total Standardized capital	\$	20,694	\$	19,544	\$	1,150
Advanced Tier 2 capital						
Eligible credit reserves	\$	378	\$	346	\$	32
Total Advanced capital	\$	20,421	\$	19,306	\$	1,115

Other adjustments and deductions used in the calculation of Common Equity Tier 1 capital primarily includes net after-tax DVA and the credit spread premium over riskfree rate for derivative liabilities.

#### **RWA Rollforward**

\$ in millions	Standardized	Advanced	
Credit risk RWA			
Balance at December 31, 2021	\$ 91,399	\$ 58,864	
Change related to the following items			
Derivatives	(557)	(426)	
Securities financing transactions	197	(85)	
Investment securities	(114)	(1,131)	
Commitments, guarantees and loans	4,631	6,014	
Equity investments	281	214	
Other credit risk	878	704	
Total change in credit risk RWA	\$ 5,316	\$ 5,290	
Balance at December 31, 2022	\$ 96,715	\$ 64,154	
Market risk RWA			
Balance at December 31, 2021	\$ 1,155	\$ 1,155	
Change related to the following items			
Regulatory VaR	28	28	
Regulatory stressed VaR	(27)	(27)	
Specific risk	60	60	
Total change in market risk RWA	\$ 61	\$ 61	
Balance at December 31, 2022	\$ 1,216	\$ 1,216	
Operational risk RWA			
Balance at December 31, 2021	N/A	\$ 8,125	
Other adjustments and Deductions	N/A	_	
Balance at December 31, 2022	N/A	\$ 8,125	
Total RWA	\$ 97,931	\$ 73,495	

Regulatory VaR—VaR for regulatory capital requirements

In 2022, Credit risk RWA increased under the Standardized and Advanced Approach. Under the Standardized and Advanced Approach, the increase was primarily driven by lending growth, partially offset by a decrease in Derivatives and Investment securities.

Market risk RWA increased in 2022 under both the Standardized and Advanced Approaches primarily driven by higher Specific Risk due to growth in traded products.

### **Management's Discussion and Analysis**

#### **Capital Plans and Stress Tests**

Our capital planning process and stress tests are designed to identify and measure material risks associated with our business activities, including market risk, credit risk and operational risk. Our capital planning process incorporates an internal capital adequacy assessment to ensure that we are appropriately capitalized relative to the risks in our businesses. Our stress tests incorporate our internally developed severely adverse scenario and are designed to capture our specific vulnerabilities and risks.

We were not required by our primary regulators to conduct the annual company-run stress test under the Dodd-Frank Act in 2022.

# **Regulatory Developments and Other Matters**

# Replacement of London Interbank Offered Rate and Replacement or Reform of Other Interest Rate Benchmarks

Central banks around the world, including the Federal Reserve, have sponsored initiatives in recent years to replace LIBOR and replace or reform certain other interest rate benchmarks. A transition away from use of the IBORs to alternative rates and other potential interest rate benchmark reforms is underway and is a multi-year initiative.

The publication of most non-U.S. dollar LIBOR rates ceased as of the end of December 2021, although certain Sterling and Yen LIBOR rates have been published for a limited period following this date on the basis of a "synthetic" methodology (known as "synthetic LIBOR"). The synthetic Yen LIBOR rates ceased as of the end of December 2022 and the U.K. Financial Conduct Authority ("UK FCA"), which regulates the publisher of LIBOR (ICE Benchmark Administration), has announced that publication of the one- and six-month tenors of synthetic Sterling LIBOR will cease at the end of March 2023 and the three-month synthetic Sterling LIBOR at the end of March 2024.

U.S. dollar LIBOR rates are expected to cease being published as of the end of June 2023. On March 15, 2022 the U.S. enacted federal legislation that is intended to minimize legal and economic uncertainty following U.S. dollar LIBOR's cessation by replacing LIBOR references in certain U.S. law-governed contracts under certain circumstances with a SOFR-based rate identified in a Federal Reserve rule plus a statutory spread adjustment. While some states have already adopted LIBOR legislation, the federal legislation expressly preempts any provision of any state or local law, statute, rule, regulation or standard. In addition, the UK FCA is considering the continued publication of the one-, three- and six-month tenors of U.S. dollar LIBOR on a synthetic basis until the end of September 2024. This may result in certain non-U.S. law-governed contracts and U.S. law-governed contracts not covered by the federal legislation to remain on synthetic U.S. dollar LIBOR until the end of this period.

As of December 31, 2022, our LIBOR-referenced contracts were primarily concentrated in loans and, to a lesser extent, derivative contracts. A significant majority of our non-derivative contracts, and a majority of our derivative contracts contain fallback

provisions or otherwise have an expected path that will allow for the transition to an alternative reference rate upon the cessation of the applicable LIBOR rate.

While we have made substantial progress in the transition away from the IBORs, we nonetheless currently remain party to a significant number of U.S. dollar LIBOR-linked contracts. For the limited number of U.S. dollar LIBOR-linked contracts without a current market standard fallback, or to which the Federal legislation does not apply, we are actively developing appropriate transition plans in light of the planned June 30, 2023 cessation date for the remaining U.S. dollar LIBOR tenors.

Our IBOR transition plan is overseen by a global steering committee, with senior management oversight, and we continue to execute against the Morgan Stanley IBOR transition plan to complete the transition to alternative reference rates.

See also "Risk Factors—Risk Management" for a further discussion of risks related to the planned replacement of the IBORs and/or reform of interest rate benchmarks.

### **Quantitative and Qualitative Disclosures about Risk**

# Risk Management

#### Overview

Risk is an inherent part of our businesses and activities. We believe effective risk management is vital to the success of our business activities. Accordingly, we have a Risk Governance Framework to integrate the diverse roles of risk management into a holistic enterprise structure and to facilitate the incorporation of risk assessment into decision-making processes across the Bank.

We have policies and procedures in place to identify, measure, monitor, escalate, mitigate and control the principal risks involved in our business activities. Credit risk is the principal risk involved in our business activities. In addition, we are exposed to both financial and non-financial risks including market (including interest rate and price risk), liquidity, model, operational, compliance, cybersecurity, strategic, and reputational risk. Strategic risk is integrated into our business planning, embedded in the evaluation of all principal risks and overseen by the Board.

The cornerstone of our risk management philosophy is the pursuit of risk-adjusted returns through prudent risk taking that protects our capital base and franchise. This philosophy is implemented through the Risk Governance Framework ("RGF"). Five key principles underlie this philosophy: integrity, comprehensiveness, independence, accountability transparency. To help ensure the efficacy of risk management, which is an essential component of our reputation, senior management requires thorough and frequent reporting and the appropriate escalation of risk matters. The fast-paced, complex and constantly evolving nature of global financial markets requires us to maintain a risk management culture that is incisive, knowledgeable about specialized products and markets, and subject to ongoing review and enhancement.

The Bank's risk appetite defines the aggregate level and types of risk that the Bank is willing to accept to achieve its business objectives, taking into account the safety and soundness of the Bank, the interest of clients, as well as capital and other regulatory requirements. This risk appetite is embedded in the Bank's risk culture and linked to its short-term and long-term strategic, capital and financial plans, as well as compensation programs. This risk appetite and the related Board-level risk limits and risk tolerance statements are reviewed and approved by the Risk Committee of the Board ("BRC") on at least an annual basis.

Certain risk management processes as described in the sections below are performed by affiliates of the Bank. These processes are subject to Bank oversight, either pursuant to a Master Services Agreement between us and certain affiliates, or inclusive of Bank activities. References to risk management practices in the sections below encompass both those of the Bank and those provided by affiliates.

#### **Risk Governance Structure**

Risk management at the Bank requires independent Bank-level oversight, accountability of our business divisions, and effective communication of risk matters across the Bank, to senior management and ultimately to the Board. Our risk governance structure is set forth in the following chart and also includes risk managers, committees, and other groups. The Risk Governance Framework, composed of independent but complementary entities, facilitates efficient and comprehensive supervision of our risk exposures and processes.



Established in January 2023

# Morgan Stanley Bank, N.A.'s Board of Directors

The Board has oversight of the Risk Governance Framework and is responsible for helping to ensure that our risks are managed in a sound manner. The Board has authorized the committees within the risk governance structure to help facilitate our risk oversight responsibilities. As set forth in the Bank's Risk Governance Framework policy, the Board regularly reviews, with the Bank's senior management, the Bank's financial performance, risk profile, strategy and business plans.

#### Risk Committee of the Board

The BRC assists the Board in its oversight of the Bank's Risk Governance Framework policy, including the Bank's risk appetite statement, risk limits and key risk indicators; the Bank's compliance with legal and regulatory requirements, including with respect to the status of the Bank as a swap dealer provisionally registered with the CFTC and as a security-based swap dealer conditionally registered with the SEC; and the independence of the Bank's Chief Risk Officer ("CRO") and the Bank's Chief Compliance Officer ("CCO," and together with the CRO, the "Chief Risk Executives") and the risk management function.

## Operations and Technology Committee of the Board

The Operations and Technology Committee assists the Board in its oversight of the Bank's operations and technology strategy and significant investments in support of such strategy and oversees operations and technology risk. The Operations and Technology Committee reports to the Board on a regular basis.

# Governance, Management Development and Compensation Committee of the Board

The Governance, Management Development and Compensation Committee recommends to the Board corporate governance principles applicable to the Bank, oversees plans for management development and succession for the Bank, assesses the compensation framework of the Bank's officers and employees, and oversees the annual Board self-assessment process. The Governance, Management Development and Compensation Committee reports to the Board on a regular basis.

#### **Executive Committee**

The Executive Committee is appointed by the Board to provide an efficient means of considering such matters and taking such actions as may require the attention of the Board or the exercise of the Board's powers or authority in the intervals between meetings of the Board. All acts done and powers conferred by the Executive Committee from time to time shall be deemed to be, and may be certified as being, done and conferred under authority of the Board.

#### Audit Committee of the Board

The Audit Committee ("AC") assists the Board in monitoring the integrity of the Bank's financial statements, the Bank's system of internal controls, the qualifications and independence of the

Bank's independent public accountant ("independent auditor") and the performance of the Bank's internal audit department and independent auditor. The AC reports to the Board on a regular basis.

#### Bank Risk Committee

The Board has also authorized the Bank RC, a management committee chaired by the Chief Risk Officer, which includes the most senior officers of the Bank, from the business, independent risk functions and control groups, to help oversee the Risk Governance Framework. The Bank RC's responsibilities include: oversight of our risk management principles, procedures and limits; the monitoring of capital levels and material market, credit, model, operational liquidity, legal, compliance, reputational and strategic risk matters, and other risks, as appropriate; and the steps management has taken to monitor and manage such risks. The Bank RC also establishes and communicates risk tolerance, including aggregate Bank limits and tolerances, as appropriate. The Bank RC reports to the BRC.

#### Management Committee

The Board has also authorized the MSBNA Management Committee ("MC"), chaired by the Chief Executive Officer ("CEO") and comprised of members of the Bank's senior management, to assist the CEO in the oversight of the Bank's strategic goals. The responsibilities of the MC include: setting the strategic direction of the Bank under the oversight of the Board and CEO; reviewing, on a periodic basis, issues reporting and Internal Audit Department findings regarding the Bank and its activities; reviewing, on a periodic basis, new businesses contemplated for the Bank's Strategic and Business Plan; reviewing findings and feedback from regulatory agencies, excluding those related to the Bank's risk management program, and overseeing the remediation of identified deficiencies. The MSBNA MC also oversees the committees as outlined in the governance structure.

#### Functional Risk and Control Committees

Functional risk and control committees and other committees within the Risk Governance Framework facilitate efficient and comprehensive supervision of our risk exposures and processes.

Each risk area has a risk committee that is responsible for helping to adhere to established limits for market, credit, operational and other risks; implements risk measurement, monitoring, and management policies, procedures, controls and systems that are consistent with the risk framework established by the Board; and reviews, on a periodic basis, our aggregate risk exposures, risk exception experience, and the efficacy of our risk identification, measurement, monitoring and management policies and procedures, and related controls.

# Chief Risk Officer

The CRO reports directly to the CEO, the MSBNA Board, and the Parent Chief Risk Officer, and manages the Bank's independent risk management functions with the exception of the Non-Financial Risk Management functions. The CRO, working

with other Bank officers, is responsible for helping promote a strong, consistent risk culture that is evidenced by a strong "Tone from the Top" and a risk framework that is comprehensive and clearly defines roles and responsibilities, transparency and escalation of risks as well as a structure of accountability with appropriate incentives.

#### Chief Compliance Officer

The CCO reports directly to the CEO as well as to the Parent's CCO. The CCO has primary responsibility for overseeing Compliance, Operational and Reputation Risk for the Bank and together with the CRO as Chief Risk Executives of the Bank (as noted above) provide the CEO, Board, BRC and Bank RC with an aggregated view of the risks related to the Bank's business activities, working to ensure that significant risks are effectively identified, evaluated, approved, measured and managed in accordance with the Bank's Risk Governance Framework.

# Independent Risk Management Functions

The Financial Risk Management functions (Market Risk, Credit Risk, Model Risk, Liquidity Risk and Strategic Risk Management functions) and Non-Financial Risk Management functions (Compliance, Global Financial Crimes, Operational and Reputational Risk functions) are independent of our business units and report to the CRO and CCO, as Chief Risk Executives. These functions assist senior management and the Bank RC in monitoring and controlling our risks through a number of control processes. Each function maintains its own risk governance structure with specified individuals and committees responsible for aspects of managing and monitoring risk. Further discussion about the responsibilities of the risk management functions may be found under "Credit Risk", "Market Risk," "Country Risk", "Operational Risk," "Model Risk", "Liquidity Risk", "Legal and Compliance Risk" and "Climate Risk" herein.

#### Support and Control Groups

Our support and control groups include, but are not limited to, Legal, the Finance Division, Technology Division, Operations Division, and the Human Resources Department. Our support and control groups coordinate with the business segment control groups to review the risk monitoring and risk management policies and procedures relating to, among other things, controls over financial reporting and disclosure; each business segment's market, credit and operational risk profile; liquidity risks; model risks; sales practices; reputational, legal enforceability, compliance, conduct and regulatory risk; and technological risks. Participation by the senior officers of the Bank and business segment control groups helps ensure that risk policies and procedures, exceptions to risk limits, new products and business ventures, and transactions with risk elements undergo thorough review.

#### Internal Audit Department

The Internal Audit Department ("IAD") independently assesses the Bank's risk management processes and controls using methodology developed from professional auditing standards and regulatory guidance. IAD undertakes these responsibilities through periodic reviews of our business activities, operations and systems, as well as special investigations and retrospective reviews that may be specifically requested by the AC or management. The Bank's Chief Audit Executive reports functionally to the AC, and administratively to the Bank's Chief Executive Officer and into Morgan Stanley's Global Audit Director.

#### **Risk Appetite and Limits Framework**

The Bank's Risk Appetite represents the aggregate level and types of risk that the Bank is willing to accept in pursuit of our strategic objectives and business plan, taking into account the safety and soundness of the Bank, the interest of our clients, and capital and regulatory requirements.

Risk limits and quantitative metrics provide the basis for monitoring risk-taking activity and avoiding outsized risk taking. Our risk-taking capacity is sized through the Bank's capital planning process where losses are estimated under the Bank's internally developed severely adverse scenario. We also maintain a comprehensive suite of risk limits and quantitative metrics to support and implement our risk appetite statement. Our risk limits support linkages between the overall risk appetite, which is reviewed by the Board, and more granular risk-taking decisions and activities.

Risk limits, once established, are reviewed and updated on at least an annual basis, with more frequent updates as necessary. Board-level risk limits address the most important Bank-wide aggregations of risk. Additional risk limits approved by the Bank RC address more specific types of risk and are bound by the higher-level Board risk limits.

#### **Risk Management Process**

In subsequent sections, we discuss our risk management policies and procedures for our primary risks involved in the activities of our corporate lending and related activities and trading activities. These sections and the estimated amounts of our risk exposure generated by our statistical analyses are forward-looking statements. However, the analyses used to assess such risks are not predictions of future events, and actual results may vary significantly from such analyses due to events in the markets in which we operate and certain other factors described in the following paragraphs.

# **Credit Risk**

Credit risk refers to the risk of loss arising when a borrower, counterparty or issuer does not meet its financial obligations to us. We are primarily exposed to credit risk from institutions and individuals.

We incur credit risk through a variety of activities, including, but not limited to, the following:

- extending credit to clients through loans and lending commitments;
- securities-based lending and other forms of secured loans;

- entering into swap or other derivative contracts under which counterparties may have obligations to make payments to us;
- providing short- or long-term funding that is secured by physical or financial collateral whose value may at times be insufficient to fully cover the repayment amount;
- investing or trading in securities and loan pools, whereby the value of these assets may fluctuate based on realized or expected defaults on the underlying obligations or loans;
- posting margin and/or collateral to clearinghouses, clearing agencies, exchanges, banks, securities firms and other Morgan Stanley affiliates; and
- placing funds on deposit at other financial institutions to support our clearing and settlement obligations.

#### **Monitoring and Control**

The CRM establishes Bank-wide practices to evaluate, monitor and control credit risk at the transaction, obligor and portfolio levels. The CRM approves extensions of credit, evaluates the creditworthiness of the counterparties and borrowers on a regular basis, and helps ensure that credit exposure is actively monitored and managed. The evaluation of counterparties and borrowers includes an assessment of the probability that an obligor will default on its financial obligations and any losses that may occur when an obligor defaults. In addition, credit risk exposure is actively managed by credit professionals and committees within the CRM and through various risk committees, whose membership includes individuals from the CRM. A comprehensive and global Credit Limits Framework is utilized to manage credit risk levels across the Bank. The Credit Limits Framework is calibrated within our risk tolerance and includes single-name limits and portfolio concentration limits by country, industry and product type.

The CRM helps ensure timely and transparent communication of material credit risks, compliance with established limits and escalation of risk concentrations to appropriate senior management, the Credit Committee, the Bank RC, and the BRC. The CRM also works closely with the Market Risk Department and applicable business units to monitor risk exposures and to perform stress tests to identify, analyze and control credit risk concentrations arising from lending activities. The stress tests shock market factors (e.g., interest rates, commodity prices, credit spreads), risk parameters (e.g., probability of default and loss given default), recovery rates and expected losses in order to assess the impact of stresses on exposures, profit and loss, and our capital position. Stress tests are conducted in accordance with our established policies and procedures.

#### **Credit Evaluation**

The evaluation of corporate and institutional counterparties and borrowers includes assigning credit ratings, which reflect an assessment of an obligor's probability of default and loss given default. Credit evaluations typically involve the assessment of financial statements; leverage; liquidity; capital strength; asset composition and quality; market capitalization; access to capital markets; adequacy of collateral, if applicable; and in the case of certain loans, cash flow projections and debt service requirements. The CRM also evaluates strategy, market position, industry dynamics, management and other factors such as

country risks and legal and contingent risks that could affect the obligor's risk profile. Additionally, the CRM evaluates the relative position of our exposure in the borrower's capital structure and relative recovery prospects, as well as other structural elements of the particular transaction.

The evaluation of consumer borrowers is tailored to the specific type of lending. Securities-based loans are evaluated based on factors that include, but are not limited to, the amount of the loan, and the amount, quality, diversification, price volatility and liquidity of the collateral. Subsequent credit monitoring for individual loans is performed at the portfolio level, and collateral values are monitored on an ongoing basis.

Credit risk metrics assigned to our borrowers during the evaluation process are incorporated into the CRM maintenance of the allowance for credit losses. Such allowance serves as a reserve for probable inherent losses, as well as probable losses related to loans identified as impaired. For more information on the allowance for credit losses, see Notes 2 and 4 to the financial statements.

#### **Risk Mitigation**

We may seek to mitigate credit risk from our lending and trading activities in multiple ways, including collateral provisions, guarantees and hedges. At the transaction level, we seek to mitigate risk through management of key risk elements such as size, tenor, financial covenants, seniority and collateral. We actively hedge our lending and derivatives exposures. Hedging activities consist of the purchase or sale of positions in related securities and financial instruments, including a variety of derivative products (e.g., futures, forwards, swaps, and options). Additionally, we may sell, assign or syndicate loans and lending commitments to other financial institutions in the primary and secondary loan markets.

In connection with our derivatives trading activities, we generally enter into master netting agreements and collateral arrangements with counterparties. These agreements provide us with the ability to demand collateral, as well as to liquidate collateral and offset receivables and payables covered under the same master agreement in the event of a counterparty default. A collateral management group monitors collateral levels against requirements and oversees the administration of the collateral function. See Note 8 to the financial statements for additional information about our collateralized transactions.

#### Risk Disclosures

#### **Loans and Lending Commitments**

	At December 31, 2022							
\$ in millions		HFI		HFS		FVO		Total
Corporate	\$	3,597	\$	3,352	\$	_	\$	6,949
Secured lending facilities		35,248		2,041		_		37,289
Commercial real estate		8,493		845		444		9,782
Residential real estate		_		_		718		718
Securities-based lending and Other		19,566		1		3,351		22,918
Total loans		66,904		6,239		4,513		77,656
ACL		(468)		_		_		(468)
Total loans, net of ACL	\$	66,436	\$	6,239	\$	4,513	\$	77,188
Lending Commitments <sup>1</sup>							\$	90,411
Total exposure							\$	167,599

	At Decemb			er 31, 2021					
\$ in millions		HFI	HFS			FVO		Total	
Corporate	\$	3,268	\$	3,279	\$	_	\$	6,547	
Secured lending facilities		31,115		2,108		_		33,223	
Commercial real estate		7,205		1,714		795		9,714	
Residential real estate		_		_		921		921	
Securities-based lending and Other		18,858		3		5,198		24,059	
Total loans		60,446		7,104		6,914		74,464	
ACL		(400)		_		_		(400)	
Total loans, net of ACL	\$	60,046	\$	7,104	\$	6,914	\$	74,064	
Lending Commitments <sup>1</sup>							\$	82,411	
Total exposure							\$	156,475	

Total exposure-consists of Total loans, net of ACL, and Lending commitments

We provide loans and lending commitments to a variety of customers, including large corporate and institutional clients, as well as high to ultra-high net worth individuals. In addition, we purchase loans in the secondary market. Loans and lending commitments are either held for investment, held for sale or carried at fair value. For more information on these loan classifications, see Note 2 to the financial statements.

In 2022, total loans and lending commitments increased by approximately \$11 billion, primarily due to growth in Secured lending and Corporate facilities.

See Notes 3, 6 and 12 to the financial statements for further information.

#### Allowance for Credit Losses - Loans and Lending Commitments

\$ in millions	
ACL - Loans	\$ 400
ACL – Lending commitments	191
Total at December 31, 2021	591
Gross charge-offs	(7)
Provision for credit losses	72
Other	(7)
Total at December 31, 2022	\$ 649
ACL – Loans	\$ 468
ACL – Lending commitments	181

Credit exposure arising from our loans and lending commitments is measured in accordance with our internal risk management standards. Risk factors considered in determining the allowance for credit losses for loans and lending commitments include the borrower's financial strength, industry, facility structure, LTV ratio, debt service ratio, collateral and covenants. Qualitative and environmental factors such as economic and business conditions, nature and volume of the portfolio and lending terms, and volume and severity of past due loans may also be considered.

The aggregate allowance for credit losses for loans and lending commitments increased in 2022, primarily reflecting the Provision for credit losses due to deterioration in macroeconomic outlook.

The base scenario used in our ACL models as of December 31, 2022 was generated using a combination of consensus economic forecasts, forward rates, and internally developed and validated models, and assumes weak economic growth over the forecast period. Given the nature of our lending portfolio, the most sensitive model input is U.S. GDP.

#### Forecasted U.S. Real GDP Growth Rates in Base Scenario

	4Q 2023	4Q 2024	
Year-over-year growth rate	0.4 %	1.7 %	

See Note 3 to the financial statements for further information. See Note 2 to the financial statements for a discussion of the Bank's ACL methodology under CECL.

#### Status of Loans Held for Investment

	At December 31, 2022	At December 31, 2021
Accrual	99.5 %	99.1 %
Nonaccrual <sup>1</sup>	0.5 %	0.9 %

These loans are on nonaccrual status because the loans were past due for a period of 90 days or more or payment of principal or interest was in doubt.

Lending commitments represent the notional amount of legally binding obligations to
provide funding to clients for lending transactions. Since commitments associated with
these business activities may expire unused or may not be utilized to full capacity, they
do not necessarily reflect the actual future cash funding requirements.

### Net Charge-off Ratios for Loans Held for Investment

\$ in millions	Corporate	Secured Lending Facilities	CRE	SBL and Other	Total
2022					
Net charge-offs ratio <sup>1</sup>	— %	— %	0.09 %	— %	0.01 %
Average Loan	\$ 3,705	\$ 4,458	\$ 8,214	\$48,096	\$64,473
2021					
Net charge-offs ratio <sup>1</sup>	0.50 %	0.24 %	0.38 %	— %	0.20 %
Average Loan	\$ 2,986	\$27,417	\$ 7,073	\$17,749	\$55,225

Net charge-off ratio represents gross charge-offs net of recoveries divided by total average loans held for investment before ACL.

# Loans and Lending Commitments by Credit Rating<sup>1</sup>

	At December 31, 2022					
	Contractual Years to Maturity					
\$ in millions	< 1	1-5	5-15	>15	Total <sup>3</sup>	
Loans						
AA	\$ 67	<b>\$</b> —	\$ 139	<b>\$</b> —	\$ 206	
Α	1,316	734	_	_	2,050	
BBB	5,364	10,188	114	_	15,666	
BB	10,726	17,075	713	157	28,671	
Other NIG	4,710	6,566	1,341	215	12,832	
Unrated <sup>2</sup>	3	349	191	719	1,262	
Total loans, net of ACL	22,186	34,912	2,498	1,091	60,687	
Lending commitment						
AAA	_	50	_	_	50	
AA	2,047	2,245	11	_	4,303	
A	4,517	17,183	189	330	22,219	
BBB	9,055	30,996	413	_	40,464	
BB	2,610	13,833	1,050	96	17,589	
Other NIG	562	2,615	49	_	3,226	
Unrated <sup>2</sup>	_	15	_	_	15	
Total lending commitments	18,791	66,937	1,712	426	87,866	
Total exposure	\$ 40,977	\$101,849	\$ 4,210	\$ 1,517	\$148,553	

	At December 31, 2021					
	Co	ntractual Ye	ears to Mati	urity	_	
\$ in millions	< 1	1-5	5-15	>15	Total <sup>3</sup>	
Loans						
AA	\$ 11	\$ 35	\$ 38	\$ —	\$ 84	
Α	890	898	449	_	2,237	
BBB	5,187	7,919	505	_	13,611	
ВВ	10,084	15,896	773	18	26,771	
Other NIG	3,906	6,509	2,040	221	12,676	
Unrated <sup>2</sup>	1	250	127	921	1,299	
Total loans, net of ACL	20,079	31,507	3,932	1,160	56,678	
Lending commitments						
AAA	_	50	_	_	50	
AA	3,099	2,014	_	_	5,113	
Α	4,333	14,884	408	303	19,928	
BBB	5,801	28,775	766	_	35,342	
ВВ	1,732	13,872	526	_	16,130	
Other NIG	364	2,410	98	43	2,915	
Unrated <sup>2</sup>	269	15	3	_	287	
Total lending commitments	15,598	62,020	1,801	346	79,765	
Total exposure	\$ 35,677	\$ 93,527	\$ 5,733	\$ 1,506	\$136,443	

NIG-Non-investment grade

- Counterparty credit ratings are internally determined by the CRM. Primarily includes Corporate, Residential real estate, and Commercial real estate loans and lending commitments.
- Unrated loans and lending commitments are primarily trading positions that are measured at fair value and risk-managed as a component of market risk. For a further discussion of our market risk, see "Quantitative and Qualitative Disclosures about Risk —Market Risk" herein.
- Excludes certain Securities-based loans and lending commitments that are subject to collateral maintenance provisions and predominantly over-collateralized.

#### Loans and Lending Commitments by Industry

\$ In millions	At December 31, 2022		At ember 31, 2021
Financials	\$ 48,836	\$	44,188
Real estate	30,469		28,699
Industrials	15,810		15,725
Consumer discretionary	14,433		13,986
Information technology	9,134		6,825
Utilities	8,464		8,460
Healthcare	8,917		8,048
Communication services	6,511		6,359
Consumer staples	6,481		6,606
Energy	5,855		5,422
Other	12,689		12,157
Total exposure	\$ 167,599	\$	156,475

# **Market Risk**

Market risk refers to the risk that a change in the level of one or more market prices, rates, spreads, indices, volatilities, correlations or other market factors, such as market liquidity, will result in losses for a position or portfolio.

The Bank's principal market risk is non-trading interest rate risk in the banking book (amounts classified for regulatory capital purposes under the banking book regime), which refers to the exposure that a change in interest rates will result in prospective earnings changes for these assets and liabilities.

Sound market risk management is an integral part of our culture. The various business units are responsible for ensuring that market risk exposures are well-managed and prudent. The control groups help ensure that these risks are measured and closely monitored and are made transparent to senior management. The Market Risk Department is responsible for ensuring the transparency of material market risks, recommending and establishing limits, monitoring compliance with established limits and escalating risk concentrations to appropriate senior management.

To execute these responsibilities, the Market Risk Department monitors our risk against limits on aggregate risk exposures, performs a variety of risk analyses, routinely reports risk summaries, and maintains our scenario analysis systems. Market risk is also monitored through various measures: by use of statistics; by measures of position size and sensitivity; and through routine stress testing, which measures the impact on the value of existing portfolios of specified changes in market factors and scenarios designed by the Market Risk Department in collaboration with the business units. The material risks identified by these processes are summarized in reports produced by the Market Risk Department that are circulated to and discussed with senior management, the Market Risk Committee, the Bank RC, the BRC, and the Board.

We believe that interest rate sensitivity analysis is an appropriate representation of our non-trading risks. The following sensitivity analysis covers substantially all of the primary non-trading risk in our portfolio.

#### **Net Interest Income Sensitivity Analysis**

\$ in millions	Decer 2	At December 31, 2021		
Basis point change				
+100	\$	360	758	
-100		(398)	(414)	

The previous table presents an analysis of selected instantaneous upward and downward parallel interest rate shocks (subject to a floor of zero percent in the downward scenario) on net interest income over the next 12 months for the Bank. These shocks are applied to our 12-month forecast for the Bank, which incorporates market expectations of interest rates and our forecasted business activity.

We do not manage to any single rate scenario but rather manage net interest income in the Bank to optimize across a range of possible outcomes, including non-parallel rate change scenarios. The sensitivity analysis assumes that we take no action in response to these scenarios, assumes there are no changes in other macroeconomic variables normally correlated with changes in interest rates and includes subjective assumptions regarding customer and market re-pricing behavior and other factors. Net interest income sensitivity to interest rates at December 31, 2022 decreased from December 31, 2021 primarily driven by the effects of changes in the mix of our assets and liabilities and significant changes in market rates.

# **Country Risk**

Country risk exposure is the risk that events in, or that affect, a foreign country (any country other than the U.S.) might adversely affect us. We actively manage country risk exposure through a comprehensive risk management framework that combines credit and other market fundamentals and allows us to effectively identify, monitor and limit country risk. Country risk exposure before and after hedging is monitored and managed.

Our obligor credit evaluation process may also identify indirect exposures, whereby an obligor has vulnerability or exposure to another country or jurisdiction. Examples of indirect exposures may include offshore companies whose assets reside in another country to that of the offshore jurisdiction and finance company subsidiaries of corporations. Indirect exposures identified through the credit evaluation process may result in a reclassification of country risk.

We conduct periodic stress testing that seeks to measure the impact on our credit and market exposures of shocks stemming from negative economic or political scenarios. When deemed appropriate by our risk managers, the stress test scenarios include possible contagion effects and second order risks. This analysis, and results of the stress tests, may result in the amendment of limits or exposure mitigation.

Our exposures consist of financial contracts and obligations entered into primarily with corporations and financial institutions. Index credit derivatives are included in the following country risk exposure table. Index exposures are allocated to the underlying reference entities in proportion to the notional weighting of the country of each reference entity in the index, adjusted for any fair value receivable or payable for that reference entity. Where credit risk crosses multiple jurisdictions, for example, a CDS purchased from an issuer in a specific country that references bonds issued by an entity in a different country, the fair value of the CDS is reflected in the Net Counterparty Exposure row based on the country of the CDS counterparty. Further, the notional amount of the CDS adjusted for the fair value of the receivable or payable is reflected in the Net Inventory row based on the country of the underlying reference entity.

#### Risk Disclosures

Top 5 Non-U.S. Country Exposures at December 31, 2022

\$ in millions	Jnited ingdom	Aı	ustralia	G	ermany	ı	reland	С	anada
Non-sovereigns									
Net inventory <sup>1</sup>	\$ 29	\$	_	\$	3	\$	(3)	\$	(9)
Net Counterparty Exposure	1		_		_		_		2
Loans	4,647		1,554		961		1,095		184
Lending commitments	5,393		841		1,735		229		1,085
Exposure before hedges	10,070		2,395		2,699		1,321		1,262
Hedges <sup>2</sup>	(627)		(1)		(457)		_		(91)
Total Net exposure	\$ 9,443	\$	2,394	\$	2,242	\$	1,321	\$	1,171

- Net inventory represents exposure to both long and short single-name and index positions (i.e., bonds and CDS based on a notional amount assuming zero recovery adjusted for the fair value of any receivable or payable).
- Amounts represent net CDS hedges (purchased and sold) on net counterparty exposure and lending executed by trading desks responsible for hedging counterparty and lending credit risk exposures. Amounts are based on the CDS notional amount assuming zero recovery adjusted for the fair value of any receivable or payable.

## **Operational Risk**

Operational risk refers to the risk of loss, or of damage to our reputation, resulting from inadequate or failed processes or systems, from human factors or from external events (e.g., cyberattacks or third-party vulnerabilities) that may manifest as, for example, loss of information, business disruption, theft and fraud, legal and compliance risks, or damage to physical assets. We may incur operational risk across the full scope of our business activities, including revenue-generating activities and support and control groups (e.g., information technology and trade processing).

We have established an operational risk framework to identify, measure, monitor and control risk across the Bank. Effective operational risk management is essential to reducing the impact of operational risk incidents and mitigating legal, regulatory and reputational risks. The framework is continually evolving to account for changes in the Bank and to respond to the changing regulatory and business environment.

We have implemented operational risk data and assessment systems to monitor and analyze internal and external operational risk events, to assess business environment and internal control factors, and to perform scenario analysis. The collected data elements are incorporated in the operational risk capital model. The model encompasses both quantitative and qualitative elements. Internal loss data and scenario analysis results are direct inputs to the capital model, while external operational incidents, business environment and internal control factors are evaluated as part of the scenario analysis process.

In addition, we employ a variety of risk processes and mitigants to manage our operational risk exposures. These include a governance framework, a comprehensive risk management program and insurance. Operational risks and associated risk exposures are assessed relative to the risk appetite reviewed and confirmed by the Board and are prioritized accordingly.

The breadth and range of operational risk are such that the types of mitigating activities are wide-ranging. Examples of activities which are performed by the Bank or its affiliates, include: continuous enhancement of defenses against cyber-attacks; use of legal agreements and contracts to transfer and/or limit operational risk exposures; due diligence; implementation of enhanced policies and procedures; technology change management controls; exception management processing controls; and segregation of duties.

Primary responsibility for the management of operational risk is with the product owners, control groups, and the business managers therein. The business managers maintain processes and controls designed to identify, assess, manage, mitigate and report operational risk. The Bank has a designated operational risk coordinator. The operational risk coordinator regularly reviews operational risk issues and reports to the Bank's senior management. Each control group also has a designated operational risk coordinator and a forum for discussing operational risk matters with our senior management. Oversight of operational risk is provided by senior management, the Operational Risk Management Committee, the Bank RC, and the BRC. In the event of a reorganization, a new product, or a business activity, operational risks are considered, and any necessary changes in processes or controls are implemented.

The Bank Operational Risk Department ("ORD") provides independent oversight of operational risk and assesses, measures and monitors operational risk against appetite. The Bank ORD receives services from the Morgan Stanley Operational Risk Department. The Bank ORD works with the product areas and control groups to embed a transparent, consistent and comprehensive framework for managing operational risk within each area and across the Bank.

The Bank ORD scope includes oversight of technology risk, cybersecurity risk, information security risk, the fraud risk management and prevention program, and third-party risk management (supplier and affiliate risk oversight and assessment), among others.

# Cybersecurity

Our cybersecurity and information security policies, procedures and technologies are designed to protect our own, our client and our employee data against unauthorized disclosure, modification or misuse and are also designed to address regulatory requirements. These policies and procedures cover a broad range of areas, including: identification of internal and external threats, access control, data security, protective controls, detection of malicious or unauthorized activity, incident response and recovery planning.

#### **Bank Resilience**

Morgan Stanley's and our critical processes and businesses could be disrupted by events including cyber attacks, failure or loss of access to technology and/or associated data, military conflicts, acts of terror, natural disasters, severe weather events and infectious disease. The Firm and the Bank maintain a resilience program designed to provide for operational resilience and enable us to respond to and recover critical processes and supporting assets in the event of a disruption impacting our people, technology, facilities and third parties. The key elements

#### Risk Disclosures

of the resilience program include business continuity and technical recovery planning, and testing both internally and with critical third parties to validate recovery capability in accordance with business requirements. The resilience program is applied consistently Bank-wide.

#### **Third-Party Risk Management**

In connection with our ongoing operations, we utilize the services of third-party suppliers, which we anticipate will continue and may increase in the future. These services include, for example, outsourced processing and support functions and other professional services. Our risk-based approach to managing exposure to these services includes the performance of due diligence, implementation of service level and other contractual agreements, consideration of operational risks and ongoing monitoring of third-party suppliers' performance. We maintain and continue to enhance our third-party risk management program, which is designed to align with our risk tolerance and meet regulatory requirements. The program includes appropriate governance, policies, procedures and enabling technology. The third-party risk management program includes the adoption of appropriate risk management controls and practices throughout the third-party management life cycle to manage risk of service failure, risk of data loss and reputational risk, among others.

#### **Model Risk**

Model risk refers to the potential for adverse consequences from decisions based on incorrect or misused model outputs. Model risk can lead to financial loss, poor business and strategic decision making or damage to the Bank's reputation. The risk inherent in a model is a function of the materiality, complexity and uncertainty around inputs and assumptions.

Model risk is generated from the use of models impacting financial statements, regulatory filings, capital adequacy assessments and the formulation of strategy.

Sound model risk management is an integral part of our Risk Management Framework. The Model Risk Management Department ("MRM") is a distinct department in Risk Management responsible for the oversight of model risk.

The MRM establishes a model risk tolerance in line with our risk appetite. The tolerance is based on an assessment of the materiality of the risk of financial loss or reputational damage due to errors in design, implementation and/or inappropriate use of models. The tolerance is monitored through model-specific and aggregate business-level assessments, which are based upon qualitative and quantitative factors.

A guiding principle for managing model risk is the "effective challenge" of models. The effective challenge of models is defined as critical analysis by objective, informed parties who can identify model limitations and assumptions and drive appropriate changes. The MRM provides effective challenge of models, independently validates and approves models for use, annually recertifies models, identifies and tracks remediation plans for model limitations and reports on model risk metrics.

The Bank maintains a comprehensive model inventory and a governance process to monitor and manage model risk. The key governance forums responsible for managing model risk within the Bank include the Model Risk Oversight Committee, the Bank RC, and the BRC.

# Liquidity Risk

Liquidity risk refers to the risk that we will be unable to finance our operations due to a loss of access to the capital markets, a reduction in deposit balances, or difficulty in liquidating our assets. Liquidity risk also encompasses our ability (or perceived ability) to meet our financial obligations without experiencing significant business disruption or reputational damage that may threaten our viability as a going concern. Liquidity risk also encompasses the associated funding risks triggered by the market or idiosyncratic stress events that may negatively affect our liquidity and may impact our ability to raise new funding. Generally, we incur liquidity and funding risk as a result of our lending, trading and investing activities.

Our Liquidity Risk Management Framework is critical to helping ensure that we maintain sufficient liquidity reserves and durable funding sources to meet our daily obligations and to withstand unanticipated stress events. The Liquidity Risk Department is a distinct area in Risk Management responsible for the oversight and monitoring of liquidity risk. The Liquidity Risk Department ensures transparency of material liquidity and funding risks, compliance with established risk limits and escalation of risk concentrations to appropriate senior management.

To execute these responsibilities, the Liquidity Risk Department establishes limits in line with our risk appetite, identifies and analyzes emerging liquidity and funding risks to ensure such risks are appropriately mitigated, monitors and reports risk exposures against metrics and limits, and reviews the methodologies and assumptions underpinning our Liquidity Stress Tests to ensure sufficient liquidity and funding under a range of adverse scenarios. The liquidity and funding risks identified by these processes are summarized in reports produced by the LRD that are circulated to and discussed with senior management, the Liquidity Risk Committee, the Bank RC, and the BRC, as appropriate.

The Treasury Department and applicable business units have primary responsibility for evaluating, monitoring and controlling the liquidity and funding risks arising from our business activities and for maintaining processes and controls to manage the key risks inherent in their respective areas. The Liquidity Risk Department coordinates with the Treasury Department and these business units to help ensure a consistent and comprehensive framework for managing liquidity and funding risk across Morgan Stanley. See also "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources" herein.

#### **Risk Disclosures**

# Legal and Compliance Risk

Legal and compliance risk includes the risk of legal or regulatory sanctions, material financial loss, including fines, penalties, judgments, damages and/or settlements, limitations on our business, or loss to reputation that we may suffer as a result of failure to comply with laws, regulations, rules, related self-regulatory organization standards and codes of conduct applicable to our business activities. This risk also includes contractual and commercial risk, such as the risk that a counterparty's performance obligations will be unenforceable. It also includes compliance with BSA/AML and OFAC rules and requirements, terrorist financing, and anti-corruption rules and regulations. We are generally subject to extensive regulation in the different jurisdictions in which we conduct our business (see also "Business—Supervision and Regulation" and "Risk Factors").

We have established procedures based on legal and regulatory requirements that are designed to facilitate compliance with applicable statutory and regulatory requirements and to require that our policies relating to business conduct, ethics and practices are followed. In addition, we have established procedures to mitigate the risk that a counterparty's performance obligations will be unenforceable, including consideration of counterparty legal authority and capacity, adequacy of legal documentation, the permissibility of a transaction under applicable law and whether applicable bankruptcy or insolvency laws limit or alter contractual remedies. The heightened legal and regulatory focus on the financial services and banking industries globally presents a continuing business challenge for us.

#### Climate Risk

Climate change manifests as physical and transition risks. The physical risks of climate change include acute events, such as flooding, hurricanes, heatwaves and wildfires, and chronic, longer-term shifts in climate patterns, such as increasing global average temperatures, rising sea levels, and droughts. Transition risks are policy, legal, technological, and market changes to address climate risks and include changes in consumer behavior, and any additional regulatory and legislative requirements, such as carbon taxes.

Climate risk, which is not expected to have a significant effect on our results of operations or financial condition in the near-term, is an overarching risk that can impact other categories of risk over the longer-term. Physical risk may lead to increased credit risk by diminishing borrowers' repayment capacity or impacting the value of collateral. In addition, physical risk could pose increased operational risk to our facilities and people. The impacts of transition risk may lead to and amplify credit risk or market risk by reducing our customers' operating income or the value of their assets as well as exposing us to reputational and/or litigation risk due to increased legal and regulatory scrutiny or negative public sentiment.

As climate risk is interconnected with other risk types, including geopolitical risks, we have developed and continue to enhance processes to embed climate risk considerations into our risk management strategies, established for risks such as market, credit and operational risks, as well as our governance structures. The Risk Committee of the Board oversees Bankwide risks, which include climate risk, and, as part of its oversight, receives updates on our risk management approach to climate risk, including our approaches towards scenario analysis and integration of climate risk into our existing risk management processes.

## **Financial Statements and Supplementary Data**

Morgan Stanley Bank, N.A.

One Utah Center 201 South Main St. 5th Fl Salt Lake City UT 84111 Tel 801 236 3600

## Morgan Stanley Bank, N.A.

#### MANAGEMENT'S ASSERTION

March 16, 2023

To the Board of Directors and Shareholder of Morgan Stanley Bank, N.A.:

#### **Financial Statements**

The management of Morgan Stanley Bank, N.A. (the "Bank") is responsible for the preparation, integrity and fair presentation of the Bank's annual financial statements. The financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP") and, as such, include amounts based on informed judgments and estimates made by management.

#### **Internal Control**

The Bank's internal control over financial reporting is a process effected by those charged with governance, management, and other personnel, designed to provide reasonable assurance regarding the preparation of reliable financial statements in accordance with GAAP and the Federal Financial Institutions Examination Council instructions for Consolidated Reports of Condition and Income (the "Call Report Instructions"). A bank's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the bank; (2) 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 bank are being made only in accordance with authorizations of management and those charged with governance; and (3) provide reasonable assurance regarding prevention or timely detection and correction of unauthorized acquisition, use, or disposition of the bank's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, misstatements may not be prevented or detected and corrected on a timely basis. 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 and procedures may deteriorate.

Management is responsible for establishing and maintaining effective internal control over financial reporting. Management has assessed the effectiveness of the Bank's internal control over financial reporting, including controls over the preparation of financial statements in accordance with GAAP and of regulatory financial statements in accordance with the Call Report Instructions, as of December 31, 2022, based on the framework set forth by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control - Integrated Framework (2013). Based on this assessment, management has concluded that the Bank maintained effective internal control over financial reporting, including safeguarding of assets, presented in conformity with GAAP as well as the Call Report instructions as of December 31, 2022.

# Compliance with Laws and Regulations

Management is also responsible for ensuring compliance with federal laws and regulations pertaining to insider loans and the federal (and, if applicable, state) laws and regulations pertaining to dividend restrictions.

Management assessed its compliance with federal laws and regulations pertaining to insider loans and the federal (and, if applicable, state) laws and regulations pertaining to dividend restrictions for the year ended December 31, 2022. Based on this assessment, management has concluded that the Bank has complied with federal laws and regulations pertaining to insider loans and the federal (and, if applicable, state) laws and regulations pertaining to dividend restrictions for the year ended December 31, 2022.

# Deloitte.

**Deloitte & Touche LLP** 30 Rockefeller Center New York, NY 10112

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#### INDEPENDENT AUDITOR'S REPORT

To the Board of Directors and Shareholder of Morgan Stanley Bank, N.A.

#### **Opinion on Internal Control over Financial Reporting**

We have audited the internal control over financial reporting of Morgan Stanley Bank, N.A. (the "Bank") as of December 31, 2022, based on the criteria established in the *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) relevant to internal reporting objectives for the express purpose of meeting the regulatory requirements of Section 112 of the Federal Deposit Insurance Corporation Improvement Act (FDICIA). In our opinion, the Bank maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on the criteria established in the *Internal Control — Integrated Framework (2013)* issued by COSO relevant to internal reporting objectives for the express purpose of meeting the regulatory requirements of Section 112 of FDICIA.

We also have audited, in accordance with auditing standards generally accepted in the United States of America (GAAS), the financial statements as of and for the year ended December 31, 2022 of the Bank, and our report dated March 16, 2023, expressed an unmodified opinion on those financial statements.

# **Basis for Opinion**

We conducted our audit in accordance with GAAS. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of Internal Control over Financial Reporting section of our report. We are required to be independent of the Bank and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Responsibilities of Management for Internal Control over Financial Reporting

Management is responsible for designing, implementing, and maintaining effective internal control over financial reporting, and for its assessment about the effectiveness of internal control over financial reporting, included in the accompanying Management's Assertion.

## Auditor's Responsibilities for the Audit of Internal Control over Financial Reporting

Our objectives are to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects and to issue an auditor's report that includes our opinion on internal control over financial reporting. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit of internal control over financial reporting conducted in accordance with GAAS will always detect a material weakness when it exists.

In performing an audit of internal control over financial reporting in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Obtain an understanding of internal control over financial reporting, assess the risks that a
  material weakness exists, and test and evaluate the design and operating effectiveness of
  internal control over financial reporting based on the assessed risk.

## **Definition and Limitations of Internal Control over Financial Reporting**

An entity's internal control over financial reporting is a process effected by those charged with governance, management, and other personnel, designed to provide reasonable assurance regarding the preparation of reliable financial statements in accordance with accounting principles generally accepted in the United States of America. Because management's assessment and our audit were conducted to meet the reporting requirements of Section 112 of FDICIA, our audit of the Banks's internal control over financial reporting included controls over the preparation of financial statements in accordance with accounting principles generally accepted in the United States of America and with the controls over the preparation of schedules equivalent to basic financial statements in accordance with the Federal Financial Institutions Examination Council Instructions for Consolidated Reports of Condition and Income (Call Report Instructions) (for Schedules RC, RI, and RI-A). An entity's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the entity; (2) 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 entity are being made only in accordance with authorizations of management and those charged with governance; and (3) provide reasonable assurance regarding prevention, or timely detection and correction of unauthorized acquisition, use, or disposition of the entity'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 and correct, misstatements. Also, projections of any assessment 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.

#### **Other Matter**

We did not perform auditing procedures on management's statement referring to compliance with laws and regulations, and accordingly, we do not express an opinion or provide any assurance on it.

March 16, 2023

Delotte & Jouche LLP

# Deloitte.

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#### INDEPENDENT AUDITOR'S REPORT

To the Board of Directors and Shareholder of Morgan Stanley Bank, N.A.

#### **Opinion**

We have audited the financial statements of Morgan Stanley Banks, N.A. (the "Bank"), which comprise the balance sheets as of December 31, 2022 and 2021, and the related income statements, comprehensive income statements, cash flow statements, and statements of changes in shareholder's equity for the years then ended, and the related notes to the financial statements (collectively referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Bank as of December 31, 2022 and 2021, and the results of its operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with auditing standards generally accepted in the United States of America (GAAS), the Banks's internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission relevant to internal reporting objectives for the express purpose of meeting the regulatory requirements of Section 112 of FDICIA and our report dated March 16, 2023 expressed an unmodified opinion on the Banks's internal control over financial reporting.

#### **Basis for Opinion**

We conducted our audits in accordance with GAAS. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Bank and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### **Responsibilities of Management for the Financial Statements**

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Bank's ability to continue as a going concern for one year after the date that the financial statements are issued.

#### Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to
  fraud or error, and design and perform audit procedures responsive to those risks. Such procedures
  include examining, on a test basis, evidence regarding the amounts and disclosures in the financial
  statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Bank's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

#### Other Information Included in the Annual Report

Management is responsible for the other information included in the annual report. The other information comprises the information included in the annual report but does not include the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audits of the financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Delotte & Jouche LLP

March 16, 2023

# **Income Statement**

# Morgan Stanley Bank, N.A.

\$ in millions	2022	2021
Revenues		
Interest income	\$ 4,958	\$ 3,042
Interest expense	884	207
Net interest	4,074	2,835
Non-interest revenues		
Fee income	1,059	630
Gains and losses on financial assets and liabilities	556	460
Other	165	191
Total non-interest revenues	1,780	1,281
Net revenues	5,854	4,116
Provision for credit losses	72	30
Non-interest expenses		
Compensation and benefits	109	105
General and administrative	901	607
FDIC and regulatory assessments	70	72
Total non-interest expenses	1,080	784
Income before provision for income taxes	4,702	3,302
Provision for income taxes	1,081	764
Net income	\$ 3,621	\$ 2,538

# **Comprehensive Income Statement**

\$ in millions	2022	2021
Net income	\$ 3,621 \$	2,538
Other comprehensive income (loss), net of tax:		
Change in net unrealized gains (losses) on available-for-sale securities	(2,521)	(794)
Change in net debt valuation adjustment	(9)	11
Net change in cash flow hedges	(4)	_
Total other comprehensive income (loss) <sup>1</sup>	\$ (2,534) \$	(783)
Comprehensive income	\$ 1,087 \$	1,755

<sup>1.</sup> Amounts are net of benefit for income taxes of \$772 million and \$244 million for 2022 and 2021, respectively.

# **Balance Sheet**

# Morgan Stanley Bank, N.A.

\$ in millions	At December 31, 2022	At December 31, 2021
Assets		
Cash and cash equivalents	\$ 28,457	\$ 30,099
Trading assets at fair value	12,975	15,000
Investment securities:		
Available for sale securities at fair value	48,308	39,227
Held-to-maturity securities at cost	25,584	26,760
Securities purchased under agreements to resell	4,488	3,809
Loans:		
Loans held for investment (net of allowance for credit losses of \$468 and \$400)	66,436	60,046
Loans held for sale (lower of cost or fair value)	6,239	7,104
Loans at fair value	4,513	6,914
Interest receivable	751	366
Affordable housing tax credit investments	922	863
Deferred taxes	884	110
Other assets	1,806	1,619
Total assets	\$ 201,363	\$ 191,917
Liabilities  Describe (Carlodo & 470 and 64 600 at Grinnelse)	<b>*</b> 477.050	<b>404.004</b>
Deposits (includes \$3,178 and \$1,696 at fair value)	\$ 177,356	
Trading liabilities at fair value	197	181
Borrowing from Parent and affiliate	693	6,226
Payable to affiliates	577	494
Affordable housing tax credit investment commitments	374	424
Accrued expenses and other liabilities	2,189	1,681
Total liabilities	181,386	173,027
Shareholder's equity		
Common stock, \$1 par value:		
Shares authorized: 50,000; Shares issued: 100; Shares outstanding: 100	_	_
Additional paid-in capital	8,005	8,005
Retained earnings	14,341	10,720
Accumulated other comprehensive income (loss)	(2,369)	165
Total shareholder's equity	19,977	18,890
Total liabilities and shareholder's equity	\$ 201,363	\$ 191,917

# Statement of Changes in Shareholder's Equity

# Morgan Stanley Bank, N.A.

\$ in millions	20	22	2021
Common Stock			
Beginning and ending balance	\$	<b>-</b> \$	_
Additional Paid-in Capital			
Beginning and ending balance		8,005	8,005
Retained Earnings			
Beginning balance		10,720	8,182
Net income		3,621	2,538
Ending balance		14,341	10,720
Accumulated Other Comprehensive Income (Loss)			
Beginning balance		165	948
Net change in Accumulated other comprehensive income (loss) <sup>1</sup>		(2,534)	(783)
Ending balance		(2,369)	165
Total Shareholder's Equity	\$	19,977 \$	18,890

<sup>1.</sup> Amounts are net of benefit for income taxes of \$772 million and \$244 million for 2022 and 2021, respectively.

# **Cash Flow Statement**

# Morgan Stanley Bank, N.A.

\$ in millions		2022	2021
Cash flows from operating activities	•	2 C24	0.500
Net income	\$	3,621 \$	2,538
Adjustments to reconcile net income to net cash provided by (used for) operating activities:		()	
Amortization of premium/discount on investment securities		(25)	156
Provision for credit losses		72	30
Deferred income taxes, net		(3)	(4.5.4)
Other operating adjustments		396	(154)
Changes in assets and liabilities:			(10.010)
Trading assets, net of Trading liabilities		2,041	(12,643)
Loans at fair value with intent to sell		1,328	(1,287)
Loans held for sale		865	(265)
Securities purchased under agreements to resell		(679)	(578)
Net receivable from affiliates		559	3,916
Accrued expenses and other liabilities		454	(553)
Other assets		(660)	(527)
Net cash provided by (used for) operating activities		7,969	(9,320)
Cash flows from investing activities			
Proceeds from (payments for):			
AFS securities <sup>1</sup> :			
Purchases		(22,188)	(13,889)
Proceeds from sales		1,572	5,074
Proceeds from paydowns and maturities		7,491	14,111
HTM securities <sup>1</sup> :			
Purchases		(1,002)	(5,782)
Proceeds from paydowns and maturities		2,341	5,163
Securities purchased under agreements to resell			9,516
Changes in loans at fair value with intent to hold, net		833	251
Changes in loans held for investment, net		(6,458)	(6,706)
Net cash provided by (used for) investing activities		(17,411)	7,738
Cash flows from financing activities			
Net proceeds from (payments for):			
Deposits		13,335	8,598
Borrowing from Parent and affiliate		(5,533)	5,998
Net cash provided by (used for) financing activities		7,802	14,596
Effect of exchange rate changes on cash and cash equivalents		(2)	1
Net increase (decrease) in cash and cash equivalents		(1,642)	13,015
Cash and cash equivalents, at beginning of period		30,099	17,084
Cash and cash equivalents, at end of period	\$	28,457 \$	30,099
Supplemental Disclosures of Cash Flow Information:			
Cash payments for:			
Interest	\$	750 \$	285
Income taxes		954	606
Non-cash transactions:			
Loans transferred into held for sale from held for investment	\$	347 \$	741
Beneficial interests obtained in financial assets transferred to an unconsolidated securitization entity		161	229

<sup>1.</sup> The prior period amounts have been revised to present Purchases, Proceeds from sales and Proceeds from paydowns and maturities separately between AFS securities and HTM securities.

#### 1. Introduction and Basis of Presentation

#### The Bank

Morgan Stanley Bank, N.A. is a nationally chartered bank and a wholly owned subsidiary of MSDHI. MSDHI is an indirect wholly owned subsidiary of Morgan Stanley. The Bank is regulated by the OCC and its qualifying deposits are insured by the FDIC. The Bank is also provisionally registered as a swap dealer with the CFTC and conditionally registered as a security-based swap dealer with the SEC.

Primarily a wholesale commercial bank, the Bank offers commercial lending and certain derivative products, in addition to deposit products.

The Bank's lending activities include lending to corporations for specific purposes, such as financing acquisitions and normal operating activities, commercial real estate lending, secured lending facilities, as well as extending securities-based financing to customers.

The deposit accounts the Bank accepts are principally used to fund lending activities and the Bank's investment portfolio. The Bank accepts DDA deposits, and issues CDs that are principally used to fund lending activities and invest in securities.

#### **Basis of Financial Information**

The financial statements are prepared in accordance with U.S. GAAP, which require the Bank to make estimates and assumptions regarding the valuation of certain financial instruments, the allowance for credit losses, compensation, deferred tax assets, the outcome of legal and tax matters, and other matters that affect the financial statements and related disclosures. The Bank believes that the estimates utilized in the preparation of the financial statements are prudent and reasonable. Actual results could differ materially from these estimates.

Certain reclassifications have been made to the prior period to conform to the current presentation. The Notes are an integral part of the Bank's financial statements. The Bank has evaluated subsequent events for adjustment to or disclosure in the financial statements through the date of this report and has not identified any recordable or disclosable events not otherwise reported in the financial statements or the Notes thereto.

# 2. Significant Accounting Policies

#### Loans

The Bank accounts for loans based on the following categories: loans held for investment; loans held for sale; and loans at fair value.

#### Nonaccrual

All loan categories described below follow the same nonaccrual and write-off guidance as discussed in "Allowance for Credit Losses" herein.

### Loans Held for Investment

Loans held for investment are reported at outstanding principal adjusted for any charge-offs, the allowance for credit losses, any unamortized deferred fees or costs for originated loans, and any unamortized premiums or discounts for purchased loans.

Interest Income.- Interest income on performing loans held for investment is accrued and recognized as interest income at the contractual rate of interest. Purchase price discounts or premiums, as well as net deferred loan fees or costs, are amortized into interest income over the life of the loan to produce a level rate of return.

Lending Commitments.- The Bank records the liability and related expense for the credit exposure related to commitments to fund loans. For more information regarding commitments, contingencies and guarantees, see Note 12.

For more information regarding allowance for credit losses, refer to "Allowance for Credit Losses" herein.

# Loans Held for Sale

Loans held for sale are measured at the lower of amortized cost or fair value with valuation changes recorded in Non-interest revenue – Gains and losses on financial assets and liabilities in the income statement. The Bank determines the valuation allowance on an individual loan basis. Any decreases in fair value below the initial carrying amount and any recoveries in fair value up to the initial carrying amount are recorded in Non-interest revenue – Gains and losses on financial assets and liabilities. Increases in fair value above initial carrying value are not recognized.

Interest Income.- Interest income on HFS loans is accrued and recognized based on the contractual rate of interest and included in Interest income in the income statement. Loan origination fees or costs and purchase price discounts or premiums are deferred as an adjustment to the loan's cost basis until the related loan is sold and as such, are included in the periodic determination of the lower of cost or fair value adjustments and the gain or loss recognized at the time of sale.

Lending Commitments.- The Bank records the liability and related expense for the fair value exposure (if the fair value is below the cost) related to commitments to fund loans that will be held for sale in Accrued expenses and other liabilities in the balance sheet with an offset to Other non-interest revenue in the income statement.

Because loans and lending commitments held for sale are recognized at the lower of cost or fair value, the allowance for credit losses and charge-off policies do not apply to these loans.

#### Loans at Fair Value

Loans for which the fair value option is elected are carried at fair value, with changes in fair value recognized in the current period in Non-interest revenue as Gains and losses on financial assets and liabilities in the income statement. The fair value of these loans is based on observable market data where possible. When no such information is available, fair value is determined by using various valuation approaches (see Note 6). Loans carried at fair value are not evaluated for purposes of recording an allowance for credit losses.

Lending Commitments.- The Bank records the liability and related expense for the fair value exposure related to commitments to fund loans that will be measured at fair value. The liability is recorded in Trading liabilities, at fair value in the balance sheet, and the expense is recorded in Other non-interest revenue in the income statement.

Because such loans and lending commitments are reported at fair value, the allowance for credit losses and charge-off policies do not apply to these loans.

For further information on loans, see Note 3.

#### **Allowance for Credit Losses**

The ACL for financial instruments measured at amortized cost and certain off-balance sheet exposures (e.g., HFI loans and lending commitments, HTM securities, customer and other receivables and certain guarantees) represents an estimate of expected credit losses over the entire life of the financial instrument.

Factors considered by management when determining the ACL include payment status, fair value of collateral, expected payments of principal and interest, as well as internal or external information relating to past events, current conditions and reasonable and supportable forecasts. The Bank uses three forecasts that include assumptions about certain macroeconomic variables including, but not limited to, U.S. gross domestic product ("GDP"), equity market indices, US Corporate BBB option-adjusted spreads, as well as commercial real estate and home price indices. At the conclusion of the Bank's reasonable and supportable forecast period of 13 quarters, there is a gradual reversion back to historical averages.

The ACL is measured on a collective basis when similar risk characteristics exist for multiple instruments considering all available information relevant to assessing the collectability of cash flows. Generally, the Bank applies a probability of default/loss given default model for instruments that are collectively assessed, under which the ACL is calculated as the product of probability of default, loss given default and exposure at default. These parameters are forecast for each collective group of assets using a scenario-based statistical model.

If the instrument does not share similar risk characteristics with other instruments, including when it is probable that the Bank will be unable to collect the full payment of principal and interest on the instrument when due, the ACL is measured on an individual basis. The Bank generally applies a discounted cash flow method for instruments that are individually assessed.

The Bank may also elect to use an approach that considers the fair value of the collateral when measuring the ACL if the loan is collateral dependent (i.e., repayment of the loan is expected to be provided substantially by the sale or operation of the underlying collateral and the borrower is experiencing financial difficulty).

Additionally, the Bank can elect to use an approach to measure the ACL that considers the fair value of collateral where the borrower is required to, and reasonably expected to, continually adjust and replenish the amount of collateral securing the instrument to reflect changes in the fair value of such collateral. The Bank has elected to use this approach for certain securities-based loans, and Securities purchased under agreements to resell.

Credit quality indicators considered in developing the ACL include Corporate loans, Secured lending facilities, Commercial real estate loans and securities, and Other loans: Internal risk ratings developed by the CRM that are refreshed at least annually, and more frequently as necessary. These ratings generally correspond to external ratings published by S&P. The Bank also considers transaction structure, including type of collateral, collateral terms, and position of the obligation within the capital structure. In addition, for Commercial real estate, the Bank considers property type and location, net operating income and LTV ratios, among other factors, as well as commercial real estate price and credit spread indices and capitalization rates.

Qualitative and environmental factors such as economic and business conditions, the nature and volume of the portfolio, and lending terms and the volume and severity of past due loans are also considered in the ACL calculations.

#### Presentation of ACL and Provision for Credit Losses

	ACL	Provision for Credit Losses
Held for investment loans	Contra asset	Provision for credit losses
Other instruments measured at amortized cost (e.g., HTM securities)	Contra asset	Other non-interest revenue
Held for investment lending commitments	Accrued expenses and other liabilities	Provision for credit losses
Other off-balance sheet instruments (e.g., certain guarantees)	Accrued expenses and other liabilities	General and administrative expense

# Troubled Debt Restructurings

The Bank may modify the terms of certain loans for economic or legal reasons related to a borrower's financial difficulties by granting one or more concessions that the Bank would not otherwise consider. Such modifications are accounted for and reported as TDR. A loan that has been modified in a TDR is generally considered to be impaired and is evaluated individually. TDRs are generally classified as nonaccrual and may be returned to accrual status only after the Bank expects repayment of the remaining contractual principal and interest and there is sustained repayment performance for a reasonable period.

# Morgan Stanley Bank, N.A.

#### **Notes to Financial Statements**

#### Nonaccrual

The Bank places financial instruments on nonaccrual status if principal or interest is not expected when contractually due or is past due for a period of 90 days or more unless the obligation is well secured and is in the process of collection.

For any instrument placed on nonaccrual status, the Bank reverses any unpaid interest accrued with an offsetting reduction to Interest income. Principal and interest payments received on nonaccrual instruments are applied to principal if there is doubt regarding the ultimate collectability of principal. If collection of the principal is not in doubt, interest income is realized on a cash basis. If the instrument is brought current and neither principal nor interest collection is in doubt, instruments can generally return to accrual status, and interest income can be recognized.

#### ACL Charge-offs

The principal balance of a financial instrument is charged off in the period it is deemed uncollectible, resulting in a reduction in the ACL and in the balance of the financial instrument in the balance sheet. Accrued interest receivable balances that are separately recorded from the related financial instruments are charged off against Interest income when the related financial instrument is placed on nonaccrual status. Accordingly, the Bank elected not to measure an ACL for accrued interest receivables.

#### **AFS Investment Securities**

AFS securities are reported at fair value in the balance sheet. Interest income, including amortization of premiums and accretion of discounts, is included in Interest income in the income statement. Unrealized gains are recorded in OCI and unrealized losses are recorded either in OCI or in Non-interest revenue as described below.

AFS securities in an unrealized loss position are first evaluated to determine whether there is an intent to sell or it is more likely than not the Bank will be required to sell before recovery of the amortized cost basis. If so, the amortized cost basis is written down to the fair value of the security such that the entire unrealized loss is recognized in Non-interest revenue and any previously established ACL is written off.

For all other AFS securities in an unrealized loss position, any portion of unrealized losses representing a credit loss is recognized in Non-interest revenue and as an increase to the ACL for AFS securities, with the remainder of unrealized losses recognized in OCI. A credit loss exists if the Bank does not expect to recover the amortized cost basis of the security. When considering whether a credit loss exists, the Bank considers relevant information, including:

- guarantees (implicit or explicit) by the U.S. Government;
- the extent to which the fair value has been less than the amortized cost basis;
- adverse conditions specifically related to the security, its industry or geographic area;
- changes in the financial condition of the issuer of the security, or, in the case of an asset-backed debt security, changes in the financial condition of the underlying loan obligors;

- the payment structure of the debt security and the likelihood of the issuer being able to make payments that increase in the future:
- failure of the issuer of the security to make scheduled interest or principal payments;
- the current rating and any changes to the rating of the security by a rating agency.

If a credit loss exists, the Bank measures the credit loss as the difference between the present value of cash flows expected to be collected (discounted at the implicit interest rate at acquisition of the security or discounted at the effective yield for securities that incorporate changes in prepayment assumptions) and the amortized cost basis of the security. Changes in prepayment assumptions alone are not considered to result in a credit loss. When estimating the present value of expected cash flows, information utilized includes the remaining payment terms of the security, prepayment speeds, financial condition of the issuer, expected defaults and the value of any underlying collateral.

#### Presentation of ACL and Provision for Credit Losses

	ACL	Provision for Credit Losses
AFS securities	Contra Investment securities	Other revenue

#### Nonaccrual & ACL Charge-offs on AFS Securities

AFS securities follow the same nonaccrual and write-off guidance as discussed in "Allowance for Credit Losses" herein.

#### **HTM Securities**

HTM securities are reported at amortized cost, net of any ACL, in the balance sheet. Refer to "Allowance for Credit Losses" herein for guidance on the ACL determination. Interest income, including amortization of premiums and accretion of discounts on HTM securities, is included in Interest income in the income statement.

#### Fair Value of Financial Instruments

Instruments within Trading assets and Trading liabilities are measured at fair value, either as required or allowed by accounting guidance. These financial instruments primarily represent the Bank's trading and investment positions and include both cash and derivative products. In addition, securities classified as AFS are measured at fair value.

Gains and losses on instruments carried at fair value are reflected in Non-interest revenue – Gains and losses on financial assets and liabilities in the income statement.

Interest income and interest expense for fair valued financial instruments are recorded within the income statement as interest income or interest expense, respectively.

The fair value of OTC financial instruments, including derivative contracts related to financial instruments, is presented in the accompanying balance sheet on a net-by-counterparty basis, when appropriate. Additionally, the Bank nets the fair value of cash collateral paid or received against the fair value amounts

recognized for net derivative positions executed with the same counterparty under the same master netting agreement.

#### Fair Value Option

The Bank has elected to measure certain eligible instruments at fair value, including loans and lending commitments, letters of credit, and time deposits.

## Fair Value Measurement-Definition and Hierarchy

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (i.e., the "exit price") in an orderly transaction between market participants at the measurement date.

Fair value is a market-based measure considered from the perspective of a market participant rather than an entity-specific measure. Therefore, even when market assumptions are not readily available, assumptions are set to reflect those that the Bank believes market participants would use in pricing the asset or liability at the measurement date. Where the Bank manages a group of financial assets, financial liabilities, and nonfinancial items accounted for as derivatives on the basis of its net exposure to either market risks or credit risk, the Bank measures the fair value of that group of financial instruments consistently with how market participants would price the net risk exposure at the measurement date.

In determining fair value, the Bank uses various valuation approaches and establishes a hierarchy for inputs used in measuring fair value that requires the most observable inputs be used when available.

Observable inputs are inputs that market participants would use in pricing the asset or liability that were developed based on market data obtained from sources independent of the Bank. Unobservable inputs are inputs that reflect assumptions the Bank believes other market participants would use in pricing the asset or liability that are developed based on the best information available in the circumstances. The fair value hierarchy is broken down into three levels based on the observability of inputs as follows, with Level 1 being the highest and Level 3 being the lowest level:

Level 1. Valuations based on quoted prices in active markets that the Bank has the ability to access for identical assets or liabilities. Valuation adjustments, block discounts and discounts for entity-specific restrictions that would not transfer to market participants are not applied to Level 1 instruments. Since valuations are based on quoted prices that are readily and regularly available in an active market, valuation of these products does not entail a significant degree of judgment.

Level 2. Valuations based on one or more quoted prices in markets that are not active or for which all significant inputs are observable, either directly or indirectly.

Level 3. Valuations based on inputs that are unobservable and significant to the overall fair value measurement.

See Note 6 for a description of valuation techniques applied to the major categories of financial instruments measured at fair value

# Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

Certain of the Bank's assets and liabilities are measured at fair value on a non-recurring basis. The Bank incurs losses or gains for any adjustments of these assets or liabilities to fair value.

For assets and liabilities measured at fair value on a non-recurring basis, fair value is determined by using various valuation approaches. The same hierarchy for inputs as described above, which requires that observable inputs be used when available, is used in measuring fair value for these items.

For further information on financial assets and liabilities that are measured at fair value on a recurring and non-recurring basis, see Note 6.

#### **Hedge Accounting**

The Bank applies hedge accounting using various derivative financial instruments for the following types of hedges: hedges of changes in the fair value of assets and liabilities due to the risk being hedged (fair value hedges); and hedges of variability in forecasted cash flows from floating-rate assets due to contractually specified interest rates (cash flow hedges). These financial instruments are included within Trading assets or Trading liabilities in the balance sheet. For hedges where hedge accounting is being applied, the Bank performs effectiveness testing and other procedures. The change in the fair value of the designated portion of the hedging instrument should be highly correlated, between 80 and 125 percent of the change in fair value, cash flows, or carrying value (due to translation gains or losses) of the hedged item attributable to the risk being hedged. The Bank considers the impact of valuation adjustments related to counterparty credit spreads and its own credit spreads to determine whether they would cause the hedging relationship to be ineffective.

## Fair Value Hedges—Interest Rate Risk

The Bank's designated fair value hedges consist of interest rate swaps designated as hedges of changes in the benchmark interest rate of certain fixed rate AFS securities. The Bank also designates interest rate swaps as fair value hedges of changes in the benchmark interest rate of certain fixed rate deposits. The Bank is permitted to hedge the full, or part of the, contractual term of the hedged instrument. The Bank uses regression analysis to perform ongoing prospective and retrospective assessments of the effectiveness of these hedging relationships.

For qualifying fair value hedges of benchmark interest rates, the change in the fair value of the derivative, offset by the change in the fair value attributable to the change in the benchmark interest rate risk of the hedged asset (liability), is recognized in earnings each period as a component of Interest income (expense). For AFS securities, the change in fair value of the hedged item due to changes other than the risk being hedged will continue to be reported in OCI. When a derivative is de-designated as a hedge,

any basis adjustment remaining on the hedged asset (liability) is amortized to Interest income (expense) over the remaining life of the asset (liability) using the effective interest method.

#### Cash Flow Hedges—Interest Rate Risk

The Bank's designated cash flow hedges consist of interest rate derivatives designated as hedges of variability in forecasted cash flows from floating-rate assets due to changes in the contractually specified interest rates. The Bank uses regression analysis to perform an ongoing prospective and retrospective assessment of the effectiveness of these hedging relationships.

The objective of this strategy is to hedge the risk of changes in the hedged item's cash flows attributable to changes in the contractually specified interest rate. For qualifying cash flow hedges of contractually specified interest rates, changes in the fair value of the derivative are recorded in OCI and subsequently reclassified to earnings in the same periods when the hedged item affects earnings. If cash flow hedge accounting is discontinued, AOCI is released into earnings immediately if the cash flow of the hedged item is probable of not occurring. Otherwise the amount in AOCI is released into earnings as the forecasted transaction affects earnings.

#### **Other Hedges**

In addition to hedges that are designated and qualify for hedge accounting, the Bank uses derivatives to economically hedge credit risk associated with certain held-for-sale and held-for-investment corporate loans and lending commitments, and the related gains and losses are reported within Non-interest revenue - Gains and losses on financial assets and liabilities.

For further information on derivative instruments and hedging activities, see Note 11.

#### Cash and Cash Equivalents

Cash and cash equivalents consist of Cash and due from banks and Interest-bearing deposits with banks. Cash equivalents are highly liquid investments with remaining maturities of three months or less from the acquisition date that are readily convertible to cash and are not held for trading purposes.

Cash and cash equivalents also include Restricted cash such as cash segregated in compliance with federal or other regulations, including the Bank's initial margin deposited with clearing organizations.

#### **Trading Assets and Liabilities**

Trading assets and liabilities primarily include equity securities, debt securities and foreign exchange currency derivative contracts. Trading assets and liabilities are reported at fair value. Fair value is determined by using various valuation approaches (see Note 7). Trading gains (losses) include realized and unrealized gains (losses) from the financial instruments designated as trading in the period that fair value changes. Such gains (losses) are reported as Gains and losses on financial assets and liabilities in the income statement.

#### **Investment in Federal Reserve Bank of New York ("FRB")**

As a member of the FRB of New York, the Bank is required to own shares of FRB capital stock. This requirement is based upon a percentage of the Bank's capital and surplus. FRB capital stock is a restricted security and is reported at cost and periodically reviewed for impairment. Dividend income associated with the FRB capital stock is recognized as Interest income in the income statement.

#### **Investment in Federal Home Loan Bank ("FHLB")**

As a member of the FHLB of New York, the Bank is required to own shares of FHLB capital stock. This requirement is based upon the amount of either eligible collateral or advances outstanding from the FHLB. FHLB capital stock is a restricted security and is reported at cost and is periodically reviewed for impairment. Dividend income associated with the FHLB capital stock is recognized as Interest income in the income statement.

#### **Affordable Housing Tax Credit Investments**

The Bank invests in qualified affordable housing projects in which it elects to account for investments using the proportional amortization method; under this method, the initial investment is amortized in proportion to the tax credits and other tax benefits received and the net investment performance is recognized in the income statement as a component of income tax expense. In addition, under the proportional amortization method, the value of the unfunded commitments to fund qualified affordable housing projects is included in Affordable housing tax credit investments on the Balance Sheet and a liability is recorded for the unfunded portion.

# Securities Purchased Under Agreements to Resell ("Reverse Repurchase Agreements")

Securities purchased under agreements to resell are principally investment grade ABS that are carried on the balance sheet at the amounts of cash paid plus accrued interest.

#### **Deposits**

The Bank's deposits primarily consist of DDAs and CDs. DDA deposits are primarily interest-bearing accounts that have no maturity. Interest on these accounts accrues daily which is included in interest expense in the income statement.

CDs are recorded on a settlement date basis and accrue interest daily. Structured CDs are recorded at fair value under the fair value option election. Guaranteed coupon payments are recorded as interest expense in the income statement. Other realized and unrealized gains and losses related to CDs at fair value are reported as Other non-interest revenue in the income statement. Realized and unrealized gains and losses related to interest rate swaps and other equity derivative contracts used to hedge the interest rate and market risks for CDs that are not designated as accounting hedges are recorded in Other non-interest revenue in the income statement.

#### Receivable from Affiliates and Payable to Affiliates

Affiliate payable and receivable balances are reported net on a legal entity basis in the balance sheet.

#### Fee Income

Driven by transaction based fees the Bank receives pursuant to agreements with affiliates and unaffiliated third-parties related to loans and lending commitments transacted by the Bank. Fees from affiliates compensate the Bank for relationship priced loans granted to clients of the affiliate (see Note 10).

### **Derivative Contracts**

The Bank enters into certain derivative financial instruments for non-trading purposes. The Bank uses interest rate swaps primarily to manage interest rate risk arising from certain AFS securities and deposits. The Bank uses CDS to manage its earnings exposure to future changes in credit quality for a portion of its loan portfolio, including lending-related commitments. The Bank also uses equity derivative contracts to hedge its market risk exposure to structured CDs it has issued. The Bank recognizes all derivatives as either assets or liabilities at fair value. Realized and unrealized gains and losses related to derivative financial instruments that do not qualify for hedge accounting are recorded in Non-interest revenue - Gains and losses on financial assets and liabilities in the income statement.

#### Offsetting of Derivative Instruments

In connection with its derivative activities, the Bank generally enters into master netting agreements and collateral agreements with its counterparties. These agreements provide the Bank with the right, in the event of a default by the counterparty, to net counterparty's rights and obligations under the agreement and to liquidate and set off collateral against any net amount owed by the counterparty. Derivatives with enforceable master netting agreements are reported net of cash collateral received and posted.

However, in certain circumstances, the Bank may not have such an agreement in place; the relevant insolvency regime may not support the enforceability of the master netting agreement or collateral agreement; or the Bank may not have sought legal advice to support the enforceability of the agreement. In cases where the Bank has not determined an agreement to be enforceable, the related amounts are not offset (see Note 11).

The Bank's policy is generally to receive cash and/or securities posted as collateral (with rights of rehypothecation), irrespective of the enforceability determination regarding the master netting and collateral agreement. In certain cases, the Bank may agree for such collateral to be posted to a third-party custodian under a control agreement that enables it to take control of such collateral in the event of a counterparty default. The enforceability of the master netting agreement is taken into account in the Bank's risk management practices and application of counterparty credit limits.

For information related to collateralized transactions, see Note 8.

#### **Letters of Credit**

Certain of the Bank's letters of credit are fair valued under the fair value option. The fair value is based on reliable, observable market sources where possible. When there is no recent trading activity, fair value is determined by using various valuation approaches. Certain letters of credit of the Bank are recorded by recognizing an asset or liability for the estimated fair value of the obligation undertaken upon issuance of the guarantee.

#### **Income Taxes**

Deferred tax assets and liabilities are recorded based upon the temporary differences between the financial statement and income tax bases of assets and liabilities using currently enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income tax expense (benefit) in the period that includes the enactment date. Such effects are recorded in Provision for income taxes regardless of where deferred taxes were originally recorded.

The Bank recognizes net deferred tax assets to the extent that it believes these assets are more likely than not to be realized. In making such a determination, the Bank considers all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax planning strategies, and results of recent operations. When performing the assessment, the Bank considers all types of deferred tax assets in combination with each other, regardless of the origin of the underlying temporary difference. If a deferred tax asset is determined to be unrealizable, a valuation allowance is established. If the Bank subsequently determines that it would be able to realize deferred tax assets in excess of their net recorded amount, it would make an adjustment to the deferred tax asset valuation allowance, which would reduce the provision for income taxes.

Uncertain tax positions are recorded on the basis of a two-step process whereby (i) the Bank determines whether it is more likely than not that the tax positions will be sustained on the basis of the technical merits of the position, and (ii) for those tax positions that meet this threshold, the Bank recognizes the largest amount of tax benefit that is more likely than not to be realized upon ultimate settlement with the related tax authority. Interest and penalties related to unrecognized tax benefits are recognized as a component of the provision for income taxes.

# **Accounting Update Adopted in 2022**

#### Reference Rate Reform

The Bank has adopted the Reference Rate Reform accounting update, which extends the period of time entities can utilize the reference rate reform relief guidance from December 31, 2022 to December 31, 2024. The relief provides optional expedients and exceptions for applying generally accepted accounting principles to contracts, hedging relationships and other transactions that reference LIBOR or other interest rate benchmarks for which the referenced rate is expected to be discontinued or replaced. The Bank is applying the accounting relief as relevant contract and

# Morgan Stanley Bank, N.A.

#### **Notes to Financial Statements**

hedge accounting relationship modifications are made during the course of the reference rate reform transition period. There was no impact to the Bank's financial statements upon issuance of this accounting standard update.

# 3. Loans, Lending Commitments and Related Allowance for Credit Losses

The Bank's loan portfolio consists of the following types of loans:

- Corporate. Corporate loans comprise relationship and event-driven loans and lending commitments supporting general and event-driven financing needs for the Bank's institutional clients, which typically consist of revolving lines of credit, term loans and bridge loans; may have varying terms; may be senior or subordinated; may be secured or unsecured; are generally contingent upon representations, warranties and contractual conditions applicable to the borrower; and may be syndicated or hedged. Relationship loans and lending commitments are extended to select institutional clients, primarily for general corporate purposes and generally with the intent to hold for the foreseeable future. Event-driven loans and lending commitments are extended in connection with specific client transactions.
- Secured Lending Facilities. Secured lending facilities include loans provided to clients, which are collateralized by various assets, including residential and commercial real estate mortgage loans, investor commitments for capital calls, corporate loans and other assets. These facilities generally provide for over-collateralization. Credit risk with respect to these loans and lending commitments arises from the failure of a borrower to perform according to the terms of the loan agreement and/or a decline in the underlying collateral value. The Bank monitors collateral levels against the requirements of lending agreements.
- Commercial Real Estate. Commercial real estate loans are primarily senior, secured by underlying real estate and typically in term loan form. Commercial real estate loans include owner-occupied loans and income-producing loans.
- Residential Real Estate. As part of its trading activities, the Bank holds residential real estate loans.
- Securities-based lending and Other. Securities-based lending
  and Other includes loans that allow clients to borrow money
  against the value of qualifying securities, generally for any
  suitable purpose other than purchasing, trading, or carrying
  securities or refinancing margin debt. The majority of these
  loans are structured as revolving lines of credit. Also included
  here are Corporate loans purchased in the secondary market.

# Loans by Type

	At December 31, 2022											
\$ in millions	HF	I Loans	Н	FS Loans		Loans at air Value	То	tal Loans				
Corporate	\$	3,597	\$	3,352	\$	_	\$	6,949				
Secured lending facilities		35,248		2,041		_		37,289				
Commercial real estate		8,493		845		444		9,782				
Residential real estate		_		_		718		718				
Securities-based lending and Other loans		19,566		1		3,351		22,918				
Total loans		66,904		6,239		4,513		77,656				
ACL		(468)		_		_		(468)				
Total loans, net	\$	66,436	\$	6,239	\$	4,513	\$	77,188				
Loans to non-U.S. borrowers.	net						\$	14.949				

		At December 31, 2021										
\$ in millions	HF	I Loans	Н	FS Loans		oans at air Value	То	tal Loans				
Corporate	\$	3,268	\$	3,279	\$	_	\$	6,547				
Secured lending facilities		31,115		2,108		_		33,223				
Commercial real estate		7,205		1,714		795		9,714				
Residential real estate		_		_		921		921				
Securities-based lending and Other loans		18,858		3		5,198		24,059				
Total loans		60,446		7,104		6,914		74,464				
ACL		(400)		_		_		(400)				
Total loans, net	\$	60,046	\$	7,104	\$	6,914	\$	74,064				
Loans to non-U.S. borrowers	, net			•		•	\$	14,952				

#### Loans by Interest Rate Type

	Α	t Decen	nbe	er 31, 2022	A	t Decen	ıbe	er 31, 2021
\$ in millions		Fixed Rate		Floating or Adjustable Rate		Fixed Rate		Floating or Adjustable Rate
Corporate	\$	_	\$	6,949	\$	_	\$	6,547
Secured lending facilities		_		37,289		_		33,223
Commercial real estate		205		9,133		343		8,576
Securities-based lending and Other loans		4,755		14,812		5,064		13,797
Total loans, before ACL	\$	4,960	\$	68,183	\$	5,407	\$	62,143

See Note 6 for further information regarding Loans and lending commitments held at fair value. See Note 12 for details of current commitments to lend in future.

#### Credit Quality

The Bank's CRM evaluates new obligors before credit transactions are initially approved and at least annually thereafter for corporate and commercial real estate loans. For Corporate, Secured lending facilities and Other loans, credit evaluations typically involve the evaluation of financial statements, assessment of leverage, liquidity, capital strength, asset composition and quality, market capitalization and access to capital markets, cash flow projections and debt service requirements, and the adequacy of collateral, if applicable. The Bank's CRM also evaluates strategy, market position, industry dynamics, obligor's management and other factors that could affect an obligor's risk profile.

For Commercial real estate loans, the credit evaluation is focused on property and transaction metrics, including property type,

# Morgan Stanley Bank, N.A.

#### **Notes to Financial Statements**

LTV ratio, occupancy levels, debt service ratio, prevailing capitalization rates, and market dynamics.

For Securities-based loans, the initial credit evaluation typically includes but is not limited to, review of the obligor's income, net worth, liquidity, collateral, LTV ratio, and credit bureau information. Subsequent credit monitoring for residential real estate loans is performed at the portfolio level. Securities-based loan collateral values are monitored on an ongoing basis.

For information related to credit quality indicators, considered in developing the ACL, see Note 2.

#### Loans Held for Investment before Allowance by Origination Year

	At December 31, 2022							At De	cer	nber 31	, 20	)21
						Corp	ora	te				
\$ in millions		IG		NIG		Total		IG		NIG		Total
Revolving	\$	2,251	\$	1,258	\$	3,509	\$	2,024	\$	959	\$	2,983
2022		6		_		6		_		_		_
2021		_		24		24		_		21		21
2020		_		58		58		111		25		136
2019		_		_		_		_		_		_
2018		_		_		_		_		_		_
Prior		_		_		_		114		14		128
Total	\$	2,257	\$	1,340	\$	3,597	\$	2,249	\$	1,019	\$	3,268

	At De	<b>cember 31, 2022</b> At December 31, 2021									
		Secured Lending Facilities									
\$ in millions	IG	NIG	Total		IG	NIG	Total				
Revolving	\$ 9,445	\$ 21,142	\$ 30,587	\$	7,603	\$ 20,170	\$ 27,773				
2022	1,135	1,337	2,472		_	_	_				
2021	254	208	462		32	467	499				
2020	_	98	98		35	160	195				
2019	60	254	314		43	508	551				
2018	_	249	249		297	660	957				
Prior	215	851	1,066		144	996	1,140				
Total	\$ 11,109	\$ 24,139	\$ 35,248	\$	8,154	\$ 22,961	\$ 31,115				

	 At December 31, 2022 At December 31, 2021									)21	
	Commercial Real Estate										
\$ in millions	 IG		NIG		Total		IG		NIG		Total
Revolving	\$ _	\$	204	\$	204	\$	3	\$	149	\$	152
2022	379		2,201		2,580		_		_		_
2021	217		1,609		1,826		401		1,293		1,694
2020	_		728		728		92		819		911
2019	659		1,152		1,811		976		1,266		2,242
2018	127		645		772		527		416		943
Prior	84		488		572		187		1,076		1,263
Total	\$ 1,466	\$	7,027	\$	8,493	\$	2,186	\$	5,019	\$	7,205

		•	At Decemb	er s	31, 2022		
	curities- based		Ot				
\$ in millions	ending <sup>1</sup>	IG			NIG	-	Total
Revolving	\$ 16,573	\$	17	\$	94	\$	16,684
2022	1,365		233		42		1,640
2021	725		_		120		845
2020	_		12		186		198
2019	_		_		77		77
2018	_		_		61		61
Prior	_		_		61		61
Total	\$ 18.663	\$	262	\$	641	\$	19.566

	At December 31, 2021										
	S	ecurities- based		Ot							
\$ in millions	L	ending <sup>1</sup>		IG		NIG		Total			
Revolving	\$	17,387	\$	15	\$	80	\$	17,482			
2022		_		_		_		_			
2021		776		_		55		831			
2020		_		23		240		263			
2019		_		_		91		91			
2018		_		6		110		116			
Prior		_		_		75		75			
Total	\$	18,163	\$	44	\$	651	\$	18,858			
Total	\$	18,163	\$	44	\$	651	\$	18,858			

IG – Investment Grade

Secured lending facilities include \$85 million in past due loans held for investment at December 31, 2022. There were no past due held for investment loans at December 31, 2021.

### Nonaccrual Loans Held for Investment before Allowance

\$ in millions	At mber 31, 2022	De	At cember 31, 2021
Corporate	\$ 20	\$	
Secured lending facilities	85		332
Commercial real estate	209		195
Securities-based lending and other loans	2		6
Total <sup>1</sup>	\$ 316	\$	533
Nonaccrual loans without an ACL	\$ 2	\$	237

Includes all loans held for investment that are 90 days or more past due as of December 31, 2022 and December 31, 2021.

## **Troubled Debt Restructurings**

There were no TDRs at December 31, 2022. Loans classified as held for investment included TDRs of \$38 million at December 31, 2021. The Bank recorded an allowance against this TDR of \$7 million.

TDRs typically include modifications of interest rates, collateral requirements, other loan covenants, and payment extensions. See Note 2 for further information on TDR guidance, as well as by the U.S. banking agencies.

NIG - Non-investment Grade

Securities-based loans are subject to collateral maintenance provisions, and at December 31, 2022 and December 31, 2021, these loans are predominantly overcollateralized. For more information on the ACL methodology related to securitiesbased loans, see Note 2.

#### Allowance for Credit Losses Rollforward and Allocation—Loans

\$ in millions	Co	rporate	Ĺ	ecured ending acilities	CRE	BL and Other	Total
At December 31, 2021	\$	27	\$	156	\$ 206	\$ 11	\$ 400
Gross charge-offs		_		_	(7)	_	(7)
Recoveries		_		_	_	_	_
Net Recoveries (charge-offs)		_		_	(7)	_	(7)
Provision (release)		_		(6)	80	6	80
Other		_		(1)	(5)	1	(5)
At December 31, 2022	\$	27	\$	149	\$ 274	\$ 18	\$ 468
Percentage of loans to total loans <sup>1</sup>		5 %		53 %	13 %	29 %	100 %

\$ in millions	Co	rporate	Ĺ	ecured ending acilities	CRE	BL and Other	Total
At December 31, 2020	\$	91	\$	192	\$ 211	\$ 11	\$ 505
Gross charge-offs		(15)		(67)	(27)	_	(109)
Recoveries		_		_	_	_	_
Net Recoveries (charge-offs)		(15)		(67)	(27)	_	(109)
Provision (release)		(49)		32	25	_	8
Other		_		(1)	(3)	_	(4)
At December 31, 2021	\$	27	\$	156	\$ 206	\$ 11	\$ 400
Percentage of loans to total loans <sup>1</sup>		5 %	,	52 %	12 %	31 %	100 %

CRE—Commercial real estate

SBL—Securities-based lending

# Allowance for Credit Losses Rollforward—Lending Commitments

\$ in millions	Coi	rporate	Le	cured nding cilities	C	RE	BL and Other	Total
December 31, 2021	\$	119	\$	41	\$	20	\$ 11	\$ 191
Provision (release)		(15)		10		(5)	2	(8)
Other		(1)		_		_	(1)	(2)
December 31, 2022	\$	103	\$	51	\$	15	\$ 12	\$ 181

\$ in millions	Co	rporate	Ĺ	secured ending acilities	(	CRE	5	SBL and Other	Total
December 31, 2020	\$	112	\$	37	\$	12	\$	9	\$ 170
Provision (release)		8		4		8		2	22
Other		(1)		_		_		_	(1)
December 31, 2021	\$	119	\$	41	\$	20	\$	11	\$ 191

The aggregate allowance for credit losses for loans and lending commitments increased in 2022, primarily reflecting the Provision for credit losses due to deterioration in macroeconomic outlook. The base scenario used in our ACL models as of December 31, 2022 was generated using a combination of consensus economic forecasts, forward rates, and internally developed and validated models, and assumes weak economic growth over the forecast period. Given the nature of our lending portfolio, the most sensitive model input is U.S. GDP.

See Note 2 for a description of the ACL calculated under the CECL methodology, including credit quality indicators used for held-for-investment loans beginning in 2020.

#### Selected Credit Ratios

	At December 31, 2022	At December 31, 2021
ACL for loans to total HFI loans	0.7 %	0.7 %
Nonaccrual HFI loans to total HFI loans <sup>1</sup>	0.5 %	0.9 %
ACL for loans to nonaccrual HFI loans	147.7 %	75.1 %

<sup>1.</sup> Nonaccrual HFI loans are loans that are 90 days or more past due.

# 4. Interest Income and Interest Expense

2022		2021
\$ 380	\$	35
1,473		1,156
139		71
2,936		1,769
30		11
\$ 4,958	\$	3,042
\$ 884	\$	207
\$ 884	\$	207
\$ 4,074	\$	2,835
\$ \$ \$	\$ 380 1,473 139 2,936 30 \$ 4,958 \$ 884 \$ 884	\$ 380 \$ 1,473

<sup>1.</sup> Includes the impact of net advances from and payables to the Parent and affiliates.

#### 5. Investment Securities

#### **AFS and HTM Securities**

			Δ	t Decemb	er	31, 2022			
\$ in millions	Gross Gross Amortized Unrealized Unrealized Cost <sup>1</sup> Gains Losses					nrealized	Fair Value		
AFS securities									
U.S. Treasury securities	\$	29,607	\$	17	\$	950	\$	28,674	
U.S. agency securities <sup>2</sup>		16,173		_		1,888		14,285	
Agency CMBS		2,347		_		239		2,108	
State and municipal securities		2,599		70		42		2,627	
FFELP Student loan ABS <sup>3</sup>		640		_		26		614	
Total AFS securities		51,366		87		3,145		48,308	
HTM securities									
U.S. Treasury securities		9,235		_		773		8,462	
U.S. agency securities <sup>2</sup>		15,171		_		2,732		12,439	
Non-Agency CMBS		1,178		_		144		1,034	
Total HTM securities		25,584		_		3,649		21,935	
Total investment securities	\$	76.950	\$	87	\$	6.794	\$	70.243	

Percentage of loans to total loans represents loans held for investment by loan type to total loans held for investment.

	At December 31, 2021							
\$ in millions	Gross Amortized Unrealized Cost <sup>1</sup> Gains		Gross Unrealized Losses			Fair Value		
AFS securities								
U.S. Treasury securities	\$	19,501	\$	104	\$	73	\$	19,532
U.S. agency securities <sup>2</sup>		15,299		206		125		15,380
Agency CMBS		2,646		96		4		2,738
State and municipal securities		613		37		2		648
FFELP student loan ABS <sup>3</sup>		936		2		9		929
Total AFS securities		38,995		445		213		39,227
HTM securities								
U.S. Treasury securities		9,629		486		5		10,110
U.S. agency securities <sup>2</sup>		16,078		115		305		15,888
Non-Agency CMBS		1,053		27		5		1,075
Total HTM securities		26,760		628		315		27,073
Total investment securities	\$	65,755	\$	1,073	\$	528	\$	66,300

- 1. Amounts are net of ACL.
- U.S. agency securities consist mainly of agency mortgage pass-through pool securities, CMOs and agency-issued debt.
- Underlying loans are backed by a guarantee, ultimately from the U.S. Department of Education, of at least 95% of the principal balance and interest outstanding.

#### **AFS Securities in an Unrealized Loss Position**

	At Decem	ber 31, 2022	At Decem	ber 31, 2021
\$ in millions	Fair Value	Gross Unrealized Losses	Fair Value	Gross Unrealized Losses
U.S. Treasury securities				
Less than 12 months	\$ 23,104	\$ 799	\$ 9,910	\$ 73
12 months or longer	5,302	151	_	_
Total	28,406	950	9,910	73
U.S. agency securities				
Less than 12 months	8,710	704	6,681	104
12 months or longer	5,276	1,184	499	21
Total	13,986	1,888	7,180	125
Agency CMBS				
Less than 12 months	1,940	217	274	4
12 months or longer	169	22	_	_
Total	2,109	239	274	4
State and municipal securities				
Less than 12 months	2,106	40	21	2
12 months or longer	65	2	7	_
Total	2,171	42	28	2
FFELP student loan ABS				
Less than 12 months	215	8	200	1
12 months or longer	399	18	466	8
Total	614	26	666	9
Total AFS securities in an un	realized lo	ss position		
Less than 12 months	36,075	1,768	17,086	184
12 months or longer	11,211	1,377	972	29
Total	\$ 47,286	\$ 3,145	\$ 18,058	\$ 213

For AFS securities, the Bank believes there are no securities in an unrealized loss position that have credit losses after performing the analysis described in Note 2. Additionally, the Bank does not intend to sell these securities and is not likely to be required to sell these securities prior to recovery of the amortized cost basis. As of December 31, 2022 and December 31, 2021, the securities in an unrealized loss position are predominantly investment grade.

The HTM securities net carrying amounts at December 31, 2022 and December 31, 2021 reflect an ACL of \$34 million and \$33 million, respectively, related to Non-agency CMBS. See Note 2 for a description of the ACL methodology used for HTM Securities. As of December 31, 2022 and December 31, 2021, Non-Agency CMBS HTM securities were predominantly on accrual status and investment grade.

#### **Investment Securities by Contractual Maturity**

	At December 31, 2022					
\$ in millions		nortized Cost <sup>1</sup>	Fair Valu		Annualized Average Yield <sup>2,3</sup>	
AFS securities						
U.S. Treasury securities:						
Due within 1 year	\$	9,542	\$ 9,	341	1.0 %	
After 1 year through 5 years		18,330	17,	610	1.7 %	
After 5 years through 10 years		1,735	1,	723	1.3 %	
Total		29,607	28,	674		
U.S. agency securities:						
Due within 1 year		3		3	1.5 %	
After 1 year through 5 years		231		215	1.9 %	
After 5 years through 10 years		613		563	1.9 %	
After 10 years		15,326	13,	504	2.7 %	
Total		16,173	14,	285		
Agency CMBS:						
Due within 1 year		7		7	1.7 %	
After 1 year through 5 years		885		812	2.1 %	
After 5 years through 10 years		1,236	1,	095	2.5 %	
After 10 years		219		194	1.8 %	
Total		2,347	2,	108		
State and municipal securities:						
Due within 1 year		40		40	3.4 %	
After 1 year through 5 years		66		68	3.7 %	
After 5 years through 10 years		149		152	3.7 %	
After 10 years		2,344	2,	367	3.7 %	
Total		2,599	2,	627		
FFELP student loan ABS:						
After 1 year through 5 years		93		89	5.5 %	
After 5 years through 10 years		113		108	5.0 %	
After 10 years		434		417	5.1 %	
Total		640		614		
Total AFS securities		51,366	48,	308	2.0 %	

	At December 31, 2022									
\$ in millions		nortized Cost <sup>1</sup>		Fair Value	Annualized Average Yield <sup>2</sup>					
HTM securities										
U.S. Treasury securities:										
Due within 1 year	\$	596	\$	586	2.6 %					
After 1 year through 5 years		5,397		5,055	1.9 %					
After 5 years through 10 years		2,161		2,006	2.7 %					
After 10 years		1,081		815	2.5 %					
Total		9,235		8,462						
U.S. agency securities:										
After 5 years through 10 years		351		322	2.0 %					
After 10 years		14,820		12,117	1.9 %					
Total		15,171		12,439						
Non-Agency CMBS:										
Due within 1 year		198		197	4.0 %					
After 1 year through 5 years		210		191	4.0 %					
After 5 years through 10 years		735		616	3.8 %					
After 10 years		35		30	3.6 %					
Total		1,178		1,034						
Total HTM securities		25,584		21,935	2.1 %					
Total Investment securities	\$	76,950	\$	70,243	2.0 %					

- 1. Amounts are net of any ACL.
- Annualized average yield is computed using the effective yield, weighted based on the amortized cost of each security. The effective yield is shown pre-tax and excludes the effect of related hedging derivatives.
- effect of related hedging derivatives.

  3. At December 31, 2022, the annualized average yield, including the interest rate swap accrual of related hedges, was 1.0% for AFS securities contractually maturing within 1 year and 2.5% for all AFS securities.

#### Gross Realized Gains (Losses) on Sales of AFS Securities

\$ in millions	2022	2021
Gross realized gains	\$ 52 \$	160
Gross realized (losses)	(8)	(1)
Total <sup>1</sup>	\$ 44 \$	159

Gross realized gains and losses are recognized in Non-interest revenue - Gains and losses on financial assets and liabilities in the income statement.

# Changes in Accumulated Other Comprehensive Income (Loss) by component, net of tax:

2022
Changes in Net Unrealized Gains (Losses) on AFS Securities
\$ 183
(2,487)
(34)
(2,521)
\$ (2,338)
\$

	2021
\$ in millions	Changes in Net Unrealized Gains (Losses) on AFS Securities
Balance at December 31, 2020	\$ 977
Other comprehensive income (loss) before reclassifications	(672)
Amounts reclassified from AOCI	(122)
Net other comprehensive income (loss) during the period	(794)
Balance at December 31, 2021	\$ 183

# 6. Fair Values

#### **Recurring Fair Value Measurements**

# Assets and Liabilities Measured at Fair Value on a Recurring Basis

	At December 31, 2022					
\$ in millions	Level 1	Level 2	Level 3	Netting	Total	
Assets at fair value						
Trading assets:						
State and municipal securities	<b>\$</b> —	\$ 55	\$ 13	<b>s</b> –	\$ 68	
Corporate and other debt1	_	3,226	33	_	3,259	
Corporate equity	7,824	_	_	_	7,824	
Derivative contracts:						
Foreign exchange	_	432	_	_	432	
Interest rate	3	1,855	_	_	1,858	
Credit	_	67	160	_	227	
Equity	_	1,156	_	_	1,156	
Netting <sup>2</sup>	_	(1,880)	_	(1,453)	(3,333)	
Total derivative contracts	3	1,630	160	(1,453)	340	
Total trading assets <sup>3</sup>	7,827	4,911	206	(1,453)	11,491	
Investment securities - AFS						
U.S. Treasury securities	28,674	_	_	_	28,674	
U.S. agency securities	_	14,285	_	_	14,285	
Agency CMBS	_	2,108	_	_	2,108	
FFELP student loan ABS	_	614	_	_	614	
State and municipal securities	_	2,592	35	_	2,627	
Total Investment securities - AFS	28,674	19,599	35	_	48,308	
Loans at fair value	_	3,636	877	_	4,513	
Total assets at fair value	\$ 36,501	\$ 28,146	\$ 1,118	\$ (1,453)	\$ 64,312	

	At December 31, 2022								
\$ in millions	Le	vel 1	L	evel 2	Le	evel 3	N	etting	Total
Liabilities at fair value									
Interest-bearing deposits	\$	_	\$	3,157	\$	20	\$	— \$	3,177
Trading liabilities:									
Corporate equity		1		_		_		_	1
Derivative contracts:									
Foreign exchange		_		803		_		_	803
Interest rate		_		1,273		48		_	1,321
Credit		_		268		88		_	356
Equity		_		299		10		_	309
Netting <sup>2</sup>		_		(1,880)		_		(713)	(2,593)
Total trading liabilities		1		763		146		(713)	197
Other secured financings		_		241		_		_	241
Total liabilities at fair value	\$	1	\$	4,161	\$	166	\$	(713) \$	3,615

	At December 31, 2021					
\$ in millions	Level 1	Level 2	Level 3	Netting	Total	
Assets at fair value						
Trading assets:						
State and municipal securities	\$ —	\$ 76	\$ 13	\$ <u> </u>	\$ 89	
Corporate and other debt <sup>1</sup>	_	4,913	24	_	4,937	
Corporate equity	8,405	_	1	_	8,406	
Derivative contracts:						
Foreign exchange	_	289	_	_	289	
Interest rate	_	295	_	_	295	
Credit	_	10	209	_	219	
Equity	_	883	13	_	896	
Netting <sup>2</sup>	_	(1,179)	(10)	(229)	(1,418)	
Total derivative contracts	_	298	212	(229)	281	
Total trading assets <sup>3</sup>	8,405	5,287	250	(229)	13,713	
Investment securities - AFS						
U.S. Treasury securities	19,532	_	_	_	19,532	
U.S. agency securities	_	15,380	_	_	15,380	
Agency CMBS	_	2,738	_	_	2,738	
FFELP student loan ABS	_	929	_	_	929	
State and municipal securities	_	648	_	_	648	
Total Investment securities - AFS	19,532	19,695	_	_	39,227	
Loans at fair value	_	4,656	2,258	_	6,914	
Total assets at fair value	\$ 27,937	\$ 29,638	\$ 2,508	\$ (229)	\$ 59,854	

	At December 31, 2021									
\$ in millions	Lev	el 1	L	evel 2	Le	evel 3	N	etting		Total
Liabilities at fair value										
Interest-bearing deposits	\$	_	\$	1,628	\$	68	\$	_	\$	1,696
State and municipal securities		_		37		_		_		37
Trading liabilities:										
Derivative contracts:										
Foreign exchange		_		246		_		_		246
Interest rate		1		365		2		_		368
Credit		_		236		110		_		346
Equity		_		1,133		_		_		1,133
Netting <sup>2</sup>		_		(1,179)		(10)		(723)		(1,912)
Total trading liabilities		1		801		102		(723)		181
Other secured financings		_		34		_		_		34
Total liabilities at fair value	\$	1	\$	2,500	\$	170	\$	(723)	\$	1,948

- 1. Other debt includes equity contracts with financing features, and RMBS and CMBS.
- 2. For positions with the same counterparty that cross over the levels of the fair value hierarchy, both counterparty netting and cash collateral netting are included in the column titled "Netting". Positions classified within the same level that are with the same counterparty are netted within that level. For further information on derivative instruments, see Note 11.
- Amounts exclude certain investments that are measured based on NAV per share, which are not classified in the fair value hierarchy. For additional disclosure about such investments, see "Net Asset Value Measurements" herein.

# Valuation Techniques for Assets and Liabilities Measured at Fair Value on a Recurring Basis

#### U.S. Treasury and Agency Securities

U.S. Treasury Securities

Valuation Technique:

- Fair value is determined using quoted market prices.
- Valuation Hierarchy Classification:
- Level 1 as inputs are observable and in an active market.

U.S. Agency Securities

#### Valuation Techniques:

- The fair value of agency mortgage pass-through pool securities is model-driven based on spreads of comparable tobe-announced securities.
- CMOs are generally valued using quoted market prices and trade data adjusted by subsequent changes in related indices for comparable instruments.

#### Valuation Hierarchy Classification:

• Level 2 - all other agency issued debt securities, agency mortgage pass-through pool securities and CMOs if actively traded and inputs are observable.

#### **State and Municipal Securities**

Valuation Techniques:

 Fair value is determined using recently executed transactions, market price quotations or pricing models that factor in, where applicable, interest rates, bond or CDS spreads, adjusted for any basis difference between cash and derivative instruments.

Valuation Hierarchy Classification:

- Level 2 if value based on observable market data supported by market liquidity for comparable instruments.
- Level 3 in instances where market data are not observable or supported by market liquidity.

#### RMBS, CMBS, and ABS

Valuation Techniques:

- Mortgage and asset-backed securities, including Federal Family Education Loan Program (FFELP), may be valued based on price or spread data obtained from observed transactions or independent external parties such as vendors or brokers
- When position-specific external price data are not observable, the fair value determination may require benchmarking to comparable instruments, and/or analyzing expected credit losses, default and recovery rates, and/or applying discounted cash flow techniques. When evaluating the comparable instruments for use in the valuation of each security, security collateral-specific attributes, including payment priority, credit enhancement levels, type of collateral, delinquency rates and loss severity, are considered.
- Market standard cash flow models may be utilized to model
  the specific collateral composition and cash flow structure of
  each transaction. Key inputs to these models are market
  spreads, forecasted credit losses, and default and prepayment
  rates for each asset category.
- Valuation levels of CMBS indices are used as an additional data point for benchmarking purposes or to price outright index positions.

Valuation Hierarchy Classification:

- Level 2 if value based on observable market data supported by market liquidity for comparable instruments.
- Level 3 if external prices or significant spread inputs are unobservable or not supported by market liquidity or if the comparability assessment involves significant subjectivity related to property type differences, cash flows, performance or other inputs.

## Morgan Stanley Bank, N.A.

#### **Notes to Financial Statements**

#### **Corporate and Other Debt**

Corporate Bonds

Valuation Techniques:

- Fair value is determined using recently executed transactions, market price quotations, bond spreads and CDS spreads obtained from independent external parties, such as vendors and brokers, adjusted for any basis difference between cash and derivative instruments.
- The spread data used are for the same maturity as the bond. If the spread data do not reference the issuer, then data that reference comparable issuers are used. When positionspecific external price data are not observable, fair value is determined based on either benchmarking to comparable instruments or cash flow models with yield curves, bond or single-name CDS spreads and recovery rates or loss given default as significant inputs.

Valuation Hierarchy Classification:

- Level 2 if value based on observable market data for comparable instruments.
- Level 3 in instances where prices or significant spread inputs are unobservable or if the comparability assessment involves significant subjectivity.

#### **Equity Contracts with Financing Features**

Valuation Techniques:

Fair value of certain equity contracts, which are not classified
as OTC derivatives because they do not meet the net
investment criteria, is determined by discounting future
interest cash flows, inclusive of the estimated value of the
embedded optionality. The valuation uses the same derivative
pricing models and valuation techniques as described under
"OTC Derivative Contracts" herein.

Valuation Hierarchy Classification:

- Level 2 when the contract is valued using observable inputs or where the unobservable input is not deemed significant.
- Level 3 when the contract is valued using an unobservable input that is deemed significant.

#### **Loans and Lending Commitments**

Valuation Techniques:

- Fair value of corporate loans is determined using recently executed transactions, market price quotations (where observable), implied yields from comparable debt, market observable CDS spread levels obtained from independent external parties adjusted for any basis difference between cash and derivative instruments, along with proprietary valuation models and default recovery analysis where such transactions and quotations are unobservable.
- Fair value of mortgage loans is determined using observable prices based on transactional data or third-party pricing for comparable instruments, when available.
- Where position-specific external prices are not observable, fair value is estimated based on benchmarking to prices and rates observed in the primary market for similar loan or borrower types or based on the present value of expected future cash flows using the Bank's best available estimates of the key assumptions, including forecasted credit losses, prepayment rates, forward yield curves and discount rates commensurate with the risks involved or a methodology that

- utilizes the capital structure and credit spreads of recent comparable securitization transactions.
- Fair value of equity margin loans is determined by discounting future interest cash flows, net of potential losses resulting from large downward price movements of the underlying margin loan collateral. The potential losses are modeled using the margin loan rate, which is calibrated from market observable CDS spreads, implied debt yields or volatility metrics of the loan collateral.

Valuation Hierarchy Classification:

- Level 2 if value based on observable market data supported by market liquidity for comparable instruments.
- Level 3 in instances where prices or significant spread inputs are unobservable or not supported by market liquidity or if the comparability assessment involves significant subjectivity.

#### **Derivative and Other Contracts**

OTC Derivative Contracts

Valuation Techniques:

- OTC derivative contracts include forward, swap and option contracts related to interest rates, foreign currencies, credit standing of reference entities, equity prices or commodity prices.
- Depending on the product and the terms of the transaction, the fair value of OTC derivative products can be modeled using a series of techniques, including closed-form analytic formulas, such as the Black-Scholes option-pricing model, simulation models or a combination thereof. Many pricing models do not entail material subjectivity as the methodologies employed do not necessitate significant judgment since model inputs may be observed from actively quoted markets, as is the case for generic interest rate swaps, many equity, commodity and foreign currency option contracts, and certain CDS. In the case of more established derivative products, the pricing models used by the Bank are widely accepted by the financial services industry.
- More complex OTC derivative products are typically less liquid and require more judgment in the implementation of the valuation technique since direct trading activity or quotes are unobservable. This includes certain types of interest rate derivatives with both volatility and correlation exposure, equity, commodity or foreign currency derivatives that are either longer-dated or include exposure to multiple underlyings, and credit derivatives, including CDS on certain mortgage- or asset-backed securities and basket CDS. Where required inputs are unobservable, relationships to observable data points, based on historical and/or implied observations, may be employed as a technique to estimate the model input values. For further information on the valuation techniques for OTC derivative products, see Note 2.

Valuation Hierarchy Classification:

- Level 1—when actively traded
- Level 2 when valued using observable inputs supported by market liquidity or where the unobservable input is not deemed significant.
- Level 3 when value using observable inputs with limited market liquidity or if an unobservable input is deemed significant.

#### **Investment Securities—AFS Securities**

Valuation Techniques:

 AFS securities are composed of U.S. government and agency securities (e.g., U.S. Treasury securities, agency-issued debt, agency mortgage pass-through securities and CMOs), CMBS, ABS, state and municipal securities, and corporate bonds. For further information on the determination of fair value, refer to the corresponding asset/liability Valuation Technique described herein for the same instruments.

Valuation Hierarchy Classification:

• For further information on the determination of valuation hierarchy classification, see the corresponding Valuation Hierarchy Classification described herein.

#### **Deposits**

Valuation Techniques:

• The Bank issues FDIC-insured certificates of deposit that pay either fixed coupons or that have repayment terms linked to the performance of debt or equity securities, indices or currencies. The fair value of these certificates of deposit is determined using valuation models that incorporate observable inputs referencing identical or comparable securities, including prices to which the deposits are linked, interest rate yield curves, option volatility and currency rates, equity prices, and the impact of the Bank's own credit spreads, adjusted for the impact of the FDIC insurance, which is based on vanilla deposit issuance rates.

Valuation Hierarchy Classification:

- Level 2 when valuation inputs are observable.
- Level 3 in instances where the unobservable input is deemed significant.

# **Corporate Equities**

Valuation Techniques:

• Exchange-traded equity securities are generally valued based on quoted prices from the exchange.

Valuation Hierarchy Classification:

• Level 1 - actively traded exchange-traded securities and fund units.

## **Other Secured Financings**

Valuation Techniques:

• Other secured financings are composed of liabilities related to sales of Loans and lending commitments accounted for as financings and secured contracts that are not classified as OTC derivatives because they fail net investment criteria. For further information on the determination of fair value, refer to the Valuation Techniques described herein for the corresponding instruments, which are the collateral referenced by the other secured financing liability.

Valuation Hierarchy Classification:

 For further information on the determination of valuation hierarchy classification, see the Valuation Hierarchy Classification described herein for the corresponding instruments, which are the collateral referenced by the other secured financing liability.

# Rollforward of Level 3 Assets and Liabilities Measured at Fair Value on a Recurring Basis

\$ in millions	2022	2021
Trading Assets <sup>1,3</sup>		
Beginning balance	\$ 37	\$ 317
Realized and unrealized gains (losses)	(3)	_
Purchases <sup>4</sup>	12	3
Sales	(8)	(296)
Net transfers <sup>5</sup>	8	13
Ending balance	\$ 46	\$ 37
Unrealized gains (losses) <sup>6</sup>	(6)	_
Loans <sup>2</sup>		
Beginning balance	\$ 2,258	\$ 2,720
Realized and unrealized gains (losses)	11	38
Purchases <sup>4</sup>	171	1,209
Sales	(64)	(7)
Settlements	(1,503)	(1,178)
Net transfers <sup>5,7</sup>	4	(524)
Ending balance	\$ 877	\$ 2,258
Unrealized gains (losses) <sup>6</sup>	8	(3)
Derivative contracts, net <sup>3</sup>		
Beginning balance	\$ 110	\$ 147
Realized and unrealized gains (losses)	(64)	(46)
Settlements	(32)	23
Net transfers <sup>5</sup>	_	(14)
Ending balance	\$ 14	\$ 110
Unrealized gains (losses) <sup>6</sup>	(48)	(46)
Investment securities—AFS		
Beginning balance	_	_
Realized and unrealized gains (losses)	\$ (3)	\$ _
Net transfers <sup>5</sup>	38	_
Ending balance	35	_
Unrealized gains (losses) <sup>6</sup>	\$ (3)	\$ _
Deposits		
Beginning balance	\$ 68	\$ 128
Issuances	11	
Settlements	20	(11)
Net transfers <sup>5</sup>	(79)	(49)
Ending balance	\$ 20	\$ 68
Unrealized gains (losses) <sup>6</sup>	_	_

- Trading assets include state and municipal securities, and other debt at December 31, 2022 and include other debt at December 31, 2021.
- Realized and unrealized gains (losses) are included in Non-interest revenue Gain on loans in the income statement.
- Realized and unrealized gains (losses) are included in Non-interest revenue within Gains and losses on financial assets and liabilities in the income statement.
- Loan originations are included in purchases.
- Reclassifications between levels are driven by the unobservable inputs and whether such inputs are significant to the valuation.
- Amounts represent unrealized gains (losses) for the year ended December 31, 2022 and December 31, 2021 related to Level 3 assets and liabilities still held by the Bank at December 31, 2022 and December 31, 2021, respectively.
- Net transfers in 2021 reflect the transfer of \$487 million of equity margin loans from Level 3 to Level 2 as a result of the reduced significance of the margin loan rate input.

Level 3 instruments may be hedged with instruments classified in Level 1 and Level 2. The realized and unrealized gains or losses for assets and liabilities within the Level 3 category presented in the previous tables do not reflect the related realized and unrealized gains or losses on hedging instruments that have been classified by the Bank within the Level 1 and/or Level 2 categories.

The unrealized gains (losses) during the period for assets and liabilities within the Level 3 category may include changes in fair value during the period that were attributable to both observable and unobservable inputs.

## Significant Unobservable Inputs Used in Recurring and Nonrecurring Level 3 Fair Value Measurements

#### Valuation Techniques and Unobservable Inputs

		Balance / Ra	nge	(Average <sup>1</sup> )
\$ in millions, except inputs	At Decer	nber 31, 2022	. A	t December 31, 2021
Assets				
Corporate and other debt	\$	12	\$	3
Comparable pricing:				
Comparable bond price	04-4	.:		N I N 4 / / N I / N 4 /
DUDO		oints (1 point		NM/(N/M)
RMBS	\$	22	\$	22
Comparable pricing:	90.4-	00:		104 to 105 points
Comparable bond pricing	09 10	92 points (91 points		104 to 105 points (105 points)
Loans	\$	877	\$	2,258
Securities-based lending model:				
Securities-based lending rate	2	% to 4% (3%)	)	1% to 4% (3%)
Comparable pricing:		, ,		. ,
Comparable loan price	96 to	99 points (97		92 points
		points		(92points)
Investment securities—AFS	\$	35	\$	
Comparable pricing:				
Comparable bond pricing	92 to 10	1 points (96 points		NM/(N/M)
Net Derivative contracts				
Equity	\$	(10	) \$	13
Option model:				
Equity volatility model	7%	to 26% (7%)	)	7% to 23% (8%)
Equity volatility skew model	-1%	6 to 0% (0%)	)	-1% to 0% (0%)
Interest Rate	\$	(48	\$) \$	(2)
Option model:				
Interest rate volatility skew	124% to	147% (131%	)	N/M(N/M)
Credit	\$	72	: \$	99
ISWAP model:				
Lapse rate	1	.75% (1.75%)	)	1.75% (1.75%)
Liabilities				
Interest-bearing deposits	\$	20	\$	68
Option model:				
Equity volatility		7% (7%)	)	7% (7%)
Nonrecurring Fair Value Measu	rement	·		<u> </u>
Loans		1,684		742
Corporate Loan Model:				
Credit spread	126 b	ps to 764 bps (302 bps)		108 bps to 507 bps (192 bps)
Warehouse Model:		- '		
Credit spread	110 b	ps to 319 bps (243 bps)		182 bps to 446 bps (376 bps)

Points—Percentage of par

An increase (decrease) to the following significant unobservable inputs would generally result in a higher (lower) fair value.

 Comparable Bond or Loan Price. A pricing input used when prices for the identical instrument are not available. Significant subjectivity may be involved when fair value is determined using pricing data available for comparable instruments. Valuation using comparable instruments can be done by calculating an implied yield (or spread over a liquid benchmark) from the price of a comparable bond or loan, then adjusting that yield (or spread) to derive a value for the bond or loan. The adjustment to yield (or spread) should account for relevant differences in the bonds or loans such as maturity or credit quality. Alternatively, a price-to-price basis can be assumed between the comparable instrument and the bond or loan being valued in order to establish the value of the bond or loan.

An increase (decrease) to the following significant unobservable inputs would generally result in a lower (higher) fair value.

- Securities-based Lending. The annualized rate that reflects the
  possibility of losses as a result of movements in the price of
  the underlying margin loan collateral. The rate is calibrated
  from the discount rate, credit spreads and/or volatility
  measures.
- *Lapse Rate*. The rate at which life insurance policies are terminated due to failure to pay the insurance premiums. This rate includes voluntary and involuntary stop payments.

An increase (decrease) to the following significant unobservable inputs would generally result in an impact to the fair value, but the magnitude and direction of the impact would depend on whether the Bank is long or short the exposure.

- *Volatility*. The measure of variability in possible returns for an instrument given how much that instrument changes in value over time. Volatility is a pricing input for options and, generally, the lower the volatility, the less risky the option. The level of volatility used in the valuation of a particular option depends on a number of factors, including the nature of the risk underlying that option, the tenor and the strike price of the option.
- *Volatility Skew*. The measure of the difference in implied volatility for options with identical underliers and expiry dates but with different strikes.
- *Credit Spread*. The credit spread reflects the additional net yield an investor can earn from a security with more credit risk relative to one with less credit risk. The credit spread of a particular security is often quoted in relation to the yield on a credit risk-free benchmark security or reference rate.

#### **Net Asset Value Measurements**

#### **Fund Interests**

	At Decemb	e	r 31, 2022		At December 31, 2021						
\$ in millions	Carrying Value	(			Carrying Value	Unfunded Commitments					
Private equity funds	\$ 100	\$	101	\$	77	\$	67				
Real estate funds	1,384		9		1,210		18				
Total	\$ 1,484	\$	110	\$	1,287	\$	85				

Amounts in the previous table represent the Bank's carrying value of general and limited partnership interests in fund

Weighted averages are calculated by weighting each input by the fair value of the respective financial instruments except for derivative instruments where inputs are weighted by risk.

investments, as well as any related performance-based fees in the form of carried interest. The carrying amounts are measured based on the NAV of the fund taking into account the distribution terms applicable to the interest held. This same measurement applies whether the fund investments are accounted for under the equity method or fair value.

*Private Equity*. Funds that pursue multiple strategies, including leveraged buyouts, venture capital, infrastructure growth capital, distressed investments and mezzanine capital. In addition, the funds may be structured with a focus on specific geographic regions.

Real Estate. Funds that invest in real estate assets such as commercial office buildings, retail properties, multi-family residential properties, developments or hotels. In addition, the funds may be structured with a focus on specific geographic regions.

Investments in private equity and real estate funds generally are not redeemable due to the closed-end nature of these funds. Instead, distributions from each fund will be received as the underlying investments of the funds are disposed and monetized.

#### **Nonredeemable Funds by Contractual Maturity**

	ember 31, 2022					
\$ in millions	F	Private Equity		Real Estate		
Less than 5 years	\$	57	\$	85		
5-10 years		43		1,299		
Total	\$	100	\$	1,384		

# Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

	At December 31, 2022								
\$ in millions	Carrying Value		L	Level 2		_evel 3	Total gains (losses) <sup>1</sup>		
Assets									
Loans <sup>1</sup>	\$	4,017	\$	2,333	\$	1,684	\$	(98)	
Liabilities									
Accrued expenses and other liabilities <sup>2</sup>	\$	121	\$	91	\$	30	\$	(15)	
		At December 31, 2021							
\$ in millions	Carrying Value		L	Level 2 Le		Level 3		Total gains (losses) <sup>1</sup>	
Assets									
Loans <sup>1</sup>	\$	2,615	\$	1,873	\$	742	\$	(47)	
Liabilities									
Accrued expenses and other liabilities <sup>2</sup>	\$	62	\$	54	\$	8	\$	13	

- 1. Gains (losses) are recorded within Gains and losses on financial assets and liabilities in the income statement.
- 2. Non-recurring changes in the fair value of loans and lending commitments, which exclude the impact of related economic hedges, are calculated as follows: for the held for investment category, based on the value of the underlying collateral; and for the held for sale category, based on recently executed transactions, market price quotations, valuation models that incorporate market observable inputs where possible, such as comparable loan or debt prices and CDS spread levels adjusted for any basis difference between cash and derivative instruments, or default recovery analysis where such transactions and quotations are unobservable.

#### Financial Instruments Not Measured at Fair Value

	At December 31, 2022									
		Carrying — Fair			Fair '	Value				
\$ in millions		Value	L	_evel 1	L	evel 2	L	evel 3		Total
Financial assets										
Cash and cash equivalents	\$	28,457	\$	28,457	\$	_	\$	_	\$	28,457
Securities purchased under agreement to resell		4,488		_		3,645		843		4,488
Investment securities- HTM		25,584		8,463		12,439		_		20,902
Loans held for investment		66,436		_		15,268		51,082		66,350
Loans held for sale <sup>1</sup>		6,239		_		3,524		2,722		6,246
Affordable housing tax credit investments		922		_		_		779		779
Other assets <sup>2</sup>		1,803		_		1,803		_		1,803
Financial liabilities										
Deposits <sup>3</sup>	\$	177,356	\$	_	\$1	177,356	\$	_	\$	177,356
Payable to affiliates		577		_		577		_		577
Borrowing from Parent and affiliate		693		_		693		_		693
Accrued expenses and other liabilities		1,944		_		1,570		374		1,944
	С	ommitment Amount								
Lending commitments <sup>4</sup>	\$	89,857	\$	_	\$	1,086	\$	469	\$	1,555

	At December 31, 2021									
		Carrying —		Fair \	Valu	ne				
\$ in millions		Value	Le	evel 1	L	evel 2	L	evel 3		Total
Financial assets										
Cash and cash equivalents	\$	30,099	\$ :	30,099	\$	_	\$	_	\$	30,099
Securities purchased under agreement to resell		3,809		_		2,945		864		3,809
Investment securities- HTM		26,760		10,110		15,888		_		25,998
Loans held for investment		60,046		_		13,179		47,357		60,536
Loans held for sale <sup>1</sup>		7,104		_		5,427		1,978		7,405
Affordable housing tax credit investments		863		_		_		682		682
Other assets <sup>2</sup>		1,617		_		1,617		_		1,617
Financial liabilities										
Deposits <sup>3</sup>	\$	164,021	\$	_	\$1	64,021	\$	_	\$1	164,021
Payable to affiliates		494		_		494		_		494
Borrowing from Parent and affiliate		6,226		_		6,226		_		6,226
Accrued expenses and other liabilities		1,790		_		1,366		424		1,790
		mmitment Amount								
Lending commitments <sup>4</sup>	\$	81,728	\$	_	\$	486	\$	144	\$	630

- Includes all loans measured at fair value on a non-recurring basis.
- 2. Excludes items that do not meet the definition of a financial instrument
- Includes all deposits.
- Represents Lending commitments accounted for as Held for Investment and Held for Sale. For a further discussion on lending commitments, see Note 12.

#### **Fair Value Option**

The Bank has elected the fair value option for certain eligible instruments that are risk managed on a fair value basis to mitigate income statement volatility caused by measurement basis differences between the elected instruments and their associated risk management transactions or to eliminate complexities of applying certain accounting models. Net gain (loss) due to fair value option was \$170 million and \$(69) million for the years ended December 31, 2022 and December 31, 2021, respectively.

Gain (loss) due to changes in instrument-specific credit risk was \$(93) million and \$128 million for years ended December 31, 2022 and December 31, 2021, respectively. In addition, changes in instrument-specific credit risk increased (decreased) other comprehensive income by \$(13) million and \$14 million for years ended December 31, 2022 and December 31, 2021, respectively.

For certain loans that are classified as Trading Assets - Corporate and other debt, contractual principal amount was higher than fair value by \$182 million and \$14 million as of December 31, 2022 and December 31, 2021, respectively.

# 7. Cash and Cash Equivalents

\$ in millions	Dec	At ember 31, 2022	At December 31, 2021			
Cash and due from banks	\$	14	\$	20		
Interest bearing deposits with banks		28,443		30,079		
Total Cash and cash equivalents	\$	28,457	\$	30,099		
Restricted cash	\$	3	\$	1		

For additional information on cash and cash equivalents, including restricted cash, see Note 2.

## 8. Collateralized Transactions

The Bank enters into securities purchased under agreements to resell, among other things, in order to maintain a readily available pool of liquidity and enhance the Bank's returns while maintaining acceptable asset quality and risk standards.

The Bank manages credit exposure arising from such transactions by, in appropriate circumstances, entering into master netting agreements and collateral agreements with its counterparties. These agreements provide the Bank with the right, in the event of a default by the counterparty, to net counterparty's rights and obligations under the agreement and to liquidate and setoff collateral held by the Bank against the net amount owed by the counterparty.

The Bank's policy is generally to take possession of securities purchased in connection with securities purchased under agreements to resell and to receive securities and cash delivered under securities sold under agreements to repurchase (with rights of rehypothecation). The Bank monitors required margin levels and requires borrowers to deposit additional collateral, or reduce positions, when necessary.

The Bank may also execute secured borrowings with FRB and FHLB of New York. As of both December 31, 2022 and December 31, 2021, the Bank did not have any outstanding borrowings from the FRB or FHLB.

#### Offsetting of Certain Collateralized Transactions

	At December 31, 2022										
\$ in millions		Gross mounts		ounts ffset	Sh	alance eet Net nounts		mounts Not Offset <sup>1</sup>	A	Net nour	ıts
Assets											
Securities purchased under agreement to resell	\$	4,488	\$	_	\$	4,488	\$	(4,463)	\$		25
	At December 31, 2021										
\$ in millions		Gross mounts		ounts ffset	Sh	alance eet Net nounts		mounts Not Offset <sup>1</sup>	A	Net nour	ıts
Assets											
Securities purchased under agreement to resell	\$	3,809	\$	_	\$	3,809	\$	(3,788)	\$		21

Amounts relate to master netting agreements that have been determined by the Bank to be legally enforceable in the event of default but where certain other criteria are not met in accordance with applicable offsetting accounting guidance.

At December 31, 2022, and December 31, 2021, the fair value of financial instruments received as collateral where the Bank is permitted to sell or repledge the securities was \$6.7 billion and \$5.9 billion, respectively. No securities had been repledged at either date.

For information related to offsetting of derivatives, see Note 11.

#### **Other Secured Financings**

Other secured financings include the liabilities related to transfers of financial assets that are accounted for consolidated VIEs where the Bank is deemed to be the primary beneficiary. These liabilities are generally payable from the cash flows of the related assets, which are accounted for as Trading assets (see Note 13).

## 9. Deposits

#### **Deposits**

\$ in millions	De	At ecember 31, 2022	De	At ecember 31, 2021
Savings and demand deposits <sup>1</sup>	\$	156,914	\$	155,125
Time deposits <sup>2,3</sup>		20,442		8,896
Total	\$	177,356	\$	164,021
Deposits subject to FDIC insurance	\$	124,763	\$	86,386
Deposits not subject to FDIC insurance	\$	52,593	\$	77,635
Annualized weighted average cost of deposits <sup>4</sup>				
Period end		1.60 %	Ď	0.15 %
Period average	0.57 %			0.23 %

- 1. Includes deposits from the Parent and affiliates, see Note 10.
- Includes Structured CDs at fair value of \$3.2 billion and \$1.7 billion as of December 31, 2022 and December 31, 2021, respectively.
- The contractual liability to depositors is \$20.4 billion and \$8.9 billion at December 31, 2022 and December 31, 2021, respectively.
- 4. Annualized weighted average represents the total annualized weighted average cost of the various deposit products, excluding the effect of related hedging derivatives. The period end cost of deposits is based upon balances and rates as of December 31, 2022 and December 31, 2021. The period average is based on daily balances and rates for the year-to-date period.

#### **Time Deposit Maturities**

\$ in millions	Dec	At December 31, 2022				
2023	\$	12,349				
2024		4,837				
2025		1,532				
2026		552				
2027		833				
Thereafter		339				
Total	\$	20,442				

# 10. Transactions with Affiliated Companies

#### Assets and receivables from Parent and affiliated companies

\$ in millions	De	At cember 31, 2022	At ember 31, 2021
Securities purchased under agreements to resell	\$	13	\$ 10
Loan to affiliate		447	_
Receivables from affiliates		38	495
Trading assets, at fair value		57	8
Total	\$	555	\$ 513

#### Liabilities and payables to Parent and affiliated companies

\$ in millions	At December 31, 2022	At December 31, 2021
Deposits	\$ 5,527	\$ 15,532
Borrowings from Parent and affiliate	693	6,226
Payables to affiliates	577	494
Trading liabilities, at fair value	116	187
Accrued expenses and other liabilities	11	26
Total	\$ 6,924	\$ 22,465

# Revenues and expenses resulting from transactions with Parent and affiliated companies

\$ in millions	2022	2021
Revenues		
Interest income	\$ 857	\$ 67
Non-interest revenue		
Fee income	1,040	615
Gains and losses on financial assets and liabilities	3,708	(824)
Other	1	_
Total	\$ 5,606	\$ (142)
Expenses		
Interest expense	76	(25)
Non-interest expense		
General and administrative	651	498
Compensation and benefits	23	19
Total	\$ 750	\$ 492

#### Assets

Securities purchased under agreement to resell were with MS&Co. For further information, see Note 8.

Loan to affiliate was with MSPBNA in accordance with the US Bank Master Funding Agreement, starting March 23, 2022.

Receivables from affiliates were primarily driven by intercompany transactions that occurred in the normal course of business.

Trading assets were primarily driven by intercompany trades in support of certain lending activities.

#### Liabilities

Deposits primarily include overnight deposits from the Parent and affiliates of \$5.0 billion and \$14.8 billion as of December 31, 2022, and December 31, 2021, respectively. Additionally, the balance includes cash collateral primarily received from the Parent for the purpose of securing credit transactions between the Bank and its affiliates of \$0.5 billion and \$0.4 billion at December 31, 2022, and at December 31, 2021, respectively.

Borrowings from Parent and affiliate primarily consist of the intercompany loans the Bank received from MSPBNA in accordance with the US Bank Master Funding Agreement, starting October 1, 2021.

Payables to affiliates were primarily driven by intercompany transactions that occurred in the normal course of business. The balance also includes taxes payable to Parent of \$170 million and \$107 million at December 31, 2022 and December 31, 2021, respectively.

Trading Liabilities were primarily driven by intercompany trades in support of certain lending activities.

### **Interest Income and Interest Expense**

Interest income and interest expense reflect the impact of designated accounting hedges on AFS Securities and Brokered CDs and net advances from Parent, respectively.

#### Other Transactions

Fee income primarily consists of fees earned from MS&Co, and compensates the Bank for relationship priced loans granted to clients of the affiliate.

Gains and losses on financial assets and liabilities include the effect of CDS with Morgan Stanley and Co International plc and MS&Co used to economically hedge credit risk on certain loan portfolios, and the effect of foreign currency derivative transactions with affiliates. For further information on derivative instruments, see Note 11.

General and administrative expenses primarily consist of the following:

- Service Level Agreements whereby affiliates provide the Securities Based Lending business with specialized distribution, national sales and business management services. The amount of expenses incurred for these services was \$54 million and \$56 million in 2022 and 2021, respectively.
- Service Level Agreements with affiliates to provide information technology services, for which the Bank incurred expenses of \$53 million and \$42 million in 2022 and 2021.
- Service Level Agreements whereby affiliates provide securities and loan processing, credit risk, human resources, finance, tax and other services. The amount of expenses incurred to the Bank for these services was \$343 million and \$325 million in 2022 and 2021, respectively.
- Under Space License Agreements, the Bank incurred expenses for \$7 million and \$6 million in 2022 and 2021 for rental space to its affiliate property owners or lessors.
- Under the Deposit Service Fee Agreement, the Bank pays a service fee to MSSB for certain brokerage accounts. The service fees incurred expenses for \$151 million and \$63 million in 2022 and 2021, respectively.
- The Bank reimbursed certain affiliates for brokerage and clearing fees, professional services, marketing and business development, management charges from participated profit sharing in equity swap business, and other miscellaneous expenses. The amount of expenses incurred for these services was \$43 million and \$6 million in 2022 and 2021, respectively.

The Bank receives operational, administrative, and risk management support services from the Bank's affiliates. Certain affiliates charged the Bank for compensation and benefits related to certain employees who primarily supported the Bank. These amounts are included in Compensation and Benefits.

At both December 31, 2022 and December 31, 2021, \$1.9 billion, in a standby letter of credit was guaranteed by an affiliate.

At both December 31, 2022 and December 31, 2021, the Bank had a commitment with MS&Co to enter into securities purchased under agreements to resell of \$3.0 billion, on an intra-

day basis. The above commitment had a contractual term of 28 days.

## 11. Derivative Instruments and Hedging Activities

The Bank enters into derivative transactions with external counterparties and affiliates (see Note 10). The Bank trades forward contracts, as well as equity and foreign currency swap contracts. The Bank manages its trading positions by employing a variety of risk mitigation strategies. These strategies include inter-affiliate trades, diversification of risk exposures, and hedging. Hedging activities consist of the purchase or sale of positions in related derivative products, primarily interest rate swaps. In addition, the Bank accounts for as derivative instruments the liquidity facilities provided to municipal tender option bond trusts (see Note 13), and certain financing transactions.

Credit risk with respect to derivative instruments arises from the failure of a counterparty to perform according to the terms of the contract. The Bank's exposure to credit risk at any point in time is represented by the fair value of the derivative contracts reported as assets.

#### **Fair Values of Derivative Contracts**

	Bilateral OTC Assets				
	At December 31,		At December 31,		
\$ in millions	Dec	2022	De	2021	
Designated as accounting hedges					
Interest rate	\$	775	\$	43	
Not designated as accounting hedges					
Economic hedges of loans					
Credit		35		7	
Other derivatives					
Interest rate		1,083		252	
Credit <sup>3</sup>		192		212	
Foreign exchange		432		289	
Equity and other		1,156		896	
Total		2,898		1,656	
Total gross derivatives <sup>1</sup>	\$	3,673	\$	1,699	
Amounts offset					
Counterparty netting		(2,247)		(1,189)	
Cash collateral netting		(1,086)		(229)	
Total in Trading assets	\$	340	\$	281	
Amounts not offset <sup>2</sup>					
Financial instruments collateral				(44)	
Net amounts	\$	340	\$	237	

# Morgan Stanley Bank, N.A.

	Bilateral OTC Liabilities				
\$ in millions	Dec	At ember 31, 2022	De	At ecember 31, 2021	
Designated as accounting hedges					
Interest rate	\$	254	\$	94	
Not designated as accounting hedges					
Economic hedges of loans					
Credit		231		213	
Other derivatives					
Interest rate		1,067		274	
Credit <sup>3</sup>		125		133	
Foreign exchange		803		246	
Equity		309		1,133	
Total		2,535		1,999	
Total gross derivatives <sup>3</sup>	\$	2,789	\$	2,093	
Amounts offset					
Counterparty netting		(2,247)		(1,189)	
Cash collateral netting		(346)		(723)	
Total in Trading liabilities	\$	196	\$	181	
Amounts not offset <sup>2</sup>					
Financial instruments collateral		_		_	
Net amounts	\$	196	\$	181	

- Includes \$11 million as of December 31, 2022 which is either not subject to master netting agreements or collateral agreements or are subject to such agreements but the Bank has not determined the agreements to be legally enforceable.
- Amounts relate to master netting agreements and collateral agreements, that have been determined by the Bank to be legally enforceable in the event of default but where certain other criteria are not met in accordance with applicable offsetting accounting guidance.
- 3. Amounts include \$12 million and \$5 million as of December 31, 2022 and December 31, 2021, respectively, which are either not subject to master netting agreements or collateral agreements or are subject to such agreements but the Bank has not determined the agreements to be legally enforceable.

#### **Notional of Derivative Contracts**

	Bilateral OTC Assets				
\$ in millions	At December 31, 2022		Dec	At ember 31, 2021	
Designated as accounting hedges					
Interest rate	\$	15,446	\$	3,459	
Not designated as accounting hedges					
Economic hedges of loans					
Credit		1,953		896	
Other derivatives					
Interest rate		18,777		19,331	
Credit		3,403		2,902	
Foreign exchange		12,530		15,466	
Equity contracts and other		16,302		17,774	
Total		52,965		56,369	
Total gross derivatives	\$	68,411	\$	59,828	

		Liabilities at December 31, 2022				
\$ in millions		Bilateral OTC		Exchange- Traded		Total
Designated as accounting	hedg	jes				
Interest rate	\$	8,529	\$	_	\$	8,529
Not designated as accoun	ting h	nedges				
Economic hedges of loans	;					
Credit		10,429		_		10,429
Other derivatives						
Interest rate		14,193		1,041		15,234
Credit		1,598		_		1,598
Foreign exchange		19,077		_		19,077
Equity contracts		10,637		_		10,637
Total		55,934		1,041		56,975
Total gross derivatives	\$	64,463	\$	1,041	\$	65,504

		Liabilities at December 31, 2021			
\$ in millions		Bilateral OTC	Exchange- Traded		Total
Designated as accounting	hedg	es			
Interest rate	\$	5,238	\$ -	- \$	5,238
Not designated as accoun	ting h	edges			
Economic hedges of loans	5				
Credit		6,884	_	_	6,884
Other derivatives					
Interest rate		19,558	_	-	19,558
Credit		1,834	_	_	1,834
Foreign exchange		14,167	_	_	14,167
Equity contracts		25,770	_	_	25,770
Total		68,213	_	-	68,213
Total gross derivatives	\$	73,451	\$ -	- \$	73,451

The notional amounts of derivative contracts generally overstate the Bank's exposure. In most circumstances, notional amounts are used only as a reference point from which to calculate amounts owed between the parties to the contract. Furthermore, notional amounts do not reflect the benefit of legally enforceable netting arrangements or risk mitigating transactions.

# Gains (Losses) on Accounting Hedges

\$ in millions	2022		2021	
Fair value hedges - Recognized in Interest	income			
Interest rate contracts	\$	826 \$	72	
Investment Securities - AFS		(826)	(72)	
Fair value hedges – Recognized in Interest	expense	•		
Interest rate contracts	\$	(115) \$	(63)	
Deposits		116	63	
Cash flow hedges – Interest rate contracts <sup>1</sup>				
Recognized in OCI	\$	(4) \$	_	
Realized gains (losses) (pre-tax) reclassified from AOCI to interest income		_	_	
Total change in cash flow hedges included within AOCI		(4)	_	

For the year ended 2022, there were no forecasted transactions that failed to occur.
The net gains (losses) associated with cash flow hedges expected to be reclassified
from AOCI within 12 months as of December 31, 2022 is approximately \$0.2 million.
The maximum length of time over which forecasted cash flows are hedged is 2 years.

## Morgan Stanley Bank, N.A.

#### **Notes to Financial Statements**

# Changes in Accumulated Other Comprehensive Income (Loss) by component, net of tax:

	2022
\$ in millions	Changes in Net Unrealized Gains (Losses) on Cash Flow Hedges
Balance at December 31, 2021	\$ —
Other comprehensive income (loss) before reclassifications	(4)
Amounts reclassified from AOCI	_
Net other comprehensive income (loss) during the period	(4)
Balance at December 31, 2022	\$ (4)

#### Fair Value Hedges - Hedged Items

\$ in millions	At December 31, 2022		At December 31 2021	
Investment securities – AFS				
Amortized cost basis currently or previously hedged	\$	20,252	\$	2,773
Basis adjustments included in amortized cost <sup>1</sup>		(795)	\$	(55)
Deposits				
Carrying amount currently or previously hedged		3,380	\$	5,480
Basis adjustments included in carrying amounts <sup>1</sup>	\$	(112)	\$	3

<sup>1.</sup> Hedge accounting basis adjustments are primarily related to outstanding hedges.

#### Gains (Losses) on Economic Hedges of Loans

\$ in millions	202	2	2021			
Recognized in Gains (losses) on Lending Hedges of Loans						
Credit <sup>1</sup>	\$	(28) \$		(82)		

<sup>1.</sup> Amounts related to hedges of certain held-for-investment and held-for-sale loans.

The table below summarizes realized and unrealized gains and losses included in gains or losses on financial assets and liabilities in the income statement. These revenues are related to derivative and non-derivative financial instruments, and primarily result from the Bank's trading activities. Revenues below exclude impacts realized from AFS securities, fund investments, as well as HFS loans and related hedges. The Bank generally utilizes financial instruments across a variety of product types in connection with its market-making and related risk management strategies. Accordingly, the gains and losses presented below are not representative of the manner in which the Bank manages its business activities and are prepared in a manner similar to the presentation of gains and losses from financial assets and liabilities for regulatory reporting purposes.

#### Gains and Losses on Financial Assets and Liabilities

\$ in millions	20	022 2	2021
Interest rate	\$	93 \$	17
Foreign exchange		(4)	1
Equity <sup>1</sup>		418	127
Commodity and Other		_	1
Credit		60	104
Total	\$	567 \$	250

<sup>1.</sup> Dividend income is included within equity contracts.

#### **Credit Derivatives**

The Bank enters into credit default swaps to hedge the credit risk on certain investments, loan portfolios, and letters of credit. In order to economically hedge loans and lending commitments, the Bank may purchase and sell credit protection with identical underlying references. The Bank does not sell credit protection on an underlying reference unless it has also purchased protection on the underlying reference and does not ever sell protection in excess of the purchased protection on that underlying reference. Thus, where the Bank is a purchaser and seller of protection on an identical underlying reference, the Bank is always a net purchaser of protection.

#### **Protection Purchased with CDS**

		Not	onal		
\$ in millions	D	At At December 31, December 2022 2021		cember 31,	
Single name	\$	12,212	\$	7,082	
Index and basket		1,370		1,973	
Total	\$	13,582	\$	9,055	

The fair value amounts as shown in the previous tables are prior to cash collateral or counterparty netting.

		Fair Value Asset (Liability)							
\$ in millions	De	At cember 31, 2022	At December 31, 2021						
Single name	\$	(215)	\$ (205)						
Index and basket		44	(22)						
Total	\$	(171)	\$ (227)						

#### Maximum Potential Payout/Notional of Credit Protection Sold<sup>1</sup>

	Years to Maturity at December 31, 2022									
\$ in millions	<	< 1		1-3		3-5	C	Over 5		Total
Index and basket CDS Non- investment Grade	\$	_	\$	_	\$	_	\$	715	\$	715
Other credit contracts		_		_		_		2,487		2,487
Total credit protection sold	\$	_	\$	_	\$	_	\$	3,202	\$	3,202
CDS protection sold with identical protection purchased \$ 715									715	

	Years to Maturity at December 31, 2021										
\$ in millions		<1			1-3	;	3-5	С	ver 5		Total
Index and basket CDS Non- investment Grade	\$		_	\$	_	\$	_	\$	370	\$	370
Other credit contracts			_		_		_		2,492		2,492
Total credit protection sold	\$		_	\$	_	\$	_	\$	2,862	\$	2,862
CDS protection sold with identical protection purchased \$								370			

Investment grade/non-investment grade determination is based on the internal credit rating of the reference obligation. Internal credit ratings serve as the CRM's assessment of credit risk and the basis for a comprehensive credit limits framework used to control credit risk. The Bank uses quantitative models and judgment to estimate the various risk parameters related to each obligor.

### Fair Value Assets (Liability) of Credit Protection Sold<sup>1,2,3</sup>

\$ in millions	At ember 31, 2022	At December 31, 2021		
Index and basket CDS Non-investment Grade	\$ (38)	\$ (6)		
Other credit contracts	164	212		
Total credit protection sold	126	206		
CDS protection sold with identical protection purchased	\$ (38)	\$ (6)		

- Investment grade/non-investment grade determination is based on the internal credit rating of the reference obligation. Internal credit ratings serve as the CRM's assessment of credit risk and the basis for a comprehensive credit limits framework used to control credit risk. The Bank uses quantitative models and judgment to estimate the various risk parameters related to each obligor.
- Fair value amounts are shown on a gross basis prior to cash collateral or counterparty netting.
- Fair value amounts of certain credit default swaps where the Bank sold protection have an asset carrying value because credit spreads of the underlying reference entity or entities tightened during the terms of the contracts.

## 12. Commitments, Contingencies and Guarantees

#### **Commitments**

In the normal course of business, the Bank enters into certain commitments to extend credit. These commitments may expose the Bank to varying degrees of credit risk, interest rate risk, and liquidity risk, and are subject to the same credit and risk limitation reviews as those recorded on the balance sheet. Since commitments associated with these instruments may expire unused, the amounts shown do not necessarily reflect the actual future funding requirements.

	Years to	Years to Maturity at December 31, 202										
\$ in millions	Less than 1	1-3	3-5	Over 5	Total							
Lending:												
Corporate	\$ 10,988	\$ 16,512	\$ 41,304	\$ 690	\$ 69,494							
Secured lending facilities	7,459	5,374	2,502	1,095	16,430							
Commercial and Residential real estate	127	241	18	_	386							
Securities-based lending and Other	2,763	916	70	352	4,101							
Reverse repurchase commitment <sup>1</sup>	3,000	_	_	_	3,000							
Forward-starting secured financing receivables <sup>2</sup>	2	_	_	_	2							
Central counterparty	300	_	_	_	300							
Investment activities	280	42	30	_	352							
Total	\$ 24,919	\$ 23,085	\$ 43,924	\$ 2,137	\$ 94,065							
Lending commitments participated to third parties \$												

- 1. For further information, see Note 10.
- Forward-starting secured financing receivables are generally settled within threebusiness days.

Commitments to extend credit are legally binding, generally have specified rates and maturities, and are for specific purposes. In many instances, the borrower must meet certain conditions before the Bank is required to lend. The Bank manages the credit risk on these commitments by subjecting these commitments to normal credit approval and monitoring processes. For further information on the credit approval and monitoring process, see Note 3.

#### Types of Commitments

Forward-Starting Secured Financing Receivables. This amount includes securities purchased under agreements to resell that the Bank has entered into prior to the balance sheet date that will settle after the balance sheet date. These transactions are primarily secured by collateral from CMBS when they are funded.

Investment activities. This amount includes capital commitments to private investment funds which qualify as Community Reinvestment Act investments that the Bank is obligated to fund. This amount also includes commitments to purchase additional capital stock of the FRB that is subject to call when deemed necessary by the Board of Governors of the Federal Reserve System.

#### **Contingencies**

#### Legal

In the normal course of business, the Bank may be named, from time to time, as a defendant in various legal actions, including arbitrations, class actions and other litigation, arising in connection with its activities as a national banking association and an affiliate of a global diversified financial institution. Certain of the actual or threatened legal actions may include claims for substantial compensatory and/or punitive damages or claims for indeterminate amounts of damages.

The Bank is also involved, from time to time, in other reviews, investigations and proceedings (both formal and informal) by governmental or other regulatory agencies regarding the Bank's business and accounting and operational matters, certain of which may result in adverse judgments, settlements, fines, penalties, injunctions or other relief.

The Bank contests liability and/or the amount of damages as appropriate in each pending matter. Where available information indicates that it is probable a liability had been incurred at the date of the financial statements and the Bank can reasonably estimate the amount of that loss, the Bank accrues the estimated loss by a charge to income.

In many proceedings and investigations, however, it is inherently difficult to determine whether any loss is probable or even possible or to estimate the amount of any loss. In addition, even where a loss is possible or an exposure to loss exists in excess of the liability already accrued with respect to a previously recognized loss contingency, it is not always possible to reasonably estimate the size of the possible loss or range of loss, particularly for proceedings and investigations where the factual record is being developed or contested or where plaintiffs or government entities seek substantial or indeterminate damages, restitution, disgorgement or penalties. Numerous issues may need to be resolved before a loss or additional loss, or range of loss or additional range of loss, can be reasonably estimated for a proceeding or investigation, including through potentially lengthy discovery and determination of important factual matters, determination of issues related to class certification and the calculation of damages or other relief, and consideration of

novel or unsettled legal questions relevant to the proceedings or investigations in question.

For certain other legal proceedings and investigations, the Bank can estimate reasonably possible losses, additional losses, ranges of loss or ranges of additional loss in excess of amounts accrued but does not believe, based on current knowledge and after consultation with counsel, that such losses could have a material adverse effect on the Bank's financial statements as a whole.

Subject to the foregoing, the Bank believes, based on current knowledge and after consultation with counsel, that the outcome of such proceedings and investigations will not have a material adverse effect on the financial condition of the Bank, although the outcome of such proceedings or investigations could be material to the Bank's operating results and cash flows for a particular period depending on, among other things, the level of the Bank's revenues or income for such period.

#### Guarantees

The Bank provides guarantees to counterparties in the form of structured and standby letters of credit. Structured and standby letters of credit are obligations issued by the Bank to a third-party where the Bank promises to pay the third-party in the event of some defined failure by the Bank's customer. A majority of the Bank's standby and structured letters of credit are provided on behalf of counterparties that are investment grade. The Bank considers each guarantee outstanding as of the day the commitment letter is issued.

The Bank acts as liquidity provider to municipal bond securitization SPEs and for standalone municipal bonds in which the holders of beneficial interests issued by these SPEs or the holders of the individual bonds, respectively, have the right to tender their interests for purchase by the trust or a Tender Agent on specified dates at a specified price. With trusts, the Remarketing Agent is directed to sell all or a portion of the underlying municipal bond in the event of a failed remarketing. The Bank is required to fund any shortfall through a draw on the liquidity facility. In other cases, the Bank may provide municipal liquidity facilities whereby the holders of the securities may put their securities to a Tender Agent, after which the Bank would have to fund the Tender Amount in the event of a failed remarketing. The Bank often may have recourse to make-whole or recourse provisions with the trust's beneficial holders. Primarily all of the underlying assets in the SPEs and standalone bonds are investment grade.

At December 31, 2022											
	Maximum Potential Payout/Notional of Obligations by Years to Maturity									Carrying	
\$ in millions		Less than 1		1-3	1-3 3-5 Over 5				Amount Assets		
Letters of credit <sup>1</sup>	\$	852	\$	297	\$	697	\$	2,487	\$	164	
Liquidity facilities		3,200		_		_		_		_	
Total	\$	4,052	\$	297	\$	697	\$	2,487	\$	164	

<sup>1.</sup> These amounts include certain issued standby letters of credit participated to third parties and affiliates, totaling \$2.3 billion of notional and collateral/recourse, due to the nature of the Bank's obligations under these arrangements. As of December 31, 2022, the carrying amount of standby letters of credit and other financial guarantees issued includes allowance for credit losses of \$11 million.

#### 13. Variable Interest Entities

The Bank is involved with various SPEs in the normal course of business. In most cases, these entities are deemed to be VIEs.

The Bank's involvement with VIEs arises primarily from mortgage-backed and asset-backed transactions where the Bank holds securities issued by VIEs within its investment securities portfolio and makes loans to VIEs.

The Bank determines whether it is the primary beneficiary of a VIE upon its initial involvement with the VIE and reassesses whether it is the primary beneficiary on an ongoing basis as long as it has any continuing involvement with the VIE. This determination is based upon an analysis of the design of the VIE, including the VIE's structure and activities, the power to make significant economic decisions held by the Bank and by other parties, and the variable interests owned by the Bank and other parties.

As of December 31, 2022, the Bank consolidated a VIE with assets and liabilities of \$255 million and \$241 million, respectively. As of December 31, 2021, the Bank consolidated a VIE with assets and liabilities of \$36 million and \$34 million, respectively.

The following tables present information about non-consolidated VIEs in which the Bank had variable interests at December 31, 2022 and December 31, 2021. The tables include all VIEs in which the Bank had determined that its maximum exposure to loss is greater than specific thresholds or meet certain other criteria.

#### Non-consolidated VIEs

	At December 31, 2022								
\$ in millions	MABS <sup>1</sup>		МТОВ		OSF		(	Other <sup>2</sup>	
VIE assets (UPB)	\$	86,994	\$	4,632	\$	893	\$	27,711	
Maximum exposure to loss <sup>3</sup>									
Debt and equity interests	\$	9,111	\$	_	\$	944	\$	7,162	
Derivative and other contracts		_		3,200		_		_	
Commitments, guarantees and other		674		_		_		1,404	
Total	\$	9,785	\$	3,200	\$	944	\$	8,566	
Carrying value of variable interest - As	sset	s							
Debt and equity interests	\$	9,111	\$	_	\$	874	\$	7,162	
Derivative and other contracts		_		3		_		_	
Total	\$	9,111	\$	3	\$	874	\$	7,162	
Additional VIE assets owned <sup>4</sup>							\$	5,495	
Carrying value of variable interest - Li	abil	ities							
Derivative and other contracts	\$	_	\$	3	\$	_	\$	_	

MTOB—Municipal tender option bonds

OSF—Other structured financing

- 1. MABS include VIE assets as follows: \$61.4 billion of commercial mortgages; \$17.9 billion of U.S agency collateralized mortgage obligations; \$4.7 billion of residential mortgages; and \$3.0 billion of other consumer or commercial loans. MABS include VIE debt and equity interests as follows: \$3.7 billion of commercial mortgages; \$2.8 billion of U.S agency collateralized mortgage obligations; \$1.5 billion of other consumer or commercial loans; and \$1.1 billion of residential mortgages.
- 2. Amounts primarily include transactions backed by commercial real estate property.
- Where notional amounts are utilized in quantifying the maximum exposure related to derivatives, such amounts do not reflect changes in fair value recorded by the Bank.
- 4. Additional VIE assets owned represents the carrying value of total exposure to nonconsolidated VIEs for which the maximum exposure to loss is less than specific thresholds, primarily interests issued by securitization SPEs. The Bank's maximum exposure to loss generally equals the fair value of the assets owned. These assets are primarily included in Investment securities and are measured at fair value (see Note 6). The Bank does not provide additional support in these transactions through contractual facilities, guarantees or similar derivatives.

	At December 31, 2021								
\$ in millions		MABS <sup>1</sup>		MTOB		OSF	Other <sup>2</sup>		
VIE assets (UPB)	\$	84,112	\$	6,089	\$	721	\$	29,549	
Maximum exposure to loss <sup>3</sup>									
Debt and equity interests	\$	8,631	\$	_	\$	808	\$	6,246	
Derivative and other contracts		_		4,100		_			
Commitments, guarantees and other		759		_		_		972	
Total	\$	9,390	\$	4,100	\$	808	\$	7,218	
Carrying value of variable interest	- A:	ssets							
Debt and equity interests	\$	8,631	\$	_	\$	808	\$	6,246	
Derivative and other contracts		_		5		_			
Total	\$	8,631	\$	5	\$	808	\$	6,246	
Additional VIE assets owned <sup>4</sup>							\$	4,614	
Carrying value of variable interest	- L	iabilitie	s						
Derivative and other contracts	\$	_	\$	_	\$	_	\$	_	

- 1. MABS include VIE assets as follows: \$55.3 billion of commercial mortgages; \$20.7 billion of U.S agency collateralized mortgage obligations; \$4.3 billion of residential mortgages; and \$3.7 billion of other consumer or commercial loans. MABS include VIE debt and equity interests as follows: \$3.0 billion of U.S agency collateralized mortgage obligations; \$3.0 billion of commercial mortgages; \$0.8 billion of residential mortgages; and \$1.8 billion of other consumer or commercial loans.
- 2. Amounts primarily include transactions backed by commercial real estate property.
- Where notional amounts are utilized in quantifying the maximum exposure related to derivatives, such amounts do not reflect changes in fair value recorded by the Bank.
- 4. Additional VIE assets owned represents the carrying value of total exposure to nonconsolidated VIEs for which the maximum exposure to loss is less than specific thresholds, primarily interests issued by securitization SPEs. The Bank's maximum exposure to loss generally equals the fair value of the assets owned. These assets are primarily included in Investment securities and are measured at fair value (see Note 6). The Bank does not provide additional support in these transactions through contractual facilities, guarantees or similar derivatives.

The Bank's maximum exposure to loss often differs from the carrying value of the variable interest held by the Bank. The maximum exposure to loss is dependent on the nature of the Bank's variable interest in the VIEs and is limited to the notional

amounts of certain liquidity facilities the Bank has provided to the VIEs. Liabilities issued by VIEs generally are non-recourse to the Bank.

The Bank's maximum exposure to loss in the previous tables does not include the offsetting benefit of hedges or any reductions associated with the amount of collateral held as part of transaction with the VIE or any party to the VIE directly against a specific exposure to loss.

In all municipal tender option bond transactions, the Bank is protected through over-collateralization (i.e., the fair value of the municipal bond is in excess of the amount of the liquidity facility). The Bank's maximum exposure to loss is not reduced by the amount of the shortfall agreement or any other collateral held as part of a transaction with the VIE. These liquidity facilities are carried at fair value, with changes in fair value reflected in earnings. In the other liquidity or lending facilities, the Bank is protected either through over-collateralization at the borrower or through over-collateralization or other credit enhancement provided in the assets owned by the borrower. In some programs, the Bank provides this liquidity facility.

#### **Transferred Assets with Continuing Involvement**

	At December 31, 2022			At December 31, 2021					
\$ in millions	RML		CML		RML	CML			
SPE assets (UPB)	\$ 341	\$	62,986	\$	<b>—</b> \$	51,679			
Retained interests:									
Investment grade <sup>1</sup>	17		899		_	571			
Non-investment grade	_		272		_	399			
Total	\$ 17	\$	1,172	\$	_ \$	970			

RML—Residential mortgage loans CML—Commercial mortgage loans

### 14. Regulatory Capital Requirements

#### **Regulatory Capital Framework**

The OCC establishes capital requirements for the Bank, including the "well-capitalized" standards, and evaluates the Bank's compliance with such capital requirements. The regulatory capital requirements established by the OCC are largely based on the Basel III capital standards established by the Basel Committee and also implement certain provisions of the Dodd-Frank Act. Failure to meet minimum capital requirements can initiate certain mandatory and discretionary actions by regulators that, if undertaken, could have a direct material effect on the Bank's financial statements. Under FDICIA capital adequacy guidelines and regulatory framework for prompt corrective action, the Bank must meet specific capital guidelines that involve quantitative measures of the Bank's assets, liabilities and certain off-balance sheet items as calculated under regulatory accounting practices.

# **Regulatory Capital Requirement**

The Bank is required to maintain minimum risk-based and leverage-based capital ratios under regulatory capital

Includes zero Level 3 assets at December 31, 2022 and \$22 million of Level 3 assets at December 31, 2021.

requirements. A summary of the calculations of regulatory capital and RWAs follows.

Risk-Based Regulatory Capital. Risk-based capital ratio requirements apply to Common Equity Tier 1 capital, Tier 1 capital and Total capital (which includes Tier 2 capital), each as a percentage of RWA, and consist of regulatory minimum required ratios plus the Bank's capital buffer requirement. Capital requirements require certain adjustments to, and deductions from, capital for purposes of determining these ratios.

CECL Deferral. As of December 31, 2021, the risk-based and leverage-based capital amounts and ratios, as well as RWA, adjusted average assets and supplementary leverage exposure were calculated excluding the effect of the adoption of CECL based on the Bank's election to defer this effect over a five-year transition period that began on January 1, 2020. In 2022 the deferral impacts began to phase in at 25% per year and will become fully phased-in beginning in 2025.

## Capital Buffer Requirements

The capital buffer requirement represents the amount of Common Equity Tier 1 capital the Bank must maintain above the minimum risk-based capital requirements in order to avoid restrictions on the Bank's ability to make capital distributions, including the payment of dividends, and to pay discretionary bonuses to executive officers. The capital buffer requirements computed under the standardized approaches for calculating credit risk and market RWA ("Standardized Approach") and the Bank's capital buffer requirement computed under the applicable advanced approaches for calculating credit risk, market risk and operational risk RWA ("Advanced Approach") is equal to the sum of the 2.5% capital conservation buffer and CCyB. The CCyB can be set up to 2.5% but is currently set by U.S. banking agencies at zero.

#### **Risk-Based Regulatory Capital Ratio Requirements**

		At December 3	
	Regulatory Minimum	Standardized	Advanced
Required ratios <sup>1</sup>			
Common Equity Tier 1 capital ratio	4.5 %	7.0 %	7.0 %
Tier 1 capital ratio	6.0 %	8.5 %	8.5 %
Total capital ratio	8.0 %	10.5 %	10.5 %

<sup>1.</sup> Required ratios represent the regulatory minimum plus the capital buffer requirement.

#### Risk-Weighted Assets

RWA reflects both the Bank's on- and off-balance sheet risk, as well as capital charges attributable to the risk of loss arising from the following:

- Credit Risk: The failure of a borrower, counterparty or issuer to meet its financial obligations to the Bank;
- Market Risk: Adverse changes in the level of one or more market prices, rates, spreads, indices, volatilities, correlations or other market factors, such as market liquidity; and
- Operational Risk: Inadequate or failed processes or systems, from human factors or from external events (e.g., fraud, theft,

legal and compliance risks, cyber-attacks or damage to physical assets).

As an Advanced Approach banking organization, the Bank's risk-based capital ratios are computed under each of (i) the Standardized Approach and (ii) the Advanced Approach. The credit risk RWA calculations between the two approaches differ in that the Standardized Approach requires calculation of RWA using prescribed risk weights and exposure methodologies, whereas the Advanced Approach utilizes models to calculate exposure amounts and risk weights. The Bank's binding risk-based ratios for regulatory purposes are the lower of the capital ratios computed under the Advanced Approach or the Standardized Approach. At December 31, 2022 and December 31, 2021, the difference between the actual and required ratios were lower under the Standardized Approach.

Leverage-Based Regulatory Capital. Leverage-based capital requirements include a minimum Tier 1 leverage ratio of 4% and SLR of 3%.

Well-Capitalized Requirement. Under the regulatory capital requirements adopted by the U.S. federal banking agencies, U.S. IDIs, in order to be considered well-capitalized must maintain certain minimum capital ratios. At December 31, 2022 and December 31, 2021 the Bank maintained capital levels in excess of the well-capitalized requirements. The Bank maintained capital at levels sufficiently in excess of these "well-capitalized" requirements to address any additional needs and requirements identified by the U.S. federal banking regulators.

#### The Bank's Regulatory Capital and Capital Ratios

\$ in millions	Well- Capitalized Requirements <sup>1</sup>	Required Ratio <sup>2</sup>	Dec	At cember 31, 2022	At December 31, 2021		
Risk-based capital							
Common Equity Tier 1 capital			\$	20,043	\$	18,960	
Tier 1 capital				20,043		18,960	
Total capital				20,694		19,544	
Total RWA				97,931		92,554	
Common Equity Tier 1 capital ratio	6.5 %	7.0 %		20.5 %		20.5 %	
Tier 1 capital ratio	8.0 %	8.5 %	1	20.5 %		20.5 %	
Total capital ratio	10.0 %	10.5 %	1	21.1 %		21.1 %	

\$ in millions	Well- Capitalized Requirements <sup>1</sup>	Required Ratio <sup>2</sup>	D	At ecember 31, 2022	D	At ecember 31, 2021
Leverage-based cap	ital					
Adjusted average assets <sup>3</sup>			\$	197,711	\$	185,120
Tier 1 leverage ratio	5.0 %	4.0 %		10.1 %		10.2 %
Supplementary leverage exposure <sup>4</sup>			\$	248,860	\$	233,358
SLR	6.0 %	3.0 %		8.1 %	,	8.1 %

- 1. The requirements to remain "well-capitalized" under the PCA framework.
- Required ratios are inclusive of any buffers applicable as of the date presented.
- 3. Adjusted average assets represents the denominator of the Tier 1 leverage ratio and is composed of the average daily balance of on-balance sheet assets for the quarters ending on the respective balance sheet dates, reduced by intangible assets, certain deferred tax assets and other capital deductions.
- I. Supplementary leverage exposure is the sum of Adjusted average assets used in the Tier 1 leverage ratio and other adjustments, primarily: (i) for derivatives, potential future exposure and the effective notional principal amount of sold credit protection offset by qualifying purchased credit protection; (ii) the counterparty credit risk for repo-style transactions; and (iii) the credit equivalent amount for off-balance sheet exposures.

# 15. Employee Benefits and Stock-Based Compensation

## **Employee Benefit Plans**

Certain current and former employees of the Bank participate in employee benefit plans sponsored by MSDHI.

The Firm's pension plans generally provide pension benefits that are based on each employee's years of credited service and on compensation levels specified in the plans. The pension plans have generally ceased future benefit accruals. Compensation expenses associated with the pension plans were \$1 million for each of the years ended December 31, 2022 and 2021 and are included in Non-interest expense – General and administrative in the income statement.

U.S. employees of the Bank meeting certain eligibility requirements may participate in the Morgan Stanley 401(k) Plan.

#### Morgan Stanley 401(k) Plan

Eligible employees receive discretionary 401(k) matching cash contributions as determined annually by the Parent. The Bank matched eligible employee contributions up to the Internal Revenue Service ("IRS") limit at 4% or 5% up to a certain compensation level, in 2022 and 2021. Compensation expenses associated with the 401(k) plan were \$2 million for each of the years ended December 31, 2022 and 2021, and are included in Non-interest expense – Compensation and benefits in the income statement.

# **Employee Stock-Based Compensation Plans**

Certain current and former employees of the Bank participate in the Parent's stock-based compensation plans. The compensation expense is recognized over the vesting period relevant to each separately vesting portion of the award. Compensation expense incurred by the Bank for the years ended December 31, 2022 and 2021 were \$6 million and \$5 million, respectively, and are included in Non-interest expense - Compensation and benefits in the income statement.

#### **Restricted Stock Units**

RSUs are subject to vesting over time, generally one to three years from the date of award, contingent upon continued employment and subject to restrictions on sale, transfer or assignment until conversion to common stock. All or a portion of an award may be forfeited if employment is terminated before the end of the relevant vesting period or cancelled after the relevant vesting period in certain situations. Recipients of RSUs may have voting rights, at the Parent's discretion, and generally receive dividend equivalents if the awards vest. The Parent determines the fair value of RSUs based on the grant date fair value of its common stock, measured as the volume-weighted average price on the date of grant.

#### 16. Income Taxes

The Bank is included in the consolidated federal income tax return filed by the Parent. Federal income taxes have generally been provided on a modified separate entity basis. The Bank is included in the combined state and local income tax returns with the Parent and certain other subsidiaries of the Parent. State and local income taxes have been provided on separate entity income at the effective tax rate of the Bank's combined filing group.

In accordance with the terms of the Tax Sharing Agreement, current taxes (federal, combined and unitary states) are settled periodically with the Parent, who pays these taxes on behalf of the Bank.

#### Components of Provision for (Benefit from) Income Taxes

2022		2021
\$ 948	\$	632
136		85
\$ 1,084	\$	717
\$ (4)	\$	39
1		8
\$ (3)	\$	47
\$ 1,081	\$	764
\$	\$ 948 136 \$ 1,084 \$ (4) 1 \$ (3)	\$ 948 \$ 136 \$ 1,084 \$ \$ (4) \$ 1 \$ 1 \$ (3) \$

# Reconciliation of the U.S. Federal Statutory Income Tax Rate to the Effective Income Tax Rate.

	2022	2021
U.S. federal statutory income tax rate	21.0 %	21.0 %
U.S. state and local income taxes, net of U.S. federal income tax benefits	2.4	2.2
Other	(0.4)	(0.1)
Effective income tax rate	23.0 %	23.1 %

#### **Deferred Tax Assets and Liabilities**

\$ in millions	At ember 31, 2022	De	At cember 31, 2021
Gross deferred tax assets			
Valuation of net trading inventory, investment and receivables	\$ 708	\$	_
Allowance for credit losses and other reserves	162		149
Interest income	21		16
Deferred Revenue	7		10
Employee compensation and benefit plans	4		4
Other	_		4
Total deferred tax assets	\$ 902	\$	183
Gross deferred tax liabilities			
Valuation of net trading inventory, investments and receivables	_		60
Flow through investments	15		13
Other	3		_
Total deferred tax liabilities	\$ 18	\$	73
Net deferred tax assets	\$ 884	\$	110

Deferred income taxes reflect the net tax effects of temporary differences between the financial reporting and tax bases of assets and liabilities and are measured using the applicable enacted tax rates and laws that will be in effect when such differences are expected to reverse.

The Bank believes the recognized net deferred tax assets of \$884 million at December 31, 2022, are more likely than not to be realized based on expectations as to future taxable income in the jurisdictions in which it operates.

The Bank is subject to the income and indirect tax laws of the U.S., and its states and municipalities in which the Bank has significant business operations. These tax laws are complex and subject to interpretations by the taxpayer and the relevant governmental taxing authorities. The Bank must make judgments and interpretations about the application of these inherently complex tax laws when determining the provision for income taxes and the expense for indirect taxes and must also make estimates about when certain items affect taxable income in the various tax jurisdictions.

Disputes over interpretations of the tax laws may be settled with the taxing authority upon examination or audit. The Bank periodically evaluates the likelihood of assessments in each taxing jurisdiction resulting from current and subsequent years' examinations, and unrecognized tax benefits related to potential losses that may arise from tax audits are established in accordance with the relevant accounting guidance. Once established, unrecognized tax benefits are adjusted when there is more information available or when an event occurs requiring a change.

#### **Rollforward of Unrecognized Tax Benefits**

\$ in millions	2022	2021
Balance at beginning of period	\$ 62 \$	59
Increases based on tax positions related to the current period	16	12
Increases based on tax positions related to prior periods	_	4
Decreases based on tax positions related to prior periods	(1)	(4)
Decreases related to settlements with taxing authorities	_	(9)
Balance at end of period	\$ 77 \$	62
Net unrecognized tax benefits <sup>1</sup>	\$ 61 \$	49

Represent ending unrecognized tax benefits adjusted for the impact of the federal benefit of state issues. If recognized, these net benefits would favorably impact the effective tax rate in future periods.

It is reasonably possible that significant changes in the balance of unrecognized tax benefits may occur within the next 12 months. At this time, however, it is not possible to reasonably estimate the expected change to the total amount of unrecognized tax benefits and the impact on the Bank's effective tax rate over the next 12 months.

Interest and penalties related to unrecognized tax benefits are recognized as a component of the provision for income taxes. There were no accrued penalties related to unrecognized tax benefits.

The Bank recognized \$5 million and \$3 million of interest expense (net of federal benefit and state income tax benefits) in the Bank's income statement for the year ended December 31, 2022, and December 31, 2021, respectively.

# Earliest Tax Year Subject to Examination in Major Tax Jurisdictions:

Jurisdiction	Tax Year
U.S.	2017
New York State and New York City	2015
Utah	2009

The Bank, through its inclusion in the return of the Parent, is routinely under examination by the IRS and other tax authorities in certain states and localities in which the Bank has significant business operations, such as New York.

The Bank believes that the resolution of these tax examinations will not have a material effect on the annual financial statements, although a resolution could have a material impact in the income statement and on the effective tax rate for any period in which such resolutions occur.

# Financial Data Supplement (Unaudited)

# Morgan Stanley Bank, N.A.

# Average Balances and Interest Rates and Net Interest Income

		2022			2021	
\$ in millions	Average Daily Balance	Interest	Average Rate	Average Daily Balance	Interest	Average Rate
Interest earning asse	ets <sup>1</sup>					
Deposits with banks	\$ 22,469	\$ 380	1.7 %	\$ 26,095	\$ 35	0.1 %
Investment securities	73,445	1,473	2.0 %	66,127	1,156	1.7 %
Securities purchased under agreements to resell	4,677	139	3.0 %	8,258	71	0.9 %
Loans	77,991	2,936	3.8 %	70,685	1,769	2.5 %
Other	1,089	30	n/m	1,627	11	n/m
Total	\$179,671	\$ 4,958	2.8 %	\$172,792	\$ 3,042	1.8 %
Interest bearing liabilities <sup>1</sup>						
Deposits and Other <sup>2</sup>	\$174,076	\$ 884	0.5 %	\$164,047	\$ 207	0.1 %
Total	\$174,076	\$ 884	0.5 %	\$164,047	\$ 207	0.1 %
Net interest income a net interest rate spre		\$ 4,074	2.3 %		\$ 2,835	1.6 %

# Effect of Volume and Rate Changes on Net Interest Income

	2022 versus 2021				
	Increase (Decrease)				
		Due to C	han	ge in :	
\$ in millions	V	olume		Rate	Net Change
Interest earning assets <sup>1</sup>					
Deposits with banks	\$	(5)	\$	350	\$ 345
Investment securities		128		189	317
Securities purchased under agreements to resell		(31)		99	68
Loans		183		984	1,167
Other		(4)		23	19
Change in interest income	\$	271	\$	1,645	\$ 1,916
Interest bearing liabilities <sup>1</sup>					
Deposits and Other <sup>2</sup>	\$	13	\$	664	\$ 677
Change in interest expense	\$	13	\$	664	\$ 677
Change in net interest income	\$	258	\$	981	\$ 1,239

<sup>1.</sup> Amounts include primarily U.S. balances.

#### **Deposits**

	Average Daily Deposits				
	20:	22	2021		
\$ in millions	Average Amount	Average Rate	Average Amount	Average Rate	
Deposits <sup>1</sup>					
Savings and demand deposits	\$ 161,594	0.4 %	\$ 144,632	— %	
Time	11,083	3.0 %	13,299	1.7 %	
Total	\$ 172.677	0.5 %	\$ 157.931	0.2 %	

<sup>1.</sup> The Bank's deposits were primarily held in U.S. offices.

# Ratios

	2022	
ROE <sup>1</sup>	19.2 %	14.1 %

ROE represents net income as a percentage of average equity.

<sup>2.</sup> Includes the impact of net advances from and payables to the Parent and affiliates.

# **Glossary of Common Terms and Acronyms**

Held-for-investment

High-quality liquid assets

Internal Revenue Service

London Interbank Offered Rate

Morgan Stanley & Co. LLC

Mortgage - and Asset-backed securities

Morgan Stanley Domestic Holding, Inc.

Morgan Stanley Private Bank, National

Net stable funding ratio, as adopted by the U.S.

Office of the Comptroller of the Currency

Other comprehensive income (loss)

Morgan Stanley Smith Barney LLC

Liquidity coverage ratio, as adopted by the U.S.

Held-for-sale

Held-to-maturity

banking agencies

Loan-to-value

Association

Not Meaningful

Net asset value

banking agencies

Over-the-counter

# Morgan Stanley Bank, N.A.

Glossary	of Common Terms and Acronyms		Morgan Stanley Bank, N.A.
ABS	Asset-backed securities	RMBS	Residential mortgage-backed securities
ACL	Allowance for credit losses	RSU	Restricted stock units
AFS	Available-for-sale	RWA	Risk-weighted assets
AML	Anti-money laundering	SEC	U.S. Securities and Exchange Commission
AOCI	Accumulated other comprehensive income (loss)	SLR	Supplementary leverage ratio
BHC	Bank holding company	SOFR	Secured Overnight Financing Rate
bps	Basis points; one basis point equals 1/100th of	S&P	Standard & Poor's
CC P	1%	SPE	Special purpose entity
ССуВ	Countercyclical capital buffer	SPOE	Single point of entry
CDs	Certificates of deposit	TDR	Troubled debt restructuring
CDS	Credit default swaps	U.K.	United Kingdom
CECL	CL Current Expected Credit Losses, as calculated under the Financial Instruments—Credit Losses	UPB	Unpaid principal balance
	accounting update	U.S.	United States of America
CFTC	U.S. Commodity Futures Trading Commission	U.S. GAAP	Accounting principles generally accepted in the
<b>CMBS</b>	Commercial mortgage-backed securities	VaD	United States of America
CMO	Collateralized mortgage obligation(s)	VaR VIE	Value-at-Risk
CRM	Credit Risk Management Department	VIE	Variable interest entities
DVA	Debt valuation adjustment		
<b>DDAs</b>	Demand deposit accounts		
<b>EMEA</b>	Europe, Middle East and Africa		
ETS	E*Trade Securities LLC		
E.U.	European Union		
FDIC	Federal Deposit Insurance Corporation		
<b>FFELP</b>	Federal Family Education Loan Program		
FVO	Fair value option		
G-SIB	Globally systemically important banks		

HFI

**HFS** 

HTM

**HQLA** 

**IRS** 

**LCR** 

LTV

LIBOR

**MABS** 

MS&Co.

**MSDHI** 

**MSSB** 

N/M NAV

**NSFR** 

OCC

**OCI** 

**OTC** 

**MSPBNA**