

MORGAN STANLEY FINANCE LLC

Annual Financial Report

December 31, 2022

MORGAN STANLEY FINANCE LLC

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MORGAN STANLEY FINANCE LLC

DIRECTORS' REPORT

Year ended December 31, 2022

The Directors present their report and financial statements (which comprise the statement of financial condition, the statement of comprehensive income, the statement of cash flows, the statement of changes in member's equity (deficit) and the related notes as well as a glossary of common terms and acronyms for Morgan Stanley Finance LLC (the "Company") for the year ended December 31, 2022.

RESULTS AND DIVIDENDS

The comprehensive income for the twelve months was \$673,000,000 (December 31, 2021: \$277,000,000).

During the period, no dividends were paid or proposed.

PRINCIPAL ACTIVITY

The Company is wholly owned by Morgan Stanley (the "Parent"), which together with its consolidated subsidiaries, form "the Firm".

The principal activity of the Company is the issuance of Borrowings ("Structured Notes"), the cash proceeds being lent to its Parent and the hedging of the obligations arising pursuant to such issuances.

The Company was established under Delaware law on March 27, 2002. The business office of the Company is at 1585 Broadway, New York, NY 10036, U.S.A.

FUTURE OUTLOOK

There have not been any significant changes in the Company's principal activity during the year, other than those disclosed in the notes to the financial statements and no significant change is expected.

BUSINESS REVIEW

The Company is a "finance subsidiary" of the Parent, as defined in SEC Regulation S-X. The Company issues structured notes to the marketplace that are fully and unconditionally guaranteed by the Parent. Proceeds from issuances are lent to the Parent in the form of Intercompany notes.

The Company has a rating of A- from S&P.

The issuance of Structured Notes exposes the Company to various types of risk including foreign exchange, equity, interest rate, and commodities risk. The Company hedges these risks through the use of derivative instruments.

The statement of comprehensive income for the twelve months is set out on page 4 of the audited financial statements. The Company did not make any gains or losses over \$1,000,000 in the period.

In the period, Structured Notes that are measured at fair value pursuant to the fair value option election requires presenting unrealized DVA of \$673,000,000 as 'Other comprehensive income' in the statement of comprehensive income.

The statement of financial condition for the Company is set out on page 3 of the audited financial statements. At December 31, 2022 the Company's total assets were \$37,223,000,000, an increase of \$7,406,000,000 or 25% compared to December 31, 2021 and total liabilities were \$36,959,000,000 an increase of \$6,733,000,000 or 22%, compared to December 31, 2021.

The changes to the statements of comprehensive income and financial condition are in line with the Company's primary activity during the period due to growth of the business.

The performance of the Company is included in the results of the Firm, which are disclosed in the Firm's Annual Report on Form 10-K and quarterly on Form 10Q to the SEC. The Firm manages its key performance indicators on a global basis but in consideration of individual legal entities. For this reason, the Company's Directors believe that providing further performance indicators for the Company itself would not enhance an understanding of the development, performance or position of the business of the Company.

The risk management section below sets out the Company's and the Firm's policies for the management of significant business risks.

Risk Management

The Company's risk management practices are aligned with those of the Firm. These practices are administered on a coordinated global and legal entity basis with consideration given to the Company's specific internal capital requirements.

Risk is an inherent part of the Firm's business and activities. Management believes effective risk management is vital to the success of the Firm's business activities. Accordingly, the Firm has policies and procedures in place to identify, assess, monitor and manage the significant risks involved in the activities of its business and support functions.

The cornerstone of the Firm's risk management philosophy is the pursuit of risk-adjusted returns through prudent risk-taking that protects the Firm's capital base and franchise. Five key principles underlie this philosophy: integrity, comprehensiveness, independence, accountability, and transparency. To help ensure the efficacy of risk management, which is an essential component of the Firm's reputation, senior management requires thorough and frequent communication and the appropriate escalation of risk matters. The fast-paced, complex, and constantly-evolving nature of global financial markets requires that the Firm maintains a risk management culture that is incisive, knowledgeable about specialized products and markets, and subject to ongoing review and enhancement.

MORGAN STANLEY FINANCE LLC

DIRECTORS' REPORT

Year ended December 31, 2022

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. Generally, the Firm incurs market risk as a result of trading, investing and client facilitation activities, principally within the Institutional Securities business segment where the substantial majority of the Firm's market risk exposure is generated.

The Company has exposures to a wide range of risks relating to interest rates, equity prices and foreign exchange rates as well as the associated implied volatilities and spreads of the global markets in which the Company conducts its trading activities.

Sound market risk management is an integral part of the Firm's culture. The various business units and trading desks are responsible for ensuring that market risk exposures are well-managed and prudent. 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 business units.

Credit Risk

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

This risk may arise from a variety of business activities, including, but not limited to, entering into swap or other derivative contracts under which counterparties have obligations to make payments to the Firm; extending credit to clients; 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; and posting margin and/or collateral to counterparties. This type of risk requires credit analysis of specific counterparties, both initially and on an ongoing basis. The Firm also incurs credit risk in traded securities and whereby the value of these assets may fluctuate based on realized or expected defaults on the underlying obligations or loans.

The Firm establishes practices to evaluate, monitor and control credit risk exposure both within and across business segments. The Firm is responsible for ensuring timely and transparent communication of material credit risks, ensuring compliance with established limits, and escalating risk concentrations to appropriate senior management. The Firm's credit risk exposure is managed by credit professionals and risk

committees that monitor risk exposures, including credit sensitive, higher risk transactions.

Operational Risk

Operational risk refers to the risk of loss, or of damage to the Firm's reputation, resulting from inadequate or failed processes or systems, from human factors or from external events (e.g. cyber attacks 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. The Firm may incur operational risk across the full scope of its business activities, including revenue-generating activities (e.g. sales and trading) and control groups (e.g. information technology and trade processing).

The Firm's operational risk framework is established to identify, measure, monitor and control risk. 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 Firm and to respond to the changing regulatory and business environment.

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 Company's or the Firm'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 ("MRM") is an integral part of our Risk Management Framework. The 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 the Firm's 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,

MORGAN STANLEY FINANCE LLC**DIRECTORS' REPORT**
Year ended December 31, 2022

annually recertifies models, identifies and tracks remediation plans for model limitations, and reports on model risk metrics. The department also oversees the development of controls to support a complete and accurate Firm-wide model inventory.

Liquidity Risk

Liquidity risk refers to the risk that the Firm will be unable to finance its operations due to a loss of access to capital markets or difficulty in liquidating its assets. Liquidity risk also encompasses the Firm's ability (or perceived ability) to meet its financial obligations in a timely manner without experiencing significant business disruption or reputational damage that may threaten its 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, the Firm incurs liquidity and funding risk as a result of its trading, lending, investing, and client facilitation activities.

The Firm's Liquidity Risk Management Framework is critical to help ensure that the Firm maintains sufficient liquidity reserves and durable funding sources to meet the Firm's 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 the Firm's 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 its Liquidity Stress Tests to ensure sufficient liquidity and funding under a range of adverse scenarios.

Going Concern

Retaining sufficient liquidity and capital to withstand market pressures remains central to the Firm's strategy. The Company issues structured notes to the marketplace that are fully and unconditionally guaranteed by the Parent. Proceeds from issuances are lent to the Parent in the form of Intercompany notes. Due to the risk neutral nature of the business, the Company does not maintain significant liquidity or capital. Additionally, the Company has access to Firm capital and liquidity as required.

Taking all of these factors into consideration, the Directors believe it is reasonable to assume that the Company will have access to adequate resources to continue in operational existence

for the foreseeable future. Accordingly, they continue to adopt the going concern basis in preparing the audited financial statements.

DIRECTORS

The following Directors held office since the Company was repurposed as a financing subsidiary in the beginning of 2016 and to the date of approval of this report:

Kevin Woodruff

Nikki Tippins

Joshua Schanzer

EVENTS AFTER THE REPORTING DATE

There have been no significant events since the reporting date.

AUDIT COMMITTEE

The Company is not required to have an audit committee separate from that of its Parent.

AUDITOR

Deloitte & Touche LLP will continue as auditor of the Company.

Approved and signed on behalf of the Board by:

DocuSigned by:

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Kevin Woodruff, President

MORGAN STANLEY FINANCE LLC

DIRECTORS' RESPONSIBILITY STATEMENT

The Directors, Kevin Woodruff, Nikki Tippins and Joshua Schanzer, confirm to the best of their knowledge:

- the financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") and give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company; and
- the financial statements are prepared in compliance with the European Single Electronic Format Regulatory Technical Standard ("ESEF RTS"). In preparing the Company's financial statements in compliance with ESEF RTS, the Directors are required to file the financial statements in a valid xHTML format; and
- the management report represented by the Directors' report includes a fair review of the development and performance of the business that have occurred during the twelve months ended December 31, 2022 and the position of the Company together with a description of the principal risks and uncertainties that the Company faces.

Approved by the Board and signed on its behalf by:

DocuSigned by:

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Name: Kevin Woodruff

Title: President and Director

INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of
Morgan Stanley Finance, LLC

Opinion

We have audited the financial statements of Morgan Stanley Finance, LLC (the "Company"), a wholly owned subsidiary of Morgan Stanley (the "Parent"), which comprise the statements of financial condition as of December 31, 2022 and December 31, 2021, and the related statements of comprehensive income, cash flows, and changes in member's equity (deficit) 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 Company 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.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (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 Company 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 Company's ability to continue as a going concern for one year after the date that the financial statements are available to be 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 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, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. Accordingly, no such opinion is expressed.
- 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 Company'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 audits.

Emphasis of Matter

We draw attention to Note 3 of the financial statements, which describes the fact that the activities of the Company include significant transactions with affiliates and may not necessarily be indicative of the conditions that would have existed or the results of operations if the Company had operated as an unaffiliated business. Our opinion is not modified with respect to this matter.

Report on Other Legal and Regulatory Requirements — European Single Electronic Format

In connection with the Company's listing requirements with the Luxembourg Stock Exchange, management is responsible for preparing the financial statements in compliance with the requirements set forth in Article 3 of the Delegated Regulation 2019/815 on European Single Electronic Format (ESEF Regulation). The requirements set forth in the ESEF Regulation that are relevant to the Company relate to the financial statements being prepared using a valid eXtensible HyperText Markup Language (XHTML) format. As part of our assessment as to whether the financial statements are prepared, in all material respects, in accordance with the requirements set forth in the ESEF Regulation that are relevant to the Company, we have performed tests of the Company's compliance with the requirement to prepare the financial statements using a valid XHTML format. In our opinion, the financial statements, identified as "MSF-2022-en.xhtml", have been prepared, in all material respects, in accordance with the requirements set forth in the ESEF Regulation that are relevant to the Company insofar as it relates to the preparation of the financial statements in a valid XHTML format.

Other Information Included in the Annual Director's Report

Management is responsible for the other information included in the Annual director's report. The other information comprises the information included in the Annual director's 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.

Deloitte + Touche LLP

New York, New York
April 13, 2023

MORGAN STANLEY FINANCE LLC
STATEMENTS OF FINANCIAL CONDITION
(In millions of dollars, except where noted)

	At December 31, 2022	At December 31, 2021
Assets		
Cash	\$ 1	\$ 5
Trading assets at fair value	—	1,687
Receivables:		
Broker dealers	76	14
Notes receivable from Parent	37,015	27,977
Intercompany from Parent	131	134
Total Assets	\$ 37,223	\$ 29,817
Liabilities		
Trading liabilities at fair value	\$ 4,287	\$ —
Payables:		
Broker dealers	128	64
Interest	37	17
Intercompany to Parent	20	—
Borrowings (includes \$32,280 and \$30,017 at fair value)	32,487	30,145
Total Liabilities	\$ 36,959	\$ 30,226
Commitments and contingent liabilities (See Note 8)		
Member's equity:		
Additional paid-in capital	44	44
Accumulated other comprehensive income (loss)	220	(453)
Total member's equity (deficit)	264	(409)
Total Liabilities and Member's equity (deficit)	\$ 37,223	\$ 29,817

See Notes to Financial Statements.

MORGAN STANLEY FINANCE LLC
STATEMENTS OF COMPREHENSIVE INCOME
(In millions of dollars, except where noted)

	2022	2021
Revenues		
Trading ⁽¹⁾	\$ (617)	\$ (135)
Interest income	730	207
Total Revenues	113	72
Expenses		
Interest expense	113	72
Total Expenses	113	72
Income (loss) before income taxes	—	—
Net income (loss)	—	—
Other comprehensive income	673	277
Comprehensive income	\$ 673	\$ 277

(1) Trading revenues comprise related party and non-related party components. For further information see notes 3 and 5

MORGAN STANLEY FINANCE LLC
STATEMENTS OF CASH FLOWS
(In millions of dollars, except where noted)

	2022	2021
Cash flows from operating activities:		
Net income (loss)	\$ —	\$ —
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Net changes in asset and liabilities:		
Trading assets, net of Trading liabilities	1,173	1,780
Broker dealers	2	(8)
Intercompany (Parent)	23	(98)
Interest	20	1
Net cash provided by operating activities	1,218	1,675
Cash flows from investing activities:		
Net payments for:		
Notes receivable from Parent	(9,739)	(4,352)
Net cash used for investing activities	(9,739)	(4,352)
Cash flows from financing activities:		
Proceeds from:		
Borrowings	14,689	17,216
Payments for:		
Borrowings	(6,172)	(14,540)
Net cash provided by financing activities	8,517	2,676
Effect of exchange rate changes on cash	—	—
Net (decrease) / increase in cash	(4)	(1)
Cash at beginning of the period	5	6
Cash at end of the period	\$ 1	\$ 5
Supplemental Disclosure of Cash Flow Information:		
Cash payments for interest	\$ 89	\$ 71

See Notes to Financial Statements.

MORGAN STANLEY FINANCE LLC
STATEMENTS OF CHANGES IN MEMBER'S EQUITY (DEFICIT)
(In millions of dollars, except where noted)

	Additional paid-in capital	Accumulated other comprehensive income/(loss)	Total member's equity/(deficit)
Balance, December 31, 2020	\$ 44	\$ (730)	\$ (686)
Net change in accumulated other comprehensive income	—	277	277
Balance, December 31, 2021	\$ 44	\$ (453)	\$ (409)
Net change in accumulated other comprehensive income	—	673	673
Balance, December 31, 2022	\$ 44	\$ 220	\$ 264

See Notes to Financial Statements.

MORGAN STANLEY FINANCE LLC
NOTES TO FINANCIAL STATEMENTS
FOR THE YEARS ENDED 31 DECEMBER 2022 AND 2021
(In millions of dollars, except where noted)

1. Introduction and Basis of Presentation

The Company

Morgan Stanley Finance LLC (the “Company”), a single member limited liability corporation, is a wholly owned subsidiary of Morgan Stanley (the “Parent”).

The Company is a “finance subsidiary” of the Parent, as defined in SEC Regulation S-X. The Company issues structured notes to the marketplace that are fully and unconditionally guaranteed by the Parent. Proceeds from issuances are lent to the Parent in the form of Intercompany notes.

In 2022, the Company received a rating of A- from S&P. See the “Glossary of Common Terms and Acronyms” for the definition of certain terms and acronyms used throughout the notes to the financial statements.

Basis of Financial Information

The audited financial statements are prepared in accordance with U.S. GAAP, which requires the Company to make estimates and assumptions regarding the valuations of certain financial instruments, the outcome of legal matters, and other matters that affect the financial statements and related disclosures. The Company believes that the estimates utilized in the preparation of its financial statements are prudent and reasonable. Actual results could differ materially from these estimates.

The Company has evaluated subsequent events for adjustment to or disclosure in the financial statements through April 13th, 2023, the date on which the financial statements are available to be issued, and the Company has not identified any recordable or disclosable events, not otherwise reported in the financial statements or the notes thereto.

2. Significant Accounting Policies

Revenue Recognition

Trading

See “Fair Value of Financial Instruments” below for Trading revenue recognition discussions.

Fair Value of Financial Instruments

Instruments within Trading assets and Trading liabilities are measured at fair value, as required or allowed by accounting guidance. These financial instruments represent derivatives the Company enters into with the Parent to economically hedge its Borrowings, which are primarily structured notes. Gains and losses on instruments carried at fair value are reflected in Trading revenues in the Company’s Statements of comprehensive income.

The fair value of OTC financial instruments, including derivative contracts related to financial instruments and commodities, is presented in the accompanying statements of financial condition on a net-by-counterparty basis, when appropriate.

Fair Value Option

The Company has elected the fair value option for certain Borrowings (structured notes) 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.

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 Company believes market participants would use in pricing the asset or liability at the measurement date. Where the Company manages a group of financial assets, financial liabilities and non financial items on the basis of its net exposure to either market risks or credit risk, the Company 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 Company 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 Company. Unobservable inputs are inputs that reflect assumptions the Company 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 Company has the ability to access for identical assets or liabilities. Valuation adjustments 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.

The availability of observable inputs can vary from product to product and is affected by a wide variety of factors, including, the type of product, whether the product is new and not yet established in the marketplace, the liquidity of markets and other characteristics particular to the product. To the extent that valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised by the Company in determining fair value is greatest for instruments categorized in Level 3 of the fair value hierarchy.

The Company considers prices and inputs that are current as of the measurement date, including during periods of market dislocation. In periods of market dislocation, the observability of prices and inputs may be reduced for many instruments. This condition could cause an instrument to be reclassified from Level 1 to Level 2 or from Level 2 to Level 3 of the fair value hierarchy. For additional information, see Note 4.

In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, the total fair value amount is disclosed in the level appropriate for the lowest level input that is significant to the total fair value of the asset or liability.

Valuation Techniques

OTC derivative contracts have bid and ask prices that can be observed in the marketplace. Bid prices reflect the highest price that a party is willing to pay for an asset. Ask prices represent the lowest price that a party is willing to accept for an asset. The Company carries positions at the point within the bid-ask range that meets its best estimate of fair value. For offsetting positions in the same financial instrument, the same price within the bid-ask spread is used to measure both the long and short positions.

Fair value for OTC derivative contracts is derived using pricing models. Pricing models take into account the contract terms, as well as multiple inputs, including, where applicable, commodity prices, equity prices, interest rate yield curves, correlation, option volatility, and currency rates.

Where appropriate, valuation adjustments are made to account for various factors such as liquidity risk (bid-ask adjustments), credit quality, model uncertainty and concentration risk and funding in order to arrive at fair value. Adjustments for liquidity risk adjust model-derived mid-market amounts of Level 2 and Level 3 financial instruments for the bid-mid or mid-ask spread required to properly reflect the exit price of a risk position. Bid-mid and mid-ask spreads are marked to levels observed in trade activity, broker quotes or other external third-party data. Where

these spreads are unobservable for the particular position in question, spreads are derived from observable levels of similar positions.

The Company applies credit-related valuation adjustments to its Borrowings (structured notes) for which the fair value option was elected. The Company considers the impact of changes in its own credit spreads based upon observations of the secondary bond market spreads when measuring the fair value for Borrowings. Such credit risk considerations do not impact the valuation of derivative transactions with the Parent as credit risk would not impact the exit price.

Adjustments for model uncertainty are taken for positions whose underlying models are reliant on significant inputs that are neither directly nor indirectly observable, hence requiring reliance on established theoretical concepts in their derivation. These adjustments are derived by making assessments of the possible degree of variability using statistical approaches and market-based information where possible.

See Note 4 for a description of valuation techniques applied to the major categories of financial instruments measured at fair value.

Interest Income and Expense

Interest income and Interest expense are accrued for interest-earning assets and interest-bearing liabilities, including Notes receivable, Receivables and Payables with the Parent, and Borrowings.

Interest income and Interest expense are recorded within the Company's statements of comprehensive income depending on the nature of the instrument and related market conventions. When interest is included as a component of the instruments' fair value, interest is included within Trading revenues. Otherwise, it is included within Interest income or Interest expense.

Offsetting of Derivative Instruments

In connection with its derivative activities with the Parent, the Company enters into a master netting agreement with the Parent. This agreement provides the Company with the right, in the event of a default by the Parent, to net Parent's rights and obligations under the agreement and to liquidate against any net amount owed by the Parent.

For further information related to offsetting of derivatives, see Note 6.

Income Taxes

The Company is a single-member limited liability company that is treated as a disregarded entity for federal income tax purposes. All current and deferred taxes have been accrued by the Parent.

Receivables from and Payables to Broker Dealers

Receivables from and Payables to Broker Dealers include unsettled amounts related to Borrowings (structured notes) as well as amounts for securities failed to deliver, through its broker dealer affiliates, by the Company to the purchaser or failed to receive by the Company from the seller by the settlement date.

Foreign Currencies

Gains or losses resulting from remeasurement of foreign currency transactions are included in Trading revenues, and amounts recognized in statements of comprehensive income are translated at the rate of exchange on the respective date of recognition for each amount.

Accounting Development Updates

The FASB has issued certain accounting updates that apply to the Company. Accounting updates were assessed and are not expected to have a significant impact on the Company's financial statements

3. Related Party Transactions

Notes receivable from Parent represents the proceeds from Borrowings (structured notes) which are lent to the Parent at rates established by the treasury function of the Parent and its consolidated subsidiaries (the "Firm"). These rates reflect the rate of interest that the Firm incurs in funding its business (the "Firm proxy rate").

Intercompany receivables from and payables to the Parent represents additional funding provided to and received from the Parent which is unsecured, payable on demand, and bears interest at the Firm proxy rate.

Receivables from and payables to Broker dealers represent unsettled amounts related to Borrowings (structured notes) that broker dealer affiliates distribute for the Company. These receivables are unsecured and payable on demand.

Trading assets and liabilities and the associated Trading revenues mainly represent OTC derivative transactions the Company enters into with the Parent to economically hedge its Borrowings (structured notes) as well as any mark to market movements on those OTC derivative transactions.

Interest income and expense are calculated daily based on the Notes receivable and Intercompany receivables from and payables to the Parent.

The activities of the Company include significant transactions with affiliates and may not necessarily be indicative of the conditions that would have existed or the results of operations if the Company had operated as an unaffiliated business.

	At December 31, 2022	At December 31, 2021
Assets and receivables from affiliated companies		
Trading assets	\$ —	\$ 1,687
Receivables – Broker dealers	45	1
Receivables – Notes receivable from Parent	37,015	27,977
Receivables – Intercompany from Parent	131	134
Liabilities and payables to affiliated companies		
Derivatives	\$ 4,281	\$ —
Payables - Broker dealers	128	—
Payables – Intercompany to Parent	20	—
	2022	2021
Revenues and Expenses from (transfer to) affiliated companies:		
Trading	\$ (5,199)	\$ 1,919
Interest income	730	207

4. Fair Values

Assets and Liabilities Measured at Fair Value on a Recurring Basis

	At December 31, 2022				
	Level 1	Level 2	Level 3	Netting ⁽¹⁾	Total
Assets at Fair Value					
Trading assets:					
OTC Derivative contracts:					
Equity contracts	\$ —	\$ 991	\$ 19	\$ —	\$ 1,010
Interest rate contracts	—	13	3	—	16
Foreign exchange contracts	—	6	1	—	7
Commodity contracts	—	11	—	—	11
Netting ⁽¹⁾	—	(1,021)	(23)	—	(1,044)
Total OTC derivative contracts	—	—	—	—	0
Total trading assets	\$ —	\$ —	\$ —	\$ —	\$ —
Total assets at fair value	\$ —	\$ —	\$ —	\$ —	\$ —
Liabilities at Fair Value					
Trading liabilities:					
OTC Derivative contracts:					
Equity contracts	\$ —	\$ 2,223	\$ 462	\$ —	\$ 2,685
Interest rate contracts	—	2,064	159	—	2,223
Foreign exchange contracts	—	382	14	—	396
Commodity contracts	—	26	—	—	26
Credit contracts	—	—	1	—	1
Netting ⁽¹⁾	—	(1,021)	(23)	—	(1,044)
Total OTC derivative contracts	—	3,674	613	—	4,287
Total trading liabilities	\$ —	\$ 3,674	\$ 613	\$ —	\$ 4,287
Borrowings - Structured Notes	—	31,201	1,079	—	32,280
Total liabilities at fair value	\$ —	\$ 34,875	\$ 1,692	\$ —	\$ 36,567

1. For positions with the same counterparty that cross over the levels of the fair value hierarchy, counterparty netting is included in the column titled "Netting". Positions classified within the same level that are the same counterparty are netted within that level. For further information on derivative instruments, see Note 6

At December 31, 2021

	Level 1	Level 2	Level 3	Netting ⁽¹⁾	Total
Assets at Fair Value					
Trading assets:					
OTC Derivative contracts:					
Equity contracts	\$ —	\$ 2,535	\$ 76	\$ —	\$ 2,611
Interest rate contracts	—	103	22	—	125
Foreign exchange contracts	—	31	8	—	39
Commodity contracts	—	6	2	—	8
Netting ⁽¹⁾	—	(950)	(108)	(38)	(1,096)
Total OTC derivative contracts	—	1,725	—	(38)	1,687
Total trading assets	\$ —	\$ 1,725	\$ —	\$ (38)	\$ 1,687
Total assets at fair value	\$ —	\$ 1,725	\$ —	\$ (38)	\$ 1,687

Liabilities at Fair Value

Trading liabilities:

OTC Derivative contracts:					
Equity contracts	\$ —	\$ 309	\$ 95	\$ —	\$ 404
Interest rate contracts	—	557	32	—	589
Foreign exchange contracts	—	84	18	—	102
Commodity contracts	—	—	1	—	1
Netting ⁽¹⁾	—	(950)	(146)	—	(1,096)
Total OTC derivative contracts	—	—	—	—	—
Total trading liabilities	\$ —	\$ —	\$ —	\$ —	\$ —
Borrowings - Structured Notes	—	28,860	1,157	—	30,017
Total liabilities at fair value	\$ —	\$ 28,860	\$ 1,157	\$ —	\$ 30,017

1. Positions classified within the same level that are with the same counterparty are netted within the column for that level. As of December 31, 2021, there were no positions with the same counterparty classified in different levels of the fair value hierarchy. For further information on derivative instruments, see Note 6.

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

Asset and Liability / Valuation Technique	Valuation Hierarchy Classification
<hr/> <i>OTC Derivative Contracts</i> <ul style="list-style-type: none">• 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, and many equity, commodity and foreign currency option contracts. In the case of more established derivative products, the pricing models used by the Company 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 volatility and correlation exposure, equity, and commodity or foreign currency derivatives that are either longer-dated or include exposure to multiple underlyings. 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. <p>For further information on the valuation techniques for OTC derivative products, see Note 2.</p> <hr/> <i>Borrowings - Structured Notes</i> <ul style="list-style-type: none">• The Company issues structured notes which are primarily composed of: instruments whose payments and redemption values are linked to the performance of a specific index, a basket of stocks, a specific equity security, a commodity, a credit exposure or basket of credit exposures; and instruments with various interest-rate-related features including step-ups, step-downs, and zero coupons. Also included are unsecured contracts which are not classified as OTC derivatives because they fail net investment criteria.• Fair value is determined using valuation models for the derivative and debt portions of the notes. These models incorporate observable inputs referencing identical or comparable securities, including prices to which the notes are linked, interest rate yield curves, option volatility and currency rates, and commodity or equity prices.• Independent, external and traded prices for the notes are considered as well as the impact of the Company's own credit spreads, which are based on observed secondary bond market spreads.	<ul style="list-style-type: none">• Level 2 - when valued using observable inputs, or where the unobservable input is not deemed significant• Level 3 - if an unobservable input is deemed significant <ul style="list-style-type: none">• Level 2 - when valued using observable inputs, or where the unobservable input is not deemed significant• Level 3 - in instances where the unobservable inputs are deemed significant

Rollforward of Level 3 Assets and Liabilities Measured at Fair Value on a Recurring Basis for 2022

	Beginning Balance at December 31, 2021	Total Realized and Unrealized Gains (Losses)	Purchases	Sales and Issuances	Settlements	Net Transfers ⁽¹⁾	Ending Balance at December 31, 2022	Unrealized Gains (Losses)
Net Liabilities at Fair Value								
Net OTC derivative contracts ⁽²⁾ :								
Equity contracts	\$ 19	\$ —	\$ (6)	\$ —	\$ 425	\$ 5	\$ 443	\$ 189
Interest rate contracts	10	—	—	—	160	(14)	156	—
Commodity contracts	(1)	—	—	—	2	—	1	—
Foreign exchange contracts	10	—	—	—	9	(6)	13	—
Total net OTC derivative contracts	38	—	(6)	—	596	(15)	613	189
Borrowings – Structured Notes	1,157	130	—	402	(54)	(296)	1,079	132
Net Liabilities at Fair Value	\$ 1,195	\$ 130	\$ (6)	\$ 402	\$ 542	\$ (311)	\$ 1,692	\$ 321

(1) During the year ended December 31, 2022, the Company transferred from Level 3 to Level 2 \$296 of Borrowings (structured notes) due to a reduction in the significance of the unobservable inputs relating to volatility.

(2) Net OTC derivative contracts represent Trading liabilities, net of Trading assets. Amounts are presented before counterparty netting.

Rollforward of Level 3 Assets and Liabilities Measured at Fair Value on a Recurring Basis for 2021

	Beginning Balance at December 31, 2020	Total Realized and Unrealized Gains (Losses)	Purchases	Sales and Issuances	Settlements	Net Transfers ⁽¹⁾	Ending Balance at December 31, 2021	Unrealized Gains (Losses)
Net Liabilities at Fair Value								
Net OTC derivative contracts ⁽²⁾ :								
Equity contracts	\$ (106)	\$ 59	\$ (1)	\$ —	\$ 102	\$ 83	\$ 19	\$ 4
Interest rate contracts	30	(1)	—	—	(1)	(20)	10	—
Commodity contracts	—	1	—	—	—	—	(1)	—
Foreign exchange contracts	—	3	—	—	39	(26)	10	—
Total net OTC derivative	(76)	62	(1)	—	140	37	38	4
Borrowings – Structured Notes	1,763	31	—	385	(111)	(849)	1,157	35
Net Liabilities at Fair Value	\$ 1,687	\$ 93	\$ (1)	\$ 385	\$ 29	\$ (812)	\$ 1,195	\$ 39

(1) During the year ended December 31, 2021, the Company transferred from Level 3 to Level 2 \$849 of Borrowings (structured notes) due to a reduction in the significance of the unobservable inputs relating to volatility.

(2) Net OTC derivative contracts represent Trading liabilities, net of Trading assets. Amounts are presented before counterparty netting.

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. Total realized and unrealized gains (losses) are primarily included in Trading revenues in the statements of comprehensive income.

Significant Unobservable Inputs Used in Recurring Level 3 Fair Value Measurements

Valuation Techniques and Unobservable Inputs

\$ in millions, except inputs	Balance/Range (Average)(1)	
	December 31, 2022	December 31, 2021
Net Liabilities at Fair Value		
Net OTC derivative contracts:		
Equity contracts ⁽²⁾	\$ 443	\$ 19
Option Model:		
Equity Volatility	7% to 86% (20%)	6% to 85% (19%)
Equity Volatility skew	-4% to 0% (0%)	-3% to 0% (0%)
Equity - Equity correlation	25% to 99% (88%)	40% to 99% (87%)
Equity - Foreign exchange correlation	-68% to 40% (-25%)	-72% to 5% (-30%)
Interest rate contracts	\$ 156	\$ 10
Option Model		
Interest Rate - Foreign Exchange correlation	28% to 63% (42% / 34%)	NM
Interest Rate Curve Correlation	57% to 87% (74% / 79%)	NM
Interest Rate Curve Correlation	91% to 143% (107% / 113%)	NM
Foreign exchange contracts	13	10
Option Model		
Interest Rate - Foreign Exchange correlation	28% to 63% (42% / 34%)	NM
Interest Rate Volatility Skew	91% to 108% (97% / 100%)	NM
Borrowings - Structured Notes	1,079	1157
Option Model:		
Equity Volatility	7% to 86% (23%)	7% to 85% (19%)
Equity Volatility skew	-2% to 0% (0%)	-1% to 0% (0%)
Equity - Equity correlation	36% to 99% (75%)	60% to 95% (85%)
Equity - Foreign exchange correlation	-49% to 30% (-19%)	-55% to 2% (-28%)

(1) A single amount is disclosed for range and average when there is no significant difference between the minimum, maximum and average. Amounts represent weighted averages except where simple averages and the median of the inputs when more relevant.

(2) Includes OTC derivative contracts with multiple risks (i.e., hybrid products).

The previous tables provide information on the valuation techniques, significant unobservable inputs, and the ranges and averages for each major category of assets and liabilities measured at fair value on a recurring basis with a significant Level 3 balance. The level of aggregation and breadth of products cause the range of inputs to be wide and not evenly distributed across the inventory of financial instruments. Further, the range of unobservable inputs may differ across firms in the financial services industry because of diversity in the types of products included in each firm's inventory. Generally, there are no predictable relationships between multiple significant unobservable inputs attributable to a given valuation technique.

During 2022, there were no significant revisions made to the descriptions of the Firm's significant unobservable inputs.

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 Company is long or short the exposure.

- **Correlation:** A pricing input where the payoff is driven by more than one underlying risk. Correlation is a measure of the relationship between the movement of two variables (i.e., how the change in one variable influences a change in the other variable).
- **Interest rate curve:** The term structure of interest rates (relationship between interest rates and the time to maturity) and a market's measure of future interest rates at the time of observation. An interest rate curve is used to set interest rate and foreign exchange derivative cash flows and is a pricing input used in the discounting of any OTC derivative cash flow.
- **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.

Financial Instruments Not Measured at Fair Value

	At December 31, 2022				
	Carrying Value	Fair Value Level			Total
		Level 1	Level 2	Level 3	
Financial Assets					
Cash	\$ 1	\$ 1	\$ —	\$ —	1
Receivables:					
Broker dealers	76	—	76	—	76
Notes receivable from Parent	37,015	—	37,015	—	37,015
Intercompany from Parent	131	—	132	—	132
Financial Liabilities					
Payables: ⁽¹⁾					
Broker dealers	\$ 128	\$ —	\$ 128	\$ —	128
Intercompany to Parent	20	—	20	—	20
Borrowings	207	—	207	—	207

	At December 31, 2021				
	Carrying Value	Fair Value Level			Total
		Level 1	Level 2	Level 3	
Financial Assets					
Cash	\$ 5	\$ 5	\$ —	\$ —	5
Receivables:					
Broker dealers	14	—	14	—	14
Notes receivable from Parent	27,977	—	27,977	—	27,977
Intercompany from Parent	134	—	136	—	136
Financial Liabilities					
Payables: ⁽¹⁾					
Broker dealers	\$ 64	\$ —	\$ 64	\$ —	64
Borrowings	128	—	128	—	128

(1) Accrued interest payables have been excluded. Carrying value approximates fair value for these payables.

5. Fair Value Option

The Company elected the fair value option for Borrowings (structured notes) 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 Revenues from Borrowings under the Fair Value Option

	Trading Revenues	Interest Expense	Net Revenues ⁽²⁾
2022			
Borrowings ⁽¹⁾	\$ 5,295	\$ 109	\$ 5,186
2021			
Borrowings ⁽¹⁾	\$ (2,053)	\$ 72	\$ (2,125)

(1) Unrealized DVA gains (losses) are recorded in OCI and, when realized, in Trading revenues. For additional information, see Notes 2 and 9.

(2) Amounts do not reflect any gains or losses from related economic hedges.

Gains (losses) from changes in fair value are recorded in Trading revenues and are mainly attributable to movements in the reference price or index, interest rates, or foreign exchange rates.

Gains (Losses) due to Changes in Instrument-Specific Credit Risk

	Trading Revenues	OCI
2022		
Borrowings ⁽¹⁾	\$ 3	\$ 673
2021		
Borrowings ⁽¹⁾	\$ (13)	\$ 277

(1) Unrealized DVA gains (losses) are recorded in OCI and, when realized, in Trading revenues. For additional information, see Notes 2 and 9.

Borrowings Measured at Fair Value on a Recurring Basis

	At December 31, 2022	At December 31, 2021
Business Unit Responsible for Risk Management		
Equity	\$ 23,011	\$ 20,719
Interest rates	8,591	9,023
Foreign exchange	317	161
Commodities	361	114
Total	\$ 32,280	\$ 30,017

Difference between Contractual Principal and Fair Value ⁽¹⁾

	At December 31, 2022	At December 31, 2021
Borrowings ⁽²⁾	\$ 2,772	\$ 311

(1) Amounts indicate contractual principal greater than or (less than) fair value.

(2) Excludes borrowings (structured notes) where the repayment of the initial principal amount fluctuates based on changes in a reference price or index.

6. Derivative Instruments

The Company uses OTC swaps, forwards, options and other derivatives referencing, among other things, interest rates, currencies, commodity products, and equity securities as part of the hedging strategy for structured notes. The Company does not apply hedge accounting.

Fair Values and Notionals Derivative Contracts

	Bilateral OTC			
	At December 31, 2022			
	Assets		Liabilities	
	Fair Value	Notional ⁽¹⁾	Fair Value	Notional ⁽¹⁾
OTC Derivative contracts				
Equity	\$ 1,010	\$ 4,745	\$ 2,685	\$ 20,958
Interest rate	16	453	2,223	9,409
Foreign exchange	7	665	396	2,310
Commodity	11	38	26	334
Credit	—	—	1	27
Total gross OTC derivative contracts	1,044	5,901	5,331	33,038
Amounts offset				
Counterparty netting	(1,044)		(1,044)	
Total in Trading liabilities	\$ —		\$ 4,287	

Bilateral OTC
At December 31, 2021

	Assets		Liabilities	
	Fair Value	Notional ⁽¹⁾	Fair Value	Notional ⁽¹⁾
OTC Derivative contracts				
Equity	\$ 2,611	\$ 10,157	\$ 404	\$ 9,170
Interest rate	125	2,207	589	5,961
Foreign exchange	39	616	102	1,403
Commodity	8	50	1	55
Total gross OTC derivative contracts	2,783	13,030	1,096	16,589
Amounts offset				
Counterparty netting		(1,096)	(1,096)	
Total in Trading assets	\$ 1,687		\$ —	

1. The Company believes that the notional amounts of derivative contracts generally overstate its exposure. In most circumstances notional amounts are only used 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.

The table below summarizes realized and unrealized gains and losses, from derivative and non-derivative financial instruments, included in Trading revenues in the Statements of Comprehensive Income.

Trading Revenues by Product Type

	2022	2021
Equity contracts	\$ (468)	\$ (103)
Interest rate contracts	(170)	(40)
Foreign exchange contracts	29	9
Commodity contracts	(8)	(1)
Total Loss	\$ (617)	\$ (135)

7. Borrowings

Maturities and Terms of Borrowings

	Fixed Rate ⁽¹⁾	Variable Rate ⁽²⁾	At December 31, 2022	At December 31, 2021
Original maturities of one year or less				
Next 12 months	\$ 16	220	236	189
Original maturities greater than one year				
Due in 2022	\$ —	\$ —	\$ —	\$ 3,284
Due in 2023	216	4,789	5,005	4,644
Due in 2024	217	5,419	5,636	4,478
Due in 2025	237	3,556	3,793	1,977
Due in 2026	207	3,422	3,629	3,716
Due in 2027	297	3,612	3,909	1,218
Thereafter	3,642	6,637	10,279	10,639
Total	\$ 4,816	\$ 27,435	\$ 32,251	\$ 29,956
Total Borrowings	\$ 4,832	\$ 27,655	\$ 32,487	\$ 30,145
Weighted average coupon rate at period-end ⁽³⁾	3.39 %	N/M		

- (1) Fixed rate borrowings include instruments with step-up, step-down and zero coupon features.
- (2) Variable rate borrowings bear interest based on a variety of indices. Amounts include borrowings linked to equity, credit or other indices.
- (3) For the fixed rate borrowing, the weighted average coupon rate represents one issuance. Other issuances by the Company are primarily carried at fair value so weighted average coupon is not meaningful.

All of the Company's Borrowings are considered Senior Debt. For the year ended December 31, 2022 and December 31, 2021, the Company issued notes with a fair value of approximately \$14,689 and \$17,216 respectively.

Certain senior debt securities are denominated in various non-U.S. dollar currencies and primarily structured to provide a return that is linked to equity, credit, commodity or other indices (e.g., the consumer price index). Senior debt also may be

structured to be callable by the Company or extendible at the option of holders of the senior debt securities.

Senior Debt – Borrowings (structured notes). The Company's Borrowings primarily include structured notes carried and managed on a fair value basis. These include instruments whose payments and redemption values are linked to the performance of a specific index, a basket of stocks, a specific equity security, a commodity, a credit exposure or basket of credit exposures; and instruments with various interest-rate-related features including step-ups, step-downs, and zero coupons. Also included are unsecured contracts which are not classified as OTC derivatives because they fail net investment criteria. To minimize the exposure from such instruments, the Company has entered into various OTC derivative swap contracts and purchased options that effectively convert the borrowing costs into floating rates. The Company carries the entire Borrowings (structured notes) at fair value. The various OTC derivative swaps and purchased options used to economically hedge the embedded features are also carried at fair value. Changes in fair value related to the Borrowings (structured notes) and economic hedges are reported in Trading revenues. See Notes 2 and 4 for further information on Borrowings (structured notes).

8. Contingencies

Legal

In the normal course of business, the Company 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 global financial services institution. Certain of the actual or threatened legal actions include claims for substantial compensatory and/or punitive damages or claims for indeterminate amounts of damages. In some cases, the entities that would otherwise be the primary defendants in such cases are bankrupt or are in financial distress.

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

The Company 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 Company can reasonably estimate the amount of that loss, the Company 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, 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 by addressing novel or unsettled legal questions relevant to the proceedings or investigations in question, before a loss or additional loss or ranges of loss or ranges of additional loss can be reasonably estimated for a proceeding or investigation.

For certain other legal proceedings and investigations, the Company 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 will have a material adverse effect on the Company's financial statements as a whole.

9. Accumulated Other Comprehensive Income (Loss)

Changes in AOCI

	Debt Valuation
Balance at December 31, 2021	\$ (453)
Change in net DVA ⁽¹⁾	673
Balance at December 31, 2022	\$ 220
Balance at December 31, 2020	\$ (730)
Change in net DVA ⁽¹⁾	277
Balance at December 31, 2021	\$ (453)

(1) DVA represents the change in the fair value resulting from fluctuations in the Company's credit spreads and other credit factors related to liabilities carried at fair value.

10. Income Taxes

The Company is a single-member limited liability company that is treated as a disregarded entity for federal income tax purposes. The Company is included in the consolidated federal income tax return filed by the Parent. The Company is included in the combined state and local income tax returns with the Parent and certain other subsidiaries of the Parent. All current and deferred taxes have been accrued by the Parent.

11. Subsequent Events

The Company has evaluated subsequent events for adjustment to or disclosure in the financial statements through April 13th, 2023, the date on which the financial statements are available to be issued, and the Company has not identified any recordable or disclosable events, not otherwise reported in the financial statements or the notes thereto.

Glossary of Common Terms and Acronyms

AOCI	Accumulated other comprehensive income (loss)
The Company	Morgan Stanley Finance LLC
DVA	Debt Valuation Adjustment
FASB	Financial Accounting Standards Board
MRM	Model Risk Management Department
N/M	Not Meaningful
OCI	Other comprehensive income (loss)
OTC	Over-the-counter
The Parent	Morgan Stanley
S&P	Standard & Poor's
SEC	U.S. Securities and Exchange Commission
U.S.	United States of America
U.S. GAAP	Accounting principles generally accepted in the United States of America