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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K

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

For the fiscal year ended December 31, 2023

or

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

For the transition period from _____ to _____

Commission file number: 001-34774

Cboe Global Markets, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware	**20-5446972**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
433 West Van Buren Street Chicago, Illinois	**60607**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code
(312) 786-5600

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

Title of Each Class	**Trading Symbol (s)**	**Name of Exchange on Which Registered**
Common Stock, par value $0.01 per share	CBOE	CboeBZX

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

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

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

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

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

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

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

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

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

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

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

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

As of June 30, 2023, the aggregate market value of the Registrant's outstanding voting common equity held by non-affiliates was approximately $14.2 billion based on the closing price of $138.01 per share of common stock.

The number of outstanding shares of the registrant's common stock as of February 9, 2024 was 105,581,561 shares of common stock.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of Cboe Global Market's Definitive Proxy Statement for the 2024 Annual Meeting of Stockholders, which will be filed no later than 120 days after December 31, 2023, are incorporated by reference in Part III.

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CBOE GLOBAL MARKETS, INC.
2023 FORM 10-K

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CERTAIN DEFINED TERMS

Throughout this document, unless otherwise specified or the context so requires:

- "Cboe," "we," "us," "our" or "the Company" refers to Cboe Global Markets, Inc. and its subsidiaries.
- "ADV" means average daily volume.
- "ADNV" means average daily notional value.
- "AFM" refers to the Netherlands Authority for the Financial Markets.
- "ATS" refers to an alternative trading system.
- "Bats Global Markets" and "Bats" refer to our wholly-owned subsidiary Bats Global Markets, Inc., now known as Cboe Bats, LLC, and its subsidiaries.
- "BIDS Trading" refers to BIDS Trading, L.P., a wholly-owned subsidiary of Cboe Global Markets, Inc. The ATS operated by BIDS Trading is not a registered national securities exchange or a facility thereof.
- "BYX" refers to Cboe BYX Exchange, Inc., a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "BZX" refers to Cboe BZX Exchange, Inc., a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "C2" refers to Cboe C2 Exchange, Inc. a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "Cboe Asia Pacific" refers to Cboe Asia Pacific Holdings Limited (formerly known as Chi-X Asia Pacific Holdings Limited), a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "Cboe Australia" refers to Cboe Australia Pty Ltd. (formerly known as Chi-X Australia Pty. Ltd.), a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "Cboe Canada" refers to the former Aequitas Innovations, Inc. and Neo Exchange Inc. (commonly referred to as "NEO Exchange"), which were wholly-owned subsidiaries of Cboe Global Markets, Inc.
- "Cboe Canada Inc." is a wholly-owned subsidiary of Cboe Global Markets, Inc. and a recognized Canadian securities exchange. As of January 1, 2024, the Cboe Canada and MATCHNow entities have been amalgamated into Cboe Canada Inc.
- "Cboe Chi-X Europe" refers to Cboe Chi-X Europe Limited, a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "Cboe Clear Digital" refers to Cboe Clear Digital, LLC (formerly known as Eris Clearing, LLC), a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "Cboe Clear Europe" refers to Cboe Clear Europe N.V. (formerly known as European Central Counterparty N.V., formerly defined as "EuroCCP"), a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "Cboe Digital" refers to Cboe Digital Intermediate Holdings, LLC (formerly known as Eris Digital Holdings, LLC) and its subsidiaries. Prior to rebranding under the Cboe Digital name, Eris Digital Holdings, LLC and its subsidiaries operated under the "ErisX" name.
- "Cboe Europe Equities and Derivatives" refers to the combined businesses of Cboe Europe and Cboe NL.
- "Cboe Europe" refers to Cboe Europe Limited, a wholly-owned subsidiary of Cboe Global Markets, Inc., the UK operator of our Multilateral Trading Facility ("MTF"), our Regulated Market ("RM"), and our Approved Publication Arrangement ("APA") under its Recognized Investment Exchange ("RIE") status.
- "Cboe Fixed Income" refers to Cboe Fixed Income Markets, LLC, a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "Cboe FX" refers to Cboe FX Markets, LLC, a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "Cboe Japan" refers to Cboe Japan Ltd. (formerly known as Chi-X Japan Ltd.), a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "Cboe NL" refers to Cboe Europe BV, a wholly-owned subsidiary of Cboe Global Markets, Inc., the Netherlands operator of our MTF, RM, and APA.
- "Cboe Options" refers to Cboe Exchange, Inc., a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "Cboe SEF" refers to Cboe SEF, LLC, a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "Cboe Trading" refers to Cboe Trading, Inc., a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "CFE" refers to Cboe Futures Exchange, LLC, a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "CFTC" refers to the U.S. Commodity Futures Trading Commission.
- "CSD Br" refers to CSD Central de Serviços de Registro e Depósito aos Mercados Financeiro e de Capitais S.A., a Brazilian trade repository.
- "CIRO" refers to the Canadian Investment Regulatory Organization.
- "EDGA" refers to Cboe EDGA Exchange, Inc., a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "EDGX" refers to Cboe EDGX Exchange, Inc., a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "ESMA" refers to the European Securities and Markets Authority.
- "Exchanges" refers to Cboe Options, C2, BZX, BYX, EDGX, and EDGA.

- “FASB” refers to the Financial Accounting Standards Board.
- “FCA” refers to the UK Financial Conduct Authority.
- “FINRA” refers to the Financial Industry Regulatory Authority.
- “GAAP” refers to Generally Accepted Accounting Principles in the United States.
- “MATCHNow” refers to the former TriAct Canada Marketplace LP, a wholly-owned subsidiary of Cboe Global Markets, Inc., which was the operator of a Canadian ATS (known as “MATCHNow”).
- “Merger” refers to our acquisition of Bats Global Markets, completed on February 28, 2017.
- “OCC” refers to The Options Clearing Corporation.
- “OPRA” refers to Options Price Reporting Authority, LLC.
- “SEC” refers to the U.S. Securities and Exchange Commission.
- “SPX” refers to our S&P 500 Index exchange-traded options products.
- “TPH” refers to either a Trading Permit Holder or a Trading Privilege Holder.
- “VIX futures” or “VIX options” refers, as applicable, to our Cboe Volatility Index exchange traded options and futures products.

TRADEMARK AND OTHER INFORMATION

Cboe®, Cboe Global Markets®, Cboe Clear®, Cboe LIS®, Bats®, BIDS Trading®, BYX®, BZX®, Cboe Volatility Index®, CFE®, EDGA®, EDGX®, ErisX®, EuroCCP®, Hybrid®, LiveVol®, MATCHNow®, NANO®, Options Institute®, Silexx®, VIX®, and XSP® are registered trademarks, and Cboe Futures Exchange℠, Cboe BIDS Europe℠, Cboe Digital℠, C2℠, f(t)options℠, Hanweck℠, Nanos by Cboe℠, The Exchange for the World Stage℠, Trade Alert℠, and VIX1D℠ are service marks of Cboe Global Markets, Inc. and its subsidiaries. Standard & Poor's®, S&P®, S&P 100®, S&P 500® and SPX® are registered trademarks and DSPX℠ is a service mark of Standard & Poor's Financial Services LLC and have been licensed for use by Cboe Exchange, Inc. Dow Jones®, Dow Jones Industrial Average®, DJIA® and Dow Jones Indices are registered trademarks or service marks of Dow Jones Trademark Holdings, LLC, used under license. Russell® and the Russell index names are registered trademarks of Frank Russell Company, used under license. FTSE® and the FTSE indices are trademarks and service marks of FTSE International Limited, used under license. All other trademarks and service marks are the property of their respective owners.

MSCI and the MSCI index names are service marks of MSCI Inc. (“MSCI”) or its affiliates and have been licensed for use by us. Any derivative indices and any financial products based on the derivative indices (“MCSI-Based Products”) are not sponsored, guaranteed or endorsed by MSCI, its affiliates or any other party involved in, or related to, making or compiling such MSCI index. Neither MSCI, its affiliates nor any other party involved in, or related to, making or compiling any MSCI index makes any representations regarding the advisability of investing in such MSCI-Based Products; makes any warranty, express or implied; or bears any liability as to the results to be obtained by any person or any entity from the use of any such MSCI index or any data included therein. No purchaser, seller or holder of any MSCI-Based Product, or any other person or entity, should use or refer to any MSCI trade name, trademark or service mark to sponsor, endorse, market or promote any security without first contacting MSCI to determine whether MSCI’s permission is required.

This Annual Report on Form 10-K includes market share and industry data that we obtained from industry publications and surveys, reports of governmental agencies and internal company surveys. Industry publications and surveys generally state that the information they contain has been obtained from sources believed to be reliable, but we cannot assure you that this information is accurate or complete. We have not independently verified any of the data from third-party sources nor have we ascertained the underlying economic assumptions relied upon therein. Statements as to our market position are based on the most currently available market data. While we are not aware of any misstatements regarding industry data presented herein, our estimates involve risks and uncertainties and are subject to change based on various factors. Please refer to the “Risk Factors” in Part I, Item 1A of this Annual Report on Form 10-K and our other filings with the SEC.

FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that involve a number of risks and uncertainties. You can identify these statements by forward-looking words such as "may," "might," "should," "expect," "plan," "anticipate," "believe," "estimate," "predict," "potential" or "continue," and the negative of these terms and other comparable terminology. All statements that reflect our expectations, assumptions or projections about the future other than statements of historical fact are forward-looking statements, including statements in "Business" and "Management's Discussion and Analysis of Financial Condition and Results of Operations." These forward-looking statements, which are subject to known and unknown risks, uncertainties and assumptions about us, may include projections of our future financial performance based on our growth strategies and anticipated trends in our business. These statements are only predictions based on our current expectations and projections about future events. There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from those expressed or implied by the forward-looking statements. In particular, you should consider the risks and uncertainties described under "Risk Factors" in this Annual Report and other filings with the SEC.

While we believe we have identified material risks, these risks and uncertainties are not exhaustive. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible to predict all risks and uncertainties, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

Some factors that could cause actual results to differ include:

- the loss of our right to exclusively list and trade certain index options and futures products;
- economic, political and market conditions;
- compliance with legal and regulatory obligations;
- price competition and consolidation in our industry;
- decreases in trading or clearing volumes, market data fees or a shift in the mix of products traded on our exchanges;
- legislative or regulatory changes or changes in tax regimes;
- our ability to protect our systems and communication networks from security vulnerabilities and breaches;
- our ability to attract and retain skilled management and other personnel;
- increasing competition by foreign and domestic entities;
- our dependence on and exposure to risk from third parties;
- global expansion of operations;
- factors that impact the quality and integrity of our and other applicable indices;
- our ability to manage our growth and strategic acquisitions or alliances effectively;
- our ability to operate our business without violating the intellectual property rights of others and the costs associated with protecting our intellectual property rights;
- our ability to minimize the risks, including our credit, counterparty, investment, and default risks, associated with operating a European clearinghouse;
- our ability to accommodate trading and clearing volume and transaction traffic, including significant increases, without failure or degradation of performance of our systems;
- misconduct by those who use our markets or our products or for whom we clear transactions;
- challenges to our use of open source software code;
- our ability to meet our compliance obligations, including managing potential conflicts between our regulatory responsibilities and our for-profit status;
- our ability to maintain BIDS Trading as an independently managed and operated trading venue, separate from and not integrated with our registered national securities exchanges;
- damage to our reputation;
- the ability of our compliance and risk management methods to effectively monitor and manage our risks;
- restrictions imposed by our debt obligations and our ability to make payments on or refinance our debt obligations;
- our ability to maintain an investment grade credit rating;
- impairment of our goodwill, long-lived assets, investments or intangible assets;
- the impacts of pandemics;
- the accuracy of our estimates and expectations;

- litigation risks and other liabilities; and
- operating a digital asset business, and clearinghouse, including the expected benefits of our Cboe Digital acquisition, cybercrime, changes in digital asset regulation, losses due to digital asset custody, and fluctuations in digital asset prices.

For a detailed discussion of these and other factors that might affect our performance, see Part I, Item 1A of this Report. We do not undertake, and expressly disclaim, any duty to update any forward-looking statement whether as a result of new information, future events or otherwise, except as required by law. We caution you not to place undue reliance on the forward-looking statements, which speak only as of the date of this filing.

PART I

Item 1. Business

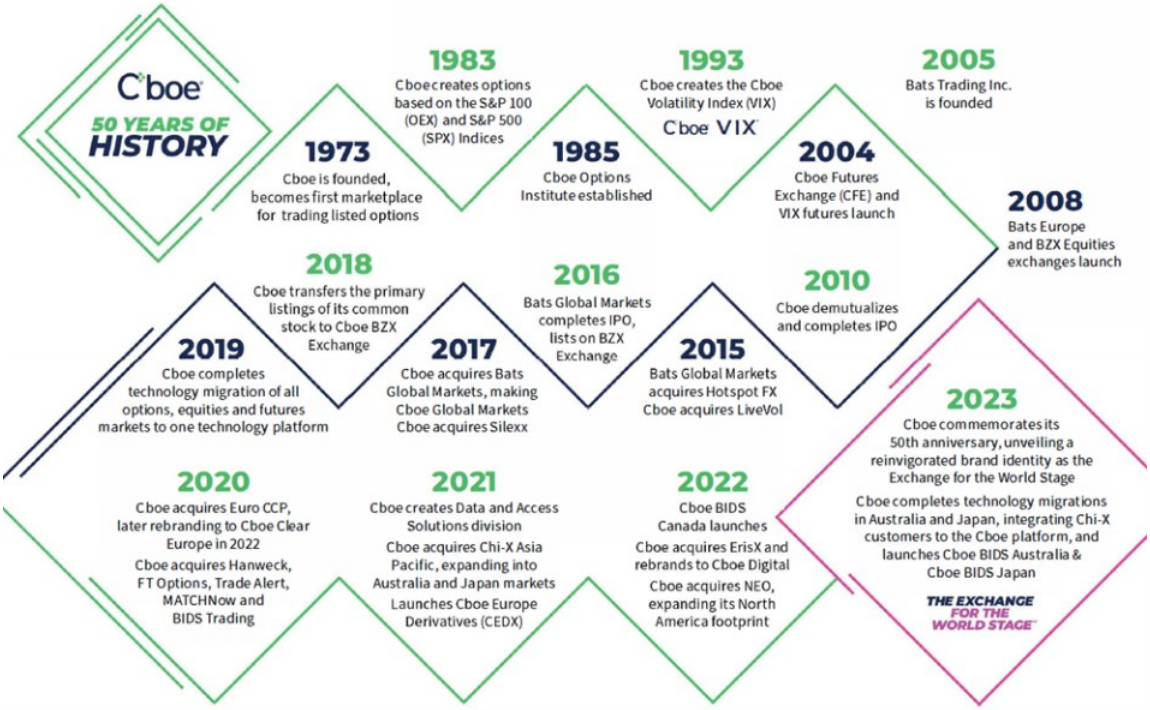
The following description of the business should be read in conjunction with the information included elsewhere in this Annual Report on Form 10-K for the year ended December 31, 2023. This description contains forward-looking statements that involve risks and uncertainties. Actual results could differ significantly from the results discussed in the forward-looking statements due to the factors set forth in "Risk Factors" and elsewhere in this Annual Report on Form 10-K.

Overview

Cboe Global Markets, Inc., the world's leading derivatives and securities exchange network, delivers cutting-edge trading, clearing and investment solutions to people around the world. Cboe provides trading solutions and products in multiple asset classes, including equities, derivatives, FX, and digital assets, across North America, Europe, and Asia Pacific. Above all, the Company is committed to building a trusted, inclusive global marketplace that enables people to pursue a sustainable financial future.

Cboe's subsidiaries include the largest options exchange and the third largest stock exchange operator in the U.S. In addition, the Company operates Cboe Europe, one of the largest stock exchanges by value traded in Europe, and owns Cboe Clear Europe, a leading pan-European equities and derivatives clearinghouse, BIDS Holdings, which owns a leading block-trading ATS by volume in the U.S., and provides block-trading services with Cboe market operators in Europe, Canada, Australia, and Japan, Cboe Australia, an operator of trading venues in Australia, Cboe Japan, an operator of trading venues in Japan, Cboe Digital, an operator of a U.S. based digital asset spot market and a regulated futures exchange, Cboe Clear Digital, an operator of a regulated clearinghouse, and Cboe Canada Inc., a recognized Canadian securities exchange. Cboe subsidiaries also serve collectively as a leading market globally for exchange-traded products ("ETPs") listings and trading.

The graphic below provides a brief overview of Cboe's history:



Our Business

Cboe reports on the following six business segments:

- **Options.** The Options segment includes options on market indices ("index options"), as well as on the stocks of individual corporations ("equity options") and on ETPs such as exchange-traded funds ("ETFs") and exchange-traded notes ("ETNs"), which are "multi-listed" options and listed on a non-exclusive basis. These options are eligible to trade, as applicable, on Cboe Options, C2, BZX, EDGX, and/or other U.S. national security exchanges. Cboe Options is the Company's primary options market and offers trading in listed options through a single system that integrates electronic trading and traditional open outcry trading on the Cboe Options trading floor in Chicago. C2 Options, BZX Options, and EDGX Options are all-electronic options exchanges, and typically operate with different market models and fee structures than Cboe Options. The Options segment also includes applicable market data fees revenues generated from the consolidated tape plans, the licensing of proprietary options market data, index licensing, routing services, and access and capacity services.

- **North American Equities.** The North American Equities segment includes U.S. equities and ETP transaction services that occur on fully electronic exchanges owned and operated by BZX, BYX, EDGX, and EDGA, equities transactions that occur on the BIDS Trading platform in the U.S. and Canada, and Canadian equities and other transaction services that occur on or through Cboe Canada Inc.'s order books. The North American Equities segment also includes listing services on Cboe Canada Inc., corporate and ETP listings on BZX, applicable market data fees revenues generated from the consolidated tape plans, the licensing of proprietary equities market data, routing services, and access and capacity services.

- **Europe and Asia Pacific.** The Europe and Asia Pacific segment includes the pan-European listed equities and derivatives transaction services, ETPs, exchange-traded commodities, and international depository receipts that are hosted on MTFs operated by Cboe Europe Equities (Cboe Europe and Cboe NL equities exchanges) and Cboe Europe Derivatives ("CEDX"). It also includes the ETP listings business on RMs and clearing activities of Cboe Clear Europe, as well as the equities transaction services of Cboe Australia and Cboe Japan, operators of trading venues in Australia and Japan, respectively, along with equities transactions that occur on the BIDS Trading platform in Australia and Japan. Cboe Europe operates lit and dark books, a periodic auctions book, and Cboe BIDS Europe, a Large-in-Scale ("LIS") trading negotiation facility for UK symbols. Cboe NL, launched in October 2019 and based in Amsterdam, operates similar business functionality to that offered by Cboe Europe, and provides for trading only in European Economic Area ("EEA") symbols. Cboe Europe Derivatives, a pan-European derivatives platform launched in September 2021, offers futures and options based on Cboe Europe equity indices, and single stock options. This segment also includes Cboe Europe, Cboe NL, CEDX, Cboe Australia and Cboe Japan revenue generated from the licensing of proprietary market data and from access and capacity services.

- **Futures.** The Futures segment includes transaction services provided by CFE, a fully electronic futures exchange, which includes offerings for trading of VIX futures and other futures products, the licensing of proprietary market data, as well as access and capacity services.

- **Global FX.** The Global FX segment includes institutional FX trading services that occur on the Cboe FX fully electronic trading platform, non-deliverable forward FX transactions ("NDFs") offered for execution on Cboe SEF, as well as revenue generated from the licensing of proprietary market data and from access and capacity services. The segment includes transaction services for U.S. government securities executed on the Cboe Fixed Income fully electronic trading platform.

- **Digital.** The Digital segment includes a U.S. based digital asset spot market, a regulated futures exchange, and a regulated clearinghouse, as well as revenue generated from the licensing of proprietary market data and from access and capacity services.

See "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Note 16 ("Segment Reporting") in the notes to our consolidated financial statements for discussion of revenues and certain operational and financial metrics, and operating income (or loss) by business segment. Certain activities within our segments operate globally. For information regarding risks related to our international operations see "Risk Factors."

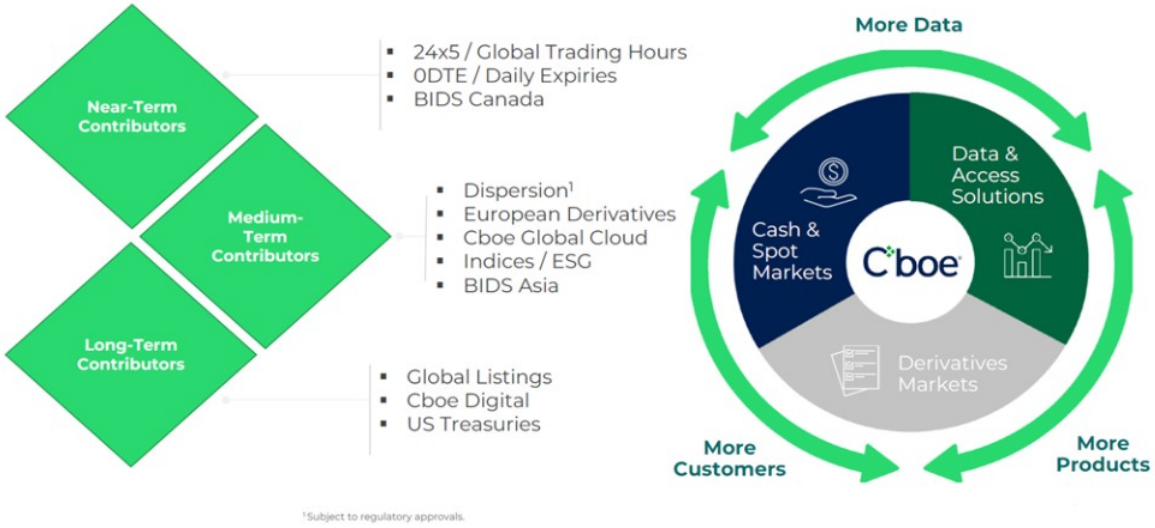
Executive Transitions

On July 6, 2023, Brian Schell, former Executive Vice President, Chief Financial Officer and Treasurer, announced his departure from the Company to pursue a new professional opportunity outside of the exchange industry. Jill Griebenow, Senior Vice President, Chief Accounting Officer, was appointed to serve as Executive Vice President, Chief Financial Officer, Treasurer and Chief Accounting Officer effective July 10, 2023, and currently serves as Executive Vice President, Chief Financial Officer.

On September 18, 2023 (the "Effective Date"), Edward T. Tilly, former Chief Executive Officer of the Company, resigned and voluntarily terminated his employment with the Company. Mr. Tilly also resigned as Chairman of the Company's Board of Directors, effective as of the Effective Date. Mr. Tilly's resignation followed the conclusion of an investigation led by the Board of Directors and outside independent counsel that was launched in late August 2023. The Board of Directors determined that Mr. Tilly did not disclose personal relationships with colleagues, which violated the Company's policies and stands in stark contrast to the Company's values. The conduct was not related to and does not impact the Company's strategy, financial performance, technology and market operations, financial reporting or internal controls over financial reporting. Following Mr. Tilly's resignation, Fredric J. Tomczyk, an existing director of the Company, was appointed as Chief Executive Officer of the Company, effective as of the Effective Date. As a result of Mr. Tomczyk's appointment as Chief Executive Officer, Mr. Tomczyk stepped down from the Board of Directors' Compensation Committee and Finance and Strategy Committee as of the Effective Date. Also as of the Effective Date, William M. Farrow III was appointed as non-executive Chairman of the Board of Directors (in substitution of his prior role as Lead Director of the Board of Directors).

Competitive Strengths

Cboe is a leading provider of market infrastructure and tradable products across cash and spot markets, derivatives markets, and data and access solutions. Cboe delivers cutting-edge trading, clearing and investment solutions across the globe through a comprehensive ecosystem that helps drive innovation and growth.



Key Growth Strategy Initiatives

Our strategy is to build one of the world's largest global derivatives and securities networks to create value and drive growth by:

- ***Innovating to capture growing demand for trading products and data services, globally.*** We plan to increase access to data products and trading solutions, provide unrivaled transaction capabilities, and have a global presence in the highest value markets. In 2023, we delivered on this initiative by expanding the use of zero days to expiry (0-DTE) products, expanding Cboe Global Indices to Europe, launching the 1-Day Volatility Index (VIX1D), designed to measure volatility over the current trading day, launching the Cboe S&P 500 Dispersion Index (DSPX), a volatility index designed to measure expected dispersion in the S&P 500 Index, launching new options on futures on two corporate bond index products, and launching four new Credit VIX Indices, designed to provide a VIX Index-like measures for credit market volatility.

- ***Unlocking the value capabilities of our ecosystems to increase efficiency and better serve customers.*** We aim to unlock the value, capabilities, and efficiencies of our ecosystems to increase efficiency and utilize our client coordination model to better serve our customers. We leverage industry-leading technology, apply a non-siloed integration approach to expand ecosystems and fuel our flywheel and generate strong free cash flow as we improve operating efficiency. In 2023, we delivered on this initiative by completing the migration of Cboe Australia and Cboe Japan to the Cboe technology platform, launching BIDS in Australia and Japan, successfully integrating Cboe Canada (which was the trade name of the former Aequitas Innovations Inc. and Neo Exchange Inc.) and the MATCHNow ATS into Cboe Canada Inc., a recognized Canadian securities exchange, and launching the Cboe Theoretical Options Pricing Service.

- ***Growing by accessing untapped addressable markets.*** We are expanding and diversifying our revenue opportunity set through organic investment and merger and acquisition activity. In 2023, we delivered on this initiative by expanding into pan-European single stock options and completing phase 1 of our initiative to offer options on leading European companies, adding extended trading hours for corporate bond index futures, developing plans to introduce a clearing service for securities financing transactions through Cboe Clear Europe, announcing and then launching in January 2024 margined futures on Bitcoin and Ether, Cboe FX successfully trading U.S. Treasury products, and launching Cboe Global Listings, the first-of-its-kind, global listing network facilitating worldwide access to capital and secondary liquidity for companies and ETFs, and successfully attracting its first intralisted corporate issuer to the global platform.

Proprietary Products

In addition to operating cash and spot markets and derivative markets, and providing data and access solutions, we are a leader in the volatility space with the proprietary products we offer for trading. These proprietary products are built through Cboe Labs, a dedicated team centered on the creation, development, and implementation of new ideas and our strategic relationships and license agreements with index providers, which are both described below in further detail. Our most frequently traded proprietary products include SPX options and VIX options and futures.

SPX Options

The S&P 500 Index is an index comprised of 500 large-cap U.S. listed companies. It is one of the most commonly followed indices and is considered a bellwether for the U.S. economy. The SPX options we offer on the S&P 500 Index are exclusive to Cboe and contribute substantially to our volumes and transaction fees. Because of the S&P 500 Index's status as a bellwether, SPX options are used in many different trading strategies by customers with different goals, including pension funds hedging their equity exposure by buying put options, asset managers seeking enhanced returns by selling covered call options and hedge funds using risk-managed strategies to capture so-called "risk premia" embedded in option prices. We also offer zero days to expiry (0-DTE) products, Mini- and Nano-SPX options, FLEX- and FLEX micro-SPX options, and SPX Weeklys options, which have settlements on Mondays, Tuesdays, Wednesdays, Thursdays, Fridays and on the last trading day of each month and 24x5 trading in SPX options. We believe these additional expirations provide customers with more precision when hedging overall portfolio risk.

Volatility Trading

Cboe pioneered the trading of exchange-traded volatility products with its introduction of VIX futures in 2004 and VIX options in 2006. The VIX Index (as defined below), although not directly tradable, is based on the mid-point of real-time

quotes of SPX options and is designed to reflect investors' consensus view of future 30-day expected stock market volatility. The VIX Index methodology provides the basis for the creation of VIX options and futures. The final settlement value of VIX options and futures is determined on their expiration date through a Special Opening Quotation ("SOQ") of the VIX Index. The SOQ calculation uses opening trade prices of selected options; unless there is no opening price, in which case the opening price used in the SOQ calculation is the midpoint of the highest bid and lowest offer at the time of the opening. Since we started offering these products, we have seen trading from a number of different customer segments utilizing a number of different trading strategies, including hedging extreme stock market declines, also known as "tail risk" hedging, and risk-managed strategies that seek to capture the relative price changes of expected volatility at different times in the future. We also offer the 1-Day Volatility Index (VIX1D), VIX Weeklys options and futures, mini VIX futures, and 24x5 trading in VIX options and futures to provide investors with additional tools to trade volatility.

Proprietary Indices

We also calculate and disseminate proprietary indices that are licensed for use by third parties or are used as the basis for Cboe proprietary products. These proprietary indices are built both through our in-house research and development staff of the Data and Access Solutions business and our strategic relationships and license agreements with index providers, which are both described below in further detail. Our proprietary indices include:

- volatility indices based on broad-based market indices, such as the S&P 500 and the Russell 2000,
- volatility indices based on ETFs, and
- options strategy benchmark indices, such as the Cboe BuyWrite, PutWrite and Collar indices based on the S&P 500 and Russell 2000, BuyWrite and PutWrite indices based on MSCI EAFE and MSCI Emerging Markets indices, and BuyWrite indices based on other broad-based market indices.

In addition to any transaction fee revenue generated from trading of products based on these indices on Cboe exchanges, we distribute these indices through the Cboe Global Index Feed index data subscription service and, together with index providers with whom we have strategic relationships, we license proprietary indices for third parties to use to create third-party indices and products. Accordingly, we generate revenue from proprietary indices by distributing them for reference purposes, using them as the basis for proprietary products and licensing them for use for third-party indices and products.

Strategic Index Provider Relationships

The Company has long-term business relationships with several providers of market indices. We license their indices, including on an exclusive basis, as the foundation for indices, index options and other products. The Company also agrees to work jointly with key providers to develop new products and services that are expected to capitalize on our core competencies and diversify our sources of revenue. Of particular note are the following:

- ***S&P Global.*** We have the following licensing arrangements with S&P Global, Inc. subsidiaries:
    - ***S&P Dow Jones Indices.*** We have the exclusive right to offer exchange-listed options contracts in the United States on the S&P 500 Index, the S&P 100 Index, the S&P 500 ESG Index, and the S&P Select Sector Indices as a result of a licensing arrangement with S&P Dow Jones Indices, LLC ("S&P"). Our license from S&P is through December 31, 2033, with an exclusive license to trade options on the S&P 500 Index through December 31, 2032. We use the market data from the trading of options on the S&P 500 Index and S&P 100 Index for the creation of Cboe volatility indices, such as the Cboe Volatility Index ("VIX Index"), and to create tradable products on those volatility indices.
    - ***IHS Markit.*** Under our licensing agreement with IHS Markit Ltd. (acquired by S&P Global in 2022), we have a worldwide license through August 23, 2025 to offer options and futures on indices designed to reflect values of investment grade and high-yield U.S. corporate bonds. Unless either party elects otherwise, this agreement auto-renews for successive two-year periods. We offer futures and options on futures on high yield and investment grade corporate bond indices.
    - ***DJI Opco.*** We have the exclusive right during standard U.S. trading hours to offer listed options contracts in the United States on the Dow Jones Industrial Average ("DJIA") and Dow 10 Index, and

non-exclusive rights to offer listed options on several other Dow Jones indices including the Dow Jones Utilities Average and Dow Jones Transportation Average. This licensing arrangement with DJI Opco, LLC (acquired by S&P in 2012) extends through December 31, 2033. We use market data from the trading of options on these indices to create Cboe volatility indices, variance indicators and BuyWrite indices, and we trade options and other products on these indices.

- ***FTSE Russell.*** Under our license agreement with the London Stock Exchange Group's ("LSEG") leading global index franchises, Frank Russell Company and FTSE International Limited (together "FTSE Russell"), we have the exclusive or first right in the United States to offer listed options on more than two dozen FTSE Russell indices, which represent a diverse group of domestic and global equities with international appeal. Our exclusive license from FTSE Russell is through April 1, 2030. We offer options on the Russell 2000, Russell 1000, Russell 1000 Value and Russell 1000 Growth indices and mini-options on the Russell 2000 Index.

- ***MSCI.*** We have an agreement with MSCI Inc. ("MSCI") until December 31, 2031 in which we have the right to offer U.S.-listed options on several of MSCI's indices including the MSCI EAFE and MSCI Emerging Markets indices. We use market data from the trading of the MSCI EAFE and MSCI Emerging Markets index options (among other inputs) to calculate volatility indices and several versions of BuyWrite and PutWrite strategy indices.

Data and Access Solutions

The Data and Access Solutions business provides an offering of market data and information solutions products across multiple asset classes and geographic regions that are designed to suit our customers' diverse needs. The Data and Access Solutions business consists of three product groups:

- **Market Data and Access Services.** Data products include real-time depth of book quotation information, auction and complex option information, top of book quotes and trades, last sale information, and consolidated equity feeds. In addition to market data, access services include all access and capacity products including connectivity, terminal and other equipment rights, maintenance services, trading floor space and permits for the opportunity to trade.

- **Cboe Global Indices.** Services include index creation, calculation, licensing, and data dissemination. In addition to index data dissemination, through Cboe's Global Indices platform, we distribute real-time cryptocurrency prices and indicative net asset values. See above for additional information regarding our proprietary indices.

- **Risk and Market Analytics.** Services include analytics and historical data with three areas of focus:

    - **Data and Market Analytics.** Services include aggregated equity and derivative market statistics, theoretical values, trading indicators, portfolio and margin risk, scenarios, and historical data from Cboe's markets as well as third-party consolidated data.

    - **Front-End Platforms.** Cboe provides multiple trading solutions and services including Cboe Silexx, LiveVol Pro, FT Options and Trade Alert.

    - **Connectivity.** Services include FIX Order Routing, Trade Drop Copy Network, consolidated audit trail ("CAT") reporting, and broker connectivity.

We provide data services to market participants globally through a number of distribution channels including direct, via our vendor partners and Cboe Global Cloud, which is our global cloud data distribution service.

U.S. Tape Plans

We also derive a portion of our revenue from market data fees from U.S. tape plans, including Unlisted Trading Privileges ("UTPs"), the Consolidated Tape Association ("CTA") and OPRA. Fees, net of plan costs, from UTP, CTA, and OPRA are allocated and distributed to plan participants like us according to their share of tape fees based on a formula, required by Regulation NMS, which may take into account both trading and quoting activity.

Our Market Models

We operate a variety of derivatives and cash and spot markets. Our markets use a combination of pricing and market models to differentiate them from each other and from our competitors.

For our U.S. derivatives options markets, Cboe Options is a hybrid market combining open outcry floor trading with electronic trading. For multi-listed products, we utilize public customer priority, market turner in certain products, participation rights and pro-rata allocation market models, combined with the "classic" pricing model. Under the classic pricing model, professional participants pay transaction fees, public customers generally do not pay transaction fees and market makers compensate brokers for sending order flow to the exchange (known as payment for order flow). For proprietary products, we use price-time or pro-rata allocation, sometimes with public customer priority, and market turner market models, combined with a pricing model where all market participants generally pay fees. Our other three options markets are fully electronic. BZX options utilizes a price-time market model, combined with a "maker-taker" pricing model. Under the maker-taker pricing model, market participants who make the market (a "maker") generally receive a rebate, while market participants who trade against those markets (a "taker") pay a transaction fee. EDGX options utilizes customer priority, participation rights and pro-rata allocation market models, combined with the classic pricing model. C2 options utilizes a pro-rata allocation market model, combined with the maker-taker pricing model.

For CFE's U.S. derivatives futures market, which is fully electronic, CFE utilizes a price-time market model, combined with a pricing model where all market participants generally pay fees, subject to specified exceptions.

For our U.S. cash and spot markets, the U.S. equities exchanges, which are fully electronic, offer various market models. BZX equities utilizes a price-time market model, combined with the maker-taker pricing model. EDGX equities utilizes a price-time with retail priority market model, combined with the maker-taker pricing model. BYX equities utilizes a price-time with price improvement for retail customers market model, combined with the "taker-maker" pricing model. Under the taker-maker pricing model, market participants who make the market pay a transaction fee, while market participants who trade against those markets receive a rebate. EDGA equities utilizes a price-time market model, combined with a taker-maker pricing model. In addition to these market models, each of the U.S. equity exchanges provides numerous specific order types that are designed to enhance their respective market models.

For our cash and spot markets, BIDS Trading, the U.S. equities ATS market, which is fully electronic and is an independently managed and operated trading venue, separate from and not integrated with the Exchanges, utilizes a sponsored access model to provide anonymous executions in NMS stocks. BIDS Trading provides numerous order types, including both firm and conditional orders. All orders matched within BIDS Trading are executed at or better than the National Best Bid and Offer ("NBBO"). BIDS Trading charges fees based on disclosed, objective criteria: (i) means of access; (ii) the type of order; and (iii) the total volume of executions during the calendar month. Cboe and BIDS Trading collaborate in operating similar venues with our cash and spot markets in Australia, Canada, Europe, and Japan.

In Canada, for our cash and spot markets, Cboe Canada Inc., a recognized Canadian securities exchange, which is fully electronic, offers four order books: NEO-L, which provides resting orders with priority over high-frequency orders and combines a maker-taker pricing model with a NEO trader priority; NEO-N, which prioritizes larger resting orders over smaller orders, imposes a speed bump, and displays volume aggregate by price, with a taker-maker pricing model; NEO-D, which allows participants to submit marketable and resting orders with specified parameters and NEO trader priority with size-time priority, with a taker-maker pricing model; and MATCHNow, which combines frequent call matches and continuous execution opportunities in a confidential trading book, using real-time quotes for protected transparent Canadian markets, accepting both firm and conditional orders, and matching firm orders at three levels of price improvement. Trading fees are typically calculated as a function of trade volume and share price.

In Europe, we operate a number of market models, including continuous Lit orderbooks, periodic auction orderbooks, dark midpoint orderbooks, a post-closing cross, as well as BIDS Europe. Fees are typically charged on an ad valorem basis based on traded notional value, and are differentiated by orderbook, by order type, by monthly value traded, and in the case of Lit orderbooks by liquidity providing/taking orders where (on a subset of orderbooks) a rebate may be paid to the provider of passive liquidity. Following the implementation of the Directive on Markets in Financial Instruments (Directive 2014/65/EU) ("MiFID II"), for the derivatives and cash and spot markets, rebates are generally available if they are tied to a market making scheme or specific service.

In Australia, for our derivatives and cash and spot markets, Cboe Australia, a regulated stock exchange, which is fully electronic, utilizes a model that charges a different ad valorem fee rate depending on whether a participant is making or

taking liquidity. Fee waivers are also provided to participants registered as market makers, but payments for order flow are prohibited.

In Japan, for our cash and spot markets, Cboe Japan, offers two fully electronic displayed markets, Cboe-Alpha, which utilizes a price-time market model, combined with the "maker-taker" pricing model and Cboe-Select, which utilizes a price-time retail customers focused market model, combined with the "taker-maker" pricing model. Cboe Japan also offers two fully electronic non-displayed markets, Cboe-Match, which matches volume-weighted average price ("VWAP") orders during pre-market hours and Cboe BIDS Japan, which utilizes a price-time market model aiming for primary market mid-point trades.

For our FX spot markets, the Cboe FX platform utilizes a price-firmness-time priority market model, combined with a pricing model where users are charged either a flat or tiered commission rate based upon the notional amount traded on the platform. For our FX NDF markets, Cboe SEF utilizes a price-firmness-time priority market model and charge a flat commission based upon the notional amount traded on the platform and the capacity in which a participant is trading. Cboe Digital, which is fully electronic, for our digital asset spot and futures markets, utilizes a price-time priority model.

Our markets also charge fees for the opportunity to trade or access our markets, including fees for trading-related functionality. To facilitate trading, we also charge fees for certain technology services, terminal and other equipment rights, maintenance services, trading floor space and telecommunications services.

Listing

Cboe operates five listing venues across the globe that are structured and designed, in the U.S. and Canada, for all types of equity instruments, such as ETPs, corporate securities, warrants and depositary receipts, while in the UK and EU they support ETPs only. In Australia, both ETPs and warrants are supported. Over the course of 2023, Cboe added approximately 800 listings across the globe and had approximately 2,080 listings for the year ended December 31, 2023. Cboe also launched Cboe Global Listings in June of 2023, the first-of-its-kind, global listing network facilitating worldwide access to capital and secondary liquidity for companies and ETFs, and successfully attracted its first intralisted corporate issuer to the global platform.

Clearing

Our subsidiary Cboe Clear Europe, a European central counterparty ("CCP"), provides post-trade clearing services, to stock exchanges, multilateral trading facilities and for over-the-counter equities trades and exchange-traded derivatives trades. Cboe Clear Europe acts as a central counterparty that, for its clearing participants, becomes the buyer to every seller and the seller to every buyer. As a result, it guarantees the timely performance of the settlement obligations of buyers and sellers and takes on the risk of the performance of the transactions that it clears. Additionally, as a Financial Market Infrastructure, Cboe Clear Europe is subject to strict business continuity requirements and regulatory oversight. In 2023, Cboe Clear Europe provided CCP protection for an average of €44 billion of cleared value on a daily basis. Through the process of netting, in 2023, Cboe Clear Europe eliminated 71%, or €31 billion of the average daily cleared value, leaving an average daily settlement value of €13 billion. In 2022, Cboe Clear Europe provided CCP protection for an average of €48 billion of cleared value on a daily basis. Through the process of netting, in 2022, Cboe Clear Europe eliminated 71%, or €34 billion of the average daily cleared value, leaving an average daily settlement value of €14 billion.

Cboe Clear Digital is a digital asset clearinghouse and central counterparty that provides clearing and settlement of digital asset trades for its affiliate, Cboe Digital Exchange. Cboe Clear Digital clears cryptocurrencies from 50 U.S. jurisdictions authorized by license or not subject to licensing. In 2023, Cboe Clear Digital cleared $18 billion in notional volume. In 2022, for the period subsequent to the acquisition, Cboe Clear Digital cleared $4 billion in notional volume.

Customers

Our customers generally include financial institutions, trading platforms, institutional and individual investors, and professional traders. Our equities and options customers in the United States include trading permit holders and members (as applicable) of Cboe Options, C2, BZX, BYX, EDGX, and EDGA, which are SEC-registered broker-dealers, and the customers of those broker-dealers. Our Canadian equities customers include members of Cboe Canada Inc., which are Canadian registered investment dealers. Our Australian customers include trading participants of Cboe Australia, which are Australian registered investment dealers, and certain clients of those dealers. Our Japanese customers include participants of Cboe-Alpha, Cboe-Select, Cboe-Match and Cboe BIDS Japan, which are Japanese registered broker-dealers, and certain clients of those dealers. Our ATS equities participants in the United States include subscribers of

BIDS Trading, which are SEC-registered broker-dealers, and certain customers of those broker-dealers. Our futures customers include banks, futures commission merchants and their customers, hedge funds, asset managers, proprietary trading firms, and Commodity Trading Advisors. Similarly, our equities' customers in Europe are European Union ("EU") regulated brokerage and proprietary trading firms, as well as sponsored access clients of these brokerage firms and certain non-EU regulated and unregulated direct access participants. Cboe Clear Europe clears equities, equity like instruments traded on 47 European trading segments. Cboe Clear Europe also clears equity derivative instruments traded on Cboe NL. Cboe Clear Europe clearing participants include EEA regulated banks and brokerage trading firms. Our institutional global FX customers include banks, broker-dealers, hedge funds, asset managers, proprietary trading firms, Commodity Trading Advisors, and corporates. Our digital asset customers in the U.S. include SEC-registered broker-dealers, the customers of those broker-dealers, financial institutions, trading platforms, institutional and individual investors, futures commission merchants, introducing brokers, and professional traders. Access to our markets and trading rights and privileges depend upon the nature of the customer, such as whether the individual or firm is (or is eligible to become) a trading permit holder, trading privilege holder, member, participant, or subscriber of one of our markets.

Competition

The industry in which we operate is intensely competitive. We believe we face competition on a number of factors, including:

- price, quality and speed of our trade and clearing execution;
- functionality and ease of use of our trading and clearing platforms;
- reliability, integrity, range and functionality of our products and services;
- integrity of our marketplaces;
- technological innovation and adaption;
- our brand awareness; and
- our reputation.

We believe that we compete favorably with respect to these factors through a variety of methods, including:

- offering access to a broad array of products and services, including proprietary products and market data;
- offering fee schedules and pricing models that both attract order flow and provide incentives to liquidity providers;
- providing advanced technology that offers broad functionality, low latency, fast execution, ease of use, scalability, reliability and security;
- offering efficient, transparent and liquid marketplaces;
- offering deep and liquid markets with opportunities for price improvement;
- offering broad trading platform access in the EU;
- offering efficient and transparent clearing services designed to help maximize netting opportunities;
- maintaining close relationships with customers; and
- providing customers with a comprehensive source of information on options and ETPs as well as extensive options education.

In our proprietary products, we compete against other futures exchanges and swap execution facilities that offer similar products, as well as against financial market participants that offer similar over-the-counter derivatives. We also compete against certain multi-listed options products, such as SPY options and cash settled index options, which may offer similar market exposure of our proprietary products, such as SPX options.

The multi-listed options industry is extremely competitive. We expect this trend to continue. As of December 31, 2023, our four options exchanges compete with 13 other U.S. options exchanges, in large part due to existing exchange holding companies opening new exchanges that offer different markets and pricing models on existing technology. Most of the equity and ETP options listed and traded on our exchanges are also listed and traded on the other exchanges. In addition, the options exchanges that we compete with set fees and rebates to attract multi-listed options business to their exchanges, which has historically reduced the net revenue per contract that we generate from multi-listed options, and the options exchanges that we compete with structure their options businesses in partnership with established market participants, such as consolidators, and other order flow providers, to increase their volume traded.

Our U.S. equities and the BIDS Trading ATS compete against 12 other equities exchanges as of December 31, 2023, and over 25 other ATSs and single dealer platforms. Market participants have multiple venues for the execution of orders, including national securities exchanges and numerous off-exchange venues, including other ATSs and broker-dealers that internalize orders off-exchange. Additionally, corporate and ETP issuers have multiple venues they can choose from in the listing of their products. In Canada, our recognized Canadian securities exchange, Cboe Canada Inc., competes with several Canadian exchanges and ATSs. In Australia, our exchange, Cboe Australia, competes with other Australian exchanges and ATSs. In Japan, our equities exchanges and ATSs, compete with several Japanese exchanges and other ATSs.

The market for execution and clearing services in Europe became more competitive following the introduction of MiFID II and the Regulation on Markets in Financial Instruments (Regulation (EU) No 600/2014) ("MiFIR"). Our major competitors in Europe include national stock exchanges, other pan-European MTFs, systematic internalizers, and other European clearinghouses.

The global FX market remains severely fragmented, with transparent automated marketplaces such as Cboe FX challenging a small number of similarly situated competitors. While the global FX market has experienced a shift from competing interbank platforms to ECNs, the electronification of the spot and NDF FX market may encounter resistance from customers that still prefer to utilize the phone, instant chats, terminals and key banking relationships for price discovery and trading. Furthermore, electronification of the FX market appears to be experiencing more resistance outside the U.S. The electronic spot FX market is also intensely competitive, with over 10 other venues competing for market share as of December 31, 2023. Cboe measures and reports on market share against a narrower set of competitors, included in those venues.

Our digital asset spot market, regulated futures exchange, and regulated clearinghouse, compete against other spot trading platforms, futures exchanges, and decentralized trading platforms that offer similar instruments.

In addition, our data and access solutions face competition from other securities exchanges, technology companies, third-party market data providers, and information and software vendors, which have their own substantial market data distribution capabilities that serve as alternative means for receiving open market data feeds instead of connecting directly to our exchanges or trading venues. The sale of our proprietary data products is also under competitive threat from ATSs and trading venues that offer similar products. Distributors and consumers of our market data may also use our market data as an input into a product that competes against one of our traded or cleared products.

Technology

Cboe Trading Technology

The trading platform for our equities, options, and futures markets is developed, owned, and operated in-house and is designed to optimize reliability, speed, scalability, and versatility. Our exchanges provide different market models, appealing to different user bases, and the trading technologies support all of them. Further, the technologies are designed to support many specialized features for each of the markets, such as: dark pools, trade reporting facility, systematic internalizer, Large-in-Scale, smart order routing, FLEX options, 24x5 trading, and hybrid trading (combining electronic and open outcry). In addition, Cboe and its applicable subsidiaries operate separate trading and/or clearing platforms, as applicable, for BIDS Trading, certain Cboe Canada Inc. order books, Cboe Digital, Cboe Clear Europe, and Global FX.

Our trading platforms have generally experienced very low operational downtime and low latency. The trading platforms use readily available hardware, thereby minimizing capital outlays required for each new market entry. Also, in order to continue to implement new enhancements to our trading platforms, new releases of software are generally deployed routinely in all of the applicable markets.

Disaster Recovery

We operate and maintain geographically diverse disaster recovery facilities for all of our markets. We expect that the disaster recovery facilities can be up and running in a short period of time and in certain instances we work with our market participants to try to quickly reopen marketplaces. We regularly test our data center recovery plans and periodically carry out weekend tests using our back-up data centers, as well as an annual test with our U.S. trading participants. In Canada, as required by local regulations, Cboe Canada Inc. conducts internal testing of its disaster recovery data processing capabilities at least annually, and it participates in the bi-annual testing coordinated by CIRO. Cboe Australia and Cboe Japan conduct internal testing of their disaster recovery data processing capabilities at least annually. In Europe, we also regularly test our data center recovery plans and periodically carry out weekend tests which

use our back-up data center, as well as an annual test with our European trading participants. We continue to work to improve both the availability of our technology and our disaster recovery facilities.

Emerging Technologies

We are exploring the potential use of new technologies, such as artificial intelligence ("AI"), machine learning, blockchain, distributed ledger technology, quantum computing, tokenization, the cloud, and other emerging technologies to potentially help drive new products, increase productivity, improve our self-regulatory oversight responsibilities, and increase automation of tasks.

Routing and Clearing

OCC is the sole provider of clearing on all of our U.S. options exchanges and CFE. National Securities Clearing Corporation ("NSCC"), a subsidiary of the Depository Trust and Clearing Corporation ("DTC"), is the sole provider of clearing on our U.S. listed equity exchanges. The Canadian Depository for Securities ("CDS") is the sole provider of clearing on all equities transactions occurring on Cboe Canada Inc. With respect to Australian equities and derivatives, Cboe Australia delivers matched trades of its customers to ASX Clear Pty Ltd and ASX Settlement Pty Ltd. ASX Clear Pty Ltd acts as a central counterparty on all transactions occurring on Cboe Australia. The Japan Securities Clearing Corporation ("JSCC") is the sole provider of clearing on all equities transactions occurring on Cboe Japan's Cboe-Alpha, Cboe-Select, Cboe-Match and Cboe BIDS Japan. BofA Securities, Inc. ("BOA") is the sole provider of clearing on all equities transactions occurring on BIDS Trading. Cboe Europe Equities relies on LCH Limited and LCH SA ("LCH"), Cboe Clear Europe, and SIX x-clear Ltd ("SIX x-clear") to clear trades in European listed equity securities and exchange traded products as part of an interoperable clearing model. For derivatives, Cboe NL relies on Cboe Clear Europe to clear both index and single stock derivative contracts. Cboe Clear Digital is the sole provider of clearing and settlement of all digital asset transactions occurring on Cboe Digital Exchange.

Cboe Trading is a routing broker-dealer used by our four U.S. equities exchanges and our four U.S. options exchanges, including the electronic platform portion of Cboe Options. Cboe Trading's clearing firms are Wedbush Securities, Inc. ("Wedbush") and Morgan Stanley & Co. LLC ("Morgan Stanley").

Digital Assets and Recent Developments

Cboe Digital is an operator of a U.S. based digital asset spot market, a regulated futures exchange, and a regulated clearinghouse. As described in further detail below, Cboe Digital does not engage in proprietary trading activities and does not maintain a trading entity. Cboe Digital does not itself trade digital assets, does not trade on its own exchange, and does not maintain an affiliate trading entity for purposes of trading, market making, or liquidity provision on its exchange. Cboe Clear Digital maintains its own operating funds in separate bank accounts from its customer funds. Each bank account and digital wallet is appropriately titled in accordance with applicable regulatory requirements thus helping to ensure that customer assets are clearly denoted as such.

Cboe Digital takes several steps to isolate the digital assets held for customers from its own assets and to structure customer accounts in a way that reinforces customer ownership of digital assets. Primarily, Cboe Digital holds customer digital assets separate from its own assets in customer accounts, referred to as wallets, with long-term storage by a third party custody provider and licensed trust company. When Cboe Digital temporarily holds digital asset for customers to enable the inbound receipt and outbound transmittal of virtual currencies, customer digital assets are held in omnibus wallets titled for the benefit of customers of Cboe Digital. Digital assets of customers (but not those of Cboe Digital) are held together in the omnibus wallets, and Cboe Digital maintains the records of the amount and type of digital asset owned by each of its customers in the omnibus wallets. Cboe Digital does not hold its own corporate assets together with the customer digital assets in the omnibus wallets, other than corporate assets that are held in omnibus wallets to facilitate customer transactions relating to the digital assets contained in the omnibus wallet, including in order to pay customary transaction fees and expenses. Because Cboe Digital does not have a trading entity for proprietary or liquidity trading purposes, Cboe Digital maintains its own digital assets only to facilitate customer trading. Cboe Digital does not currently pledge, rehypothecate, or invest customer digital assets, although its customer agreements and rulebook permit it to do so in the future. Additionally, Cboe Digital does not otherwise use customer digital assets for its own corporate or business purposes.

Further, Cboe Digital holds customer digital clearing assets through accounts with third party custodians and, in the case of hot and warm wallets, through self-custody. Cboe Digital's custody strategy is designed to maximize liquidity and efficient access to assets by making those assets readily available. Cboe Digital monitors its cash and the digital asset balances it maintains with custodians. Digital assets require control of one or more unique public and private keys relating

to the local or online digital wallet in which the digital assets are held. The networks require one or more private keys relating to a digital wallet to authorize a spending transaction. If private keys are lost or destroyed, this could prevent the ability to transfer the corresponding digital asset. Security breaches, computer malware, and computer hacking attacks have been a prevalent concern in digital asset markets. Cboe Digital has committed to securely store digital assets it holds on behalf of users. As such, Cboe Digital may be liable to its users for losses arising from theft or loss of user private keys. Cboe Digital has no reason to believe it will incur any expense associated with such potential liability because (i) it has no known or historical experience of claims to use as a basis of measurement, (ii) it accounts for and continually verifies the amount of digital assets within its control, and (iii) it has established security around custodial private keys to minimize the risk of theft or loss.

Also, Cboe Digital is exposed to risk with respect to digital asset prices and valuations which are largely based on the supply and demand for those digital assets in financial markets. Cboe Digital's valuation governance framework includes numerous controls and other procedural safeguards that are intended to maximize the quality of fair value measurements. New products and valuation techniques are reviewed and approved by senior management. Cboe Digital's valuation process for digital assets are fair value estimates that are also validated by the finance control function independently. Independent price verification is performed by finance control through benchmarking fair value estimates with observable market prices or other independent sources. Reasonably designed controls and governance framework are in place and are intended to help ensure quality third-party pricing sources were used.

Cboe Clear Digital clears cryptocurrencies from 50 U.S. jurisdictions authorized by license or not subject to licensing. Cboe Clear Digital performs a guarantee function whereby Cboe Clear Digital helps to ensure that the obligations of the transactions it clears are fulfilled. Spot trading is either cleared on a fully funded basis or by providing non-material daily trading limits to certain well-qualified institutional clearing members. In order to help mitigate the impact of any potential default by such a clearing member, extension of any trading limits is accompanied by performing credit due diligence, requiring posting of collateral or other forms of financial guarantee and hard pre-trade limits. Cboe Digital does not allow access from unauthorized or impermissible jurisdictions, and has taken active steps to help prevent such access and to help prevent circumvention of our controls. To help ensure an orderly market, Cboe Digital maintains digital assets to support its clearing operations which may be subject to significant changes in value and therefore exposed to market risk with the fluctuation in market prices. Cboe Digital monitors this risk on a daily, weekly and monthly basis. The business model is such that Cboe Digital earns digital assets and at times may accumulate positions that are subject to market risk. Customer positions do have market risk based on daily activity and settlement prices.

While Cboe Digital and its vendors have experienced cybersecurity threats and events of varying degrees, we are not aware of any of these threats or events having a material impact on Cboe Digital's business, financial condition or operating results to date. However, there can be no assurance that we or our vendors and custodians will not experience future threats or events that may be material. If any such threats or events materialize, we may be subject to contractual restrictions, liability and damages, loss of business, penalties, unfavorable publicity, and increased scrutiny by regulators, which may have an adverse effect on our business.

The bankruptcy of FTX and the bankruptcies of other digital asset platforms has brought increased scrutiny to the digital asset industry. FTX's bankruptcy and the bankruptcies of other digital asset platforms did not have a direct material effect on Cboe's overall business or financial condition in 2023.

Cboe Digital launched trading and clearing in margin futures on Bitcoin and Ether on January 11, 2024. With this launch, Cboe Digital became the first U.S. regulated crypto native exchange and clearinghouse to enable both spot and leveraged derivatives trading on a single platform.

See "Risk Factors" for more information regarding Cboe Digital.

Regulatory Environment and Compliance

Various aspects of our business are subject to regulation by the SEC, CFTC, FINRA, the New York Department of Financial Services ("NYDFS"), various state regulators, CIRO, the Canadian Securities Administrators (and, in particular, the Ontario Securities Commission or "OSC"), the Australian Securities & Investments Commission ("ASIC"), JFSA, JSDA, ESMA, FCA, the Central Bank of the Netherlands ("DNB"), AFM, Bank of England, and other international regulatory authorities where our exchanges or Cboe Clear Europe may be authorized to act as foreign exchanges or provide clearing services, and market participants may be subject to regulation by the SEC, CFTC, FINRA, National Futures Association ("NFA"), FCA, Board of Governors of the Federal Reserve, U.S. Department of the Treasury and/or

foreign regulators. The following is a discussion of the more significant areas of regulation of us by the SEC, the CFTC, and certain European regulators.

Recent Developments

Laws and regulations regarding our business are frequently modified or changed to address perceived problems, new products, or competition or at the request of market participants. The following is a brief discussion of recent regulatory developments that may significantly impact our business.

United States

Equity Market Structure

In December 2022, the SEC released four proposals that could impact equity market structure: (1) Disclosure of Order Execution Information (Rule 605); (2) Regulation NMS Amendments: Tick Size, Access Fees, and Transparency; (3) Regulation Best Execution; and (4) Proposed Rule to Enhance Order Competition. These proposals have been noticed for public comment. If adopted as-is, final implementation of these equity market structure proposals could occur in late 2024 and 2025 and could result in market technology changes and additional compliance costs to Cboe. Further, it is possible that additional proposals or changes to the existing equity market structure, which could have a negative impact on our operations. In addition, bills are sometimes introduced in the U.S. Congress that could also potentially impact equity market structure and adversely impact our volumes and operations. See “Risk Factors” for more information.

Volume Based Pricing Proposal

On October 18, 2023, the SEC released a proposed rule that would impact the way in which volume based discounts are applied (“Volume Based Proposal”). If adopted, this Volume Based Proposal would prohibit national securities exchanges, including Cboe’s equities exchanges, BZX, BYX, EDGX, and EDGA, from offering volume-based transaction pricing in connection with the execution of agency or riskless principal orders in NMS stocks. Although the new rules do not appear likely to have a near term material impact, the new rules may have a long term material impact on our business, financial condition and operating results if, for example, there is a reduction of overall volumes, liquidity, or market share on Cboe’s equities exchanges, BZX, BYX, EDGX, and EDGA. See “Risk Factors” for more information.

Digital Asset Legislation

Members of U.S. Congress have introduced various bills related to the regulation of digital assets, however no legislation has been passed and the details of any potential legislation remain to be discussed and agreed. While some of these contemplated changes could reduce regulatory uncertainty, increase transparency, and promote investor protection, which could be beneficial for Cboe Digital’s volumes and liquidity, the implementation of certain changes could result in a reduction in overall volumes and liquidity or require additional resources to comply with any new rules included as part of the legislation, which could have a negative impact on our operations. See “Risk Factors” for more information.

Europe

Capital Markets Union

The European Council (“E.C.”) has highlighted one of its top priorities as being the establishment of a fully functioning, well-regulated Capital Markets Union (“CMU”). An Action Plan of concrete steps was set out in September 2015, and an update of the list of initiatives was published in September 2016. In November 2019, the E.C. set up a High Level Forum on CMU, resulting in a final report published in June 2020. On September 24, 2020, the E.C. published a new CMU Action Plan, and on November 25, 2021, published a set of legislative proposals in furtherance of the CMU, including proposals to amend the Markets in Financial Instruments Regulation (“MiFIR”) described in the EU Transparency Rules section below. This therefore remains an ongoing project for the E.C., which may result in additional regulation or legislation. In November 2021 the EU Commission published an update regarding progress against the CMU Action Plan alongside a number of new legislative proposals designed to contribute to the objectives of CMU.

These included proposals to:

- Create a European Single Access Point (“ESAP”) which will be a common source of public, free information about EU companies and investment products, regardless of where in the EU they are located or originated.
- Amend the ELTIF framework to promote long-term investments through European Long-Term Investment Funds (“ELTIFs”).
- Make funding more diversified for companies by reviewing the Alternative Investment Fund Managers Directive (“AIFMD”).
- Enhance market transparency by reviewing the Markets in Financial Instruments Regulation (“MiFIR”).
- Create a binding, comprehensive information and communication technology risk management framework for the EU financial sector through the Digital Operational Resilience Act (“DORA”).

Many of the above initiatives have been legislated for and are now in the process of being implemented. Further detail on the MiFIR review is provided below.

OTC Derivatives, Central Counterparties and Trade Repositories

Regulation (EU) No 648/2012 of the European Parliament and of the Council of July 4, 2012 on OTC derivatives, central counterparties and trade repositories (the “European Market Infrastructure Regulation” or “EMIR”) sets out rules relating to over-the-counter (“OTC”) derivatives markets, central counterparties and trade repositories. EMIR was enhanced and amended by EMIR REFIT and EMIR 2.2. In December 2022, the EU Commission published a proposal to further amend EMIR with the primary goal of making EU clearing services more attractive to market participants. This proposal is currently going through the usual legislative procedure.

In addition, regulation governing the authorization and supervision of Central Securities Depositories (“CSDR”) was approved in September 2014, with the publication of most “Level 2” Regulatory Technical Standards in March 2017, with implementation in March 2019. Rules in relation to the calculation and collection of cash penalties have come in to force in February 2022. In November 2022, ESMA published a proposal to amend CSDR to simplify the cash penalties process for cleared transactions. This proposal has since been adopted and will come into force in September 2024. Furthermore, CSDR Refit has been adopted and will come into force from the 1st of May 2024 onwards depending on the specific articles.

The Central Counterparty Recovery and Resolution Regulation (“R&R Regulation”) was published in the Official Journal of the EU on January 22, 2021, which resulted in an increase in the amount of prefunded capital Cboe Clear Europe is required to maintain. This additional prefunded capital is required to be drawn before any recovery measures can be taken by the CCP. On July 12, 2021, and November 18, 2021, ESMA proposed a set of level 2 and level 3 guidance pursuant to the R&R Regulation, which have been adopted by the European Commission and, except for one regulation, have been published in the Official Journal of the EU.

EU Transparency Rules

On November 11, 2021, the European Council (“E.C.”) published its proposal for a review of EU market structure legislation, including proposed amendments to Markets in Financial Instruments Regulation (“MiFiR”) and Directive 2014/65/EU on markets in financial instruments (“MiFID II”). The legislative phase of the review is now almost complete. The final text includes, among other provisions, provision for a consolidated tape for the EU and changes to the transparency regime for equities. These provisions are expected to be implemented in 2025. The legislation, as drafted, does not appear likely to have a material adverse effect on our business, financial condition and operating results. However, there are review clauses contained in the legislation which provide a further opportunity to review the effectiveness of the transparency regime, at which point, potential changes may have a material adverse effect on our business, financial condition and operating results. See “Risk Factors” for more information.

Compliance

U.S. Securities Industry

Federal securities laws have established a two-tiered system for the regulation of securities exchanges and market participants. The first tier consists of the SEC, which has primary responsibility for enforcing federal securities laws. The second tier consists of self-regulatory organizations ("SROs"), which are non-governmental entities that must register with and are regulated by the SEC. The Exchanges are SROs, each registered under Section 6 of the Exchange Act of 1934, as amended ("Exchange Act") as a "national securities exchange," and are subject to oversight by the SEC.

SROs are an essential component of the regulatory scheme of the Exchange Act for providing fair and orderly markets and protecting investors. To be registered as a national securities exchange, an exchange must successfully undergo an application and review process with the SEC prior to beginning operations. Among other things, the SEC must determine that the SRO has the ability to comply with the Exchange Act and to enforce compliance by its members and persons associated with its members with the provisions of the Exchange Act, the rules and regulations thereunder and the rules of the exchange.

In general, an exchange SRO is responsible for operating its trading platforms consistent with its rules, and regulating its members through the adoption and enforcement of rules governing the business conduct of its members. The rules of the exchange must also assure fair representation of its members in the selection of its directors and administration of its affairs and, among other things, provide that one or more directors be representative of issuers or investors and not be associated with a member of the exchange or with a broker or dealer. Additionally, the rules of the exchange must be adequate to ensure fair dealing and to protect investors and may not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Exchange Act.

As registered national securities exchanges, virtually all facets of our Exchange operations are subject to the SEC's oversight, as prescribed by the Exchange Act. The Exchange Act and the rules thereunder impose on us many regulatory and operational responsibilities, including record keeping and the day-to-day responsibilities for market operations and broker-dealer oversight. Furthermore, as SROs, the Exchanges are potentially subject to regulatory or legal action by the SEC or other interested parties. The SEC also has broad enforcement powers to censure, fine, issue cease-and-desist orders, prohibit us from engaging in some of our businesses, suspend or revoke our designation as a registered securities exchange or remove or censure any of our officers or directors who violate applicable laws or regulations. For example, in the past we have entered into consent orders with the SEC, under which our subsidiaries were censured, ordered to cease and desist from violating certain sections of the Exchange Act, paid fines and completed certain undertakings.

As part of its regulatory oversight, the SEC conducts periodic reviews and inspections of exchanges, and the Exchanges have been subject to such routine reviews and inspections. To the extent such reviews and inspections result in regulatory or other changes, we may be required to modify the manner in which we conduct our business, which may adversely affect our business. We collect certain fees to cover Section 31 fees charged to the Exchanges by the SEC and certain fees derived from our regulatory function and fines in connection with our disciplinary proceedings. The Exchanges are responsible for the ultimate payment of Section 31 fees to the SEC. Additionally, under the rules of each of our exchanges, as required by the SEC, any revenue derived from the regulatory fees and fines cannot be used for non-regulatory purposes.

Section 19 of the Exchange Act also provides that we must submit to the SEC proposed changes to any of the Exchanges' rules, including revisions of their certificates of incorporation, bylaws, or other governing documents of the SROs or their parent companies. The SEC will typically publish the proposal for public comment, following which the SEC may approve or disapprove the proposal, as it deems appropriate. Certain categories of rule changes, like fee changes, can be effective on filing, but the SEC retains the ability to suspend or reject such filings within a prescribed period of time.

Canadian Securities Industry

Cboe Canada Inc. is subject to comprehensive regulation and oversight by its primary provincial securities regulatory authority, the OSC. In addition, Cboe Canada Inc. is a Marketplace Member of, and subject to a regulation services agreement with, CIRO. The regulations applicable to Cboe Canada Inc. cover a wide array of areas, including, but not limited to, marketplace operations (which include corporate governance, fair access, systems compliance and integrity, and conflict management requirements), trading rules, electronic trading risk management, and financial viability.

Australian Securities Industry

Cboe Australia is subject to comprehensive regulation and oversight by ASIC. The regulations applicable to Cboe Australia cover a wide array of areas, including, but not limited to, marketplace operations (which include corporate governance, fair access, systems compliance and integrity, and conflict management requirements), trading rules, electronic trading risk management, and financial viability.

Japanese Securities Industry

Cboe Japan is subject to comprehensive regulation and oversight by the JFSA and the JSDA. The regulations applicable to Cboe Japan cover a wide array of areas, including, but not limited to, marketplace operations (which include corporate governance, fair access, systems compliance and integrity, and conflict management requirements), trading rules, electronic trading risk management, and financial viability.

Futures and Swaps Industry-CFE and Cboe SEF

The operations of each of CFE and Cboe SEF are subject to regulation by the CFTC under the Commodity Exchange Act ("CEA"). The CEA generally requires that futures trading in the United States be conducted on a designated contract market and, in some cases, requires swaps trading to be conducted on a swap execution facility ("SEF") or designated contract market ("DCM"). The CEA and CFTC regulations establish criteria for an exchange to be designated as a contract market on which futures and futures options contracts may be traded, and for a trading platform to be designated as a swap execution facility on which certain swaps may be traded. Designation as a contract market or swap execution facility for the trading of specified futures or swaps contracts is non-exclusive. This means that the CFTC may permit additional exchanges or trading platforms to be contract markets or swap execution facilities for trading the same or similar contracts.

CFE is a designated contract market, and Cboe SEF is a swap execution facility, each of which is subject to the oversight of the CFTC and to a variety of ongoing regulatory and reporting responsibilities under the CEA. As a designated contract market, CFE is required to comply with the applicable core principles and regulations under the CEA, as is Cboe SEF as a swap execution facility. Each of CFE and Cboe SEF has surveillance and regulatory operations and procedures to monitor and enforce compliance by trading privilege holders with CFE rules, and by participants with Cboe SEF rules, as applicable. If CFE or Cboe SEF fails to comply with applicable laws, rules or regulations, it may be subject to censure, fines, cease-and-desist orders, suspension of its business, removal of personnel or other sanctions, including revocation of CFE's designation as a contract market or Cboe SEF's designation as a swap execution facility.

Digital Assets

Cboe Digital Exchange is a designated contract market, and Cboe Clear Digital is a derivatives clearing organization, each of which is subject to the oversight of the CFTC and to a variety of ongoing regulatory and reporting responsibilities under the CEA. As a designated contract market, Cboe Digital Exchange is required to comply with the applicable core principles and regulations under the CEA, as is Cboe Clear Digital as a derivatives clearing organization. Each of Cboe Digital Exchange and Cboe Clear Digital has surveillance and regulatory operations and procedures to monitor and enforce compliance by trading privilege holders with Cboe Digital Exchange rules, and by participants with Cboe Clear Digital rules. If Cboe Digital Exchange or Cboe Clear Digital fails to comply with applicable laws, rules or regulations, it may be subject to censure, fines, cease-and-desist orders, suspension of its business, removal of personnel or other sanctions, including revocation of Cboe Digital Exchange's designation as a contract market or Cboe Clear Digital's designation as a derivatives clearing organization.

Cboe Clear Digital also maintains a license to operate as a money transmitter in the states where such licenses or equivalent are required to conduct business. In addition, Cboe Clear Digital has a BitLicense from the NYDFS. As a licensed money transmitter and an entity subject to the BitLicense regulatory regime, Cboe Clear Digital is subject to, among other things, the Bank Secrecy Act, restrictions and requirements with respect to the investment of customer funds and use and safeguarding of customer funds and crypto assets, and bonding, net worth, customer notice and disclosure, reporting and recordkeeping requirements applicable to the company and control persons, and inspection and examination by state regulatory agencies.

Europe

Cboe Europe is located in London and is subject to regulation in the UK and to certain European regulations. The current UK regulatory system was established by the Financial Services Act 2012 ("FSA12"), which amended the Financial Services and Markets Act 2000. The legislation replaced the previous financial services regulator, the Financial Services Authority, with three new bodies: The Financial Policy Committee ("FPC"), The Prudential Regulation Authority, and the FCA. Financial conduct of markets, including activity on, and the operation of, markets is regulated by the FCA, which is an independent non-governmental body, given statutory powers by the FSA12. The FCA has three statutory objectives: to secure an appropriate degree of protection for consumers; to protect and enhance the integrity of the UK financial system; and to promote effective competition in the interests of consumers in the markets for financial services. The FCA is accountable to His Majesty's Treasury Ministers and, through them, to Parliament.

Cboe Clear Europe and Cboe NL are located in Amsterdam and subject to Dutch law and regulation. The current Dutch regulatory system was established by the Act on Financial Supervision. Financial conduct of markets, including activity on, and the operation of, markets is regulated by the AFM. Financial conduct of CCPs, including clearing activity is regulated by the AFM and DNB. The AFM is an independent non-governmental body, given statutory powers by the Act on Financial Supervision. The AFM has three strategic objectives: to promote the fair and conscientious provision of financial services, to promote the fair and efficient operation of the capital markets and to contribute to the stability of the financial system. The AFM is accountable to the Minister of Finance. The DNB is the Dutch central bank, financial sector supervisor and resolution authority. The DNB is committed to a stable financial system: stable prices, solid financial institutions and properly functioning payment transfers. Cboe Clear Europe is recognized as a non-UK CCP in the United Kingdom, which allows it to provide services to UK Clearing Participants and UK trading venues. Cboe Clear Europe is also recognized as a foreign central counterparty in Switzerland, which allows it to provide services to Swiss Clearing Participants and SIX Swiss Exchange AG.

Much of the UK and Dutch financial services regulation originates from the EU. Such regulation includes organizational requirements, capital resources requirements and the specific requirements for RMs and MTFs and are applicable to both Cboe Europe and Cboe NL. MiFID II and MiFIR set out requirements for RMs and MTFs with respect to the establishment of transparent and non-discretionary rules and procedures governing access and for fair and orderly trading and the efficient execution of orders, as well as to facilitate the efficient settlement of transactions conducted on RMs and MTFs and monitoring compliance with the rules. EMIR governs the CCPs operating in the EU and requires them to meet common risk management, governance and capital adequacy standards. The regulatory functions required of Cboe Europe Equities and Derivatives, including Cboe Clear Europe and Cboe NL, by MiFID II, MiFIR, EMIR and other relevant legislation and regulations are performed by in-house staff. Cboe Europe Equities and Derivatives utilizes the same state-of-the-art, real-time surveillance system is used on the U.S. to monitor trading and market activities on BZX, BYX, EDGA, and EDGX. Cboe Clear Europe utilizes proprietary risk management software to monitor settlement and funding flows.

Global FX

While the global institutional spot FX market remains largely unregulated, the enactment of the Dodd Frank Act and its related regulations in the United States and the ongoing implementation of MiFID II and MiFIR in Europe have impacted the regulatory landscape for currency derivative products. For example, certain standardized currency derivative products are required to trade on an organized trading venue such as a SEF or DCM in the United States or on an MTF or organized trading facility in Europe. Moreover, even in the largely unregulated spot FX market, this movement towards additional trading standards and norms is highlighted by the publication of the FX Global Code in 2017 by the Global Foreign Exchange Committee, reflecting principles of good conduct for the wholesale FX market, and whose publication may lead to additional oversight in the global FX market. Cboe FX issued a Statement of Commitment declaring its commitment to conduct its FX market activities in a manner consistent with the principles of the FX Global Code. Following the publication of the FX Global Code regulators are taking a new look at the spot FX market, and any decision to impose new regulations may affect our spot FX business line.

Broker-Dealers

Cboe Trading, BIDS Trading, and Cboe Fixed Income are registered broker-dealers regulated by the SEC, FINRA, other SROs of which they are members and various state securities regulators. Cboe Trading currently operates as a routing broker-dealer for sending orders from the Exchanges to other venues for execution, including routing orders among the Exchanges. Cboe Trading is considered a facility of each of the Exchanges and is subject to the rules of the Exchanges. The Exchanges are responsible for enforcing Cboe Trading's compliance with their rules, including to ensure

Cboe Trading is not given preferential treatment. BIDS Trading currently operates an ATS, which is designed to bring counterparties together to anonymously trade large blocks of U.S. equities. BIDS Trading is not a member of any of the U.S. national securities exchanges and is not subject to exchange rules. Cboe Fixed Income, a registered broker-dealer and member of FINRA, operates an electronic trading system for U.S. government securities targeted at the institutional inter-dealer market for trading on-the-run U.S. Treasury bonds and notes in the secondary OTC markets. Cboe Fixed Income's participants are SEC registered broker-dealers that are members of The Depository Trust and Clearing Corporation's Fixed Income Clearing Corporation.

Cboe Trading, BIDS Trading, and Cboe Fixed Income are subject to SEC and SRO rules, as applicable, and, as registered broker-dealers, regulations concerning all aspects of their businesses, including trading practices, order handling, best execution, anti-money laundering, handling of material non-public information, safeguarding data, reporting, capital adequacy, record retention, market access and the conduct of their officers, employees and other associated persons. The SEC, SROs and state securities commissions may conduct proceedings which can result in injunctions or other sanctions, censures, fines, the issuance of cease and desist orders or the suspension or expulsion of a broker-dealer, its officers or employees. The SEC and FINRA impose certain minimum capital requirement rules that require notification when a broker-dealer's net capital falls below certain predefined criteria, dictate the ratio of debt to equity in the regulatory capital composition of a broker-dealer, constrain the ability of a broker-dealer to expand its business under certain circumstances and impose certain requirements that may have the effect of prohibiting a broker-dealer from distributing or withdrawing capital.

In addition, the ATS operated by BIDS Trading is not a registered national securities exchange or a facility thereof, as such, Cboe intends to maintain the BIDS ATS as an independently managed and operated trading venue, separate from and not integrated with the Exchanges. The Chief Executive Officer of BIDS Trading is expected to lead BIDS Trading as an independent business within Cboe, reporting into an independent committee of the board of Cboe Global Markets. Further, Cboe Trading will not route orders to BIDS Trading on behalf of the Exchanges.

Cboe Global Markets

Certain aspects of Cboe Global Markets are also subject to SEC, FCA and AFM oversight, including certain ownership and voting restrictions on its stockholders. The focus of the SEC's regulation of Cboe Global Markets is to assure fair representation of members in the selection of the directors of the Exchanges, public participation in the governance of the Exchanges and that the Exchanges can satisfy their regulatory responsibilities under the Exchange Act. Furthermore, the SEC requires that Cboe Global Markets give due regard to the preservation of the independence of the self-regulatory function of the Exchanges and to Cboe Global Markets' obligations to investors and the general public. The SEC also requires that Cboe Global Markets not take any actions that would interfere with the effectuation of any decisions by the Board of Directors of any of the Exchanges relating to its regulatory functions or the structure of the market that it regulates or that would interfere with the ability of such Exchange to carry out its responsibilities under the Exchange Act. To the extent that Cboe Global Markets' business activities involve or relate to the Exchanges, the officers and directors of Cboe Global Markets may be deemed to be officers and directors of the exchanges for purposes of and subject to oversight under the federal securities laws. Accordingly, the SEC may exercise direct supervision and disciplinary authority over certain Cboe Global Markets' activities and those activities may be subject to SEC approval and, in some cases, public notice and comment.

In addition, Cboe Global Markets indirectly holds all of the issued share capital and voting rights in Cboe Europe and its wholly-owned subsidiaries, Cboe Chi-X Europe and Cboe NL. As a result, we and any person who holds, or has voting power with respect to, 10% or more of the outstanding shares of Cboe Global Markets common stock may be subject to certain regulatory requirements under UK and Dutch law.

U.S. Regulatory Responsibilities

Our U.S.-based exchanges are responsible for assessing the compliance of their TPHs or members, including Cboe Trading, with the respective exchange's rules and the applicable rules of the SEC and/or CFTC. The main activities that the exchanges, as applicable, are required to monitor for the purpose of compliance with these rules include:

- surveillance designed to detect violations of exchange trading rules;
- surveillance designed to detect violations of SEC and/or CFTC rules;
- investigation of matters involving potential rule violations;
- the investigation of complaints about possible rule violations brought by customers, TPHs, members or other SROs; and

- the examination of TPHs or members for compliance with rules such as those related to net capital, books and records, market access and other matters related to the TPHs' or members' exchange business functions.

In order to ensure market integrity, we regulate and monitor our TPHs' and members' trading activities by using both our employees and/or third parties under regulatory services agreements ("RSAs"). See "U.S. Regulatory Agreements" below. Providing effective regulation is important for attracting and retaining the confidence and participation of market-makers, broker-dealers and institutional and retail investors.

We expend considerable time, financial resources and effort to ensure that the exchanges' rules and regulations conform to regulatory best practices within the securities and futures exchange industries and within the regulatory regime overseen by the SEC and CFTC, our primary U.S. regulators. In order to support our efforts and those of our market participants to comply with applicable law and our exchange rules, we developed a regulatory program to monitor market activity on our exchanges.

All of our Exchanges, CFE, and Cboe Digital Exchange are participants in various cooperative and regulatory information sharing agreements, including in the Intermarket Surveillance Group ("ISG"). ISG is an international information-sharing cooperative governed by a written agreement that provides for a comprehensive surveillance sharing arrangement. In addition to the agreement for confidential information sharing, the ISG provides a framework for the coordination of regulatory efforts among exchanges trading securities, commodity futures and related products to address potential intermarket manipulations and trading abuses.

CFE and Cboe Digital Exchange are also members of the Joint Audit Committee ("JAC"), which is a representative committee of the U.S. futures exchanges and regulatory organizations which participate in a joint audit and financial surveillance program that has been approved and is overseen by the CFTC. The JAC's primary responsibility is to oversee the implementation and functioning of all terms and conditions of the Joint Audit Agreement and to determine the practices and procedures to be followed by each designated self-regulatory organization in the conduct of regulatory examinations and financial reviews of FCMs.

As part of the regulatory program, each of our Exchanges and CFE have rules pertaining to their respective disciplinary processes.

U.S. Regulatory Agreements

The Exchanges and CFE have entered into agreements under which third parties have agreed to perform regulatory functions on behalf of our markets (e.g., RSAs). As discussed below, in addition, in certain other instances for our Exchanges, a third party has been allocated the regulatory responsibility under Rule 17d-1 or Rule 17d-2 under the Exchange Act, while in others, we retain the regulatory responsibility for the activities.

Regulatory Services Agreement with FINRA

The Exchanges have entered into agreements with FINRA under which FINRA has agreed to provide regulatory services to the Exchanges. Under these agreements, FINRA performs certain regulatory functions on behalf of the Exchanges and, to avoid any potential conflicts of interest concerning the regulation and oversight of Cboe Trading, certain regulatory services specific to Cboe Trading. The Exchanges remain responsible for the regulation of their TPHs, members and marketplaces, and retain the authority for bringing disciplinary actions against their TPHs and members, although FINRA performs certain functions on behalf of the Exchanges. The Exchanges also perform certain regulatory and disciplinary-related functions in-house.

Regulatory Services Agreement with OCC

While CFE also performs most regulatory and disciplinary-related functions in-house, OCC has performed and continues to perform certain regulatory functions on behalf of CFE pursuant to an RSA with CFE. Whether performed under an RSA or in-house, CFE retains overall responsibility for the regulation of its marketplace and for bringing disciplinary actions.

Rule 17d-1 Designations and Rule 17d-2 Agreements

Section 17(d) of the Exchange Act and the related Exchange Act rules permit SROs to allocate certain regulatory responsibilities to avoid duplicative oversight and regulation. Under Exchange Act Rule 17d-1, the SEC designates one SRO to be the designated examining authority ("DEA") for each broker-dealer that is a member of more than one SRO. The DEA is responsible for the regulatory oversight of applicable financial responsibility rules pertaining to that broker-dealer. Cboe Options is the DEA for several of its TPHs. Cboe Trading's assigned DEA is FINRA.

Exchange Act Rule 17d-2 permits SROs to enter into agreements, commonly called Rule 17d-2 agreements, which are approved by the SEC and concern the allocation of regulatory responsibility for rules applicable to TPHs and members that those SROs have in common. The Exchanges have entered into certain bi-lateral Rule 17d-2 agreements under which FINRA is allocated responsibility for enforcing certain federal securities laws and certain exchange rules that are common with FINRA rules. The Exchanges have entered into certain other multi-party Rule 17d-2 agreements that allocate responsibility among the participating SROs, which may include the Exchanges, for oversight of their allocated common members compliance with certain rules governing, among other items, options related sales practices, options related market surveillance, insider trading, NMS and consolidated audit trail ("CAT") NMS plan compliance.

National Market System Plans

We are member participants of several NMS plans including, but not limited to, the following: Cboe Options, C2, BZX, and EDGX are member exchanges in OPRA, which is the designated securities information processor for market information that is generated through the trading of exchange-listed securities options in the United States, and it disseminates certain core trading information, such as last sale reports and quotations. Cboe Options, BZX, BYX, EDGA, and EDGX also participate in the CTA/CQ and the UTP Plans, which perform analogous services for the U.S. equities market. Securities Information Automation Corporation ("SIAC") acts as the "processor" for OPRA and the CTA/QC Plans. Nasdaq Stock Market, LLC acts as the processor for the Nasdaq Unlisted Trading Privileges Plan. Also, see "Risk Factors" for more information regarding the consolidated data plan order.

Cboe Options, C2, BZX, and EDGX are also parties to the Options Order Protection and Locked/Crossed Market Plan, which is designed to prohibit trade-throughs and avoid locked/crossed markets. Cboe Options, C2, BZX, and EDGX are also parties to the Options Listing Procedures Plan, which sets forth the procedures that the options exchanges must follow to list new options. Cboe Options, BZX, BYX, EDGA, and EDGX are also parties to the NMS plan for the selection and reservation of securities symbols.

Under the Options Regulatory Surveillance Authority Plan ("ORSA Plan"), U.S. securities options exchanges are permitted to act jointly in the administration, operation and maintenance of a regulatory system for the surveillance, investigation and detection of the unlawful use of undisclosed, material information in trading in one or more of their markets. The ORSA Plan is intended to enhance the effectiveness and efficiency with which the exchanges regulate their respective markets and to avoid duplication of certain regulatory efforts. FINRA operates the ORSA Plan facility for options insider trading.

The Consolidated Audit Trail Plan ("CAT Plan") involves the creation of a consolidated audit trail that tracks orders throughout their lifecycle, which strives to enhance regulators' ability to efficiently monitor trading activity in Eligible Securities in the U.S. securities markets. Eligible Securities currently include NMS Stocks, Listed Options and OTC Equities. Order and trade data is required to be reported to the CAT central repository the following day by each SRO (a "Plan Participant") and broker-dealer (an "Industry Member"), along with certain customer and account information by each Industry Member. On November 15, 2016, the SEC approved the CAT Plan and a phased implementation was originally required to begin in November 2017; however, there were some delays. The first phase of CAT ("Phase 1") ultimately went live in November 2018, at which time we and other SROs/Plan Participants began initial reporting of order and trade file submissions to the CAT. The second phase of CAT ("Phase 2") for Industry Members began with order and trade file submissions in June 2020. The final Phase 2 implementation sub-phase (Phase 2e), related to Industry Member submissions to the customer and account information submissions system ("CAIS") has been live in production since April 2022, but its completion has been delayed. The Industry Member full CAIS compliance reporting requirements are currently scheduled to go into effect May 31, 2024.

On May 15, 2020, the SEC adopted amendments to the CAT to establish financial accountability provisions to achieve full CAT implementation, including a financial accountability milestone requiring full implementation of the CAT requirements by December 30, 2022. If the SEC were to determine any financial accountability milestone was not met, it may limit the SROs'/Plan Participants' recovery of certain costs. Due to the delayed completion of CAIS, the SROs/Plan

Participants have submitted to the SEC requests to extend the timeline for the completion of Phase 2e and the deadline for the final financial accountability milestone and additional requests may be submitted. If the SEC does not grant extensions and finds that the SROs/Plan Participants did not satisfy the related last financial accountability milestone, it could result in the SROs/Plan Participants not being able to recover certain costs associated with this final sub-phase, which amount of unrecoverable costs may increase for additional delays.

On September 6, 2023, the SEC issued an order approving an amendment to the CAT national market system plan to implement a revised funding model ("CAT Funding Model") for Consolidated Audit Trail, LLC ("CATLLC") to fund the CAT. The approved CAT Funding Model contemplates two categories of CAT fees calculated based on the "executed equivalent shares" of transactions in eligible securities: (i) CAT fees assessed by CATLLC to Industry Members who are CAT Executing Brokers (the brokers responsible for executing each side of the transaction) to recover a portion of historical CAT costs previously paid to CATLLC by the Plan Participants; and (ii) CAT fees assessed by CATLLC to CAT Executing Brokers and Plan Participants to fund prospective CAT costs. To date, the funding of the CAT has solely been provided by the SROs/Plan Participants has been done in exchange for promissory notes. The funds generated from the assessment of CAT fees to recover a portion of historical CAT costs will be used by CATLLC to repay a portion of these promissory notes to the Plan Participants.

The Plan Participants submitted fee filings during the first week of January 2024 with the SEC to implement the applicable transaction-based fee rates that are to be assessed by CATLLC to CAT Executing Brokers to recover a portion of historical CAT costs incurred prior to 2022. Additional CAT fees related to other historical CAT costs and to prospective CAT costs are planned to be introduced at a later time through separate fee filings submitted by the Plan Participants. Once the CAT fee related to ongoing prospective CAT costs becomes effective through fee filings submitted by the Plan Participants, it is anticipated there will no longer be any need for Plan Participants to fund CATLLC in exchange for promissory notes. On January 17, 2024, the SEC issued orders suspending each Plan Participant's fee filing and instituting proceedings to determine whether to approve or disapprove the fees, which orders were published in the Federal Register on February 13, 2024. Comments are due March 5, 2024, and rebuttal comments are due March 19, 2024.

A challenge to the SEC's September 6, 2023 order was filed by the American Securities Association and Citadel Securities, LLC against SEC before the U.S. Court of Appeals for the 11th Circuit on October 17, 2023. This challenge or any other challenge to the SEC order approving the CAT Funding Model and/or Plan Participant(s) fee filings may significantly delay implementation efforts. As a result, the Plan Participants may continue to incur additional significant costs, and/or it may result in them not being able to collect on the promissory notes related to the funding of the implementation and operation of the CAT.

CATLLC, as well as the Cboe U.S. Securities Exchanges, and certain other exchanges/Plan Participants filed motions to intervene in the aforementioned matter on November 16, 2023 and are waiting the Court's ruling on the motions. CATLLC also determined to move forward with implementing its first fee under the SEC-approved CAT Funding Model. As a result, the Cboe U.S. Securities Exchanges and other Plan Participants submitted fee filings on or near January 2, 2024 to implement the CAT fee on behalf of CATLLC related to a portion of historical CAT costs incurred prior to 2022 the discussed above. Although the fee filings were submitted as "immediately effective" filings, the CATLLC fee will be assessed beginning with trades occurring on March 1, 2024 (with the first monthly invoice for the month of March being issued in April 2024 and first monthly payment due in May 2024).

Until the fees for historical CAT costs that are associated with the promissory notes are collected from CAT Executing Brokers and remitted by CATLLC to the Plan Participants, and until CAT fees assessed by CATLLC to CAT Executing Brokers and Plan Participants to fund prospective CAT costs are implemented, the Plan Participants may continue to incur additional significant costs, including additional promissory notes to fund CAT. Additionally, portions of promissory notes related to the funding of the implementation and operation of the CAT may not be collectible, including if the SEC finds that the SROs/Plan Participants did not satisfy any of the financial accountability milestones. The allowance for notes receivable credit losses associated with the CAT is calculated using a methodology that is primarily based on the structure of the notes and various potential outcomes under the CAT Funding Model. See Note 23 ("Commitments, Contingencies, and Guarantees") for more information.

Intellectual Property

We own or have rights to a number of intellectual property assets, including trademarks, service marks, domain names, trade names, copyrights, trade secrets and patents. While the majority of our intellectual property is protected under U.S. law, we have many intellectual property assets protected by laws in Europe, Asia and other parts of the world.

We license some intellectual property assets to other entities. We attempt to protect our intellectual property rights, while respecting the legitimate intellectual property rights of others.

Human Capital Management

Cboe has a robust human capital management program in place focused on equal opportunities including diversity, equity and inclusion ("DEI"), performance and career development, health and well-being, comprehensive benefits, training, talent acquisition, and succession planning. Additional information on our approach to human capital and environmental, social, and governance ("ESG") issues can be found in the Cboe Global Markets, Inc. Environmental, Social and Governance Report located in the Corporate Social Responsibility section of our website at https://markets.cboe.com/about/corporate-social-responsibility, which does not form a part of this Form 10-K.

Equal Opportunity, Diversity, and Pay Equity

Cboe believes in a culture of diversity and inclusion that promotes creativity, collaboration and innovation, which is critical to the success of our business and defining the markets of tomorrow. Cboe is an equal opportunity employer and provides equal employment opportunities to all qualified persons without regard to sex, gender, race, color, ethnicity, creed, religion, national origin, ancestry, citizenship status, age, veteran or military status, disability, marital status, domestic partnership or civil union status, pregnancy, sexual orientation, genetic status, gender identity or expression, and any other characteristic protected by applicable law (a "Protected Characteristic"). Cboe is committed to applying our Equal Employment Opportunity Policy to all employment practices that impact the terms and conditions of employment including, but not limited to, hiring, evaluation, discipline, promotion, training, compensation, transfer, and termination. Actively nurturing and maintaining a diverse and inclusive culture at Cboe is a core imperative. We believe that our collective and unique perspectives fuel our capabilities, enhance our team spirit and enable us to attract and retain top talent as we define the markets of the future. Our commitment and responsibility in this regard starts at the top, with leadership and support from the full Cboe Board of Directors and executive team.

To maintain and strengthen our pledge to equity, diversity and inclusion and to keep a level playing field, we regularly review key touchpoints across the employee journey with Cboe., from the talent selection, promotion, compensation, leadership development, and succession planning processes and make adjustments, as necessary, to help ensure opportunity parity across the Company. Our goal is to ensure that fair pay and equal opportunity for all that results in a collaborative, high performing organization bringing new innovations to market and providing superior service to our customers.

We also have associate resource groups, including the Cboe Women's Initiative, the Diversity Leadership Council, the Veterans Initiative, PRISM+ (People Respecting Individuality and Sexuality in Markets), Cboe UNIDOS, Asian and Pacific Islanders Network (APIN) and Black Equity and Allyship in Markets (BEAM).

- The Cboe Women's Initiative works toward its mission: to increase representation, strengthen voices, and build a culture of opportunity and advancement for the women of Cboe. The Women's Initiative is led by an associate board and engages women throughout the Company on a variety of programs. More specifically, the Women's Initiative is comprised of three committees that target areas where its membership strives to promote change, such as networking events, mentorship, and building an advocacy group aimed at gathering input on topics of importance for its membership. Networking events include the "Trailblazers" events where senior women share their success stories through personal accounts of career growth and impact and speakers on Male Allyship in the workplace.

- The Diversity Leadership Council focuses on unlocking the potential of a variety of perspectives, capabilities and cultural experiences. We believe in a culture of diversity and inclusion that promotes creativity, collaboration and innovation, which is critical to the success of our business and defining the markets of tomorrow. To reinforce this belief, this council is a collective voice on how Cboe strives to create a diverse workforce that reflects the world in which we operate. Further, they are charged with oversight on how we build an inclusive culture where every employee feels welcome, safe and empowered.

- The Cboe Veterans Initiative operates based on four main pillars: recruiting, mentorship, service, and networking. The vision for the Cboe Veterans Initiative is to actively seek Veteran talent, provide mentorship to veterans within and outside of the Company, commit to giving back to the Veteran community through financial and non-monetary support, and encourage outreach to Cboe Veterans.

- PRISM+ is focused on celebrating the LGBTQIA+ community through education and allyship.

- Cboe UNIDOS is committed to increasing and sustaining the visibility of Hispanic/Latinos/Latinx associates at Cboe by improving opportunities through education, mentorship and networking.

- The Asian and Pacific Islanders Network (APIN) is committed to empower, support and advocate for Asian and Pacific Islander associates at Cboe. We strive to foster an inclusive and supportive environment that values the diverse backgrounds, perspectives and contributions of APIN associates.

- Black Equity and Allyship in Markets (BEAM) unites Allies and Black professionals to address the unique challenges to opportunity, entry, and advancement in financial markets and create a workplace where equity is reimagined, equal opportunities are accessible and associates from all backgrounds can ascend to leadership roles and contribute to the strategy and achievements of Cboe.

To reinforce our commitment to organization wide education and commitment to diversity and inclusion we also provide harassment and unconscious bias training for employees.

We also have a community engagement program, Cboe Empowers, that provides mentorship, scholarship and guidance to under-resourced students throughout their educational journey through access to Cboe's associates, resources, work environment and other learning and experience opportunities. Initially launched in Chicago, the vision for Cboe Empowers is to support students through all stages of education from elementary or primary school to career by providing mentorship, learning and experience opportunities, professional development and scholarships to students within the Chicago Public School system and graduates pursuing higher education. Cboe Empowers expects to supplement its own programs by collaborating with local partners, including the Greenwood Project and Working in the Schools, to help create maximum impact for its participants. In 2023, Cboe Empowers awarded seven full-ride college scholarships to under-resourced high school students to attend the school of their choice, expanding the program to include students from Kansas City. Five of the scholarships were awarded to students from Chicago and two were awarded to students from Kansas City.

Performance and Career Development

Cboe expects employees to perform their duties to the best of their ability and to develop their competencies for career growth. We recognize the need to provide ongoing, timely, and constructive performance feedback. Cboe has designed a Performance Management Program that drives the professional development of our employees while also providing fair and equitable rewards and recognition.

The principles of performance management include:

- align performance expectations with strategy and goals of the business,

- ongoing open dialogue regarding performance and development,

- foster accountability for behaviors and actions which contribute to a positive culture, and

- commitment to deliver results which drive our business.

To help promote career development, among other items, Cboe offers a formal mentorship program among its associates. The mentorship program was originally developed by the Cboe Women's Initiative. In 2023, the mentorship program paired over 60 mentors with mentees across the Company.

Employee Health and Well-Being and Comprehensive Benefits Program

Cboe's vision is to support the overall wellness of employees and their families through education and activities that encourage a healthy lifestyle, resulting in improved health and productivity. Our programs and benefit plans provide a corporate atmosphere of collective well-being and incorporate strategies for physical, emotional, mental and financial wellness. Our programs include enhanced employee assistance programs, wellness programs and challenges (which address both mental and physical well-being), and webinars and classes through our retirement vendor to support the financial health of our employees.

With the global pandemic in 2020 and 2021, there was further focus on our Employee Assistance program, which was strengthened across the globe with a diverse set of mental health resources aimed at supporting our employees during a unique and challenging time.

Employee Engagement and Pulse Surveys, Town Halls and an Open-Door Policy

In 2023, Cboe conducted our sixth annual employee engagement survey and has implemented career, leadership, and culture focused programs in response to the survey findings. Our participation rate exceeds standard benchmarks and a significant majority of our employees would recommend Cboe as a great place to work.

Our senior management team continues to hold the commitment to an open-door policy and encourages the free flow of information and communication in furtherance of active transparency. With the recent executive transitions, our ability to tap into the voice of our employees was critically important and we conducted a pulse survey to gauge sentiment. Our CEO also issues weekly letters to help connect with our employees. Human Resources also provided ongoing regular resources and tips to help support the variety of challenges, from the new reality of hybrid work to childcare and elder care, that our employees faced throughout 2023.

Cboe also continues to create an open and frank atmosphere in which any grievance, complaint, suggestion or question receives a timely response. Cboe offers a whistleblower hotline for complaints, which can be made anonymously. Additionally, employees can raise questions and suggestions to the Cboe Human Resources team either in-person or via a group email address and are either responded to individually or addressed at our Global Town Hall meetings. The objective of these town halls is to provide employees an update on Company news, share updates from major business lines, as well as provide a forum to ask questions and offer feedback. Town halls can include updates on anything from legislation that may impact our business to ESG topics. Employees are encouraged to participate in free flow of information and communication and to offer positive and constructive feedback in furtherance of active transparency.

Training and Succession Planning

We believe that the development of all Cboe employees helps drive our collective success. Through skill and competency development we signal our investment in all while also enabling enhanced productivity. Through our tuition reimbursement program, our employees receive financial support in their pursuit of specialized university courses and degrees. In addition to our ongoing offering of online courses on diverse topics through our corporate university, CboeU, employees can participate in the CboeLearns hybrid program focused on virtual classroom instruction combined with work application and CboeLive, which is focused on business topics to foster organizational-wide knowledge sharing and education.

Leadership is another critical element of our success at Cboe. The Board of Directors of Cboe and global senior leaders participated in a Clifton StrengthsFinder assessment and workshop to learn about their leadership style and how to empower Cboe associates based on their natural strengths. Leaders can participate in Lead the Way, Cboe's leadership development hybrid program focused on virtual classroom instruction combined with in-person facilitated workshops and exercises, and individual development plans leveraging insights for a 360-feedback process. This leadership training program has helped to expand on the development of our high potential leaders, further strengthening the leadership bench and accelerating readiness of this key talent pool.

Cboe has held several succession planning discussions with the Compensation Committee and Board of Directors to plan for the fulfillment of essential roles, such as the CEO and other senior officers. This process includes investments in advanced development planning for targeted successors to accelerate their readiness through key internal projects and assignments as well as tailored training. Diversity and inclusion are a formal part of Cboe's succession planning process as we work to identify and advance internal diverse talent and, in parallel, continually scan external talent pools for successors. Following the recent executive transitions, one of the new CEO's top areas of focus is to develop talent and spend time on succession planning.

Employees

As of December 31, 2023, we employed 1,647 individuals in the following locations:

Location	Number of Employees
United States	1,107
United Kingdom	186
Netherlands	125
Canada	80
Australia	78
Philippines	30
Japan	26
Singapore	9
Hong Kong	5
Switzerland	1

Of these employees, 595 were involved in technology operations and 185 were involved in direct support of trading operations. The remaining 867 employees provide business development, financial, regulation, human resources, compliance, legal, planning and research, administrative, and managerial support.

We have three building engineers that are covered by a collective bargaining agreement, which expires on March 31, 2024, with the International Union of Operating Engineers Local 399, AFL-CIO. Management believes that we have strong relationships with our employees, and we have never experienced a work stoppage.

Information about our Executive Officers

Set forth below is information regarding our executive officers:

Name	Age	Position
Fredric J. Tomczyk	68	Chief Executive Officer
Catherine R. Clay	56	Executive Vice President, Global Head of Derivatives
Stephanie Foley	42	Executive Vice President, Chief Human Resources Officer
Jill M. Griebenow	44	Executive Vice President, Chief Financial Officer
David Howson	47	Executive Vice President, Global President
Adam Inzirillo	47	Executive Vice President, Global Head of Data and Access Solutions
Christopher A. Isaacson	45	Executive Vice President, Chief Operating Officer
Patrick Sexton	59	Executive Vice President, General Counsel and Corporate Secretary
Allen Wilkinson	36	Senior Vice President, Chief Accounting Officer

Fredric J. Tomczyk. Mr. Tomczyk is our current Chief Executive Officer and director. He has served as our CEO since September 2023. Mr. Tomczyk served on our Board as an independent director from July 2019 to September 2023. He is the retired President and Chief Executive Officer of TD Ameritrade Holding Corporation, a position he held from October 2008 to October 2016. Prior to this position, he held positions of increasing responsibility and leadership with the TD organization from 1999. Mr. Tomczyk was also a member of the TD Ameritrade board of directors from 2006 to 2007 and 2008 to 2016. Prior to joining the TD organization in 1999, Mr. Tomczyk was President and Chief Executive Officer of London Life. He currently serves on the board of Willis Towers Watson PLC, a publicly traded company, and is a member of the Cornell University Athletic Alumni Advisory Council. Mr. Tomczyk also previously served as the lead independent director of Sagen MI Canada Inc., a publicly traded company, and of its operating subsidiary Sagen Mortgage Insurance Company Canada, as a director of Knight Capital Group, Inc. and a trustee of Liberty Property Trust, both formerly publicly traded companies, and as a director of the Securities Industry and Financial Markets Association. Mr. Tomczyk holds a B.S. degree in Applied Economics & Business Management from Cornell University and is a Fellow of the Institute of Chartered Accountants of Ontario.

Catherine R. Clay. Ms. Clay is our Executive Vice President, Global Head of Derivatives, a position she has held since October 2023. Previously, she was Executive Vice President, Global Head of Data and Access Solutions from March 2021 to October 2023, Senior Vice President, Global Head of Information Solutions of the Company's subsidiary Cboe Exchange, Inc. from February 2019 to March 2021, and she has held other various senior leadership positions since 2015, including Vice President Business Development, a position she was appointed to upon the Company's acquisition of Livevol, Inc. Prior to that, she served as Chief Executive Officer of Livevol, Inc. from 2013 to 2015 and as its

Chief Strategy Officer from 2010 to 2013. Prior to that, she served as Founder of Thales LLC from 2006 through 2010. Ms. Clay holds a B.S. degree from University of Colorado-Boulder.

Stephanie Foley. Ms. Foley is our Executive Vice President, Chief Human Resources Officer, a position she has held since October 2023. Previously, she served as Senior Vice President, Chief Human Resources Officer of the Company's subsidiary Cboe Exchange, Inc. from June 2022 to October 2023. Prior to joining Cboe in 2022, Ms. Foley was Chief Human Resources Officer, Americas, of Kearney Holdings Limited from August 2016 to May 2022. Ms. Foley holds a bachelor's degree in psychology and sociology from the University at Albany, SUNY, and a master's degree in industrial organizational psychology from New York University.

Jill M. Griebenow. Ms. Griebenow is our Executive Vice President, Chief Financial Officer, a position she has held since July 2023. Previously, she served as Executive Vice President, Chief Accounting Officer from July 2023 to February 2024, Treasurer from July 2023 to October 2023 and as Senior Vice President, Chief Accounting Officer from August 2018 to July 2023. She also previously served as Chief Financial Officer of Cboe Europe from 2014 to 2018 and was employed by Bats in the financial area since 2011. Prior to that, she held various positions at Ernst & Young LLP from 2001 to 2011. Ms. Griebenow is a certified public accountant and holds a bachelor's degree in accounting from the University of Northern Iowa.

David Howson. Mr. Howson is our Executive Vice President, Global President, a position he has held since May 2022. Previously, he was our Executive Vice President, President Europe and Asia Pacific, from July 2021 to May 2022, Executive Vice President, President Europe from January 2020 to July 2021 and Chief Operating Officer of Cboe Europe from 2013 to 2019. Prior to that, he served as Founder, Chief Technology Officer of Equiduct from April 2006 through June 2013. Prior to that he held various international Financial Services consulting roles between 1998 and 2006 for TIBCO Finance Technology and Thomson Reuters. Mr. Howson serves as the Chairman of the Boards of Directors of the Exchanges, and of CFE, Cboe SEF, and Cboe Canada Inc. Mr. Howson holds a First Class Honours bachelor's degree from the University of Newcastle-upon-Tyne.

Adam Inzirillo. Mr. Inzirillo is our Executive Vice President, Global Head of Data and Access Solutions, a position he has held since October 2023. Previously, he served as Senior Vice President, Head of North American Equities since 2020, and Senior Vice President, Head of U.S. Equities since September 2019. Prior to joining Cboe, Mr. Inzirillo was Managing Director, Head of Order Routing and Execution Products at Bank of America Merrill Lynch, where he worked for nearly a decade. Previously, he was Executive Director, Head of Broker Dealer Business Development at UBS Securities LLC from 2005 through 2010. Mr. Inzirillo also serves on the Board of Directors of Cboe Canada Inc. Mr. Inzirillo holds a bachelor's degree in economics from Bucknell University and a M.B.A. degree from Dowling College.

Christopher A. Isaacson. Mr. Isaacson is our Executive Vice President, Chief Operating Officer, a position he has held since January 2019. Previously he was our Executive Vice President, Chief Information Officer, a position he was appointed to upon the Company's acquisition of Bats. Prior to that, he served as Bats' Executive Vice President and Global Chief Information Officer since February 2014, he served as Bats' Senior Vice President, Chief Operation Officer from 2007 to 2014 and he has held other various senior leadership positions since 2005. Prior to being one of the founders of Bats, Mr. Isaacson was a software developer at Tradebot Systems, Inc. from 2003 to 2005. Mr. Isaacson serves as the Chairman of the Board of Directors of Cboe Digital and previously served as the Chairman of the Boards of Directors of CFE and Cboe SEF and on the Boards of Directors of Cboe Japan, Cboe Australia, and OCC. Mr. Isaacson holds a bachelor's degree in information systems with a minor in math from Nebraska Wesleyan University and an M.B.A. degree from the University of Nebraska-Lincoln.

Patrick Sexton. Mr. Sexton is our Executive Vice President, General Counsel and Corporate Secretary, a position he has held since March 2018. Previously, he was Deputy General Counsel of the Company's subsidiary Cboe Exchange, Inc. He served in that capacity from July 2013 to March 2018 and has acted as legal, regulatory and compliance counsel with increasing responsibility and oversight since joining the Company in 1997. Mr. Sexton holds a bachelor's degree from the University of Notre Dame and a J.D. degree with honors from Notre Dame Law School.

Allen Wilkinson. Mr. Wilkinson is our Senior Vice President, Chief Accounting Officer, a position he has held since February 2024. Previously, he served as Vice President, Controller of the Company, from June 2021 to February 2024 and has been employed in the financial area in various roles since April 2018. Prior to that, he also held various positions at PricewaterhouseCoopers LLP from January 2011 to April 2018. Mr. Wilkinson is a certified public accountant and holds master's and bachelor's degrees in accounting from the University of Missouri – Columbia.

Corporate Social Responsibility

The Company recognizes that operating in a socially responsible manner helps promote the long-term interests of our investors, associates, customers, community members, and all other stakeholders with whom we live and work. We are actively engaged with policymakers on behalf of our customers to promote fairness, innovation, trust, and confidence in our markets, and we continuously seek to further our corporate social responsibility efforts through:

- Industry Leadership – As an industry leader, we are deeply committed to building trusted markets for participants.
- Diversity and Associate Engagement – We strive to create a diverse workforce that reflects the world in which we operate, and to build an inclusive culture where every associate feels welcome, safe and empowered.
- Corporate Governance – Corporate governance is embedded in the operations of our company. The Company's Board of Directors recognizes that operating in a socially responsible manner helps promote the long-term interests of our organization, stockholders, associates, industry and community.
- Promoting Transparency and Efficient Capital Markets – We maintain a comprehensive regulatory program in support of providing trusted markets and integrity in the marketplace.
- Environmental Performance – We recognize the need to do our part in supporting the environment.

We believe being a good citizen means that we hold ourselves accountable for the integrity of the markets and to the communities we serve, seek to help resolve conflicts and build consensus, inform those impacted before taking action, lead by example and serve as part of the solution. We also seek to be good citizens to the communities we serve by being committed to being environmentally conscious. Additionally, being good citizens also means that we strive to support our associates and better serve our industry and community through our human capital development, volunteerism and policies. See “Human Capital Management” subsection above for more information.

Additional information on our approach to ESG can be found in the 2023 Cboe Global Markets, Inc. Environmental, Social and Governance Report located in the Corporate Social Responsibility section of our website at https://www.cboe.com/about/esg/, which does not form a part of this Form 10-K.

Available Information

Our website is www.cboe.com. The Company files annual, quarterly and current reports, proxy statements and other information with the SEC under the Exchange Act. The Company makes available, free of charge, on its website its annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after such reports are electronically filed with, or furnished to, the SEC. The Company's reports filed with, or furnished to, the SEC are also available on the SEC's website at www.sec.gov.

In addition, we have posted on our website the charters for our (i) Audit Committee, (ii) Compensation Committee, and (iii) Nominating and Governance Committee, as well as our Code of Business Conduct and Ethics and Corporate Governance Guidelines. We will provide a copy of these documents without charge to stockholders upon written request to Investor Relations, Cboe Global Markets, Inc., 433 West Van Buren Street, Chicago, Illinois 60607. Our website and information included in or linked to our website are not part of this Form 10-K.

Item 1A. Risk Factors.

The risks and uncertainties described below are those that we believe are material at this time relating to our business. These risks and uncertainties, however, are not the only risks and uncertainties that we face. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial may also significantly impact us. Any of these risks and uncertainties may materially and adversely affect our business, financial condition or results of operations, liquidity, and cash flows.

Summary of Risk Factors

The following is a summary of the key risks and uncertainties described below that we believe are material to us at this time:

- the loss of our right to exclusively list and trade certain index options and futures products;
- economic, political and market conditions;
- compliance with legal and regulatory obligations;
- price competition and consolidation in our industry;
- decreases in trading or clearing volumes, market data fees or a shift in the mix of products traded on our exchanges;
- legislative or regulatory changes or changes in tax regimes;
- our ability to protect our systems and communication networks from security vulnerabilities and breaches;
- our ability to attract and retain skilled management and other personnel;
- increasing competition by foreign and domestic entities;
- our dependence on and exposure to risk from third parties;
- global expansion of operations;
- factors that impact the quality and integrity of our and other applicable indices;
- our ability to manage our growth and strategic acquisitions or alliances effectively;
- our ability to operate our business without violating the intellectual property rights of others and the costs associated with protecting our intellectual property rights;
- our ability to minimize the risks, including our credit, counterparty, investment, and default risks, associated with operating a European clearinghouse;
- our ability to accommodate trading and clearing volume and transaction traffic, including significant increases, without failure or degradation of performance of our systems;
- misconduct by those who use our markets or our products or for whom we clear transactions;
- challenges to our use of open source software code;
- our ability to meet our compliance obligations, including managing potential conflicts between our regulatory responsibilities and our for-profit status;
- our ability to maintain BIDS Trading as an independently managed and operated trading venue, separate from and not integrated with our registered national securities exchanges;
- damage to our reputation;
- the ability of our compliance and risk management methods to effectively monitor and manage our risks;
- restrictions imposed by our debt obligations and our ability to make payments on or refinance our debt obligations;
- our ability to maintain an investment grade credit rating;
- impairment of our goodwill, long-lived assets, investments or intangible assets;
- the impacts of pandemics;
- litigation risks and other liabilities; and
- operating a digital asset business, and clearinghouse, including the expected benefits of our Cboe Digital acquisition, cybercrime, changes in digital asset regulation, losses due to digital asset custody, and fluctuations in digital asset prices.

Risks Relating to Our Business

Loss of our right to exclusively list and trade certain index options and futures could have a material adverse effect on our financial performance.

We hold exclusive licenses to list securities index options on the S&P 500 Index, the Russell 2000 Index, and other indices granted to us by the owners of such indices, and additionally hold exclusive rights to our proprietary VIX Index

methodology that provides the basis for VIX options and futures. In 2023, approximately 69.2% of our transaction and clearing fees less liquidity payments and routing and clearing costs ("net transaction and clearing fees") were generated by futures and index options, the overwhelming majority of which were generated by products based on exclusively licensed indices (e.g., SPX options) and products based on our proprietary VIX methodology (e.g., VIX options and futures). The bulk of this revenue is attributable to our SPX options and VIX options and futures. As a result, our revenues less cost of revenues are dependent in large part on the exclusive licenses we hold for these indices and our ability to maintain our exclusive proprietary rights in the VIX Index methodology and related products and indices.

There is a risk, with respect to each of our current exclusive licenses, that the owner of the index may not renew the license with us on an exclusive basis or at all. In the first event, we would be subject to multiple listing in the trading of what is now an index product traded by us on an exclusive basis, which could result in a loss of market share and negatively impact our profitability. In the second event, we could lose the right to list the index product entirely. The loss or limited use of any of our exclusive index licenses, especially for the S&P 500 Index, for any reason could have a material adverse effect on our business and profitability.

In addition to the risks related to our exclusive licenses, if we are unable to retain exclusive proprietary rights in the VIX Index methodology and related products and indices, our volatility products could be subject to multiple listing which could have a material adverse effect on us.

The EU has adopted legislation affecting providers and users of benchmark indices in the EU. MiFIR requires benchmarks used to value a financial instrument in the EU to be made available on a non-discriminatory basis to all EU trading venues and central counterparty clearinghouses for the purposes of trading and clearing. As a result, owners of such benchmarks must provide licenses on fair, reasonable and non-discriminatory terms. While similar legislation to MiFIR has not been proposed in the U.S., if it were passed, it could cause us to lose our exclusive rights to list and trade proprietary and licensed index products. Further, in 2018, the EU implemented the EU Benchmark Regulation, which regulates users, data providers and calculators of benchmarks (“administrators”) in the EU, and among other things (subsequent to the transitional period applicable to third country benchmark administrators) prohibits use of benchmarks provided by administrators outside the EU in connection with EU financial instruments unless the administrator is deemed to be subject to an EU equivalent regulatory regime or the benchmark is endorsed or recognized in the EU. These regulations and other emerging regulatory regimes around the world may impact international customers’ interest in or ability to trade index-based products listed on our U.S. exchanges, as well as impact our expansion into foreign trading of our index-based products and our ability to license proprietary indices for use outside of the U.S.

Furthermore, our competitors may succeed in developing, offering and providing a market for the trading of index-based or volatility products, such as cash settled index options or options on ETFs, that are economically similar to those that we offer and they may become successful and take away volume from our products. It is also possible that a third party may offer trading in index-based products that are the same as those that are the subject of one of our exclusive licenses, but in a jurisdiction in which the index owner cannot require a license or in a manner otherwise not limited by our exclusive license. In addition, a diminished perceived attractiveness of or change in demand for any of the indices underlying our products and services, especially the S&P 500 Index, for any reason could have a material adverse effect on our business and profitability.

The value of our licenses to exclusively list index options and futures also depends on the continued ability of index owners to require licenses for the trading of options and futures based on their indices. Although we and other index owners have prevailed in legal actions seeking to challenge our rights to exclusively license indices, we may be subject to changes in the law or other actions taken in the future that might impede our ability to exclusively offer trading in certain index options and futures.

General economic conditions and other factors beyond our control could significantly reduce demand for our products and services and harm our business.

The volume of trading and clearing transactions and the demand for our products and services are directly affected by economic, political and market conditions in the U.S., Europe and elsewhere in the world that are beyond our control, including:

- economic, political and geopolitical market conditions;
- broad trends in business and finance;
- concerns over inflation levels and recessions;
- wavering institutional or retail confidence levels;

- government or central bank actions, such as changes in government fiscal and monetary policy and foreign currency exchange rates;
- other legislative and regulatory changes;
- the availability of short-term and long-term funding and capital;
- the perceived attractiveness of the U.S., European, Canadian, Australian or Japanese capital markets;
- the availability or perceived attractiveness of alternative investment opportunities or indices;
- changes in the level of trading activity in underlying instruments;
- changes and volatility in the prices of securities;
- changes in the volume of foreign currency transactions;
- changes in supply and demand for currencies;
- movements in currency exchange rates;
- the level and volatility of interest rates;
- changes in the financial strength of market participants;
- consolidation among market participants and market data subscribers;
- unforeseen market closures, suspensions of open outcry trading or other disruptions in trading and clearing; and
- disruptions due to terrorism, war, extreme weather events, pandemics or other catastrophes.

Any of these factors, individually or collectively, could have a material adverse effect on our business, financial condition and operating results by causing a substantial decline in the financial services markets and reducing trading and clearing volumes and demand for market data.

Our business may be adversely affected by price competition.

The securities industry is characterized by intense price competition, especially with respect to transaction fees. We may be required to adjust pricing to respond to actions by new or existing competitors, which could adversely impact our business, financial condition and operating results. We also compete with respect to the pricing of market data and value-added market data, such as historical market data.

In our options segment, the pricing model for trade execution has changed in response to competitive market conditions, and our competitors have adjusted transaction fees and fee structures accordingly, including by opening new exchanges, which allow them to offer multiple pricing models that can appeal to different segments of market participants. These changes have resulted in significant pricing pressures on us, especially on transaction fees and incentives for multi-listed products. As a result of these pricing pressures, our average rate per multi-listed options contract may decrease. It is likely that this pressure will continue and even intensify as our competitors continue to seek to increase their share of trading by further reducing their transaction fees or by offering other financial incentives to order providers and liquidity providers to induce them to direct orders to their markets.

In addition, one or more competitors may engage in aggressive pricing strategies and significantly decrease or completely eliminate their profit margin for a period of time in order to capture a greater share of trading volume. Some order-providing firms on our exchanges have taken ownership positions in options exchanges that compete with us and such exchanges have given those firms added economic incentives to direct orders to them.

With respect to our proprietary products, we compete with futures exchanges and swap execution facilities that offer similar products and other financial market participants that offer over-the-counter derivatives. We also compete against certain multi-listed options products, such as SPY options, which offer some of the features of our proprietary products, such as SPX options.

To attract market share, we may offer “inverted” pricing specials or no-transaction fee trading from time to time, per various fee schedules across our equities exchanges. These forms of promotions, along with other supplemental liquidity programs, may adversely affect our profitability.

Further, regulatory and legal developments, including the new equity market structure proposals and the new Volume Based Proposal could also adversely impact, as applicable, our ability to adjust pricing to respond to actions by new or existing competitors, the amount of liquidity providers can provide, our ability to offer members volume-based pricing. Additionally, in the U.S., we are generally required to file with the SEC any changes to the fees that we charge and in recent years the SEC has more heavily scrutinized pricing changes.

If we are unable to compete successfully with respect to the pricing of our services and products, our business, financial condition and operating results may be materially and adversely affected. We could lose a substantial percentage of our share of trading if we are unable to price transactions in a competitive manner. Also, our profits could decline if competitive pressures or regulatory changes force us to reduce fees.

A significant portion of our operating revenues is generated by our transaction and clearing-based business. If the amount of trading volume on our markets or clearing volume decreases, or the product mix shifts to lower revenue products, our revenues from transaction and clearing fees will most likely decrease.

In 2023, approximately 71.2% of our revenues less cost of revenues were generated by our transaction and clearing-based business. This business is dependent on our ability to attract and maintain order flow, both in absolute terms and relative to other market centers. If the amount of trading volume on our Exchanges, Cboe Digital Exchange, CFE, BIDS Trading, Cboe Canada Inc., notional value traded on Cboe FX, Cboe SEF, Cboe Europe Equities and Derivatives, Cboe Australia, and Cboe Japan or clearing volumes at Cboe Clear Europe or Cboe Clear Digital decrease, we are likely to see a decrease in fees.

Our total trading or clearing volumes could decline if our market participants reduce their trading or clearing activity for any reason, such as:

- heightened capital requirements;
- transaction tax;
- regulatory or legislative actions;
- reduced need to trade due to changes in volatility and/or passive investment trends;
- reduced access to capital required to fund trading activities;
- consolidation among market participants;
- suspensions of open outcry trading; or
- significant market disruptions.

Over the past few years, a number of legislative actions have been taken, both domestically and internationally, that may cause market participants to be subject to increased capital requirements and additional compliance burdens. These actions, including MiFID II, MiFIR, and the new equity market structure proposals, may incentivize trading away from our markets or cause market participants to reduce trading activity on or routing to our markets.

In addition, the transaction fees generated are different based on type of product and other factors, including the type of customer and certain volume discounts. If the amount of our trading volume decreases, including as a result of the Volume Based Proposal proposed prohibition on volume-based agency tiers, or the mix traded shifts to our lower revenue per contract products, our revenues from transaction fees will most likely decrease. We can offer no assurance that we would be able to reduce our costs to match the amount of any such decrease.

Revenues from our market data fees and access and capacity fees may be reduced due to declines in our market share, trading volumes or regulatory changes.

The occurrence of any event that reduces the amount of market data fees that we receive, whether as a result of fee reductions, fewer members subscribing to the U.S. tape plans or other market data offerings, lack of new products, declines in market share, trading volumes, or notional volumes, or regulatory changes may have a direct negative impact on our business, financial condition, and operating results. For example, if our market share of U.S. listed equities and options or Cboe's European equities trading volume were to decline, our share of market data fees could also decline. Moreover, market data fees could decline as a result of a reduction in the number of market data users, for example because of consolidation among market data subscribers or due to a decline in professional subscriptions as a result of staff reductions in the financial services industry or otherwise.

Regulatory and legal developments could also impact the fees we receive from market data and access and capacity, or our cost in providing such services. In the U.S., we are generally required to file with the SEC any changes to the fees that we charge for our securities market data products and access and capacity fees. In recent years, certain industry groups have objected to the ability of exchanges to charge for certain market data products. In addition, the SEC and some media have scrutinized market data and market access. As discussed above, the implementation of MDIR or the new equity market structure proposals could cause Cboe's equities exchanges, BZX, BYX, EDGX, and EDGA, to require additional resources to comply with the new rules, and may have a material impact on our business, financial condition,

and operating results, including if, for example, there are lower SIP plan revenues or we must reduce the fees or access fee caps we charge.

In addition, the SEC approved a Consolidated Data Plan to replace the three equity data plans that govern the dissemination of real-time, consolidated market data for NMS stocks. While the Consolidated Data Plan order must be resubmitted by SEC, the plan may have a negative impact on the applicable market data revenues that we receive that are generated from such new plan.

We believe Cboe Europe Equities and Derivatives currently offers market data to customers on a non-discriminatory basis at a reasonable cost. As European regulators determine how market data should be disaggregated and what is a reasonable commercial basis for providing market data, it could affect our ability to offer market data products in the same manner that we do today thereby causing an adverse effect on our European market data revenues. While MiFID II and MiFIR aim to encourage a commercial solution to a consolidated tape in Europe, should this fail to materialize, policy makers might be encouraged to implement a mandatory solution that could impact our ability to develop our own commercial offering. As discussed above, the E.C. published provisions for a consolidated tape for the EU, which is expected to be implemented in 2026. As proposed, these provisions may have a material impact on our business, financial condition and operating results if, for example, we must reduce the fees we charge for market data.

The technology upon which we rely, including that of our service providers, may be susceptible to security vulnerabilities or breaches that could harm our business and our role in the global marketplace puts us at heightened risk relative to other public companies.

The secure and reliable operation of our technology, including our computer systems and communications networks, and those of our service providers, market participants, investments, and other third parties, is a critical element of our operations or our business, financial condition or operating results. These systems and networks may be subject to various cybersecurity incidents such as improper or inadvertent access to or disclosure of confidential, commercially sensitive, or personally identifiable information, data theft, corruption or destruction, ransomware, supply chain attack, denial of service attack, malware and other security problems, as well as acts of terrorism, attacks by threat actors including criminal groups, political activist groups and nation-state actors, attacks in connection with geopolitical activity such as the conflicts in Eastern Europe and the Middle East, criminal insider activity, employee error, service provider, market participant or third-party disruptions or security breaches and other events that are beyond our control. Additionally, cyber threats and the techniques used in cyberattacks change, develop and evolve rapidly, including from emerging technologies, such as advanced forms of artificial intelligence (“AI”) and quantum computing. Our increased adoption of remote working, usage of mobile and cloud-based technologies and amount of newly acquired companies and related integrations may increase our risk for a cybersecurity incident. Moreover, given our position in the global financial services industry and as critical infrastructure, we may be more likely than other companies to be a direct target, or an indirect casualty, of such events. While we have experienced in the past, and we expect to continue to experience, cybersecurity threats and events of varying degrees, we are not aware of any of these threats or events having a material impact on our business, financial condition or operating results to date, however we cannot assure you that we will not experience future threats or events that may be material.

We maintain policies, procedures and controls designed to safeguard against cybersecurity incidents and unauthorized access by protecting the confidentiality, integrity, availability and reliability of our systems, networks and information. These policies, procedures and controls are subject to monitoring, auditing, and evaluation practices, pursuant to our Enterprise Risk Management program, which is supported by a three lines of defense approach, and our other governance practices. Further, we developed and maintain cybersecurity and data privacy training programs for our employees and our third-party consultants who have access to our systems. We also conduct simulations, tabletop exercises, and response readiness tests and engage independent third parties on a routine basis to perform cybersecurity penetration assessments. Collectively, these safeguards and measures or those of our third-party providers, including any cloud technologies, may prove inadequate to prevent the attendant risk posed by cybersecurity incidents, subjecting us to contractual restrictions, liability and damages, loss of business, penalties, unfavorable publicity, increased scrutiny by our regulators, and materially impacting our business, financial condition and operating results. We may be required to expend significant resources in the event of any real or threatened breaches in security, including to protect against threatened breaches, to alleviate harm caused by an actual breach, and to address any reputational harm or litigation or regulatory liability. Despite our cybersecurity measures, security vulnerabilities or breaches may remain undetected for an extended period of time. As a result of our ongoing risk management and related assurance activities, we have identified, addressed, and continue to address potential security vulnerabilities and/or internal control weaknesses. We are not aware of any of these vulnerabilities having a material impact on our business, financial condition or operating results to date. However, we cannot provide assurance that any future vulnerabilities, internal control weaknesses, or events that

may be experienced will not be material. Such harms also could cause us to lose market participants, experience lower trading volume, and negatively impact our competitive advantage and business, financial condition and operating results.

Additionally, as threats continue to evolve and increase, as we continue to expand ongoing risk management and related assurance activities, and as the domestic and international regulatory environment related to cyber security and data protection becomes increasingly rigorous, we may be required to devote significant additional resources to modify and enhance our security controls and to identify and remediate any security vulnerabilities. Those additional resources could have an adverse effect on our business, financial condition and operating results.

If we fail to attract or retain highly skilled management and other employees our business may be harmed.

Our success largely depends on the skills, experience and continued efforts of management and other key personnel. As a result, to be successful, we must retain and motivate executives and other key employees. However, we have no assurances that these employees will remain with us. The roles and responsibilities of departing executive officers and employees will need to be filled either by existing or new officers and employees, which may require us to devote time and resources to identifying, hiring and integrating replacements for the departed executives and employees that could otherwise be used to pursue business opportunities, which could have a material adverse effect on our overall business, financial condition and operating results.

There is substantial competition for qualified and capable personnel, particularly in the technology space, which may make it difficult for us to retain and recruit qualified employees in sufficient numbers. This competition has continued due to tighter supply of available labor and compensation inflation. We have previously faced and may in the future face increased challenges in retaining and attracting qualified employees. If we fail to retain our current employees, it would be difficult and costly to identify, recruit and train replacements needed to continue to conduct and expand our business. In particular, failure to retain and attract qualified technology personnel could result in systems failures. Consequently, our reputation may be harmed, we may incur additional costs and our profitability could decline. There can be no assurance that we will be able to retain and motivate our employees in the same manner as we have historically done.

Additionally, effective succession planning is also important to our long-term success. For example, on September 18, 2023, Edward T. Tilly, former Chief Executive Officer of the Company, resigned and voluntarily terminated his employment with the Company. Following Mr. Tilly's resignation, Fredric J. Tomczyk, an existing director of the Company, was appointed as Chief Executive Officer of the Company, effective as of September 18, 2023. Further, on July 6, 2023, Brian N. Schell, former Executive Vice President, Chief Financial Officer and Treasurer, announced his departure from the Company to pursue a new professional opportunity outside of the exchange industry. Jill M. Griebenow, Senior Vice President, Chief Accounting Officer, was appointed to serve as Executive Vice President, Chief Financial Officer, Treasurer and Chief Accounting Officer effective July 10, 2023, and currently serves as Executive Vice President, Chief Financial Officer. Additionally, on October 12, 2023, Catherine R. Clay was appointed to serve as Executive Vice President, Global Head of Derivatives and Adam Inzirillo was appointed to serve as Executive Vice president, Global Head of Data and Access Solutions. Failure to ensure effective transfer of knowledge and smooth transitions involving our management team and key employees, including the recent leadership transitions, could hinder our strategic planning and execution.

Intense competition could materially adversely affect our market share and financial performance.

The market for trade execution services, clearing and products is intensely competitive in the asset classes and geographies in which we operate. Increased competition may result in a decline in our share of trading activity and a decline in our revenues from transaction and clearing fees and market data fees, thereby materially adversely affecting our operating results. We compete with a number of entities on several different fronts, including the cost, quality and speed of our trade execution, functionality and ease of use of our trading and clearing platforms, range of our products and services, our technological innovation and adaptation and our reputation. In particular, we have seen increased competition from off-exchange venues, which have increased their share of trading activity. See "Business – Competition" for more information.

Some of our competitors and potential competitors have greater financial, marketing, technological, personnel and other resources than we do. These factors may enable them to develop similar or more innovative products, to offer lower transaction and clearing fees or better execution to their customers or to execute their business strategies more quickly or efficiently than we can. In addition, our business, financial condition and operating results may be materially adversely affected if we cannot successfully develop, introduce and/or market new services and products or if we need to adopt costly and customized technology for our services and products.

Furthermore, new or existing competitors may:

- respond more quickly to competitive pressures;
- develop products that compete with our products or are preferred by our customers;
- offer products and services at prices below ours to gain market share and to promote other businesses;
- develop and expand their technology and service offerings more efficiently;
- provide better, more user-friendly and more reliable technology;
- develop and incorporate more quickly new technologies, such as AI, machine learning, blockchain, distributed ledger technology, quantum computing, tokenization, the cloud, and other emerging technologies;
- take greater advantage of acquisitions, alliances and other opportunities;
- market, promote, bundle and sell their products and services more effectively;
- leverage existing relationships with customers and alliance partners more effectively or exploit brand names to market and sell their services; and
- exploit regulatory disparities between traditional, regulated exchanges and alternative markets, including over-the-counter markets, that benefit from a reduced regulatory burden and lower-cost business model.

If our products, markets, services and technology are not competitive or we fail to anticipate or respond adequately to changes in technology, customer preferences and regulatory requirements or we encounter any significant delays in product development efforts our business, financial condition and operating results could be materially harmed.

We depend on third-party service providers for certain services that are important to our business. An interruption, significant increase in fees or cessation or impairment of such service by any third party could have a material adverse effect on our business, financial condition and operating results.

We depend on a number of service providers, including clearing organizations such as OCC, NSCC, DTC, CDS, LCH, Cboe Clear Europe, and Cboe Clear Digital, our wholly-owned subsidiaries, JSCC, ASX Clear Pty Ltd, and SIX x-clear; securities information processors such as the CTA, UTP Securities Information Processor and OPRA; regulatory and other service providers such as FINRA and OCC; the hosts of our data and disaster recovery centers; and various vendors of communications and networking products and services. In addition, we also depend on third party routing and clearing firms that are involved in processing transactions on our behalf. More specifically:

- If OCC, NSCC, DTC, CDS, LCH, Cboe Clear Europe, Cboe Clear Digital, JSCC, ASX Clear Pty Ltd, and SIX x-clear were unable to perform clearing services for existing or new products, or their clearing members were unable or unwilling to clear through them, transactions could likely not occur on our markets or there may be delays, including until clearing is moved to another clearing agency. In 2023, approximately 69.2% of our net transaction and clearing fees were generated by options and futures that were cleared through OCC.
- OPRA, UTP Securities Information Processor and the CTA consolidate options and equities market information, respectively, such as last sale reports and quotations. If any of them were unable to provide this information for a sustained period of time, we may be unable to offer trading on our options and equities markets.
- We are heavily dependent on technology for our markets, including third-party operation of production and disaster recovery data centers, as well as certain communications and networking products and services. If this technology is unavailable, as a result of a number of potential causes, including technical failure, natural disasters, extreme weather events, fraud or security attacks that we cannot predict or prevent, and cannot be replaced in a sufficiently short time period, we may be unable to operate our markets.
- We utilize a third-party cloud service provider to maintain secondary offsite backups of our and our customers' data and to distribute real-time data, and we may utilize third-party cloud service providers in the future for additional services. We do not control the operations of third-party cloud service providers or their facilities and may be vulnerable to disruptions in our access to the platform as a result of a number of potential causes, including technical failure, natural disasters, extreme weather events, fraud or security attacks that we cannot predict or prevent. Additionally, any vulnerability of third-party cloud service providers could expose our or our customers' confidential data, which could result in harm to our business reputation.
- FINRA and OCC provide certain regulatory services and functions for our options, equities and futures exchanges, while we retain regulatory responsibilities for such services. If FINRA or OCC stopped providing services, or provided inadequate services, we may be subject to action by the SEC or CFTC, or may have limitations placed upon our markets.
- We rely on FINRA CAT LLC, a subsidiary of FINRA, to provide services for the implementation of the CAT. If FINRA CAT LLC or its third-party service providers stop providing services or provide inadequate services, we and the other SROs may not be able to recover costs related to the implementation of CAT, incur penalties for delays of implementation, incur related litigation and other expenses, or incur regulatory liability including

enforcement action by the SEC or limitations placed upon our markets. In addition, until the funding model that shares the cost of the CAT between the SROs and industry members is implemented, the SROs may continue to incur additional significant costs, or result in not being able to collect on the promissory notes related to the funding of the implementation and operation of the CAT. See Note 8 (“Credit Losses”) and Note 9 (“Other Assets, Net”) for further information.

- We rely on third party routing and clearing firms to clear trades in U.S. listed equity securities routed by us to other markets, and to execute trades in options that we route to other markets.

With respect to options, all contracts traded on our exchanges must be cleared through clearing members of OCC. At December 31, 2023, there were 117 TPHs that are clearing members of OCC. Three clearing members accounted for approximately 79.6% of transaction and other fees collected through OCC in 2023. Additionally, the three largest clearing members clear the majority of the market-maker sides of transactions at Cboe Options, C2, BZX, EDGX and at all of the options exchanges. Should one of these clearing members or liquidity providers exit the business or withdraw from our options exchanges, impose additional market-maker financial requirements or if market-makers were unable to transfer to another clearing member or other liquidity providers were unable to provide additional liquidity, this could create a significant disruption to the options markets, including ours.

We cannot provide assurance that any of these providers will be able to continue to provide these services in an efficient manner or that they will be able to adequately expand their services to meet our needs. An interruption or malfunction in or the cessation or impairment of an important service by a third party or disruption of a third party’s operations could cause us to halt trading in some or all of our products or our services, make us unable to conduct other aspects of our business, cause us to experience the loss of a significant number of market participants or cause us to experience a significant reduction in trading activity on our options and futures markets, each of which could have a material adverse effect on our business, financial condition and operating results. In addition, our inability to make alternative arrangements, such as moving clearing to another clearing agency, in a timely manner, or at all, could have a material adverse impact on our business, financial condition and operating results.

If an index provider from which we have a license or a service provider with respect to proprietary products fails to maintain the quality and integrity of their indices or fails to perform under our agreements with them, if we fail to maintain the quality and integrity of our proprietary indices or indices and other values that we calculate as an index provider, or if customer preferences change, the revenues that are generated from the trading of proprietary products or the calculation and dissemination of index values may suffer.

We are a party to a number of license agreements that permit us to list tradeable products related to various indices that are among the most actively traded products on our exchanges. We also enter into agreements pursuant to which we act as an index provider and calculate and disseminate proprietary indices and other values. We believe that demand for our products is based in part on market perception of the quality and integrity of these indices. The quality and integrity of these indices are dependent on the ability of index providers, including us, to maintain the index. Maintenance includes ongoing index calculation, index rebalancing and dependance on index providers for a number of things, including the provision of index data. We also rely on index providers to enforce intellectual property rights against unlicensed uses of the indices and uses of the indices that infringe on our licenses. Some of our agreements concerning our proprietary products obligate the parties to those agreements to provide important services to us. If any of our index providers, including us, are unable to maintain the quality and integrity of indices, or if any of the index providers or service providers, including us, fail to perform their obligations under the agreements, trading in these products, and therefore transaction fees we receive, may be materially adversely affected or we may not receive the financial benefits of the agreements that we negotiated.

Differences in the calculations from methodologies described in published materials or incorrect calculations of our indices, including those instances that we announced on July 30, 2021, or the failure to implement any planned remedial changes may result in the loss of perceived quality and integrity of our indices, loss of demand for our products, increased potential for investigations and enforcement proceedings, increased potential for failure to perform our obligations under agreements concerning our products or in our capacity as an index provider, and increased exposure to third party claims and related litigation expenses, which could have a material adverse effect on our business, financial condition and operating results.

We may not effectively manage our growth, which could materially harm our business, financial condition and operating results.

We expect that our business will continue to grow, which may place a significant strain on our management, personnel, systems and resources. We must continually improve our operational, billing, financial and regulatory systems and managerial controls and procedures, and may need to continue to expand, train and manage our workforce. We must also maintain close coordination among our technology, legal, accounting, finance, marketing, sales, regulatory and compliance functions. If we fail to manage our growth effectively, our business, financial condition and operating results could be materially harmed. For example, from time to time we discover and remediate billing errors, however, we are not aware of any of these errors having a material impact on our business, financial condition or operating results to date, however we cannot assure you that we will not experience future errors or events that may be material or result in additional regulatory scrutiny. Furthermore, failure to successfully expand into new asset classes, such as the digital asset space or U.S. Treasuries, or new geographies may materially adversely affect our growth strategy and our future profitability.

Our continued growth will require increased investment by us in technology, facilities, personnel, and financial and management systems and controls. It also will require expansion of our procedures for monitoring and assuring our compliance with applicable regulations, and we will need to integrate, train and manage a growing employee base. The expansion of our existing businesses, any expansion into new businesses and the resulting growth of our employee base will increase our need for internal audit and monitoring processes, which may be more extensive and broader in scope than those we have historically required. We may not be successful in identifying or implementing all of the processes that are necessary. Further, unless our growth results in an increase in our revenues that is proportionally greater than or equal to the increase in our costs associated with this growth, our business, financial condition and operating results may be materially adversely affected.

Our global operations are complex and subject us to increased business and economic risks that could adversely affect our financial results.

In addition to our operations in the U.S., we have operations in the UK, continental Europe, Canada, Hong Kong, Australia, Japan, Philippines, and Singapore. In connection with our expanded global operations, we face certain risks inherent in doing business globally. These risks include:

- fluctuations in currency exchange rates;
- complying with extensive and complex compliance requirements, regulations and oversight by regulators other than our primary functional regulators;
- difficulties in staffing and associated costs in managing multiple international locations;
- general economic, social, and political conditions, including the conflicts in Eastern Europe and the Middle East;
- protectionist laws and business practices that favor local businesses in some countries;
- reduced protection for intellectual property rights in some countries;
- different technology platforms;
- language and cultural differences;
- potentially adverse tax consequence; and
- natural disasters and extreme weather events that may impact global operations differently.

If we are unable to manage the complexity of our global operations successfully, or if the risks above become substantial for us, our financial performance and operating results could suffer. Further, any measures we may implement to reduce risks of our global operations may not be effective, may increase our expenses and may require significant management time and effort.

More specifically, we have exposure to exchange rate movements between the British pound, the Euro, the Canadian dollar, the Hong Kong dollar, the Australian dollar, the Japanese Yen, the Philippine Peso, and the Singapore dollar against the U.S. dollar. Significant inflation or changes in foreign exchange rates with respect to one or more of these currencies could occur as a result of general economic or political conditions, acts of war or terrorism, changes in governmental monetary or tax policy, or changes in local interest rates. These exchange rate differences would affect the translation of our non-U.S. results of operations and financial condition into U.S. dollars as part of our consolidated financial statements. See Note 16 (“Segment Reporting”) for additional information about the Company’s geographic exposure.

We and our licensors may not be able to protect our respective intellectual property rights.

We rely on patent, trade secret, copyright and trademark laws, the law of the doctrine of misappropriation and contractual provisions to protect our proprietary technology, proprietary products, index methodologies and other proprietary rights. In addition, we rely on the intellectual property rights of our licensors in connection with our listing of exclusively-licensed index options and futures products. We and our licensors may not be able to prevent third parties from copying, or otherwise obtaining and using, our intellectual property without authorization, listing our proprietary or exclusively-licensed index products without licenses or otherwise infringing on our rights. We and our licensors may have to rely on litigation to enforce our intellectual property rights, determine the validity and scope of the proprietary rights of others or defend against claims of infringement or invalidity. We and our licensors may not be successful in this regard. Such litigation, whether successful or unsuccessful, could result in substantial costs to us, diversion of our resources or a reduction in our revenues, any of which could materially adversely affect our business.

Our clearinghouse operations expose us to associated risks, including credit, liquidity, market and other risks related to the defaults of clearing participants and other counterparties, and risks related to investing of collateral.

We are subject to risks related to operating our clearinghouse, Cboe Clear Europe, including the risks of failing to meet strict business continuity requirements and regulatory oversight, risks of default by clearing participants and counterparties, due to bankruptcy, lack of liquidity, operational failure or other reasons, the risks associated with the adequacy of participants' margin, default and interoperable funds, and risks related to investing of such funds. These risks could subject our business to substantial losses, reputational harm, regulatory consequences, including litigation, fines and enforcement actions, and the inability to operate our business, including the continued development of the European derivatives buildout. See below for additional risks related to our digital asset clearinghouse, Cboe Clear Digital.

To mitigate the credit risks related to defaults of clearing participants and other counterparties, including the market risk that we would only be able to close out a defaulting participant's positions at a loss, there are minimum participation criteria to become a clearing participant and clearing participants are required to provide collateral to cover the margin requirement and default fund contributions. Furthermore, Cboe Clear Europe interoperates with two central counterparties and requires its applicable participants to make deposits to an interoperable fund, which are pledged to the interoperable central counterparties. No guarantee can be given that the collateral provided will at all times be sufficient, maintain its value, or provide absolute assurance against us experiencing financial losses from defaults by the participants or counterparties on their obligations. In addition, although such collateral is preferably held in European central banks, Cboe Clear Europe also holds collateral in central securities depositories and commercial banks, which can expose us to risk of default by those institutions, and invests cash collateral in accordance with its investment policy, such as in securities issued by pre-approved sovereign issuers and reverse repurchase agreements with overnight maturities, which expose us to risk of counterparty default which may result in losses and cause its clearing participants to lose confidence in our clearinghouse.

Cboe Clear Europe entered into a €1.25 billion committed syndicated multicurrency revolving and swingline credit facility that is available to be drawn by Cboe Clear Europe towards (a) financing unsettled amounts in connection with the settlement of transactions in securities and other items processed through Cboe Clear Europe's clearing system and (b) financing any other liability or liquidity requirement of Cboe Clear Europe incurred in the operation of its clearing system, however we can give no assurance that this facility will be sufficient to meet all such obligations or sufficiently mitigate Cboe Clear Europe's liquidity risk to meet its payment obligations when due. Substantial amounts of the collateral, and any amounts drawn under this facility, may be at risk if a clearing participant defaults on its obligations to our clearinghouse and its margin, default and interoperability fund deposits are insufficient to meet its obligations. This facility is expected to terminate on June 28, 2024 and we may not be able to enter into a replacement facility on commercially reasonable terms, or at all. Additionally, investment losses in excess of capital set aside by Cboe Clear Europe for counterparty risk are allocated back to clearing participants. We cannot assure you that the mitigating measures, policies, safeguards and risk management procedures will be sufficient to detect problems or to protect us from a default or that we will not be materially and adversely affected in the event of a significant default.

Computer and communications systems failures and capacity constraints could harm our reputation and our business.

Our business depends on the integrity and performance of our computer and communications systems. If our systems cannot expand to cope with increased demand or otherwise fail to perform, as a result of a number of potential causes, including technical failure, natural disasters, extreme weather events, flooding, fraud or security attacks that we cannot predict or prevent, and cannot be replaced in a sufficiently short time period, we could experience unanticipated

disruptions in service, slower response times and delays in the introduction of new products and services. These consequences could result in trading outages, lower trading and clearing volumes, financial losses, decreased customer service and satisfaction and regulatory sanctions and could have a material adverse effect on our ability to conduct our business. Although we have a back-up plan with respect to our significant trading and key corporate systems, the back-up systems or disaster recovery plans may prove to be inadequate in the event of a systems failure or cyber-security breach. Despite having disaster recovery facilities, there can be no guarantees that we will be able to open an efficient, transparent and liquid marketplace, if we can open at all, following a systems failure. Moreover, with extended trading hours, we have to operate our systems longer and have fewer non-trading hours to address any potential concerns with the systems on which we rely.

Our markets and clearinghouses have experienced occasional systems failures and delays in the past and in the future our systems may fail, in whole or in part, or may operate slowly, causing one or more of the following:

- unanticipated disruption in trading of our exclusively listed proprietary products or in service to our participants;
- failures or delays during peak trading times or times of unusual market volatility;
- slower response times and delays in trade execution, clearing and processing;
- incomplete or inaccurate accounting, recording, clearing or processing of trades; and
- distribution of inaccurate or untimely market data to participants who rely on this data in their trading activity.

Any of these events may cause:

- a loss in transaction, clearing or other fees due to the inability to provide trading in our exclusively listed proprietary products or provide services for a time;
- requests by market participants or others that we reimburse them for financial loss, either within the constraints of the limited liability provisions of our exchanges' rules or in excess of those amounts;
- trading and clearing volumes to diminish on our markets and clearinghouse due to dissatisfaction with the platforms; and
- one or more of our regulators to investigate or take enforcement action against us.

As a consequence of any of these events, our business, financial condition and results of operations could suffer materially.

In addition to other measures, we test our systems to confirm whether they will be able to handle anticipated present and future peak trading and clearing activity or times of unusual market volatility. However, we cannot assure you that our estimates of future trading or clearing volume will be accurate or that our systems will always be able to accommodate actual trading or clearing volume without failure or degradation of performance.

We anticipate that we will need to continue to make significant investments in hardware, software and telecommunications infrastructure to accommodate the increases in traffic, technology migrations, and system updates. Additionally, disruptions to the supply chain may interfere with the ability of our employees, vendors, technology equipment suppliers, data and disaster recovery centers, and other service providers to provide the requested hardware, software, and telecommunications infrastructure. If we cannot migrate, update, or increase the capacity and capabilities of our systems to accommodate increased trading or clearing activity and to execute our business strategy, our ability to maintain or expand our businesses would be materially adversely affected.

Our use of open source software code may subject our software to general release or require us to re-engineer our software, which could harm our business.

Our technology platform uses open source software code. Companies that incorporate open source software into their products have, from time to time, faced claims challenging the ownership of open source software. As a result, we could be subject to suits by parties claiming ownership of what we believe to be open source software. In addition, some open source software licenses require users who distribute open source software as part of their software to publicly disclose all or part of the source code in their software and make any derivative works of the open source code available on unfavorable terms or at no cost. Open source license terms may be ambiguous, and many of the risks associated with usage of open source software cannot be eliminated. We believe that our use of open source software is in compliance with the relevant open source software licenses and does not require disclosure of any of our source code. However, if we were found to have inappropriately used open source software, we may be required to release our proprietary source code, re-engineer or discontinue use of our software or take other remedial action any or all of which could cause disruptions in, or impose significant costs on, our business.

Damage to our reputation could have a material adverse effect on our business, financial condition and operating results.

We believe one of our competitive strengths is our strong industry reputation. Various issues may give rise to reputational risk, including issues relating to:

- the representation of our business in the media;
- the quality and benefits of using our proprietary products, including the reliability, integrity and functionality of our transaction-based business and index calculations and the accuracy of our market data;
- the ability to execute our business plan, key initiatives or new business ventures and the ability to keep up with changing customer demands and regulatory initiatives;
- our regulatory compliance and our enforcement of compliance on our customers;
- the accuracy of our customer billing, financial statements, and other financial and statistical information;
- the quality of our corporate governance structure;
- the quality of our disclosure controls and internal controls over financial reporting, including any failures in supervision;
- the integrity and performance of our computer and communications systems;
- the ability to successfully complete technology migrations;
- the failure to successfully expand into new asset classes, such as the digital asset space or U.S. Treasuries, or new geographies;
- security breaches, including any unauthorized delivery of proprietary data to third parties;
- management of our outsourcing relationships, including our relationship with FINRA and NFA;
- any misconduct or fraudulent activity by our employees, especially senior management, or other persons formerly or currently associated with us;
- our listings business and our enforcement of our listing rules; and
- any negative publicity surrounding the ETPs that we serve as the listing destination.

Damage to our reputation could cause a reduction in the trading volume of our proprietary products or on our markets or cause us to lose customers. This, in turn, may have a material adverse effect on our business, financial condition and operating results.

Financial or other problems experienced by third parties could have an adverse effect on our business.

We are exposed to credit risk from third parties, including customers, clearing agents and counterparties. For example, we are exposed to credit risk for transaction fees we bill to customers on a monthly basis in arrears. Our customers and other third parties may default on their obligations to us due to a lack of liquidity, operational failure, bankruptcy or other reasons. For additional credit risks related to our clearinghouse operations, see the Risk Factor “Our clearinghouse operations expose us to associated risks, including credit, liquidity, market and other risks related to the defaults of clearing participants and other counterparties and risks related to investing of collateral”

In addition, with respect to orders Cboe Trading routes to other markets for execution on behalf of our customers, Cboe Trading is exposed to counterparty credit risk in the case of failure to perform on the part of our routing and clearing firms that are involved in processing equities and options transactions on our behalf, as well as failure on the part of such brokers to pass back any transactional rebates. Wedbush and Morgan Stanley guarantee equity trades until one day after the trade date, after which time NSCC provides a guarantee. Thus, Cboe Trading is potentially exposed to credit risk to the counterparty to an equity trade routed to another market center between the trade date and one day after the trade date in the event that Wedbush or Morgan Stanley fails to perform. Additionally, BIDS Trading has counterparty credit risk exposure to BOA related to clearing until the day following the trade date, after which time NSCC provides a guarantee. With respect to U.S. listed equity options and futures, we deliver matched trades of our customers to the OCC, which acts as a central counterparty on all transactions occurring on Cboe Options, C2, BZX, EDGX, and CFE and, as such, guarantees clearance and settlement of all of our matched options and futures trades. With respect to Canadian equities, we deliver reports of matched trades of our customers to CDS, which acts as a central counterparty on all transactions occurring on Cboe Canada Inc. and, as such, guarantees clearance and settlement of all of our matched Canadian equities trades. With respect to trades in options and futures occurring on Cboe Europe Derivatives, Cboe Clear Europe acts as a central counterparty that, for its clearing participants, becomes the buyer to every seller and the seller to every buyer. As a result, Cboe Clear Europe guarantees the timely performance of the settlement obligations of buyers and sellers and takes on the risk of the performance of the transactions that it clears. With respect to Australian equities and derivatives, we deliver matched trades of our customers to ASX Clear Pty Ltd and ASX Settlement Pty Ltd. ASX Clear Pty Ltd acts as a central counterparty on all transactions occurring on Cboe Australia and, as such, guarantees clearance and

settlement on all of our matched trades in Australia. With respect to Japanese equities, we deliver matched trades of our customers to the JSCC, which acts as a central counterparty on all transactions occurring on Cboe Japan and, as such, guarantees clearance and settlement on all of our matched trades in Japan. With respect to trades in digital assets occurring on Cboe Digital Exchange, we deliver matched trades of our customers to Cboe Clear Digital, which acts as a central counterparty on all transactions occurring on Cboe Digital Exchange and, as such, guarantees clearance and settlement of all of those matched spot and futures trades.

With respect to routed U.S. equity transactions, Cboe Trading has counterparty credit risk exposure to Wedbush and Morgan Stanley related to clearing until the day following the trade date. Cboe Trading uses Wedbush to clear trades routed through affiliates of Bank of America Corporation as well as for trades routed directly to other exchanges and optionally dark pools. Morgan Stanley clears trades routed through the Morgan Stanley routing brokers and also clears executions routed to most dark pools. Cboe Trading maintains counterparty credit risk exposure from routing brokers with respect to rebates earned until completion of the routing brokers next invoice cycle following the execution.

With respect to U.S. listed equity and exchange traded product options, Cboe Trading is subject to counterparty credit risk exposure with respect to rebates earned from routing brokers until completion of the routing brokers' next invoice cycle following the execution.

Our exposure to credit risk may be further impacted by volatile securities markets that may affect the ability of our customers, counterparties and other third parties to satisfy their obligations to us. Moreover, we may not be successful in managing our credit risk through mitigating measures, policies, safeguards and risk management procedures, reporting and control procedures or by maintaining credit standards. Any losses arising from such defaults or other credit losses could materially adversely affect our financial condition and operating results.

While neither Cboe FX nor Cboe SEF has direct counterparty risk, Cboe FX or Cboe SEF may suffer a decrease in transaction volume if a bank or prime broker experiences an event that causes other prime brokers to decrease or revoke the credit available to the prime broker experiencing the event. Therefore, Cboe FX and Cboe SEF may have risk that is related to the credit of the banks and prime brokers that trade spot FX on the Cboe FX platform, or NDFs on Cboe SEF.

We may be required to assume ownership of a position in securities in connection with our order routing service, which could subject us to trading losses when our broker-dealer disposes of that position.

We offer a smart-order routing service through our broker-dealer subsidiary, Cboe Trading, which provides its customers with access to other market centers when we route their orders to those market centers for execution. In connection with this service, we may assume ownership of a position in securities. This may occur, for example, when a market center to which we have routed a customer's order experiences systemic issues and is unable to determine the status of that order. When this happens, we may make a business decision to provide a cancellation notice to our customer, relieving our customer of any liability with respect to the order. We may be informed later, however, that the order was executed at the market center to which we routed it, in which case Cboe Trading would be required to take ownership of that securities position. Our third party clearing brokers maintain error accounts on behalf of Cboe Trading into which such positions settle, and we require the respective clearing broker to trade out of those positions as expeditiously as possible, which could result in our incurring trading losses.

We selectively explore acquisition opportunities and strategic alliances relating to other businesses, products or technologies. We may not be successful in integrating other businesses, products or technologies with our business. Any such transaction also may not produce the results we anticipate, which could materially adversely affect our business, financial condition and operating results.

We selectively explore and pursue acquisition and other opportunities to strengthen our business and grow our Company. We may enter into business combination transactions, make acquisitions or enter into strategic partnerships, joint ventures or alliances, any of which may be material. The market for acquisition targets and strategic alliances is highly competitive, which could make it more difficult to find appropriate merger or acquisition opportunities. If we are required to raise capital by incurring debt or issuing additional equity for any reason in connection with a strategic acquisition or investment, financing may not be available or the terms of such financing may not be favorable to us and our stockholders, whose interests may be diluted by the issuance of additional stock.

For example, in 2022 we completed our acquisitions of Cboe Digital, an operator of a U.S. based digital asset spot market, a regulated futures exchange and a regulated clearinghouse, and Aequitas Innovations Inc. and Neo Exchange Inc., which at the time were recognized Canadian securities exchanges. In 2021 we purchased Cboe Asia Pacific, a

holding company of alternative market operators in Australia and Japan, and in 2020, we purchased Hanweck and the assets of FT Options, which are providers of risk analytics market data, the assets of Trade Alert, a real-time alerts and order flow analysis service provider, Cboe Clear Europe, an operator of a European clearinghouse, and TriAct Canada Marketplace LP, which at the time was an operator of an equities ATS in Canada called MATCHNow. At the end of 2020, we also purchased BIDS Trading, a registered broker-dealer and operator of the BIDS ATS in the U.S., which is not a registered national securities exchange or a facility thereof. Cboe maintains the BIDS ATS as an independently managed and operated trading venue, separate from and not integrated with the Exchanges.

The process of integration, including in new geographies and asset classes with new regulatory regimes, may expose us to a number of unforeseen risks and operating difficulties, including risks relating to information technology migrations, integrations and security, regulatory issues, and other issues, and may divert the attention of management from the ongoing operation of our business and harm our reputation. We may not successfully achieve the integration objectives, and we may not realize the anticipated cost savings, revenue growth and synergies in full or at all, or it may take longer to realize them than expected, any of which could negatively impact our business, financial condition and operating results.

Further, the success of acquisitions, integrations, and future operations may also depend in part on our ability to retain following acquisitions key employees of acquired companies or find suitable candidates to replace such key employees who leave. If we are unable to retain such key employees, including management, we could face disruptions in our operations, integrations, loss of customers, loss of key information, expertise or know-how, and unanticipated additional recruitment costs.

For additional risks related to our Cboe Digital acquisition, see the Risk Factors Section entitled “Risks Relating to Our Cboe Digital Business” below.

A pandemic, such as the COVID-19 pandemic, and its effects may have significant impacts on economies around the world. Impacts of a pandemic could also have a material adverse effect on our business, financial condition, operating results and cash flows.

A pandemic, such as the COVID-19 pandemic, may have significant impacts on economies around the world. Governments, public institutions, and other organizations around the world may take or reimpose previous, emergency measures to combat a potential pandemic, including vaccination requirements, implementation of travel bans, stay-at-home orders, border closures, and closures of offices, factories, schools, public buildings and businesses. These measures may disrupt the supply chain and may interfere with the ability of our employees, vendors, technology equipment suppliers, data and disaster recovery centers, and other service providers to perform their respective responsibilities and obligations relative to the conduct of our business. In addition to uncertain expenses and impacts to our business we may incur due to a pandemic as part of us providing a safe and healthy work and trading environment, employees working remotely from different locations and in connection with our return to our offices, we may also be subject to claims from employees or customers alleging failure to maintain safe premises and restrictions with respect to protocols relating to such pandemic. Further, changes in trading behavior, impacts to trading behavior due to market disruptions, temporary suspensions of open outcry trading, temporary regulatory measures and other future developments caused by the effects of a pandemic, including a re-occurrence of cases and the emergence of variants, could impact trading volumes and the demand for our products, market data and services, which could have a material adverse effect on our business, financial condition, operating results and cash flows and could heighten many of the other risks described herein.

Risks Relating to Legal and Regulatory Matters

We operate in a highly regulated industry and may be subject to censures, fines and other legal proceedings if we fail to comply with legal and regulatory obligations.

Cboe Options, C2, BZX, BYX, EDGX, and EDGA are registered national securities exchanges and SROs, and, as such, are subject to comprehensive regulation by the SEC. CFE is a DCM and Cboe SEF is a SEF, each registered with the CFTC and subject to comprehensive regulation by the CFTC. In addition to its other SRO responsibilities, BZX, as a listing market, also is responsible for evaluating applications submitted by issuers interested in listing their securities on BZX and monitoring each issuer’s compliance with BZX’s continued listing standards. The Exchanges may be subject to additional responsibilities in other international jurisdictions where the Exchanges may be authorized to act as foreign exchanges. Failure to comply with these SRO and other responsibilities could result in potential sanctions or fines and a negative impact on Cboe’s reputation and/or branding.

Our European businesses are subject to regulatory oversight in the UK by the FCA and in the Netherlands by the DNB and the AFM, which, through the "passporting" regime, provides authorization to carry on business in other Member States of the EU and the EEA in accordance with the applicable EU legislation and regulation to which our European business is subject. Cboe Canada Inc. is subject to regulatory oversight in Canada by its primary provincial securities authority, the OSC. In addition, Cboe Canada Inc. is a Marketplace Member of, and subject to a regulation services agreement with, CIRO. Cboe Australia is subject to regulatory oversight in Australia by the ASIC. Cboe Japan is subject to regulatory oversight in Japan by the JFSA and the JSDA. BIDS Trading is a registered broker-dealer subject to regulatory oversight in the U.S. by the SEC and FINRA and is maintained as an independently managed and operated trading venue, separate from and not integrated with the SROs. The Chief Executive Officer of BIDS Trading leads BIDS Trading as an independent business within Cboe, reporting into an independent committee of the Board of Directors of Cboe Global Markets. If a regulatory authority makes a finding of non-compliance, conditional fines could be imposed, and our licenses could be revoked. Any such fine or revocation of a license could have a material adverse effect on our business, financial condition and operating results. The Cboe Digital futures exchange and clearinghouse are regulated by the CFTC and subject to comprehensive regulation by the CFTC. For risks related to Cboe Digital see also below "Risks Relating to Our Cboe Digital Business."

In addition to the requirements related to operating our U.S. markets imposed by the SEC and the CFTC, we also have certain responsibilities for regulating the TPHs and members that trade on our Exchanges. While we have entered into agreements under which FINRA, with respect to our options and equities exchanges provides certain regulatory services, and under which OCC, with respect to CFE provides certain financial surveillance and regulatory services, we retain ultimate responsibility for the regulation of our TPHs and members. We have begun to perform internally more of the regulatory services that FINRA used to handle and now perform internally the regulatory functions that NFA previously handled on behalf of CFE.

Our ability to comply with applicable laws and rules is largely dependent on the establishment and maintenance of appropriate systems and procedures, our ability to attract and retain qualified personnel, the ability of FINRA and OCC to perform under their respective RSAs, the ability of FINRA and OCC to transition to us any other potential responsibilities under their respective RSAs, our ability to complete the new additional responsibilities for regulating our TPHs and members and our oversight of the work done by FINRA and OCC. The SEC and CFTC have broad powers to audit, investigate and enforce compliance and to punish noncompliance by, as applicable, SROs, DCMs and SEFs pursuant to applicable laws, rules and regulations.

If a regulatory authority were to find one of our programs of enforcement or compliance to be deficient, our SROs, DCM, or SEF could be the subject of investigations and enforcement proceedings that may result in substantial sanctions, including revocation of registration as a national securities exchange, DCM, or SEF. Any such investigations or proceedings, whether successful or unsuccessful, could result in substantial costs, the diversion of resources, including management time, and potential harm to our reputation, which could have a material adverse effect on our business, financial condition and operating results. In addition, our SROs, DCM, or SEF may be required to modify or restructure their regulatory functions in response to any changes in the regulatory environment, or they may be required to rely on third parties to perform regulatory and oversight functions, each of which may require us to incur substantial expenses and may harm our reputation if our regulatory services are deemed inadequate.

In addition, SROs are required by federal law to perform a variety of regulatory functions. In light of these responsibilities, some courts have held that SROs are immune to certain private causes of action relating to the performance of these regulatory functions. There is a risk that some courts may not apply this immunity doctrine to all claims. There is also a risk that legislative or regulatory developments may change the application of this immunity doctrine. Limitations on the application of the immunity doctrine could result in an increased exposure to litigation, and increase liability and/or other legal expenses. Further under the CEA, CFE, Cboe SEF and Cboe Digital Exchange may be subject to litigation alleging that they have acted in bad faith. We also could be exposed to liability to regulators or other governmental authorities even in situations where immunity would bar a civil claim.

Legislative or regulatory changes affecting our markets could have a material adverse effect on our business, financial condition and operating results.

Changes in regulation by the SEC, CFTC, FCA, Central Bank of the Netherlands ("DNB"), AFM, CIRO, OSC, ASIC, JFSA, JSDA, other domestic and foreign regulators or other government action, including approval by these regulators of rule filings or initiatives by other SROs or entities, including OCC, could materially affect our markets, products and clearinghouse. In recent years, the securities and derivatives industries have been subject to regulatory changes as a result of increasing government and public scrutiny of the securities and derivatives industries. We have also experienced, and we may also experience due to changes in administrations in the jurisdictions that we operate and

expansion into other asset classes, such as the digital asset space or U.S. Treasuries and geographies, an increase in rulemaking and legislation that could affect our business.

In particular, in December 2022, the SEC released four proposals that could impact equity market structure: (1) Disclosure of Order Execution Information (Rule 605); (2) Regulation NMS Amendments: Tick Size, Access Fees, and Transparency; (3) Regulation Best Execution; and (4) Proposed Rule to Enhance Order Competition. These proposals have been noticed for public comment. If adopted as-is or additional proposals or changes to the existing equity market structure proposals emerge, we could experience market technology changes, incur additional compliance costs, experience negative impacts on our volumes, liquidity, and fees, all of which could have a material adverse effect on our business, financial condition and operating results. Further, on October 18, 2023, the SEC released the Volume Based Proposal and, although the new rules do not appear likely to have a near term material impact, the new rules may have a long term material impact on our business, financial condition and operating results if, for example, there is a reduction of overall volumes, liquidity, or market share on Cboe's equities exchanges, BZX, BYX, EDGX, and EDGA.

Under EU and UK regulations, European and UK banks and other European and UK financial institutions become subject to punitive capital charges if they transact options or futures through a third country central counterparty ("CCP") that is not recognized in the applicable jurisdiction. OCC, our clearinghouse for U.S. options and futures, is recognized as a third country CCP by the EU and is currently operating under the UK's temporary recognition regime. Although the UK has not issued any equivalency determination with respect to U.S. CCPs, OCC has submitted its application for permanent recognition in the UK. The current deadline for recognition in the UK is December 31, 2025, and may be extended by His Majesty's Treasury in the future in increments of 12 months each. As a prerequisite to ultimately achieving recognition in the UK, it is possible that OCC could be required by the UK to contribute capital to its default waterfall applicable in the event of clearing member default. This capital could be required to be drawn before the default fund contributions of non-defaulting clearing members in the event that a defaulting clearing member's margin and other contributions were to be exhausted. OCC's stockholders, including Cboe Options, could effectively be required to fund this capital. If the UK does not recognize OCC as a third country CCP, then UK market participants that clear through OCC would become subject to punitive capital charges. As a result, we could experience the loss of a significant number of UK market participants and a significant reduction in trading activity on our options and futures markets, which could have a material adverse effect on our business, financial condition and operating results.

The implementation of MiFID II and MiFIR in Europe at the beginning of 2018 has encouraged competition among market centers in Europe. MiFID II and MiFIR have introduced a number of new rules, including enhanced internal organizational and compliance monitoring requirements, which apply directly to European trading venues such as our MTF and RM. The impact of MiFID II and MiFIR is significant, and the increased competition among market centers could reduce trading fees, while increasing our costs of operating in Europe. Additionally, European authorities are currently undertaking a review of MiFID as a result of which new rules may come into effect that could have a material impact on our business.

In 2021 the E.C. published proposals for the review of EU market structure, including provisions for a consolidated tape for the EU and changes to the transparency regime for equities. These proposals are expected to be implemented during 2026. As proposed, these new rules may have a material adverse effect on our business, financial condition and operating results.

The legislative and regulatory environment in which the spot FX market operates is evolving and has undergone significant changes in the recent past, and there may be future regulatory changes in the spot FX industry. The FX Global Code was published in 2017 and sets forth standards of conduct agreed by market participants and central banks on a global basis to apply to the wholesale FX market, and the effect of its publication on conduct and future regulation continues to evolve. Cboe FX issued a Statement of Commitment declaring its commitment to conduct its FX market activities in a manner consistent with the principles of the FX Global Code. Amendments to the FX Global Code, changes in the interpretation or enforcement of existing laws and regulations by applicable governmental bodies and regulatory organizations, or the adoption of new legal or regulatory requirements, may also adversely affect our spot FX business. Further, our FX NDF business may also be adversely affected by proposed regulatory changes to the rules governing swap execution facilities.

It is also possible that there will be additional legislative, regulatory, and enforcement changes, priorities or efforts in the environment in which we operate, or plan to operate, our businesses. Actions on any of the specific regulatory issues currently under review in the U.S. or internationally and other proposals could have a material impact on our business.

In addition, U.S. and foreign legislatures and regulators could impose legislative or regulatory changes that could materially adversely impact the ability of our market participants to use our markets or participate in the securities industry at all. Any such changes could result in the loss of a significant number of market participants or a reduction in trading activity on our markets, either of which could have a material adverse effect on our business, financial condition and operating results. Changes or proposed changes in regulation may also result in additional costs of compliance and modification of market participants' trading activity on our Exchanges and markets.

Any infringement by us on intellectual property rights of others could result in litigation and could have a material adverse effect on our operations.

Our competitors, as well as others, have obtained, or may obtain, patents or may otherwise hold intellectual property rights that are related to our technology or the types of products and services we offer or plan to offer. We may not be aware of all intellectual property that may pose a risk of infringement by our products, services or technologies. In addition, some potential patent applications in the U.S. are confidential until a patent is issued, and therefore we cannot evaluate the extent to which our products, services or technologies may be covered or asserted to be covered in pending patent applications. Thus, we cannot be sure that our products, services or technologies do not infringe on the rights of others or that others will not make claims of infringement against us. Claims of infringement are not uncommon in our industry, and even if we believe that such claims are without merit, they can be time-consuming and costly to defend and divert management resources and attention. If one or more of our products, services or technologies were determined to infringe a patent or other intellectual property right held by another party, we may be required to pay damages, stop using, developing or marketing those products, services or technologies, obtain a license from the intellectual property rights holders, or redesign those products, services or technologies to avoid infringement. If we were required to stop using, developing or marketing certain products, services or technologies, our business, financial condition and operating results could be materially harmed. Moreover, if we were unable to obtain required licenses, we may not be able to redesign our products, services or technologies to avoid infringement, which could materially adversely affect our business, financial condition and operating results.

Misconduct by our TPHs, members, participants or others could harm us.

We run the risk that our TPHs, members, participants, other persons who use our markets or our products, other persons for whom we clear transactions, our employees or those with which we have business relationships may engage in fraud, market or product manipulation, or other misconduct, which could result in regulatory and legal sanctions and penalties and serious harm to our reputation, especially because we are the parent company of SROs. It is not always possible to deter misconduct, or market or product manipulation, and the precautions we take to prevent and detect this activity may not be effective in all cases. In addition, misconduct, or market or product manipulation by, or failures of, participants on our or other exchanges may discourage trading on our Exchanges or of our products, which could reduce revenues.

Potential conflicts of interest between our for-profit status and our regulatory responsibilities may adversely affect our business.

As a for-profit business with regulatory responsibilities, we are responsible for disciplining TPHs and members for violating our rules, including by imposing fines and sanctions. This may create a conflict of interest between our business interests and our regulatory responsibilities. Any failure by us to fulfill our regulatory obligations could significantly harm our reputation, increase regulatory scrutiny or cause the SEC or CFTC to take action against us, all of which could materially adversely affect our business, results of operations or financial condition.

BIDS Trading's ability to operate under its current regulatory framework is dependent upon the sufficiency of a novel operational and governance framework we have developed to govern our relationship with BIDS Trading and our ability to comply with such framework and if we fail to adhere to such framework or the BIDS Trading ATS is otherwise deemed a "facility" of our registered national securities exchanges, our business, financial condition and operating results may be adversely affected.

The U.S. equities ATS operated by BIDS Trading is regulated as a broker-dealer sponsored alternative trading system and not a registered national securities exchange. Because we acquired BIDS Trading, it is now under common ownership with our registered national securities exchanges that, in some cases, offer trading in the same securities as those traded on the BIDS Trading ATS. Absent sufficient separation, this common ownership of an ATS and registered national securities exchanges offering trading in the same securities presents the potential for the BIDS Trading ATS to be deemed a "facility" of our registered national securities exchanges. If the BIDS Trading ATS were to be deemed to be

a “facility” of our registered national securities exchanges, certain exchange regulations could be extended to the BIDS Trading ATS, which could have a material adverse impact on BIDS Trading’s business model. This could reduce the BIDS Trading ATS’ competitiveness and volumes and could result in a reduction of the value of the BIDS Trading ATS to us. This could also potentially result in fines or other penalties being assessed against us for our failure to operate the BIDS Trading ATS as a “facility,” which could have a material adverse effect on our business, financial condition and operating results.

To mitigate the risk that the BIDS Trading ATS is deemed a “facility” of our registered national securities exchanges, we have developed and implemented an operational and governance framework for our ownership of BIDS Trading that is intended to preserve the strategic, technological, business, and operational independence of the BIDS Trading ATS from our registered national securities exchange businesses, such that the BIDS Trading ATS and our registered national securities exchanges would not be deemed to be integrated or otherwise linked for “facility” purposes. This framework is supported by highly detailed policies, procedures and controls. However, because of the lack of precedent for common ownership of an ATS and registered national security exchanges offering trading in the same securities, there is risk that our framework and supporting policies, procedures and controls could be deemed to be insufficient to prevent the BIDS Trading ATS from being deemed to be a “facility” of our registered national securities exchanges. In addition, because of the comprehensive and highly detailed nature of our framework and supporting policies, procedures and controls, there is risk that we could inadvertently fail to fully adhere to our operational and governance framework and related policies, procedures and controls. There is also risk that new legislation or regulation, or changes in existing regulation or other government action, relating to “facilities” of registered national securities exchanges and/or the common ownership of an ATS and registered national securities exchanges offering trading in the same securities could materially affect our ability to own and operate the BIDS Trading ATS under the current operational and governance framework, including without the BIDS Trading ATS being deemed a “facility” of our registered national securities exchanges. Occurrence of any of the risks described in this paragraph could result in the BIDS Trading ATS being deemed to be a “facility” of our registered national securities exchanges, which could reduce the BIDS Trading ATS’ competitiveness and volumes and could result in a reduction of the value of the BIDS Trading ATS to us, and could also potentially result in fines or other penalties being assessed against us for our failure to operate the BIDS Trading ATS as a “facility,” which could have a material adverse effect on our business, financial condition and operating results***.***

If our risk management and compliance methods are not effective, we may suffer adverse consequences, such as investigations and enforcement actions from regulators, our business, financial condition and operating results may be adversely affected.

We maintain risk management, compliance and monitoring policies, procedures and programs that are reasonably designed to help with our compliance with applicable laws and rules and to prevent, detect, deter, monitor and manage our risks, including enterprise risk, compliance, regulatory, and internal audit programs, but such policies, procedures and programs may not be fully effective in their operation. Further, we face the risk of intervention by regulatory authorities, including extensive examination and surveillance activity. In the case of actual or alleged non-compliance with applicable laws or regulations, we could be subject to investigations and judicial or administrative proceedings that may result in penalties, settlements or civil lawsuits, including by customers, or third parties, for damages, which may be substantial. For example, the SEC has previously brought actions against exchange operators, including us, for failing to fulfill their obligations to have an effective regulatory system. Any failure to comply with applicable laws and rules could materially adversely affect our business, reputation, financial condition and operating results and, in extreme cases, our ability to conduct our business or portions thereof. As the parent company for SROs, other markets, and a clearinghouse, we are responsible for maintaining markets that comply with securities and futures laws, SEC, FCA, AFM, DNB, CIRO, OSC, ASIC, JFSA, JSDA, ESMA, and CFTC regulations and the rules of the respective exchanges, markets and clearinghouse.

We have methods to identify, monitor and manage our risks. Management of legal, compliance, and regulatory risk, among other risks, requires policies and procedures to properly monitor and manage risk. Additionally, as we continue to integrate the technology, associates, and processes of recent acquisitions, we may not be able to identify additional risks. Further, the practices we utilize to integrate these acquisitions may not be effective at identifying or monitoring and managing risks related to ongoing integration activities. If our policies, procedures, and compliance systems are not effective or we are not successful in monitoring or evaluating the risks to which we are or may be exposed, our business, reputation, financial condition and operating results could be materially adversely affected. We cannot provide assurance that our policies and procedures will always be effective, or that our management, compliance department, risk department, regulatory department and related enterprise risk management framework, including the three lines of defense approach, and internal audit department would be able to identify any such ineffectiveness. If these departments or the enterprise risk management framework, and related policies and procedures are not effective, we may be subject to monetary or other penalties by our regulators, and our insurance policies may not provide adequate coverage.

Our ability to implement or amend rules could be limited or delayed because of regulation, which could negatively affect our ability to implement needed changes.

Our Exchanges registered with the SEC must submit proposed rule changes to the SEC for its review and, in many cases, its approval. Even where a proposed rule change may be effective upon filing with the SEC, the SEC retains the right to suspend and disapprove such a rule change. Also, the CFTC may stay or disapprove rules that we file with it for Cboe Digital futures exchange and clearinghouse, CFE, or Cboe SEF. The rule review process can be lengthy and can significantly delay the implementation of proposed rule changes that we believe are necessary to the operation of our markets. If the SEC or CFTC delays, including because of a government shutdown, or does not allow one of our Exchanges to implement a rule change, this could negatively affect our ability to make needed changes or implement business activities.

Similarly, the SEC must approve amendments to our exchange subsidiaries' certificates of incorporation and bylaws as well as certain amendments to the certificate of incorporation and bylaws of Cboe Global Markets. The SEC may decide not to approve a proposed amendment or may delay such approval in a manner that could negatively affect our ability to make a desired change, which could prevent or delay us from improving the operations of our markets or recognize income from new products.

Changes in the tax laws and regulations affecting us, our products and our market participants could have a material adverse effect on our business.

Legislation may be proposed, both domestically and internationally, that could add a transaction tax on our products or change the way that our market participants are taxed on the products they trade on our markets. A number of federal, state and local jurisdictions in the U.S. and EU Member States have considered a financial transaction tax, but many details remain to be discussed and agreed, including how to assess the tax. Additionally, legislation has been proposed from time to time on a federal level that would introduce in the U.S. mark-to-market tax treatment for all derivatives contracts and require gains and losses be taxed at ordinary income tax rates. Implementation of such taxes could result in a reduction in volumes and liquidity, which would have a negative impact on our operations.

In addition to proposed tax changes that could affect our market participants, like other corporations, we are subject to taxes at federal, state and local levels, as well as in non-U.S. jurisdictions. More specifically, some jurisdictions where we operate are implementing Pillar 2 laws to effectuate a 15% minimum tax as of January 1, 2024. Currently, we do not expect a material tax cost to arise from the implementation of such legislation, as drafted. Changes in tax laws, including Pillar 2 laws, regulations or policies or successful claims by tax authorities could result in our having to pay higher taxes, which would in turn reduce our net income. If this occurs, we may experience a higher effective tax rate.

We are subject to litigation risks and other liabilities.

Many aspects of our business involve substantial risks of litigation and other liabilities. Although under current law we expect to be immune from private suits arising from conduct within our regulatory authority and from acts and forbearances incident to the exercise of our regulatory authority, we expect this immunity will only cover certain of our activities in the U.S., and we could be exposed to liability under foreign, national and local laws, court decisions and rules and regulations promulgated by regulatory agencies.

Some of our other liability risks arise under the laws and regulations relating to the tax, employment, intellectual property, anti-money laundering, technology export, cybersecurity, foreign asset controls, foreign corrupt practices, employee labor and employment areas, including anti-discrimination and fair-pay laws and regulations, and the businesses of companies listed on any of our exchanges. Liability could also result from disputes over the terms of a trade executed on one of our markets, claims that a system failure or delay cost a customer money, claims we entered into an unauthorized transaction or claims that we provided materially false or misleading statements in connection with a transaction.

For example, we are subject to on-going legal disputes that could result in the payment of fines, penalties or damages and could expose us to additional liability in the future. See Item 3 "Legal Proceedings" in this Annual Report for a general description of our legal proceedings and claims and Note 23 ("Commitments, Contingencies, and Guarantees – Legal Proceedings") to the consolidated financial statements and related notes, which are included elsewhere in this Annual Report, for a summary of specific legal proceedings.

Further, we could incur significant expenses vigorously defending the claims mentioned above (including those found to be barred due to immunity) and any future claims, even those without merit, which could adversely affect our business, financial condition and operating results. The outcomes of existing claims and any future claims cannot be determined and an adverse resolution of any lawsuit or claim against us may require us to pay substantial damages or impose restrictions on how we conduct business, either of which could adversely affect our business, financial condition and operating results. In addition, we may have to establish accruals for those matters in circumstances when a loss contingency is considered probable and the related amount is reasonably estimable. Any such accruals may be adjusted as circumstances change.

Risks Related to Our Common Stock and Indebtedness

We have outstanding indebtedness and commitments, which may decrease our business flexibility and adversely affect our business, financial condition and operating results.

As of December 31, 2023, we had $647.9 million of senior unsecured notes due 2027, $494.8 million of senior unsecured notes due 2030, $296.4 million of senior unsecured notes due 2032, no funds outstanding under our revolving credit facility and no funds outstanding under the Cboe Clear Europe credit facility. In 2023, we terminated and paid off outstanding amounts under our term loan facility. The financial and other covenants to which we have agreed and our indebtedness may have the effect of reducing our flexibility to respond to changing business and economic conditions, thereby placing us at a competitive disadvantage compared to competitors that have less indebtedness and making us more vulnerable to general adverse economic and industry conditions. Further, we may default on our obligations or violate the covenants, in which case, we may be required to seek a waiver of such default or the debt obligations may be accelerated. A default under any of our indebtedness with cross default provisions could result in a default on our other indebtedness. Our indebtedness may also increase future borrowing costs, and the covenants pertaining thereto may also limit our ability to repurchase shares of our common stock, increase dividends or obtain additional financing to fund working capital, capital expenditures, acquisitions or general corporate requirements. We are also required to dedicate a larger portion of our cash flow from operations to payments on our indebtedness, thereby reducing the availability of our cash flow for other purposes, including working capital, capital expenditures, regulatory capital requirements, and general corporate purposes. Also, our ability to fund capital expenditures and return capital to stockholders may depend on the amount of capital held due to regulatory capital requirements and the amount of capital committed related to lines of credit granted by the Company to our subsidiaries in connection with their regulatory capital requirements.

Our ability to make payments on and to refinance our debt obligations and to fund planned capital expenditures depend on our ability to generate cash from our operations. This, to a certain extent, is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond our control.

We may not be able to refinance any of our indebtedness on commercially reasonable terms, or at all. If we cannot service our indebtedness, we may have to take actions such as selling assets, seeking additional equity or reducing or delaying capital expenditures, strategic acquisitions, investments and alliances, any of which could impede the implementation of our business strategy or prevent us from entering into transactions that would otherwise benefit our business. Additionally, we may not be able to affect such actions, if necessary, on commercially reasonable terms, or at all. Any of the foregoing consequences could materially adversely affect our business, financial condition and operating results.

Deterioration in our credit profile may increase our costs of borrowing money.

As of December 31, 2023, we have investment grade credit ratings from S&P Global Ratings (A-) and Moody's Investor Service (A3). Ratings from credit agencies are not recommendations to buy, sell or hold our securities, and each rating should be evaluated independently of any other rating. There is no assurance that we will maintain such credit ratings, since credit ratings may be lowered or withdrawn entirely by a rating agency if, in its judgment, the circumstances warrant. If a rating agency were to downgrade our rating below investment grade, our borrowing costs could increase.

If our goodwill, long-lived assets, investments in non-consolidated subsidiaries and intangible assets become impaired, the resulting charge to earnings may be significant.

We are required to assess investments in non-consolidated subsidiaries and intangible assets for impairment at least annually. Goodwill impairment testing is performed annually in the fiscal fourth quarter or more frequently if conditions exist that indicate that the asset may be impaired. In the future, we may take charges against earnings resulting from impairment. For example, in 2022, the Company previously recorded goodwill impairment charges of $460.9 million

related to Cboe Digital, resulting in decreases in the carrying value of Cboe Digital. Any determination requiring the write-off of a significant portion of our goodwill, long-lived assets, intangible assets or investments in non-consolidated subsidiaries could materially adversely affect our results of operations and financial condition.

As a result of the Company's annual impairment analysis, completed in the fourth quarter of 2023, in which all reporting units estimated fair value exceeded their carrying value, we do not consider our goodwill and indefinite-lived intangibles to have a significant risk of impairment.

Any decision to pay dividends on our common stock is at the discretion of our Board of Directors and depends upon the earnings and cash flow of our operating subsidiaries. Accordingly, there can be no guarantee that we will pay dividends to our stockholders.

Any decision to pay dividends on our common stock in the future will be at the discretion of our Board of Directors, which may determine not to declare dividends at all or at a reduced amount. The board's determination to declare dividends will depend upon our profitability and financial condition, contractual restrictions, restrictions imposed by applicable law and the SEC and other factors that the board deems relevant. As a holding company with no significant business operations of its own, Cboe Global Markets depends entirely on distributions, if any, it may receive from its subsidiaries to meet its obligations and pay dividends to its stockholders. If these subsidiaries are not profitable, or even if they are and they determine to retain their profits for use in their businesses, we will be unable to pay dividends to our stockholders.

Certain provisions in our organizational documents and governing law could prevent or delay a change of control.

Our organizational documents contain provisions that could block actions that stockholders might find favorable, including discouraging, delaying or preventing a change of control or any unsolicited acquisition proposals for us. These include provisions:

- prohibiting stockholders from acting by written consent;
- requiring advance notice of director nominations and of business to be brought before a meeting of stockholders; and
- limiting the persons who may call special stockholders' meetings.

In addition, our organizational documents include provisions that:

- restrict any person from voting or causing the voting of shares of stock representing more than 20% of our outstanding voting capital stock; and
- restrict any person from beneficially owning shares of stock representing more than 20% of the outstanding shares of our capital stock.

Furthermore, our Board of Directors has the authority to issue shares of preferred stock in one or more series and to fix the rights and preferences of these shares without stockholder approval. Any series of our preferred stock is likely to be senior to our common stock with respect to dividends, liquidation rights and, possibly, voting rights. The ability of the Board of Directors to issue preferred stock also could have the effect of discouraging unsolicited acquisition proposals, thus materially adversely affecting the market price of our common stock.

Delaware law makes it difficult for stockholders that have recently acquired a large interest in a corporation to cause the merger or acquisition of the corporation against the board's wishes. Under Section 203 of the Delaware General Corporation Law, a Delaware corporation may not engage in any merger or other business combination with an interested stockholder for a period of three years following the date that the stockholder became an interested stockholder except in limited circumstances, including by approval of the corporation's Board of Directors.

Furthermore, the European countries where we operate regulated entities, such as the UK and Netherlands, may require prior governmental approval before an investor acquires 10% or more of the outstanding shares of our common stock.

Risks Relating to Our Cboe Digital Business

We may not realize the expected benefits of our acquisition of Cboe Digital and the acquisition introduces additional risks to our business due to its evolving business model.

On May 2, 2022, the Company completed its acquisition of ErisX, which was subsequently rebranded as Cboe Digital. Cboe Digital operates a U.S.-based digital asset spot market, a regulated futures exchange and a regulated clearinghouse. Leveraging digital asset data from Cboe Digital's and our existing index calculation capabilities, we intend to develop and distribute digital asset indices for potential use in exchange traded products and other derivative product opportunities. We also plan to develop a robust market data offering based on actionable bid and offer prices from the Cboe Digital spot crypto market, and ultimately intend to develop a benchmark to help Cboe Digital's industry partners and other market participants evaluate the appropriateness of crypto execution prices and offer digital asset trading to their clients. We are subject to increased financial and reputational risks if there is a failure to develop and launch one or more of the anticipated products, or if the development or launch of a new product is unsuccessful. Also, there can be no assurance that we will be able to maintain the necessary regulatory approvals or receive support from market participants, industry partners and users to develop and launch products as planned, that Cboe Digital will continue to operate as anticipated, or that we will realize the expected return on our investment. Furthermore, our investment in Cboe Digital entails numerous risks, including risks relating to our ability to:

- manage the complexity of its business model to stay current with the industry;
- successfully enter categories and markets in which it may have limited or no prior experience;
- successfully develop and integrate products, systems or personnel into its business operations; and
- maintain required licenses and regulatory approvals for its business.

In addition, certain market participants acquired minority ownership interests in Cboe Digital and intend to serve as partners in the growth of the business. If these market participants do not serve as partners in the growth of the business, then we may not be able to realize the expected return on our investment. Insufficient participation from market participants in ownership and partnership may adversely affect the ability of Cboe Digital to operate as anticipated or grow, which may have a material adverse effect on the Cboe Digital business.

As digital assets technologies evolve, Cboe Digital may add, modify or discontinue certain aspects of its business model relating to the product mix and service offerings. Future additions and modifications to Cboe Digital's business will increase the complexity of its business and may place significant strain on our management, personnel, operations, systems, technical performance, financial resources and internal financial control and reporting functions. We cannot offer any assurance that these or any other additions or modifications will be successful or will not result in harm to our business. Additionally, sources of Cboe Digital revenue are dependent on digital assets and the broader blockchain ecosystem. Due to the highly volatile nature of the blockchain ecosystem and the prices of digital assets, Cboe Digital's operating results have fluctuated, and may continue to fluctuate, significantly from period to period in accordance with market sentiments and movements in the broader blockchain ecosystem.

Additionally, the blockchain ecosystem is highly innovative, rapidly evolving and characterized by intense competition, experimentation and frequent introductions of new products and services, and is subject to uncertain and evolving industry and regulatory requirements. We expect competition to increase in the future as existing and new competitors introduce new products or enhance existing products that may compete with Cboe Digital. We have limited experience applying Cboe Digital's technology platform to a global exchange and clearing infrastructure for digital assets. The creation and operation of a global digital assets spot and derivatives trading market is subject to potential technical, legal and regulatory constraints. Any problems that we encounter with the operation of the Cboe Digital systems, including technical, legal and regulatory problems, could negatively impact our business and plan of operations.

The characteristics of digital assets and digital asset platforms have been, and may in the future continue to be, exploited to facilitate illegal activity such as fraud, money laundering, tax evasion, ransomware scams and other types of cybercrime, as well as other technical issues, which could adversely affect the Cboe Digital business. Additionally, illegal activity conducted by other digital asset platforms in the digital asset space may erode trust in the digital asset industry which could have a broad-based negative reputational effect on the Cboe Digital business.

Digital assets and the digital asset industry are relatively new and, in many cases, lightly regulated or largely unregulated. Digital asset platforms on which digital assets trade pose special risks, as these platforms are generally relatively new and the rules governing their activities are unsettled and their activities could be largely unregulated, and may therefore be more exposed to theft, fraud, and failure than established, regulated exchanges for other products.

Some types of digital assets, particularly cryptocurrencies, have characteristics, such as the speed with which transactions can be conducted, the ability to conduct transactions without the involvement of regulated intermediaries, the ability to engage in transactions across multiple jurisdictions, the irreversible nature of certain transactions and encryption technology that anonymizes these transactions, that make those assets potentially susceptible to use in illegal activity such as fraud, money laundering, tax evasion, ransomware scams and other types of cybercrime. Digital asset platforms have been shut down or experienced losses of assets placed on the platform as a result of cybercrime, and any such event is likely to result in the complete loss of assets placed on such a platform. Any governmental or regulatory action against such a digital asset trading platform may cause assets on such platform to become frozen for a substantial period of time or forfeited, and could result in material opportunity costs or even in the total loss of such assets. In addition, banks may refuse to process or support wire transfers to or from digital asset trading platforms.

While we believe that our risk management and compliance framework is reasonably designed to detect any such illicit activities, we cannot ensure that we will be able to detect such illegal activity in all instances. Because the speed, irreversibility and anonymity of certain digital asset transactions potentially makes them difficult to track, fraudulent transactions may be more likely to occur. Cboe Digital may be specifically targeted by individuals seeking to conduct transfers for fraudulent purposes, and it may be difficult or impossible for us to detect and avoid such transactions in certain circumstances.

Various other technical issues with blockchain networks have also been uncovered from time to time that resulted in disabled functionality, exposure of certain users' personal data, theft of users' assets, and other negative consequences, and which required resolution with the attention and efforts of their global miner, user and development communities. If any such risks or other risks materialize, the development and growth of digital assets may be significantly affected and, as a result, our Cboe Digital business, operating results and financial condition could be adversely affected.

Recent illegal activity by other institutions in the digital asset space may have a negative impact on our customer's and regulators' view of the digital asset industry as a whole and result in broadly applied reputational harm. Though we cannot control the actions of other entities in the digital asset space, Cboe Digital subscribes to strict risk management processes that are reviewed and updated to help prevent illegal activity from occurring within Cboe Digital.

Digital assets, digital asset trading platforms and blockchains are currently subject to many different, and potentially overlapping, regulatory regimes, and may in the future be subject to different regulatory regimes than those that are currently in effect. The current and future operation of Cboe Digital may increase our regulatory costs and risks, and there can be no assurance that our employees or agents will not violate applicable laws and regulations.

Various aspects of the business that we are engaging in, or planning to engage in, through Cboe Digital are heavily regulated. The Cboe Digital futures exchange and clearinghouse are regulated by the CFTC. The Cboe Digital clearinghouse is registered with the Financial Crimes Enforcement Network as a money services business; licensed as a money transmitter in many U.S. states and territories; and holds a BitLicense from the New York Department of Financial Services. Further, the regulatory and legislative framework is unsettled with respect to many forms of digital assets, which means that federal or state regulators or legislators may in the future curtail or prohibit the acquisition, use or redemption of certain digital assets. Ownership of, holding or trading in certain digital assets may become subject to litigation. In light of recent events in the digital asset environment, including the volatility of digital asset markets in 2022, ongoing litigation between digital asset market participants and federal regulators, and large-scale enforcement activity such as the Binance guilty plea, Federal regulators, state regulators and legislators are increasingly looking to take regulatory or legislative actions, such as the potential digital asset legislation discussed above. Such action may require additional resources for Cboe Digital to comply with any new regulations and laws and increase the cost and/or subject us and other companies to additional regulations and laws regarding custody or facilitating the trading of digital assets, which may have a material adverse effect on the Cboe Digital business. As a money service business, we are also subject to federal and state anti-money laundering and counter-terrorism financing laws and regulations.

In addition, as we expand the Cboe Digital business to new products and services, we may come under the jurisdiction of additional regulators - both with respect to jurisdiction and subject matter. Certain jurisdictions may impose restrictions on the ability to trade specific certain digital assets or at all. Any failure or perceived failure to comply with existing or new laws, regulations, or orders of any governmental authority (including changes to or expansion of the interpretation of those laws, regulations, or orders), including those discussed in this risk factor, may subject us to significant fines, penalties, criminal and civil lawsuits, forfeiture of significant assets, and enforcement, result in additional compliance and licensure requirements, increase regulatory scrutiny of its business, restrict Cboe Digital's operations, and force Cboe Digital to change its business practices, make product or operational changes, or delay planned product launches or improvements.

We currently maintain policies and procedures designed to reasonably help ensure compliance with applicable laws and regulations, but there can be no assurance that we or our employees or agents will be able to comply with all of the regulatory regimes that currently apply, or may in the future be applied, to the Cboe Digital platform or the digital assets supported by the Cboe Digital platform. Cboe Digital follows best practices designed to restrict unauthorized access by individuals or entities in jurisdictions where it is impermissible to trade digital assets. We do not have exposure to any regulators outside of the United States and routinely seek out and receive legal analyses on which jurisdictions we can offer our services to and which customers may avail themselves of our products and services. Additionally, we evaluate which digital assets to include on our platform pursuant to a digital asset listing policy, which includes review by operational, legal and compliance functions. The SEC and its staff have taken the position that certain digital assets fall within the definition of a "security" under the federal securities laws, and it is possible the SEC may take this position with respect to assets that may be transacted on the Cboe Digital platform. The legal test for determining whether any given asset is a security is a highly complex, fact-driven analysis that evolves over time, and the outcome is difficult to predict. The SEC generally has not provided advance guidance or confirmation on the status of any particular digital asset as a security. Furthermore, the SEC's views in this area have evolved over time, and it is difficult to predict the direction or timing of any continuing evolution. In addition, a platform trading a digital asset determined to be a security may be required to register and be regulated by the SEC. A failure by us, including our employees or agents, to comply with applicable laws and regulations and subsequent judgment or settlement against us under these laws could subject us to monetary penalties, damages, expenses, and/or have a significant reputational impact.

Digital asset custodial solutions and related technology, including our systems and custodial arrangements, are subject to risks related to a loss of funds due to theft of digital assets, employee or vendor sabotage, security and cybersecurity risks, system failures and other operational issues which could cause damage to our reputation and brand. There is also legal uncertainty regarding digital asset custodian arrangements.

The secure storage and transmission of digital assets and data over networks is a critical element of our digital asset operations. The exchanges, brokers, dealers, banks or such other cryptocurrency custodial institutions selected by us to act as custodians may become insolvent or suffer from any of the custody risks described herein, causing us to lose all or a portion of the digital assets held by those custodians. Threats to the storage and transmission of digital assets and data may come from external factors such as governments, organized crime, hackers and other third parties such as outsourced or infrastructure-support providers and application developers, or may originate internally from an employee or service provider to whom we or our custodians have granted access to our systems.

Digital asset transactions may be irrevocable, and stolen or incorrectly transferred digital assets may be irretrievable. Once a transaction has been verified and recorded in a block that is added to the blockchain, an incorrect transfer of a digital asset generally will not be reversible, and we or our custodians may not be capable of seeking compensation for any such transfer or theft. It is possible that, through computer or human error, or through theft or criminal action, the digital asset could be transferred in incorrect amounts or to unauthorized third parties, or to uncontrolled accounts. Such events could have a material adverse effect on the ability of Cboe Digital to continue as a going concern, which may have an adverse effect on our business.

While we and our digital asset custodians maintain cybersecurity procedures and policies, those procedures and policies may not be adequate to avoid the potential losses caused by security breaches, and we or our custodians may lose digital assets without any recourse. Unlike bank accounts or accounts at some other financial institutions, in the event of loss or loss of utility value, there is no public insurer, such as the Securities Investor Protection Corporation or the Federal Deposit Insurance Corporation, to offer recourse to us or to any investor and the misappropriated digital assets may not easily be traced to the bad actor.

Cboe Digital takes several steps to isolate the digital assets held for customers from its own assets and to structure customer accounts in a way that reinforces customer ownership of digital assets. Primarily, Cboe Digital holds customer digital assets separate from its own assets in customer accounts, referred to as wallets, with long-term storage by a third party custody provider and licensed trust company. When Cboe Digital holds digital asset for customers to enable the inbound receipt and outbound transmittal of virtual currencies, customer digital assets are held in omnibus wallets titled for the benefit of customers of Cboe Digital. Digital assets of customers (but not Cboe Digital) are held together in the omnibus wallets, and Cboe Digital maintains the records of the amount and type of digital asset owned by each of its customers in the omnibus wallets. Cboe Digital does not hold its own corporate assets together with the customer digital assets in the omnibus wallets, other than corporate assets that are held in omnibus wallets to facilitate customer transactions relating to the digital assets contained in the omnibus wallet, including in order to pay customary transaction fees and expenses. Because Cboe Digital does not have a trading entity for proprietary or liquidity trading purposes, Cboe Digital maintains its own digital assets only to facilitate customer trading. Cboe Digital does not currently pledge, rehypothecate, or invest customer digital assets although its customer agreements and rulebook permit it to do so in the

future. Additionally, Cboe Digital does not otherwise use customer digital assets for its own corporate or business purposes. A failure of Cboe Digital's policies and procedures regarding the separation of customer assets could subject Cboe Digital to regulatory scrutiny and could adversely affect Cboe Digital's digital asset business.

The obligations associated with these custodial and other arrangements to safeguard digital assets involve unique risks and uncertainties not present in arrangements to safeguard assets that are not digital assets. While other types of assets held in a similarly-segregated manner have been deemed not to be part of the custodian's bankruptcy estate under various regulatory regimes, bankruptcy courts have not yet fully considered the appropriate treatment of custodial holdings of digital assets, and any such determination may be highly fact-specific. Despite Cboe Digital's efforts, through contractual terms and account set up, to structure customer accounts and wallets in a manner that reinforces customer ownership of the assets, there can be no assurance that courts will not consider such assets as part of Cboe Digital's or a Cboe Digital custodian's bankruptcy estate. In that event, digital assets that Cboe Digital or its custodian holds on behalf of Cboe Digital customers may become subject to the bankruptcy proceedings, and such customers could be treated as general unsecured creditors. Moreover, even if digital assets ultimately are not treated as part of Cboe Digital's or a Cboe Digital custodian's bankruptcy estate, the lack of precedent and the fact-dependent nature of the determination could delay the return of such digital assets to customers or result in the return of all or a portion of the cash value of the digital assets rather than the digital assets themselves. As a result of these and other risks, customers may find digital assets to be more risky and less attractive than other assets, which could reduce demand for Cboe Digital's digital asset services and could adversely impact Cboe Digital's digital asset business.

Further, when cryptocurrency custodial solutions (whether involving Cboe Digital systems or others) experience system failures or other operational issues, such events could result in a reduction in digital asset prices or confidence and impact the success of Cboe Digital, and may ultimately have a material adverse effect on the ability of Cboe Digital to continue as a going concern.

While Cboe Digital and its vendors have experienced in the past cybersecurity threats and events of varying degrees, we are not aware of any of these threats or events having a material impact on Cboe Digital's business, financial condition or operating results to date. However, there can be no assurance that we or our vendors and custodians will not experience future threats or events that may be material. If any such threats or events materialize, we may be subject to contractual restrictions, liability and damages, loss of business, penalties, unfavorable publicity, and increased scrutiny by regulators, which may have an adverse effect on our business.

Digital assets are subject to volatile price fluctuations which can impact the Cboe Digital business.

The digital asset market has been characterized by significant volatility and unexpected price movements. Certain crypto assets may become more volatile and less liquid in a very short period of time, resulting in market prices being subject to erratic and abrupt market movement, which could harm the Cboe Digital business and the carrying value of the Digital reporting unit. The Company previously recorded goodwill impairment charges related to Cboe Digital, resulting in decreases in the carrying value of Cboe Digital. Prices of digital assets have fluctuated widely for a variety of reasons and may continue to experience significant price fluctuations. Such volatility could have a significant impact on the fair market value of digital assets and there can be no assurance that ongoing volatility will positively impact the value of digital assets. Factors that may affect the price of digital assets include:

- total digital assets in existence;
- global digital assets supply and demand;
- investors' expectations with respect to the rate of inflation of fiat currencies;
- digital asset market fragmentation and consolidation;
- fiat currency withdrawal and deposit policies of digital asset trading platforms and liquidity of such markets;
- interruptions in service from, bankruptcy of, or failure of major digital asset trading platforms;
- cyber theft of digital assets from online digital asset wallet providers, or news of such theft from such providers, or theft from individual digital asset wallets;
- investment and trading activities of hedge funds and other large digital asset investors;
- monetary policies of governments, sanctions, trade restrictions, currency devaluations and revaluations;
- regulatory measures, if any, that restrict or facilitate the ability to buy, sell or hold digital assets or use digital assets as a form of payment;
- availability and popularity of businesses that provide digital asset-related services;
- maintenance and development of the open-source software protocol of the digital asset network;
- global or regional political, economic or financial events and uncertainty;
- manipulative trading activity on digital asset trading platforms, which are largely unregulated;

- the adoption of digital assets as a medium of exchange, store-of-value or other consumptive asset and the maintenance and development of the open-source software protocol of the applicable digital asset;
- forks in the applicable digital asset network;
- consumer preferences and perceptions;
- an active derivative market for digital assets; and
- fees associated with processing a transaction of digital assets and the speed at which such transactions are settled.

Volatility and unexpected price movements may be a factor in whether customers maintain their deposits on Cboe Digital Exchange. Excessive redemptions or withdrawals by customers may have an adverse impact on the profitability of the Cboe Digital business.

Cboe Digital's clearinghouse operations are exposed to risks, including credit, liquidity, market and other risks related to the potential defaults of clearing members and other counterparties.

Cboe Digital is subject to risks related to operating its clearinghouse, Cboe Clear Digital, which is a derivatives clearing organization ("DCO") registered with the CFTC. Risks associated with the operation of Cboe Clear Digital include failing to meet strict business continuity requirements and regulatory oversight, risks of default by clearing members and counterparties due to bankruptcy, lack of liquidity, operational failure or other reasons. There is no guarantee the collateral deposited will continue to maintain its value, and the use of digital assets as collateral may introduce additional volatility in value. Further, to help ensure an orderly market, Cboe Digital maintains digital assets to support its clearing operations which may be subject to significant changes in value and therefore exposed to market risk with the fluctuation in market prices. Cboe Digital monitors this risk on a daily, weekly and monthly basis. The business model is such that Cboe Digital earns digital assets and at times may accumulate positions that are subject to market risk. Customer positions do have market risk based on daily activity and settlement prices. The provision of non-material limits in spot trading introduces potential additional risk as, if a participant is permitted to trade on limits but defaults on their obligation to settle, Cboe Clear Digital may be required to fulfill the defaulting party's obligations to its trading counterparty(ies), which may have an adverse effect on our business. Spot limits are provided in the form of intraday credit to trade certain digital assets and USD. USD cash collateral is collected to mitigate credit risk due to default. Trading in Bitcoin and Ether futures with margin treatment began in January 2024 and we could experience losses in excess of the collateral, which may have an adverse effect on our business, if a clearing participant defaults on its obligations to our clearinghouse, and its margin and its guaranty fund deposits are insufficient to meet its obligations. Please also refer to the risk factors above for a discussion of other risks associated with the use of digital assets. These risks could subject Cboe Digital to substantial losses, not being able to meet short term liquidity demands due to settlement activity, reputational harm, regulatory consequences, including litigation, fines and enforcement actions, and the inability to operate its business.

Item 1B. Unresolved Staff Comments

Not applicable.

Item 1C. Cybersecurity

We maintain policies, procedures and controls designed to safeguard against cybersecurity incidents by protecting the confidentiality, integrity, availability and reliability of our systems, networks and information. These policies, procedures and controls are subject to monitoring, auditing, and evaluation practices, pursuant to our Enterprise Risk Management program, which is supported by a three-line defense strategy that includes, the business lines, the Enterprise Risk Management Committee, the Risk Management and Information Security Department, the Compliance Department and the Internal Audit Department. Further, we have developed and conduct at least annually cybersecurity and data privacy training programs for our employees and our third-party consultants who have access to our systems. At least annually, we also conduct simulations, tabletop exercises, independent third-party cybersecurity penetration assessments, and response readiness tests. In addition, the information technology systems of our self-regulatory organizations are subject to periodic reviews, audits, and inspections by regulatory authorities. We also conduct diligence on cybersecurity practices in connection with our overall risk assessment when evaluating expansion into new regions, strategic opportunities, and new products.

We engage assessors, consultants, auditors and other third parties in connection with developing and evaluating our overall risk management framework. Additionally, our internal audit team periodically engages third parties to co-source internal audits of our information security processes. We strive to utilize best practices in our information security management and follow applicable industry standards.

In support of our risk management framework, we maintain a vendor management policy and program to manage third-party risk. Embedded in our vendor management policy is a defined process to assess the risks related to new vendors. Vendors deemed to be high risk are re-assessed annually. These assessments include security questionnaires and reviews of Service Organization Controls (SOC) Reports, where applicable. Cboe uses a third-party service to help monitor the security posture of our vendors that process and/or store confidential Cboe information.

We have committees, response and management teams, and dedicated positions for managing and assessing cybersecurity risk, including a Chief Information Security Officer, a Chief Risk Officer, an Enterprise Risk Management Committee and a dedicated internal information security team. Our Chief Information Security Officer and Chief Risk Officer have extensive experience in the industry. Our Chief Information Security Officer has over 20 years of experience leading information security programs including 12 years of experience in cybersecurity consulting, building efficient and sustainable cybersecurity programs for large, complex and heavily regulated global enterprises. Our Chief Information Security Officer is currently responsible for developing and executing the Company's global security strategy and roadmap along with its long-range plan to meet industry and regional regulatory compliance requirements. We have an information security department with associates who are located around the globe. Our Chief Risk Officer's tenure with Cboe spans 23 years, during which time he has held senior positions in information security and risk management. He is currently responsible for oversight of the Company's risk function including the enterprise risk management, information security, privacy, vendor management, and IT asset management programs.

Our incident response team is responsible for identifying potential cybersecurity incidents and communicating information regarding the nature and severity of the incident to senior management and others as required by the Company's written Incident Response Plan. Cybersecurity incidents are tracked pursuant to our incident monitoring processes defined within the Incident Response Plan. Potential cybersecurity incidents may also be reported to our Disclosure Committee to determine if further action and/or public disclosure is required. We have also put in place a vulnerability management program through which our systems are routinely scanned to help identify vulnerabilities and track remediation activities.

The Board recognizes that our business depends on the confidentiality, integrity, availability, performance, security, and reliability of our data and technology systems and devotes time and attention to the oversight of cybersecurity and information security risk. In particular, the Board's Risk Committee receives recurring updates and reports on information security-related topics from senior management, including from the Company's Chief Compliance Officer, Chief Risk Officer, and Chief Information Security Officer. More specifically, the Risk Committee receives recurring presentations from senior management on cybersecurity, including architecture and resiliency, incident management, business continuity and disaster recovery, significant information technology changes, data privacy, insider threats, physical security, information related to third-party cyber assessments and risks associated with the use of third party service providers. The Risk Committee also reviews and approves any changes to the related information security and privacy program charter. Further, summaries of the proceedings from prior Risk Committee meetings are provided to the Board on a routine basis.

We have experienced in the past, and we expect to continue to experience, cybersecurity threats and events of varying degrees. However, we are not aware of any of these threats or events having a material impact on our business or our business strategy, results of operations or financial condition results to date. We cannot assure you that we will not experience future threats or events that may be material. Please also refer to the risk factors above for additional information.

Item 2. Properties

The Company is headquartered in Chicago with a network of domestic and global offices across the Americas, Europe, Asia and Australia, including main hubs in New York, London, Kansas City and Amsterdam. Our principal properties as of December 31, 2023 are listed in the table below:

Location	Classification	Owned/Leased	Lease Expiration	Approximate Size
400 South La Salle Street, Chicago, Illinois	Former global headquarters and office space; prior trading floor	Owned*	N/A	300,000 sq. ft.
433 West Van Buren Street, Chicago, Illinois	New global headquarters and office space	Leased	August 2035	185,000 sq. ft.
8050 Marshall Drive, Lenexa, Kansas	Office space	Leased	February 2027, with two 5 year renewal options	62,000 sq. ft.
141 West Jackson Boulevard, Chicago, Illinois	Trading floor and office space	Leased	October 2032	40,000 sq. ft.
Gustav Mahlerplein 73-83, Amsterdam, Netherlands	Office space	Leased	January 2032	29,500 sq. ft.
17 State Street, New York, New York	Office space	Leased	December 2027	22,000 sq. ft.
11 Monument Street, London, United Kingdom	Principal UK office space	Leased	March 2027, with one 5 year renewal option	21,000 sq. ft.
1 Farrer Place, Sydney 2000 Australia	Office space	Leased	December 2026	18,000 sq. ft.
Rockwell Business Center Sheridan, Sheridan Street Corner United Street, Highway Hills Mandaluyong City 1550 Philippines	Office space	Leased	November 2028	10,500 sq. ft.
One Liberty Plaza, New York, New York	Office space	Leased	May 2027	8,500 sq. ft.
65 Queen Street West Toronto, Ontario, Canada	Office space	Leased	June 2028	8,000 sq. ft.

*Through our wholly-owned subsidiary, Cboe Building Corporation, we own the building that was previously the global headquarters. As a result of the Merger, there was a reduction in employee workspace needed in Chicago, which led to the decision to market for sale the former headquarters location. The building is currently classified as held for sale. See Note 7 (“Property and Equipment, Net”) of the consolidated financial statements included herein for further information.

We believe that our properties are in good operating condition and adequately serve our current business operations. Generally, our properties are not earmarked for use by a particular segment. Instead, most of our properties are used by two or more segments. We also anticipate that suitable additional or alternative space will be available at commercially reasonable terms for future expansion to the extent necessary.

Our primary data center in the United States is in Secaucus, New Jersey, and its disaster recovery center is in Chicago, Illinois. In Europe, our primary data center is in Slough, England and the secondary data center is in Park Royal, London. In Asia Pacific, our primary data centers are in Tokyo, Japan and Sydney, Australia and secondary data centers are located in Osaka City, Japan and Sydney, Australia.

See Note 7 (“Property and Equipment, Net”) and Note 24 (“Leases”) to the consolidated financial statements included herein for further information.

Item 3. Legal Proceedings

Cboe incorporates herein by reference the discussion set forth in Note 21 (“Income Taxes”) and Note 23 (“Commitments, Contingencies, and Guarantees”) of the consolidated financial statements included herein.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

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

Common Stock

The Company's common stock is listed on Cboe BZX under the trading symbol CBOE. As of January 31, 2024, there were approximately 116 holders of record of our common stock.

Dividends

Each share of common stock, including restricted stock awards and restricted stock units, is entitled to receive dividend and dividend equivalents, respectively, if, as and when declared by the Board of Directors of the Company.

The Company's expectation is to continue to pay dividends. The decision to pay a dividend, however, remains within the discretion of the Company's Board of Directors and may be affected by various factors, including our earnings, financial condition, capital requirements, level of indebtedness and other considerations our Board of Directors deems relevant. Future debt obligations and statutory provisions, among other things, may limit, or in some cases prohibit, our ability to pay dividends.

As a holding company, the Company's ability to declare and continue to pay dividends in the future with respect to its common stock will also be dependent upon the ability of its subsidiaries to pay dividends to it under applicable corporate law.

Recent Sales of Unregistered Securities

Not applicable.

Use of Proceeds

Not applicable.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

Share Repurchase Program

In 2011, the Board of Directors approved an initial authorization for the Company to repurchase shares of its outstanding common stock of $100 million and subsequently approved additional authorizations, for a total authorization of $1.8 billion. The program permits the Company to purchase shares, through a variety of methods, including in the open market or through privately negotiated transactions, in accordance with applicable securities laws. It does not obligate the Company to make any repurchases at any specific time or situation.

Under the program, for the year ended December 31, 2023, the Company repurchased 661,721 shares of common stock at an average cost per share of $126.80, totaling $83.9 million. Since inception of the program through December 31, 2023, the Company has repurchased 19,610,088 shares of common stock at an average cost per share of $72.21, totaling $1.4 billion. As of December 31, 2023, the Company had $384.0 million of availability remaining under its existing share repurchase authorizations.

The table below shows the purchases of equity securities by the Company which settled during the three months ended December 31, 2023, reflecting the purchase of common stock under the Company's share repurchase program:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (in millions)
October 1 to October 31, 2023	—	$ —	—	$ 389.8
November 1 to November 30, 2023	—	—	—	389.8
December 1 to December 31, 2023	33,507	173.59	33,507	384.0
Total	33,507	$ 173.59	33,507	

Purchase of common stock from employees

During the fiscal quarter ended December 31, 2023, we purchased shares from employees in connection with the settlement of employee tax withholding obligations arising from the vesting of restricted stock units and restricted stock awards. The table below represents repurchases made by or on behalf of us or any “affiliated purchaser” of our common stock during the fiscal quarter ended December 31, 2023:

Period	Total number of shares purchased	Average price paid per share
October 1 to October 31, 2023	—	$ —
November 1 to November 30, 2023	243	176.66
December 1 to December 31, 2023	52	134.03
Total	295	169.18

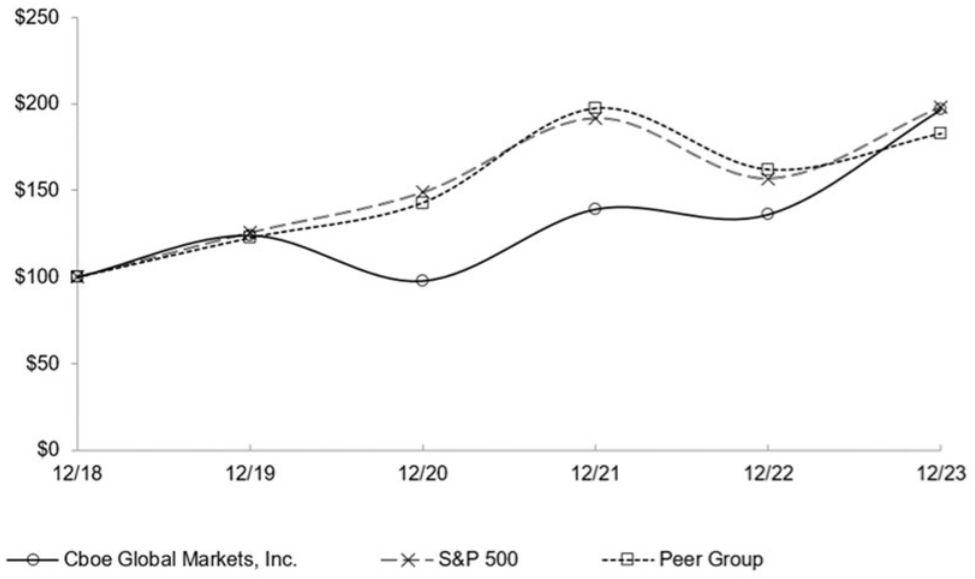
Stockholder Return Performance Graph

The following graph compares the cumulative total return provided to stockholders on our common stock since December 31, 2018 against the return of the S&P 500 Index and a customized peer group that includes CME Group Inc., Intercontinental Exchange Inc., and Nasdaq, Inc.

An investment of $100, with reinvestment of all dividends, is assumed to have been made in our common stock, the index and the peer groups on December 31, 2018, and its performance is tracked on an annual basis through December 31, 2023.

Comparison of Cumulative Total Return of the Company, Peer Groups, Industry Indices and/or Broad Markets

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*
Among Cboe Global Markets, Inc., the S&P 500 Index and a Peer Group



*$100 invested on 12/31/18 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

Data Source: Yahoo Finance, Closing Price(s)

	12/18	12/19	12/20	12/21	12/22	12/23
Cboe Global Markets, Inc.	100.00	124.16	97.88	139.21	136.20	196.64
S&P 500	100.00	125.72	148.85	191.58	156.88	198.13
Peer Group	100.00	122.67	142.87	197.23	162.00	182.70

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is provided to assist the reader in understanding the results of operations, liquidity and capital resources, and critical accounting estimates and policies through the eyes of our management team. The following discussion should be read in conjunction with the consolidated financial statements of the Company and the notes thereto included in Item 8 of this Annual Report on Form 10-K. The following discussion contains forward-looking statements. Actual results could differ materially from the results discussed in the forward-looking statements. See "Risk Factors" and "Forward-Looking Statements" above.

A detailed comparison of the Company's 2022 operating results to its 2021 operating results can be found in the Management's Discussion and Analysis of Financial Condition and Results of Operations section in the Company's 2022 Annual Report on Form 10-K filed February 17, 2023 at www.sec.gov.

INTRODUCTION

Management's Discussion and Analysis of Financial Condition and Results of Operations is organized as follows:

- **Executive Summary** – Includes an overview of the Company's business; a description of notable recent developments, current economic, competitive and regulatory trends relevant to our business; the Company's current business strategy; and the Company's primary sources of operating and non-operating revenues and expenses.

- **Results of Operations** – Includes an analysis of the Company's 2023 and 2022 financial results and a discussion of any known events or trends which are likely to impact future results.

- **Liquidity and Capital Resources** – Includes a discussion of the Company's future cash requirements, capital resources, and financing arrangements.

- **Critical Accounting Estimates** – Provides an explanation of accounting estimates which may have a significant impact on the Company's financial results and the judgments, assumptions, and uncertainties associated with those estimates.

- **Recent Accounting Pronouncements** – Includes an evaluation of recent accounting pronouncements and the potential impact of their future adoption on the Company's financial results.

EXECUTIVE SUMMARY

Overview

Cboe Global Markets, Inc., the world's leading derivatives and securities exchange network, delivers cutting-edge trading, clearing and investment solutions to people around the world. Cboe provides trading solutions and products in multiple asset classes, including equities, derivatives, FX, and digital assets, across North America, Europe, and Asia Pacific. Above all, the Company is committed to building a trusted, inclusive global marketplace that enables people to pursue a sustainable financial future.

Cboe's subsidiaries include the largest options exchange and the third largest stock exchange operator in the U.S. In addition, the Company operates Cboe Europe, one of the largest stock exchanges by value traded in Europe, and owns Cboe Clear Europe, a leading pan-European equities and derivatives clearinghouse, BIDS Holdings, which owns a leading block-trading ATS by volume in the U.S., and provides block-trading services with Cboe market operators in Europe, Canada, Australia, and Japan, Cboe Australia, an operator of trading venues in Australia, Cboe Japan, an operator of trading venues in Japan, Cboe Digital, an operator of a U.S. based digital asset spot market and a regulated futures exchange, Cboe Clear Digital, an operator of a regulated clearinghouse, and Cboe Canada Inc., a recognized Canadian securities exchange. Cboe subsidiaries also serve collectively as a leading market globally for exchange-traded products ("ETPs") listings and trading.

The Company is headquartered in Chicago with offices in Amsterdam, Belfast, Hong Kong, Kansas City, London, Manila, New York, San Francisco, Sarasota Springs, Singapore, Sydney, Tokyo, and Toronto.

Business Segments

The Company operates six reportable business segments: Options, North American Equities, Europe and Asia Pacific, Futures, Global FX, and Digital, which is reflective of how the Company's chief operating decision-maker reviews and operates the business, as discussed in Note 1 (“Nature of Operations”). Segment performance is primarily evaluated based on operating income (loss). The Company’s chief operating decision-maker does not use segment-level assets or income and expenses below operating income (loss) as key performance metrics; therefore, such information is not presented below. The Company has aggregated all of its corporate costs, as well as other business ventures, within the Corporate Items and Eliminations totals based on the decision that those activities should not be used to evaluate the operating performance of the segments; however, operating expenses that relate to activities of a specific segment have been allocated to that segment.

Options. The Options segment includes options on market indices (“index options”), as well as on the stocks of individual corporations (“equity options”) and on ETPs such as exchange-traded funds (“ETFs”) and exchange-traded notes (“ETNs”), which are “multi-listed” options and listed on a non-exclusive basis. These options are eligible to trade, as applicable, on Cboe Options, C2, BZX, EDGX, and/or other U.S. national security exchanges. Cboe Options is the Company’s primary options market and offers trading in listed options through a single system that integrates electronic trading and traditional open outcry trading on the Cboe Options trading floor in Chicago. C2 Options, BZX Options, and EDGX Options are all-electronic options exchanges, and typically operate with different market models and fee structures than Cboe Options. The Options segment also includes applicable market data fees revenues generated from the consolidated tape plans, the licensing of proprietary options market data, index licensing, routing services, and access and capacity services.

North American Equities. The North American Equities segment includes U.S. equities and ETP transaction services that occur on fully electronic exchanges owned and operated by BZX, BYX, EDGX, and EDGA, equities transactions that occur on the BIDS Trading platform in the U.S. and Canada, and Canadian equities and other transaction services that occur on or through Cboe Canada Inc.’s order books. The North American Equities segment also includes listing services on Cboe Canada Inc., corporate and ETP listings on BZX, applicable market data fees revenues generated from the consolidated tape plans, the licensing of proprietary equities market data, routing services, and access and capacity services.

Europe and Asia Pacific. The Europe and Asia Pacific segment includes the pan-European listed equities and derivatives transaction services, ETPs, exchange-traded commodities, and international depository receipts that are hosted on MTFs operated by Cboe Europe Equities (Cboe Europe and Cboe NL equities exchanges) and Cboe Europe Derivatives (“CEDX”). It also includes the ETP listings business on RMs and clearing activities of Cboe Clear Europe, as well as the equities transaction services of Cboe Australia and Cboe Japan, operators of trading venues in Australia and Japan, respectively, along with equities transactions that occur on the BIDS Trading platform in Australia and Japan. Cboe Europe operates lit and dark books, a periodic auctions book, and Cboe BIDS Europe, a Large-in-Scale (“LIS”) trading negotiation facility for UK symbols. Cboe NL, launched in October 2019 and based in Amsterdam, operates similar business functionality to that offered by Cboe Europe, and provides for trading only in European Economic Area (“EEA”) symbols. Cboe Europe Derivatives, a pan-European derivatives platform launched in September 2021, offers futures and options based on Cboe Europe equity indices, and single stock options. This segment also includes Cboe Europe, Cboe NL, CEDX, Cboe Australia and Cboe Japan revenue generated from the licensing of proprietary market data and from access and capacity services.

Futures. The Futures segment includes transaction services provided by CFE, a fully electronic futures exchange, which includes offerings for trading of VIX futures and other futures products, the licensing of proprietary market data, as well as access and capacity services.

Global FX. The Global FX segment includes institutional FX trading services that occur on the Cboe FX fully electronic trading platform, non-deliverable forward FX transactions (“NDFs”) offered for execution on Cboe SEF, as well as revenue generated from the licensing of proprietary market data and from access and capacity services. The segment

includes transaction services for U.S. government securities executed on the Cboe Fixed Income fully electronic trading platform.

Digital. The Digital segment includes a U.S. based digital asset spot market, a regulated futures exchange, and a regulated clearinghouse, as well as revenue generated from the licensing of proprietary market data and from access and capacity services.

Executive Transitions

On July 6, 2023, Brian Schell, former Executive Vice President, Chief Financial Officer and Treasurer, announced his departure from the Company to pursue a new professional opportunity outside of the exchange industry. Jill Griebenow, Senior Vice President, Chief Accounting Officer, was appointed to serve as Executive Vice President, Chief Financial Officer, Treasurer and Chief Accounting Officer effective July 10, 2023, and currently serves as Executive Vice President, Chief Financial Officer.

On September 18, 2023 (the "Effective Date"), Edward T. Tilly, former Chief Executive Officer of the Company, resigned and voluntarily terminated his employment with the Company. Mr. Tilly also resigned as Chairman of the Company's Board of Directors, effective as of the Effective Date. Mr. Tilly's resignation followed the conclusion of an investigation led by the Board of Directors and outside independent counsel that was launched in late August 2023. The Board of Directors determined that Mr. Tilly did not disclose personal relationships with colleagues, which violated the Company's policies and stands in stark contrast to the Company's values. The conduct was not related to and does not impact the Company's strategy, financial performance, technology and market operations, financial reporting or internal controls over financial reporting. Following Mr. Tilly's resignation, Fredric J. Tomczyk, an existing director of the Company, was appointed as Chief Executive Officer of the Company, effective as of the Effective Date. As a result of Mr. Tomczyk's appointment as Chief Executive Officer, Mr. Tomczyk stepped down from the Board of Directors' Compensation Committee and Finance and Strategy Committee as of the Effective Date. Also as of the Effective Date, William M. Farrow III was appointed as non-executive Chairman of the Board of Directors (replacing his prior role as Lead Director of the Board of Directors).

General Factors Affecting Results of Operations

In broad terms, our business performance is impacted by a number of drivers, including macroeconomic events affecting the risk and return of financial assets, investor sentiment, the regulatory environment for capital markets, geopolitical events, tax policies, central bank policies and changing technology, particularly in the financial services industry. We believe our future revenues and net income will continue to be influenced by a number of domestic and international economic trends, including:

- trading volumes on our proprietary products such as VIX options and futures and SPX options;
- trading volumes in listed equity securities, options, futures, and ETPs in North America, Europe, and Asia Pacific, clearing volumes in listed equity securities and ETPs in Europe, volumes in listed equity options, volumes in digital assets, and volumes in institutional FX trading;
- the demand for and pricing structure of the U.S. tape plan market data distributed by the SIPs, which determines the pool size of the industry market data fees we receive based on our market share;
- consolidation and expansion of our customers and competitors in the industry;
- the demand for information about, or access to, our markets and products, which is dependent on the products we trade, our importance as a liquidity center, quality and integrity of our proprietary indices, and the quality and pricing of our data and access and capacity services;
- continuing pressure in transaction fee pricing due to intense competition in the North American, European, and Asia Pacific markets;
- significant fluctuations in foreign currency translation rates or weakened value of currencies; and
- regulatory changes and obligations relating to market structure, digital assets and increased capital requirements, and those which affect certain types of instruments, transactions, products, pricing structures, capital market participants or reporting or compliance requirements.

A number of significant structural, political and monetary issues, global conflicts continue to confront the global economy, and instability could continue, resulting in an increased or subdued level of inflation, market volatility, potential recessions, supply chain constraints, changes in trading volumes, greater uncertainty, inflationary increases in our expenses, such as compensation inflation, and increased costs and uncertainties related to CAT and the ability to collect on the promissory notes related to the funding of CAT may have an adverse effect on our financial results.

Components of Revenues

The components of revenues are described below:

Cash and Spot Markets

Revenue aggregated into cash and spot markets includes associated transaction and clearing fees, the portion of market data fees relating to associated U.S. tape plan market data fees, associated regulatory fees, and associated other revenue from the Company's North American Equities, Europe and Asia Pacific, Global FX, and Digital segments.

Data and Access Solutions

Revenue aggregated into data and access solutions includes access and capacity fees, proprietary market data fees, and associated other revenue across the Company's six segments.

Derivatives Markets

Includes associated transaction and clearing fees, the portion of market data fees relating to associated U.S. tape plan market data fees, associated regulatory fees, and associated other fees from the Company's Options, Futures, Europe and Asia Pacific, and Digital segments.

Components of Cost of Revenues

Liquidity Payments

Liquidity payments are primarily correlated to the volume of securities traded on our markets. As stated above, we record the liquidity rebates paid to market participants providing liquidity, in the case of Cboe Options, C2, BZX, EDGX, and Cboe Europe Equities and Derivatives, and Cboe Digital, as cost of revenue. BYX and EDGA offer a pricing model where we rebate liquidity takers for executing against an order resting on our book, which is also recorded as a cost of revenues.

Routing and Clearing

Various rules require that U.S. options and equities trade executions occur at the National Best Bid and Offer displayed by any exchange. Linkage order routing consists of the cost incurred to provide a service whereby Cboe equities and options exchanges deliver orders to other execution venues when there is a potential for obtaining a better execution price or when instructed to directly route an order to another venue by the order provider. The service affords exchange order flow providers an opportunity to obtain the best available execution price and may also result in cost benefits to those clients. Such an offering improves our competitive position and provides an opportunity to attract orders which would otherwise bypass our exchanges. We utilize third-party brokers or our broker-dealer, Cboe Trading, to facilitate such delivery. Also included within routing and clearing are the Order Management System and Execution Management System ("OMS" and "EMS", respectively) fees incurred for U.S. Equities Off-Exchange order execution, as well as settlement costs incurred for the settlement process executed by Cboe Clear Europe and Cboe Clear Digital.

Section 31 Fees

Exchanges under the authority of the SEC (Cboe Options, C2, BZX, BYX, EDGX, and EDGA as well as CFE to the extent that CFE offers trading in security futures products) are assessed fees pursuant to the Exchange Act designed to recover the costs to the U.S. government of supervision and regulation of securities markets and securities professionals. We treat these fees as a pass-through charge to customers executing eligible listed equities and listed equity options trades. Accordingly, we recognize the amount that we are charged under Section 31 as a cost of revenues and the corresponding amount that we charge our customers as regulatory transaction fees revenue. Since the regulatory transaction fees recorded in revenues are equal to the Section 31 fees recorded in cost of revenues, there is no impact on our operating income. Cboe Trading, Cboe Europe, Cboe NL, BIDS, MATCHNow, Cboe FX, Cboe Australia, Cboe Japan, Cboe Digital, and Cboe Canada are not U.S. national securities exchanges, and accordingly are not charged Section 31 fees.

Royalty Fees and Other Cost of Revenues

Royalty fees primarily consist of license fees paid by us for the use of underlying indices in our proprietary products usually based on contracts traded. The Company has licenses with the owners of the S&P 500 Index, S&P 100 Index and certain other S&P indices, FTSE Russell indices, the DJIA, MSCI, and certain other index products. This category also includes fees related to the dissemination of market data related to S&P indices and other products through Cboe Global Indices Feed ("CGIF").

Other cost of revenues primarily consists of interest expense from clearing operations, electronic access permit fees and other miscellaneous costs associated with other revenue.

Components of Operating Expenses

Compensation and Benefits

Compensation and benefits represent our largest expense category and tend to be driven by our staffing requirements, financial performance, and the general dynamics of the employment market. Stock-based compensation is a non-cash expense related to employee equity awards. Stock-based compensation can vary depending on the quantity and fair value of the award on the date of grant and the related service period.

Depreciation and Amortization

Depreciation and amortization expense results from the depreciation of long-lived assets purchased, the amortization of purchased and internally developed software, and the amortization of intangible assets.

Technology Support Services

Technology support services consists primarily of costs related to the maintenance of computer equipment supporting our system architecture, circuits supporting our wide area network, support for production software, operating system license and support fees, fees paid to information vendors for displaying data and off-site system hosting fees.

Professional Fees and Outside Services

Professional fees and outside services consist primarily of consulting services, which include supplemental staff activities primarily related to systems development and maintenance, legal, regulatory and audit, and tax advisory services, as well as compensation paid to non-employee directors, including stock-based compensation and deferred compensation.

Travel and Promotional Expenses

Travel and promotional expenses primarily consist of advertising, costs for special events, sponsorship of industry conferences, options education seminars and travel-related expenses.

Facilities Costs

Facilities costs primarily consist of expenses related to owned and leased properties including rent, maintenance, utilities, real estate taxes and telecommunications costs.

Acquisition-Related Costs

Acquisition-related costs relate to acquisitions and other strategic opportunities. The acquisition-related costs include fees for investment banking advisors, lawyers, accountants, tax advisors, public relations firms, severance and retention costs, capitalized software and facilities, and other external costs directly related to mergers and acquisitions.

Goodwill Impairment

Goodwill impairment consists of charges to impair goodwill of our reporting units if the carrying value exceeds the implied fair value.

Other Expenses

Other expenses represent costs necessary to support our operations that are not already included in the above categories, including, but not limited to the impairment of digital assets held presented in intangible assets, net as part of the ordinary operations of the Digital segment and changes in contingent consideration.

Non-Operating (Expenses) Income

Income and expenses incurred through activities outside of our core operations are considered non-operating and are classified as other (expense) income. These activities primarily include interest earned on the investing of excess cash, interest expense related to outstanding debt facilities, income and unrealized gains and losses related to investments held in a trust for the Company's non-qualified retirement and benefit plans, including non-employee director deferred compensation, realized gains and losses related to the Company's previously held minority investments, income earned related to the Company's minority investments, equity earnings or losses from our investments in other business ventures, impairment of the Company's investments, investment establishment costs associated with new business ventures, and loan forgiveness provided under the Small Business Administration ("SBA") Paycheck Protection Program ("PPP"). See Note 12 ("Debt") for additional information regarding the PPP.

RESULTS OF OPERATIONS

The following are summaries of changes in financial performance and include certain non-GAAP financial measures. Management uses these non-GAAP measures internally in conjunction with GAAP measures to help evaluate our performance and to help make financial and operational decisions. These non-GAAP financial measures assist management in comparing our performance on a consistent basis for purposes of business decision making by removing the impact of certain items management believes do not reflect our underlying operations.

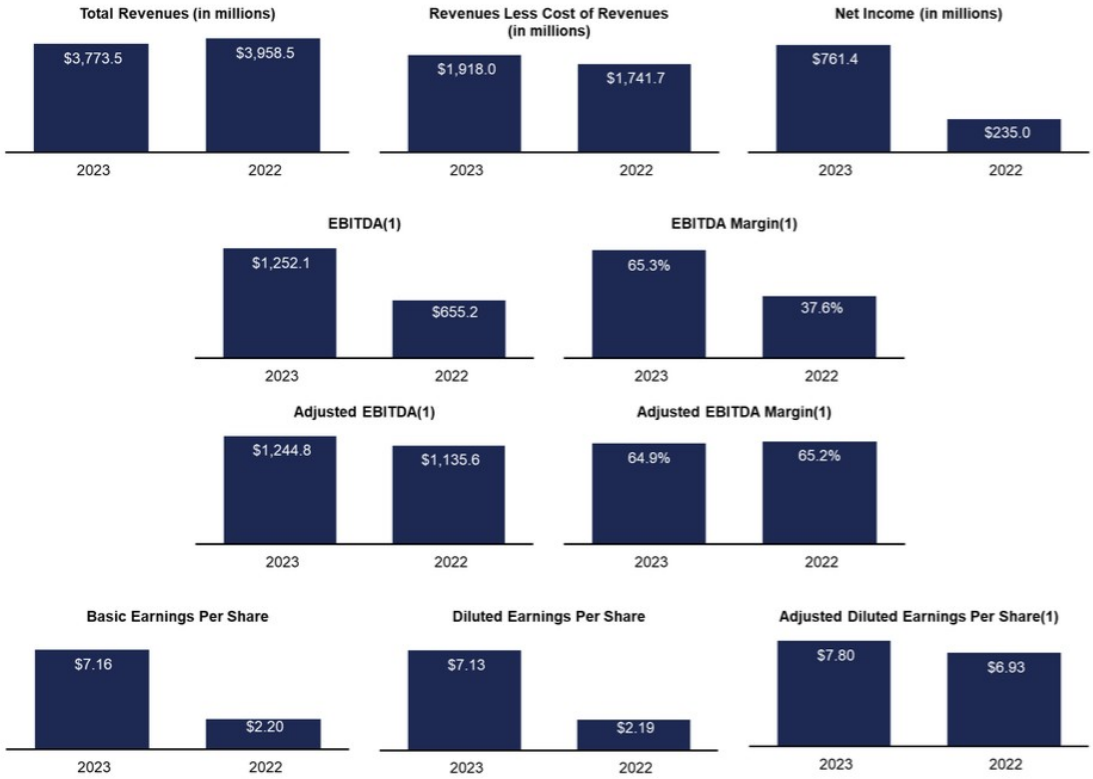
We believe our presentation of these measures provides investors with greater transparency into financial measures used by management and is useful to investors for period-to-period comparisons of our ongoing operating performance.

These non-GAAP financial measures are not presented in accordance with, or as an alternative to, GAAP financial measures and may be calculated differently from non-GAAP measures used by other companies, which reduces their usefulness as comparative measures. We encourage analysts, investors and other interested parties to use these non-GAAP measures as supplemental information to the GAAP financial measures included herein, including our consolidated financial statements, to enhance their analysis and understanding of our performance and in making comparisons. Please see the footnotes below for definitions, additional information, and reconciliations from the closest GAAP measure.

Comparison of Years Ended December 31, 2023 and 2022

Overview

The following summarizes changes in financial performance for the year ended December 31, 2023, compared to the year ended December 31, 2022:



(1) These are Non-GAAP figures for which reconciliations are provided below (in millions, except percentages, earnings per share, and as noted below).

	Year Ended December 31,		Increase/ (Decrease)	Percent Change
	2023	2022		
Total revenues	$ 3,773.5	$ 3,958.5	$ (185.0)	(5)%
Total cost of revenues	1,855.5	2,216.8	(361.3)	(16)%
Revenues less cost of revenues	1,918.0	1,741.7	176.3	10 %
Total operating expenses	860.1	1,252.1	(392.0)	(31)%
Operating income	1,057.9	489.6	568.3	116 %
Income before income tax provision	1,047.6	432.9	614.7	142 %
Income tax provision	286.2	197.9	88.3	45 %
Net income	$ 761.4	$ 235.0	$ 526.4	224 %
Basic earnings per share	$ 7.16	$ 2.20	$ 4.96	225 %
Diluted earnings per share	7.13	2.19	4.94	226 %
Organic net revenue (1)	$ 1,910.4	$ 1,741.7	$ 168.7	10 %
EBITDA (2)	$ 1,252.1	$ 655.2	$ 596.9	91 %
EBITDA margin (3)	65.3 %	37.6 %	27.7 %	*
Adjusted EBITDA (2)	$ 1,244.8	$ 1,135.6	$ 109.2	10 %
Adjusted EBITDA margin (4)	64.9 %	65.2 %	(0.3)%	*
Adjusted earnings (5)	$ 828.1	$ 739.8	$ 88.3	12 %
Adjusted earnings margin (5)	43.2 %	42.5 %	0.7 %	*
Diluted weighted average shares outstanding	106.2	106.7	(0.5)	(0)%
Adjusted Diluted earnings per share (6)	$ 7.80	$ 6.93	$ 0.87	13 %

* Not meaningful

(1) Organic net revenue is defined as revenues less cost of revenues excluding revenues less cost of revenues of any acquisition that has been owned for less than one year. Revenues from acquisitions that have been owned at least one year are considered organic and are no longer excluded from organic net revenue from either period for comparative purposes. Organic net revenue does not represent, and should not be considered as, an alternative to revenues less cost of revenues, or net revenue, as determined in accordance with GAAP. We have presented organic net revenue because we consider it an important supplemental measure of our performance and we use it as the basis for monitoring our operating financial performance before the effects of acquisitions. We also believe that it is frequently used by analysts, investors and other interested parties in the evaluation of companies. We believe that investors may find this non-GAAP measure useful in evaluating our performance compared to that of peer companies in our industry. Other companies may calculate organic net revenue differently than we do. Organic net revenue has limitations as an analytical tool, and you should not consider it in isolation or as a substitute for analysis of our results as reported under GAAP.

	Year Ended December 31,	
	2023	2022
	(in millions)	(in millions)
Revenues less cost of revenues	$ 1,918.0	$ 1,741.7
Recent acquisitions:		
Acquisition revenues less cost of revenues	$ (7.6)	$ —
Organic net revenue	$ 1,910.4	$ 1,741.7

(2) EBITDA is defined as income or loss before interest, income taxes, depreciation and amortization. Adjusted EBITDA is defined as EBITDA before acquisition-related costs, impairment of investment, gain on investment, investment establishment costs, goodwill impairment, loan forgiveness, income from investments, and change in contingent consideration. EBITDA and adjusted EBITDA do not represent, and should not be considered as, alternatives to net income as determined in accordance with GAAP. We have presented EBITDA and adjusted EBITDA because we consider them important supplemental measures of our performance and believe that they are frequently used by analysts, investors and other interested parties in the evaluation of companies. In addition, we use adjusted EBITDA as a measure of operating performance for preparation of our forecasts and evaluating our leverage ratio for the debt to earnings covenant included in our outstanding credit facility. Other companies may calculate EBITDA and adjusted EBITDA differently than we do. EBITDA and adjusted EBITDA have limitations as analytical tools, and you should not consider them in isolation or as substitutes for analysis of our results as reported under GAAP.

(3) EBITDA margin represents EBITDA divided by revenues less cost of revenues.

(4) Adjusted EBITDA margin represents adjusted EBITDA divided by revenues less cost of revenues.

(5) Adjusted earnings is defined as net income adjusted for amortization of purchased intangibles, acquisition-related costs, impairment of investment, gain on investment, investment establishment costs, goodwill impairment, loan forgiveness, income from investments, certain tax reserve changes, deferred tax re-measurements, change in contingent consideration, and net income or loss allocated to participating securities, net of the income tax effects of these adjustments. Adjusted earnings does not represent, and should not be considered as, an alternative to net income, as determined in accordance with GAAP. We have presented adjusted earnings because we consider it an important supplemental measure of our performance and we use it as the basis for monitoring our own core operating financial performance relative to other operators of exchanges. We also believe that it is frequently used by analysts, investors and other interested parties in the evaluation of companies. We believe that investors may find this non-GAAP measure useful in evaluating our performance compared to that of peer companies in our industry. Other companies may calculate adjusted earnings differently than we do. Adjusted earnings has limitations as an analytical tool, and you should not consider it in isolation or as a substitute for analysis of our results as reported under GAAP.

(6) Adjusted diluted earnings per share represents adjusted earnings divided by diluted weighted average shares outstanding.

The following is a reconciliation of net income (loss) allocated to common stockholders to EBITDA and adjusted EBITDA (in millions) for the year ended December 31, 2023 and 2022, respectively:

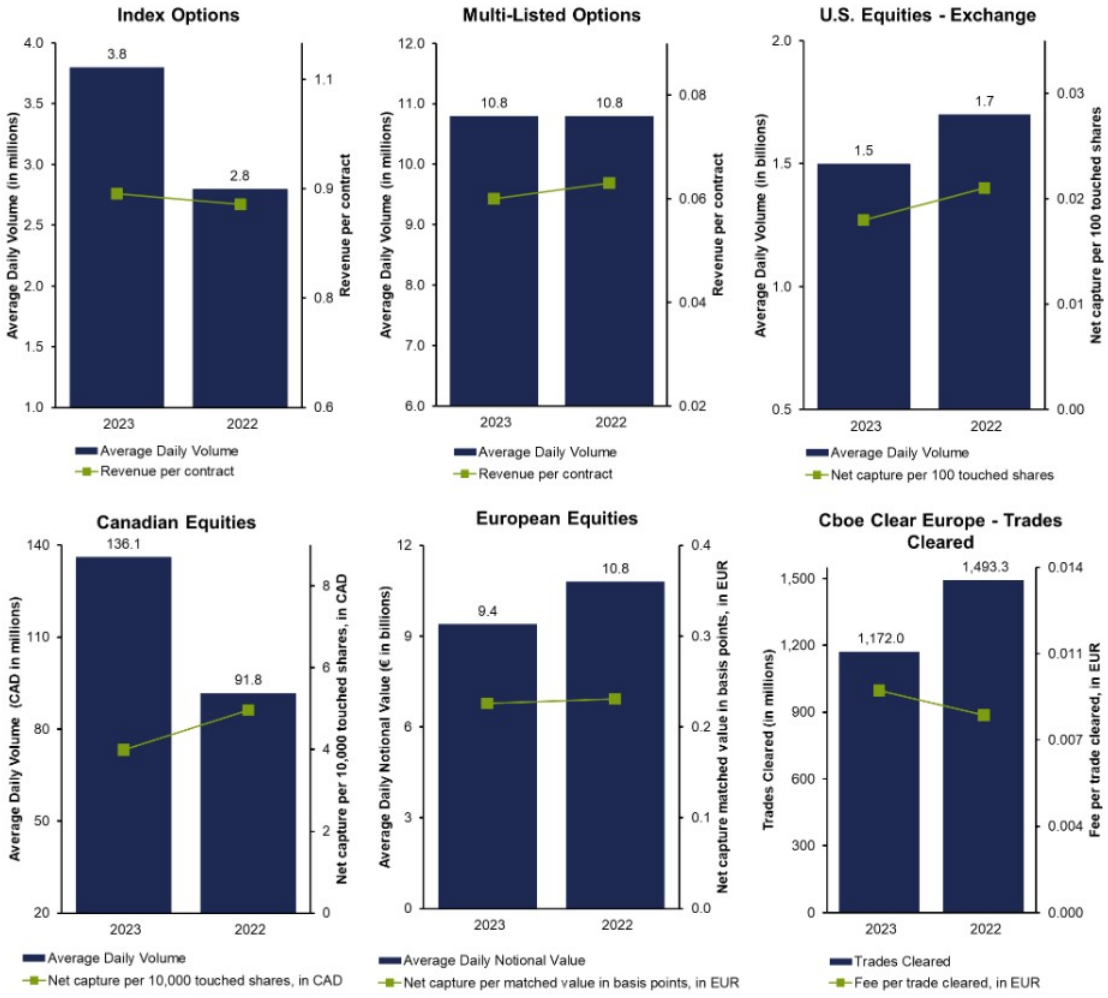
	Year Ended December 31, 2023							
	Options	North American Equities	Europe and Asia Pacific	Futures	Global FX	Digital	Corporate	Total
Net income (loss) allocated to common stockholders	$ 572.6	$ 104.1	$ 20.4	$ 52.4	$ 23.9	$ (34.1)	$ 18.2	$ 757.5
Interest expense (income), net	(0.1)	(1.4)	4.8	—	—	(2.0)	49.1	50.4
Income tax provision (benefit)	275.7	14.8	6.8	33.4	0.5	(10.4)	(34.6)	286.2
Depreciation and amortization	30.1	69.4	30.7	2.0	18.4	7.4	—	158.0
EBITDA	878.3	186.9	62.7	87.8	42.8	(39.1)	32.7	1,252.1
Acquisition-related costs	—	0.8	0.8	—	—	1.0	4.8	7.4
Impairment of investment	—	—	—	—	—	—	1.8	1.8
Income from investment	—	—	—	—	—	—	(2.1)	(2.1)
Change in contingent consideration	—	(7.5)	(6.9)	—	—	—	—	(14.4)
Adjusted EBITDA	$ 878.3	$ 180.2	$ 56.6	$ 87.8	$ 42.8	$ (38.1)	$ 37.2	$ 1,244.8

	Year Ended December 31, 2022							
	Options	North American Equities	Europe and Asia Pacific	Futures	Global FX	Digital	Corporate	Total
Net income (loss) allocated to common stockholders	$ 478.1	$ 125.9	$ 22.8	$ 12.8	$ 9.1	$ (369.7)	$ (44.9)	$ 234.1
Interest expense (income), net	—	(0.4)	8.0	—	(0.4)	—	49.2	56.4
Income tax provision (benefit)	260.7	20.5	6.8	42.4	0.1	(119.0)	(13.6)	197.9
Depreciation and amortization	26.5	74.1	37.0	2.6	21.9	4.7	—	166.8
EBITDA	765.3	220.1	74.6	57.8	30.7	(484.0)	(9.3)	655.2
Acquisition-related costs	—	3.9	3.6	—	—	9.5	2.9	19.9
Impairment of investment	—	—	—	—	—	—	10.6	10.6
Loan forgiveness	—	—	—	—	—	(1.3)	—	(1.3)
Gain on investment	—	—	—	—	—	—	(7.5)	(7.5)
Goodwill impairment	—	—	—	—	—	460.9	—	460.9
Investment establishment costs	—	—	—	—	—	—	3.0	3.0
Change in contingent consideration	—	(5.2)	—	—	—	—	—	(5.2)
Adjusted EBITDA	$ 765.3	$ 218.8	$ 78.2	$ 57.8	$ 30.7	$ (14.9)	$ (0.3)	$ 1,135.6

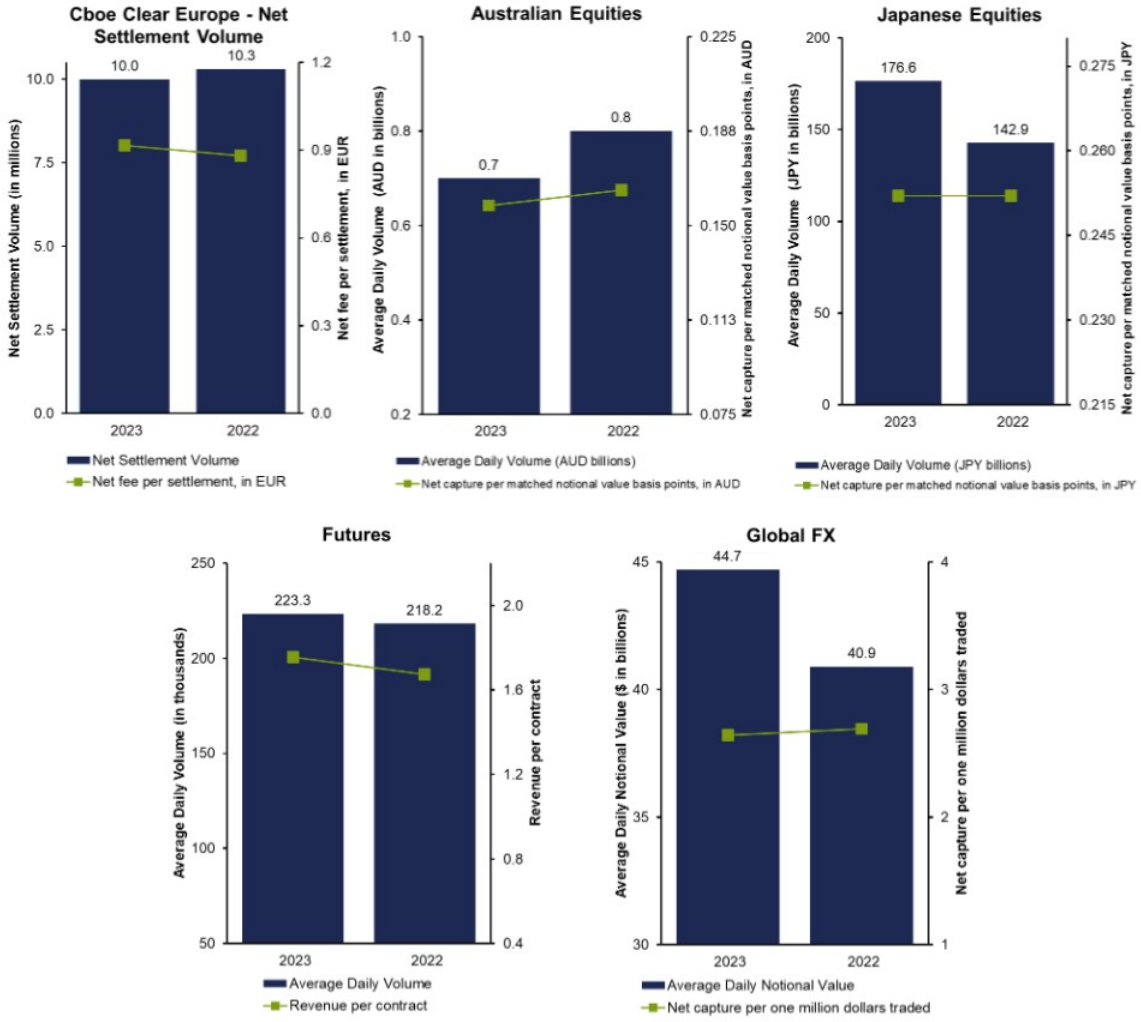
The following is a reconciliation of net income allocated to common stockholders to adjusted earnings (in millions):

	Year Ended December 31,	
	2023	2022
Net income allocated to common stockholders	$ 757.5	$ 234.1
Amortization of acquisition-related intangibles	116.6	124.3
Acquisition-related costs	7.4	19.9
Impairment of investment	1.8	10.6
Loan forgiveness	—	(1.3)
Gain on investment	—	(7.5)
Income from investment	(2.1)	—
Goodwill impairment	—	460.9
Investment establishment costs	—	3.0
Change in contingent consideration	(14.4)	(5.2)
(Release) increase of tax reserves	(6.0)	48.5
Valuation allowances	(2.7)	—
Deferred tax re-measurements	1.1	(2.0)
Tax effect of adjustments	(30.7)	(143.7)
Net income allocated to participating securities	(0.4)	(1.8)
Adjusted earnings	$ 828.1	$ 739.8

The following summarizes changes in certain operational and financial metrics for the year ended December 31, 2023 compared to the year ended December 31, 2022:



The following summarizes changes in certain operational and financial metrics for the year ended December 31, 2023 compared to the year ended December 31, 2022 (continued from previous page):



The following table includes operational and financial metrics for our Options, North American Equities, Europe and Asia Pacific, Futures, and Global FX segments. The metrics listed for Canadian Equities in the table below include Cboe Canada as a result of the acquisition completed during 2022. Therefore, the metrics shown in the table below in Canadian Equities do not include Cboe Canada for the periods preceding the acquisition. The following summarizes changes in certain operational and financial metrics for the year ended December 31, 2023 compared to the year ended December 31, 2022:

	Year Ended December 31,		Increase/ (Decrease)	Percent Change
	2023	2022		
	(in millions, except percentages, trading days, and as noted below)			
Options:				
Average daily volume (ADV) (in millions of contracts):				
Market ADV	44.2	41.1	3.1	8 %
Total touched contracts (1)	14.6	13.6	1.0	7 %
Multi-listed contract ADV	10.8	10.8	—	0 %
Index contract ADV	3.8	2.8	1.0	33 %
Number of trading days	250	251	(1)	(0)%
Total Options revenue per contract (RPC) (2)	$ 0.276	$ 0.234	$ 0.042	18 %
Multi-listed options RPC (2)	0.060	0.063	(0.003)	(5)%
Index options RPC (2)	0.893	0.879	0.014	2 %
Total Options market share	33.1 %	33.2 %	(0.1)%	*
Multi-listed options market share	26.8 %	28.2 %	(1.4)%	*
North American Equities:				
U.S. Equities:				
U.S. Equities - Exchange:				
ADV:				
Total touched shares (in billions) (1)	1.5	1.7	(0.2)	(12)%
Market ADV (in billions)	11.0	11.9	(0.9)	(7)%
Market share	12.8 %	13.6 %	(0.8)%	*
U.S. Equities - Exchange (net capture per one hundred touched shares) (3)	$ 0.018	$ 0.021	$ (0.003)	(11)%
U.S. ETPs: launches (number of launches)	124	80	44	55 %
U.S. ETPs: listings (number of listings)	666	592	74	13 %
U.S. Equities - Off-Exchange:				
ADV:				
Total touched shares (in millions) (1)	78.0	90.4	(12.4)	(14)%
U.S. Equities - Off-Exchange (net capture per one hundred touched shares) (4)	$ 0.126	$ 0.113	$ 0.013	11 %
Trading days	250	251	(1)	(0)%
Canadian Equities:				
ADV (matched shares, in millions) (5)	136.1	91.8	44.3	48 %
Trading days	250	250	—	— %
Net capture (per 10,000 touched shares, in Canadian dollars) (6)	3.994	4.966	(0.972)	(20)%
Europe and Asia Pacific:				
European Equities:				
ADNV:				
Matched ADNV (Euros - in billions) (7)	€ 9.4	€ 10.8	€ (1.4)	(13)%
Market ADNV (in billions)	39.1	46.2	(7.1)	(15)%
Trading days	256	257	(1)	(0)%
Market share	24.0 %	23.5 %	0.5 %	*
Net capture (per matched notional value (bps), in Euros) (8)	0.226	0.231	(0.005)	(2)%
Cboe Clear Europe:				
Trades cleared (9)	1,172.0	1,499.9	(327.9)	(22)%
Fee per trade cleared (10)	€ 0.009	€ 0.008	€ 0.001	9 %
European equities market share cleared (11)	34.3 %	32.6 %	1.7 %	*
Net settlement volume (12)	10.0	10.3	(0.3)	(3)%
Net fee per settlement (13)	€ 0.917	€ 0.881	€ 0.036	4 %
Australian Equities:				
ADNV (AUD - in billions)	$ 0.7	$ 0.8	$ (0.1)	(10)%
Trading days	252	253	(1)	(0)%
Market share - Continuous	18.7 %	16.6 %	2.1 %	*
Net capture (per matched notional value (bps), in Australian Dollars) (14)	0.158	0.164	(0.006)	(4)%
Japanese Equities:				
ADNV (JPY - in billions)	¥ 176.6	¥ 142.9	¥ 33.7	24 %
Trading days	246	244	2	1 %
Market share - Lit Continuous	4.0 %	3.6 %	0.4 %	*
Net capture (per matched notional value (bps), in Yen) (15)	0.252	0.252	—	0 %
Futures:				
ADV (in thousands)	223.3	218.2	5.1	2 %
Trading days	250	251	(1)	(0)%
Revenue per contract	$ 1.755	$ 1.674	$ 0.081	5 %
Global FX:				
ADNV ($ - in billions)	$ 44.7	$ 40.9	$ 3.8	9 %
Market share	20.0 %	17.6 %	2.4 %	*
Trading days	259	260	(1)	(0)%
Net capture (per one million dollars traded) (16)	2.64	2.69	(0.05)	(2)%
Average British pound/U.S. dollar exchange rate	$ 1.243	$ 1.237	$ 0.006	0 %
Average Canadian dollar/U.S. dollar exchange rate	$ 0.741	$ 0.769	$ (0.028)	(4)%
Average Euro/U.S. dollar exchange rate	$ 1.081	$ 1.054	$ 0.027	3 %
Average Euro/British pound exchange rate	£ 0.870	£ 0.852	£ 0.018	2 %
Average Australian dollar/U.S. dollar exchange rate	$ 0.664	$ 0.694	$ (0.030)	(4)%
Average Japanese Yen/U.S. dollar exchange rate	$ 0.007	$ 0.008	$ (0.001)	(7)%

* Not meaningful
Note, the percent change listed represents the change in the unrounded metrics figures.

(1) Touched volume represents the total number of shares of equity securities and ETFs internally matched on our exchanges or routed to and executed on an external market center.
(2) Average revenue per contract, for options and futures represents total net transaction fees recognized for the period divided by total contracts traded during the period.
(3) Net capture per one hundred touched shares refers to transaction fees less liquidity payments and routing and clearing costs divided by the product of one-hundredth ADV of touched shares on BZX, BYX, EDGX, and EDGA and the number of trading days.
(4) Net capture per one hundred touched shares refers to transaction fees less order and execution management system (OMS/EMS) fees and clearing costs divided by the product of one-hundredth ADV of touched shares on BIDS Trading and the number of trading days for the period.
(5) Matched volume represents the total number of shares of equity securities and ETFs activity executed on our exchanges.
(6) Net capture per 10,000 touched shares refers to transaction fees divided by the product of one-ten thousandth ADV of shares for Cboe Canada and MATCHNow and the number of trading days.
(7) Matched ADNV represents the average daily notional value of shares or contracts executed on our exchanges.
(8) Net capture per matched notional value refers to transaction fees less liquidity payments in British pounds divided by the product of ADNV in British pounds of shares matched on Cboe Europe Equities and the number of trading days.
(9) Trades cleared refers to the total number of non-interoperable trades cleared.
(10) Fee per trade cleared refers to clearing fees divided by number of non-interoperable trades cleared.
(11) European Equities market share cleared represents Cboe Clear Europe's client volume cleared divided by the total volume of the publicly reported European venues.
(12) Net settlement volume refers to the total number of settlements executed after netting.
(13) Net fee per settlement refers to settlement fees less direct costs incurred to settle divided by the number of settlements executed after netting.
(14) Net capture per matched notional value refers to transaction fees less liquidity payments in Australian dollars divided by the product of ADNV in Australian dollars of shares matched on Cboe Australia and the number of Australian Equities trading days.
(15) Net capture per matched notional value refers to transaction fees less liquidity payments in Japanese Yen divided by the product of ADNV in Japanese Yen of shares matched on Cboe Japan and the number of Japanese Equities trading days.
(16) Net capture per one million dollars traded refers to net transaction fees less liquidity payments, if any, divided by the Spot and SEF products of one-thousandth of ADNV traded on the Cboe FX Markets and the number of trading days, divided by two, which represents the buyer and seller that are both charged on the transaction.

Revenues

Total revenues for the year ended December 31, 2023 decreased $185.0 million, or 5%, compared to the year ended December 31, 2022 primarily due to a decrease in cash and spot markets revenue, driven by a decline in volumes traded on the U.S. Equities and European Equities exchanges, coupled with a decrease in the Section 31 fee rate following a rate change in February 2023, partially offset by an increase in derivatives markets revenue as a result of increased index options trading volumes and increases in access and capacity fees and proprietary market data across segments.

The following summarizes changes in revenues for the year ended December 31, 2023 compared to the year ended December 31, 2022 (in millions, except percentages):

	Year Ended December 31,		Increase/ (Decrease)	Percent Change
	2023	2022		
Cash and spot markets	$ 1,445.1	$ 1,777.6	$ (332.5)	(19)%
Data and access solutions	539.2	497.0	42.2	8 %
Derivatives markets	1,789.2	1,683.9	105.3	6 %
Total revenues	$ 3,773.5	$ 3,958.5	$ (185.0)	(5)%

Cash and Spot Markets

Cash and spot markets revenue decreased for the year ended December 31, 2023 compared to the year ended December 31, 2022, primarily due to decreases in transaction and clearing fees and regulatory fees, partially offset by an increase in other revenue. Transaction and clearing fees decreased primarily due to a 12% decrease in total touched shares on the U.S. Equities exchanges, a 13% decrease in European Equities matched ADNV, and a 22% decrease in trades cleared by Cboe Clear Europe, partially offset by additional transaction and clearing fees attributable to Cboe Canada, which was acquired in the second quarter of 2022. Regulatory fees decreased primarily due to a 36% decrease in the Section 31 fee rate, from an average of $16.26 per million dollars of covered sales for the year ended December 31, 2022 to an average rate of $10.35 per million dollars of covered sales for the year ended December 31, 2023. Other revenue increased primarily due to an increase in operating interest income attributable to Cboe Clear Europe as a result of the changing interest rate environment, coupled with additional interest earned in accordance with its investment policy. See Note 14 (“Clearing Operations”) for additional information.

Data and Access Solutions

Data and access solutions revenue increased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to increases in access and capacity fees and proprietary market data fees. Access and capacity fees increased primarily due to increased physical port fees in the Options, North American Equities, and Europe and Asia Pacific segments and increased logical port fees in the Options, North American Equities, and Global FX segments, both driven by an increase in subscribers and pricing. Proprietary market data fees increased primarily due to an increase in proprietary market data fees in the Options segment, coupled with an increase in proprietary market data fees attributable to Cboe Canada.

Derivatives Markets

Derivatives markets revenue increased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to an increase in transaction and clearing fees, partially offset by a decrease in regulatory fees. Transaction and clearing fees increased primarily due to a 33% increase in index options ADV and a 5% increase in Futures net capture. Regulatory fees decreased primarily due to a 36% decrease in the Section 31 fee rate, from an average of $16.26 per million dollars of covered sales for the year ended December 31, 2022 to an average rate of $10.35 per million dollars of covered sales for the year ended December 31, 2023.

Cost of Revenues

The following tables reconcile the disaggregated cost of revenues captions presented on the consolidated statements of income to the net revenue captions presented on the consolidated statements of income for the year ended December 31, 2023 and 2022, respectively (in millions):

	Year Ended December 31, 2023			
	Cash and Spot Markets	Data and Access Solutions	Derivatives Markets	Total
Liquidity payments	$ 837.3	$ —	$ 548.5	$ 1,385.8
Routing and clearing fees	51.2	—	27.9	79.1
Section 31 fees	151.2	—	34.5	185.7
Royalty fees and other cost of revenues	38.9	9.1	156.9	204.9
Total cost of revenues	$ 1,078.6	$ 9.1	$ 767.8	$ 1,855.5

	Year Ended December 31, 2022			
	Cash and Spot Markets	Data and Access Solutions	Derivatives Markets	Total
Liquidity payments	$ 1,024.0	$ —	$ 646.2	$ 1,670.2
Routing and clearing fees	56.0	—	27.2	83.2
Section 31 fees	276.8	—	53.0	329.8
Royalty fees and other cost of revenues	14.1	9.2	110.3	133.6
Total cost of revenues	$ 1,370.9	$ 9.2	$ 836.7	$ 2,216.8

Total cost of revenues decreased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to decreased cash and spot markets and derivatives markets cost of revenues driven by a decrease in liquidity payments as a result of a decrease in volumes traded on the U.S. Equities exchanges and multi-listed options declining market share, coupled with a decrease in Section 31 fees as a result of a decrease in the Section 31 fee rate, partially offset by an increase in royalty fees in the Options segment and an increase in other revenue attributable to Cboe Clear Europe.

The following summarizes the changes in the disaggregated cost of revenues for the year ended December 31, 2023 compared to the year ended December 31, 2022 (in millions, except percentages):

	Year Ended December 31,		Increase/ (Decrease)	Percent Change
	2023	2022		
Liquidity payments	$ 1,385.8	$ 1,670.2	$ (284.4)	(17)%
Routing and clearing	79.1	83.2	(4.1)	(5)%
Section 31 fees	185.7	329.8	(144.1)	(44)%
Royalty fees and other cost of revenues	204.9	133.6	71.3	53 %
Total cost of revenues	$ 1,855.5	$ 2,216.8	$ (361.3)	(16)%

Liquidity Payments

Liquidity payments decreased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to a decrease in volumes traded on the U.S. Equities exchanges and a decline in multi-listed options market share.

Routing and Clearing

Routing and clearing fees decreased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to a decrease in routed shares on the U.S. Equities exchanges, partially offset by an uptick in routed trades on the Options exchanges.

Section 31 Fees

Section 31 fees decreased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to a 36% decrease in the Section 31 fee rate, from an average rate of $16.26 per million dollars of covered sales for the year ended December 31, 2022 to an average rate of $10.35 per million dollars of covered sales for the year ended December 31, 2023.

Royalty Fees and Other Cost of Revenues

Royalty fees and other cost of revenues increased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to an increase in trading volumes of licensed products in the Options segment and increases in royalty fee rates, coupled with an increase in operating interest expense attributable to Cboe Clear Europe as a result of the changing interest rate environment and additional interest expense in accordance with its investment policy. See Note 14 ("Clearing Operations") for additional information.

Revenues Less Cost of Revenues

Revenues less cost of revenues increased $176.3 million, or 10%, for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to an increase in derivatives markets revenues less cost of revenues driven by an increase in index options trading volumes, coupled with an increase in access and capacity fees and proprietary market data across segments, and additional revenues less cost of revenues attributable to Cboe Canada, partially offset by a decrease in cash and spot markets revenues less cost of revenues driven by a decrease in volumes traded on the U.S. Equities and European Equities exchanges and increases in royalty fees in the Options segment.

The following summarizes the components of revenues less cost of revenues for the year ended December 31, 2023, presented as a percentage of revenues less cost of revenues and compared to the year ended December 31, 2022 (in millions, except percentages):

	Year Ended December 31,		Percent Change	Percentage of Revenues Less Cost of Revenues Year Ended December 31,	
	2023	2022		2023	2022
Cash and spot markets	$ 366.5	$ 406.7	(10)%	19 %	23 %
Data and access solutions	530.1	487.8	9 %	28 %	28 %
Derivatives markets	1,021.4	847.2	21 %	53 %	49 %
Total revenues less cost of revenues	$ 1,918.0	$ 1,741.7	10 %	100 %	100 %

Cash and Spot Markets

Cash and spot markets revenues less cost of revenues decreased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to decreases in transaction and clearing fees less liquidity payments and routing and clearing costs ("net transaction and clearing fees") in the North American Equities and Europe and Asia Pacific segments, coupled with a decrease in industry market data fees. Net transaction and clearing fees decreased primarily due to a 12% decrease in total touched shares on the U.S. Equities exchanges, an 11% decrease in U.S. Equities exchanges net capture, and a 13% decrease in European Equities matched ADNV. Industry market data fees decreased primarily due to a decrease in U.S. tape plan revenue driven by a 1% decline in market share on the U.S. Equities exchanges.

Data and Access Solutions

Data and access solutions revenues less cost of revenues increased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to increases in access and capacity fees and proprietary market data fees. Access and capacity fees increased primarily due to increased physical port fees in the Options, North American Equities, and Europe and Asia Pacific segments and increased logical port fees in the Options, North American Equities, and Global FX segments, both driven by an increase in subscribers and pricing. Proprietary market data fees increased primarily due to an increase in proprietary market data fees in the Options segment, coupled with an increase in proprietary market data fees attributable to Cboe Canada.

Derivatives Markets

Derivatives markets revenues less cost of revenues increased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to increases in net transaction and clearing fees driven by a 33% increase in index options ADV, partially offset by a 6% decrease in multi-listed options net capture and an increase in royalty fees due to an increase in trading volumes of licensed products in the Options segment and increases in royalty fee rates.

Operating Expenses

For the year ended December 31, 2023 compared to the year ended December 31, 2022, total operating expenses decreased primarily due to goodwill impairment recorded in 2022, partially offset by increases in compensation and benefits and technology support services compared to the prior period. The following summarizes changes in operating expenses for the year ended December 31, 2023 compared to the year ended December 31, 2022 (in millions, except percentages):

	Year Ended December 31,		Increase/ (Decrease)	Percent Change
	2023	2022		
Compensation and benefits	$ 425.8	$ 363.0	$ 62.8	17 %
Depreciation and amortization	158.0	166.8	(8.8)	(5)%
Technology support services	99.7	77.7	22.0	28 %
Professional fees and outside services	92.0	89.0	3.0	3 %
Travel and promotional expenses	37.6	23.7	13.9	59 %
Facilities costs	25.7	25.1	0.6	2 %
Acquisition-related costs	7.4	19.9	(12.5)	(63)%
Goodwill impairment	—	460.9	(460.9)	(100)%
Other expenses	13.9	26.0	(12.1)	(47)%
Total operating expenses	$ 860.1	$ 1,252.1	$ (392.0)	(31)%

Compensation and Benefits

Compensation and benefits increased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to a $50.3 million increase in salaries driven by merit and cost-of-living increases and increased headcount. Additionally, there was a $13.3 million increase in benefits primarily due to an increase in the market value of the non-qualified deferral plan and increases in payroll benefits, taxes, and employer contributions as a result of the aforementioned increase in salaries. The increases were partially offset by a $13.9 million decrease in bonuses. Cboe Digital and Cboe Canada contributed $17.4 million of the overall increase in compensation and benefits for the year ended December 31, 2023 compared to the year ended December 31, 2022.

Depreciation and Amortization

Depreciation and amortization decreased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to decline in amortization under the discounted cash flow method for the intangibles acquired in the Merger, partially offset by an increase in depreciation and amortization expenses related to the acquisition of Cboe Digital and Cboe Canada.

Technology Support Services

Technology support services costs increased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to increases in purchased hardware, software maintenance, hardware maintenance, primary data center hosting expenses, cloud services, and market data technology support services, due in part to the acquisitions of Cboe Digital and Cboe Canada, and the Cboe Asia Pacific technology migrations, which was completed in 2023.

Professional Fees and Outside Services

Professional and outside services fees increased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to increases in consulting fees, legal fees, and audit fees, partially offset by decreases in recruiting fees and regulatory costs associated with CAT expenses.

Travel and Promotional Expenses

Travel and promotional expenses increased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to increases in marketing and advertising expenses driven by the Company's rebranding, advertising campaigns and sponsorships, and special events.

Facilities Costs

Facilities costs increased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to an increase in office rent and real estate taxes, partially offset by a decrease in utilities.

Acquisition-Related Costs

Acquisition-related costs decreased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to a decrease in general and administrative costs and retention-related compensation costs associated with prior acquisitions.

Goodwill Impairment

Goodwill impairment decreased for the year ended December 31, 2023 compared to the year ended December 31, 2022 due to impairment recognized for the Digital reporting unit in 2022.

Other Expenses

Other expenses decreased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to a reduction in expected contingent consideration related to Cboe Canada and Cboe Japan recorded in 2023 as well as decreases in charitable contributions and taxes, licenses, and permits.

Operating Income

As a result of the items above, operating income for the year ended December 31, 2023 was $1,057.9 million, compared to operating income of $489.6 million for the year ended December 31, 2022, an increase of $568.3 million.

Interest Expense

Interest expense increased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to additional borrowings on the Term Loan in the second quarter of 2022, as well as an increase in the SOFR rate, partially offset by principal repayments on the Term Loan in 2022 and 2023, which was paid off in October 2023.

Interest Income

Interest income increased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to increases in interest rates in 2023.

Earnings in Investments

Earnings in investments increased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to a $32.8 million increase in the gain on the Company's investment in 7Ridge Fund (which owns Trading Technologies) recorded in 2023 compared to 2022, coupled with a $7.1 million increase in non-qualified deferred

compensation, partially offset by a $7.5 million gain on the Company's ownership of Cboe Digital, which was recorded in 2022 and did not recur in 2023.

Other Income (Expense), Net

Other income (expense), net increased for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to a $10.6 million impairment adjustment related to the Company's previously held investment in American Financial Exchange, LLC recorded in 2022, which did not recur in 2023, coupled with $2.1 million in dividend income from the Company's minority ownership of Vest Group, Inc. recorded in the third quarter of 2023, partially offset by a $1.8 million impairment adjustment related to the Company's investment in Effective Investing Limited recorded in the fourth quarter of 2023.

Income Before Income Tax Provision

As a result of the above, income before income tax provision for the year ended December 31, 2023 was $1,047.6 million compared to income before income tax provision of $432.9 million for the year ended December 31, 2022, an increase of $614.7 million.

Income Tax Provision

For the year ended December 31, 2023, the income tax provision was $286.2 million compared to $197.9 million for the year ended December 31, 2022, an increase of $88.3 million, primarily due to an increase in income before income tax provision. The effective tax rate for the year ended December 31, 2023 was 27.3%, compared to a rate of 45.7% for the year ended December 31, 2022. The lower effective tax rate in the year ended December 31, 2023 compared to the year ended December 31, 2022 is primarily due to the impact of the Cboe Digital goodwill impairment had on income in 2022.

The following table is a reconciliation of the GAAP effective tax rate to the effective tax rate excluding goodwill impairment and Section 199 matters for the years ended December 31, 2023 and 2022, respectively:

	Year Ended December 31,	
	2023	2022
GAAP effective tax rate	27.3 %	45.7 %
Tax effect of goodwill impairment	— %	(8.5)%
Tax effect of Section 199 related matters	1.2 %	(5.5)%
Effective tax rate excluding goodwill impairment and Section 199 matters	28.5 %	31.7 %

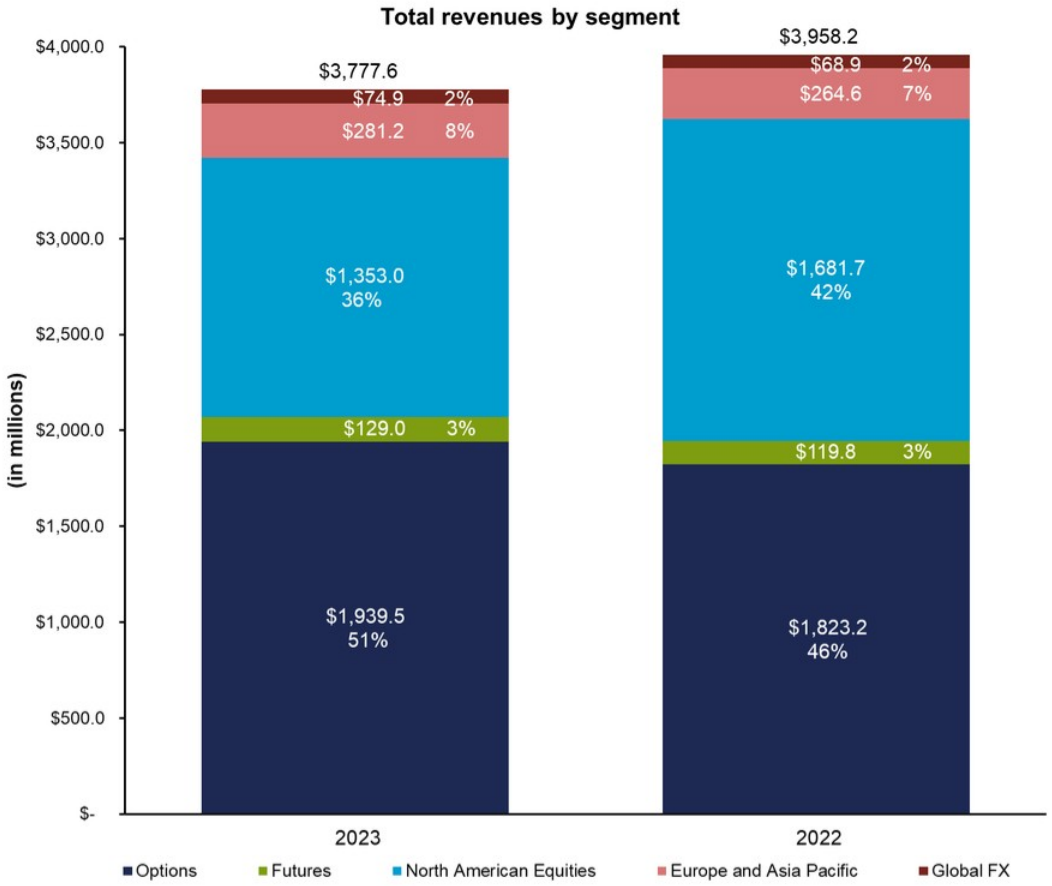
Net Income

As a result of the items above, net income for the year ended December 31, 2023 was $761.4 million, or 40% of revenues less cost of revenues, compared to $235.0 million, or 14% of revenues less cost of revenues, for the year ended December 31, 2022, an increase of $526.4 million, or 224%.

Segment Operating Results

We report results from our six segments: Options, North American Equities, Europe and Asia Pacific, Futures, Global FX, and Digital. Segment performance is primarily based on operating income (loss). We have aggregated all corporate costs, as well as other business ventures, within Corporate Items and Eliminations as those activities should not be used to evaluate a segment's operating performance. All operating expenses that relate to activities of a specific segment have been allocated to that segment. Operating expenses increased or decreased in certain segments for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to increases or decreases in the allocation of shared-service expenses.

The following summarizes our total revenues by segment (in millions, except percentages):

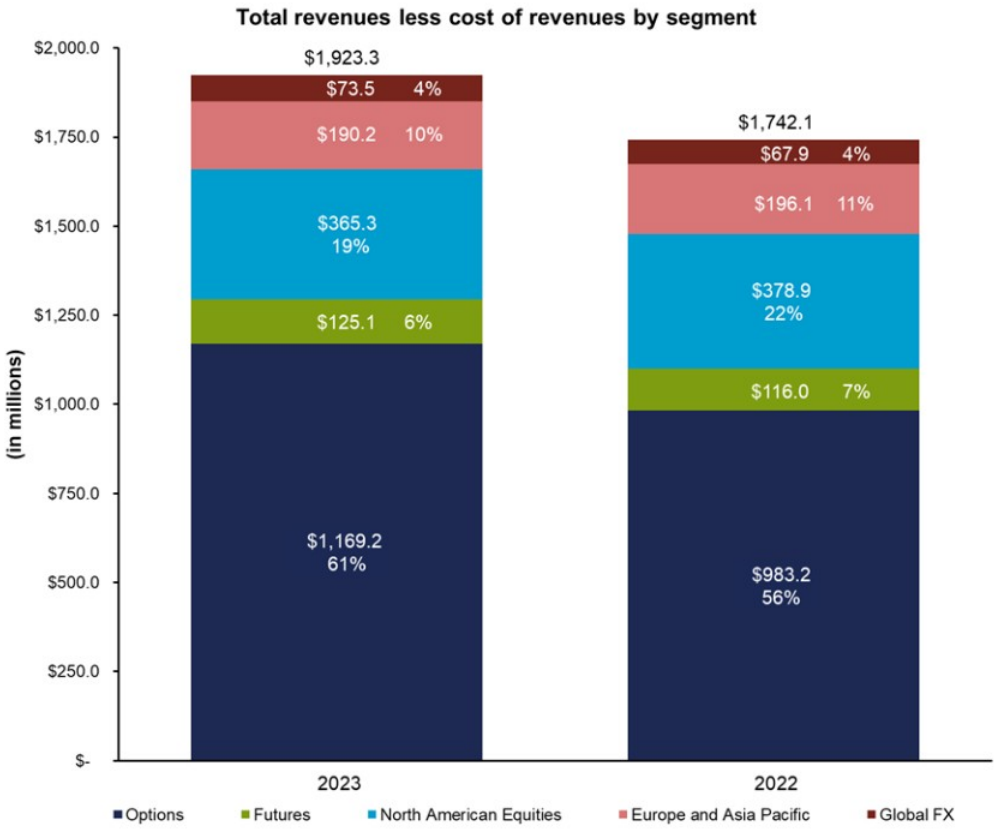


Note, the chart excludes Digital revenues of $(4.1) million and $0.3 million for the years ended December 31, 2023 and 2022, respectively.

	Year Ended December 31,		Percent Change	Percentage of Total Revenues Year Ended December 31,	
	2023	2022		2023	2022
Options	$ 1,939.5	$ 1,823.2	6 %	51 %	46 %
North American Equities	1,353.0	1,681.7	(20)%	36 %	42 %
Europe and Asia Pacific	281.2	264.6	6 %	8 %	7 %
Futures	129.0	119.8	8 %	3 %	3 %
Global FX	74.9	68.9	9 %	2 %	2 %
Digital	(4.1)	0.3	*	— %	— %
Total revenues	$ 3,773.5	$ 3,958.5	(5)%	100 %	100 %

* Not meaningful

The following summarizes our revenues less cost of revenues by segment (in millions, except percentages):



Note, the chart excludes Digital revenues less cost of revenues of $(5.3) million and $(0.4) million for the years ended December 31, 2023 and 2022, respectively.

	Year Ended December 31,		Percent Change	Percentage of Total Revenues less Cost of Revenues Year Ended December 31,	
	2023	2022		2023	2022
Options	$ 1,169.2	$ 983.2	19 %	61 %	56 %
North American Equities	365.3	378.9	(4)%	19 %	22 %
Europe and Asia Pacific	190.2	196.1	(3)%	10 %	11 %
Futures	125.1	116.0	8 %	6 %	7 %
Global FX	73.5	67.9	8 %	4 %	4 %
Digital	(5.3)	(0.4)	*	— %	— %
Total revenues less cost of revenues	$ 1,918.0	$ 1,741.7	10 %	100 %	100 %

* Not meaningful

Options

The following summarizes revenues less cost of revenues, operating expenses, operating income, EBITDA and EBITDA margin for our Options segment (in millions, except percentages):

	Year Ended December 31,		Percent Change	Percentage of Total Revenues Year Ended December 31,	
	2023	2022		2023	2022
Revenues less cost of revenues	$ 1,169.2	$ 983.2	19 %	60 %	54 %
Operating expenses	317.9	242.7	31 %	16 %	13 %
Operating income	$ 851.3	$ 740.5	15 %	44 %	41 %
EBITDA (1)	$ 878.3	$ 765.3	15 %	45 %	42 %
EBITDA margin (2)	75.1 %	77.8 %	*	*	*

* Not meaningful
(1) See footnote (2) to the table under “Overview” above for a reconciliation of net income to EBITDA, and management’s reasons for using such non-GAAP measures.
(2) EBITDA margin represents EBITDA divided by revenues less cost of revenues.

Revenues less cost of revenues increased $186.0 million for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to an increase in net transaction and clearing fees driven by a 33% increase in index options ADV, an increase in proprietary market data fees, and increases in physical and logical port fees, partially offset by an increase in royalty fees driven by an increase in trading volumes of licensed products and increases in royalty fee rates and a 6% decrease in multi-listed options net capture. For the year ended December 31, 2023, operating income for the Options segment increased $110.8 million compared to the year ended December 31, 2022 primarily due to an increase in revenues less cost of revenues, partially offset by an increase in operating expenses. Operating expenses increased $75.2 million for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to increases in compensation and benefits, technology support services, and travel and promotional expenses.

North American Equities

The following summarizes revenues less cost of revenues, operating expenses, operating income, EBITDA and EBITDA margin for our North American Equities segment (in millions, except percentages):

	Year Ended December 31,		Percent Change	Percentage of Total Revenues Year Ended December 31,	
	2023	2022		2023	2022
Revenues less cost of revenues	$ 365.3	$ 378.9	(4)%	27 %	23 %
Operating expenses	247.3	232.3	6 %	18 %	14 %
Operating income	$ 118.0	$ 146.6	(20)%	9 %	9 %
EBITDA (1)	$ 186.9	$ 220.1	(15)%	14 %	13 %
EBITDA margin (2)	51.2 %	58.1 %	*	*	*

* Not meaningful
(1) See footnote (2) to the table under “Overview” above for a reconciliation of net income to EBITDA, and management’s reasons for using such non-GAAP measures.
(2) EBITDA margin represents EBITDA divided by revenues less cost of revenues.

Revenues less cost of revenues decreased $13.6 million for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to a decrease in net transaction and clearing fees driven by a 12% decrease in total touched shares on the U.S. Equities exchanges and an 11% decrease in U.S. Equities exchanges net capture, coupled with a decline in market data fees as a result of a decrease in U.S. tape plan revenue due to a 1% decline in market share on the U.S. Equities exchanges, partially offset by an increase in revenues less cost of revenues attributable to Cboe Canada, coupled with increases in logical and physical port fees. For the year ended

December 31, 2023, operating income for the North American Equities segment decreased $28.6 million compared to the year ended December 31, 2022 primarily due to an increase in operating expenses, coupled with a decrease in revenues less cost of revenues. Operating expenses increased $15.0 million for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to increases in compensation and benefits, travel and promotional expenses, and technology support services, partially offset by decreases in depreciation and amortization, acquisition related costs, and other expenses driven by the gain on change in contingent consideration related to Cboe Canada.

Europe and Asia Pacific

The following summarizes revenues less cost of revenues, operating expenses, operating income, EBITDA and EBITDA margin for our Europe and Asia Pacific segment (in millions, except percentages):

	Year Ended December 31,		Percent Change	Percentage of Total Revenues Year Ended December 31,	
	2023	2022		2023	2022
Revenues less cost of revenues	$ 190.2	$ 196.1	(3)%	68 %	74 %
Operating expenses	157.5	158.0	(0)%	56 %	60 %
Operating income	$ 32.7	$ 38.1	(14)%	12 %	14 %
EBITDA (1)	$ 62.7	$ 74.6	(16)%	22 %	28 %
EBITDA margin (2)	33.0 %	38.0 %	*	*	*

* Not meaningful

(1) See footnote (2) to the table under “Overview” above for a reconciliation of net income to EBITDA, and management’s reasons for using such non-GAAP measures.

(2) EBITDA margin represents EBITDA divided by revenues less cost of revenues.

Revenues less cost of revenues decreased $5.9 million for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to a decrease in net transaction and clearing fees driven by a 13% decrease in European Equities matched ADNV and a 22% decrease in trades cleared by Cboe Clear Europe, partially offset by a 9% increase in the fee per trade cleared by Cboe Clear Europe, coupled by an increase in proprietary market data fees and physical port fees. For the year ended December 31, 2023, operating income for the Europe and Asia Pacific segment decreased $5.4 million compared to the year ended December 31, 2022 primarily due to a decrease in revenues less cost of revenues, partially offset by a decrease in operating expenses. Operating expenses decreased $0.5 million for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to a decrease in other expenses driven by the reduction in expected contingent consideration related to Cboe Japan, coupled with decreases in depreciation and amortization and acquisition related costs, partially offset by increases in compensation and benefits, technology support services, and professional fees and outside services.

Futures

The following summarizes revenues less cost of revenues, operating expenses, operating income, EBITDA, and EBITDA margin for our Futures segment (in millions, except percentages):

	Year Ended December 31,		Percent Change	Percentage of Total Revenues Year Ended December 31,	
	2023	2022		2023	2022
Revenues less cost of revenues	$ 125.1	$ 116.0	8 %	97 %	97 %
Operating expenses	39.0	60.8	(36)%	30 %	51 %
Operating income	$ 86.1	$ 55.2	56 %	67 %	46 %
EBITDA (1)	$ 87.8	$ 57.8	52 %	68 %	48 %
EBITDA margin (2)	70.2 %	49.8 %	*	*	*

* Not meaningful

(1) See footnote (2) to the table under “Overview” above for a reconciliation of net income to EBITDA, and management’s reasons for using such non-GAAP measures.

(2) EBITDA margin represents EBITDA divided by revenues less cost of revenues.

Revenues less cost of revenues increased $9.1 million for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to an increase in net transaction and clearing fees as a result of a 5% increase in net capture and a 2% increase in ADV, coupled with an increase in physical port fees. For the year ended December 31, 2023, operating income for the Futures segment increased $30.9 million compared to the year ended December 31, 2022 primarily due to a decrease in operating expenses, coupled with an increase in revenues less cost of revenues. Operating expenses decreased $21.8 million for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to decreases in compensation and benefits and professional fees and outside services.

Global FX

The following summarizes revenues less cost of revenues, operating expenses, operating income, EBITDA and EBITDA margin for our Global FX segment (in millions, except percentages):

	Year Ended December 31,		Percent Change	Percentage of Total Revenues Year Ended December 31,	
	2023	2022		2023	2022
Revenues less cost of revenues	$ 73.5	$ 67.9	8 %	98 %	99 %
Operating expenses	48.8	59.1	(17)%	65 %	86 %
Operating income	$ 24.7	$ 8.8	181 %	33 %	13 %
EBITDA (1)	$ 42.8	$ 30.7	39 %	57 %	45 %
EBITDA margin (2)	58.2 %	45.2 %	*	*	*

* Not meaningful

(1) See footnote (2) to the table under “Overview” above for a reconciliation of net income to EBITDA, and management’s reasons for using such non-GAAP measures.

(2) EBITDA margin represents EBITDA divided by revenues less cost of revenues.

Revenues less cost of revenues increased $5.6 million for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to an increase in net transaction and clearing fees driven by a 9% increase in ADNV, coupled with an increase in logical port fees, partially offset by a 2% decrease in net capture. For the year ended December 31, 2023, operating income for the Global FX segment increased $15.9 million compared to the year ended December 31, 2022 primarily due to a decrease in operating expenses, coupled with an increase in revenues less cost of revenues. Operating expenses decreased $10.3 million for the year ended December 31, 2023 compared to the year

ended December 31, 2022 primarily due to decreases in compensation and benefits, depreciation and amortization, and professional fees and outside services.

Digital

The following summarizes revenues less cost of revenues, operating expenses, operating loss, EBITDA, and EBITDA margin for our Digital segment (in millions, except percentages):

	Year Ended December 31,		Percent Change	Percentage of Total Revenues Year Ended December 31,	
	2023	2022		2023	2022
Revenues less cost of revenues	$ (5.3)	$ (0.4)	* %	* %	* %
Operating expenses	41.4	491.0	(92)%	* %	* %
Operating loss	$ (46.7)	$ (491.4)	90 %	* %	* %
EBITDA (1)	$ (39.1)	$ (484.0)	92 %	* %	* %
EBITDA margin (2)	* %	* %	*	*	*

* Not meaningful

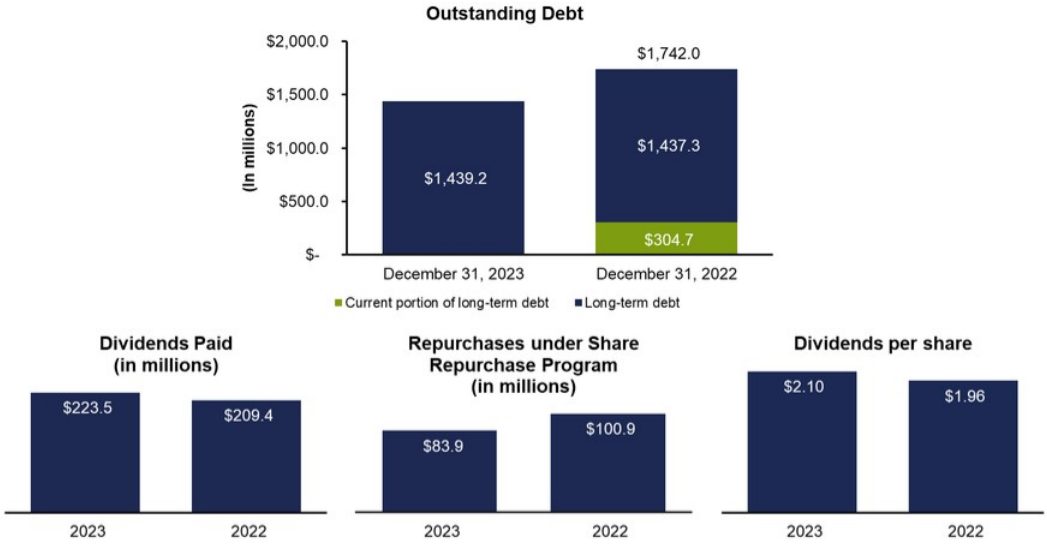
(1) See footnote (2) to the table under “Overview” above for a reconciliation of net income to EBITDA, and management’s reasons for using such non-GAAP measures.

(2) EBITDA margin represents EBITDA divided by revenues less cost of revenues.

The Digital segment was established in the second quarter of 2022 following the acquisition of ErisX, which was subsequently rebranded to Cboe Digital. Revenues less cost of revenues decreased $4.9 million for the year ended December 31, 2023 compared to the year ended December 31, 2022 primarily due to the contra-revenue recorded in connection with the non-recourse notes accounted for as options, beginning in the second quarter of 2023. For the year ended December 31, 2023 operating loss for the Digital segment decreased $444.7 million compared to the year ended December 31, 2022 primarily due to a $460.9 million goodwill impairment adjustment recorded in 2022, which did not recur in 2023, partially offset by an increase in compensation and benefits, depreciation and amortization, and other expenses.

LIQUIDITY AND CAPITAL RESOURCES

Below are charts that reflect elements of our capital allocation:



We expect our cash on hand at December 31, 2023 and other available resources, including cash generated from operations, to be sufficient to continue to meet our cash requirements for the foreseeable future. In the near term, we expect that our cash from operations and availability under the Revolving Credit Facility, and potentially participating in future financing transactions to obtain additional capital will meet our cash needs to fund our operations, capital expenditures, interest payments on debt, debt repayments, any dividends, potential strategic acquisitions, opportunities for common stock repurchases under the previously announced program, and payouts related to the unfavorable decision in the Section 199 litigation. See Note 12 (“Debt”) and Note 25 (“Subsequent Events”) to the consolidated financial statements for further information.

Cboe Clear Europe also has a €1.25 billion committed syndicated multicurrency revolving and swingline credit facility agreement with Cboe Clear Europe as borrower and the Company as guarantor of scheduled interest and fees on borrowings (but not the principal amount of any borrowings) (the “Facility”). The Facility is available to be drawn by Cboe Clear Europe towards (a) financing unsettled amounts in connection with the settlement of transactions in securities and other items processed through Cboe Clear Europe’s clearing system and (b) financing any other liability or liquidity requirement of Cboe Clear Europe incurred in the operation of its clearing system. Borrowings under the Facility are secured by cash, eligible bonds and eligible equity assets deposited by Cboe Clear Europe into secured accounts. As a result, should the Facility be drawn by Cboe Clear Europe it could potentially impact Cboe Clear Europe’s liquidity, and we can give no assurance that this Facility will be sufficient to meet all of such obligations or sufficiently mitigate Cboe Clear Europe’s liquidity risk to meet its payment obligations when due. Additionally, a default of the Facility may allow lenders, under certain circumstances, to accelerate any related drawn amounts and may result in the acceleration of the Company’s other outstanding debt to which a cross-acceleration or cross-default provision applies, which may limit the Company’s liquidity, business and financing activities. The Facility was amended on June 29, 2023, which extended the term of the facility through June 28, 2024.

Our long-term cash needs will depend on many factors, including an introduction of new products, enhancements of current products, capital needs of our subsidiaries, the geographic mix of our business and any potential acquisitions. We believe our cash from operations and the availability under our Revolving Credit Facility will meet any long-term needs unless a significant acquisition or acquisitions are identified, in which case we expect that we would be able to borrow the necessary funds and/or issue additional shares of our common stock to complete such acquisition(s).

Cash and cash equivalents include cash in banks and all non-restricted, highly liquid investments, including short-term repurchase agreements, with original maturities of three months or less at the time of purchase. Cash and cash

equivalents as of December 31, 2023 increased $110.5 million from December 31, 2022 primarily due to the results of operation and proceeds from maturities of available-for-sale financial investments, partially offset by principal payments on the Term Loan Agreement, outflows from cash dividends, purchases of available-for-sale financial investments, share repurchases, contributions to investments, and purchases of property and equipment. See “Cash Flow” below for further discussion.

Our cash and cash equivalents held outside of the United States in various foreign subsidiaries totaled $244.3 million and $226.1 million as of December 31, 2023 and 2022, respectively. The remaining balance was held in the United States and totaled $298.9 million and $206.6 million as of December 31, 2023 and 2022, respectively. The majority of cash held outside the United States is available for repatriation, but under current law, could subject us to additional United States income taxes, less applicable foreign tax credits.

Our financial investments include deferred compensation plan assets as well as investments with original or acquired maturities longer than three months but that mature in less than one year from the balance sheet date and are recorded at fair value. As of December 31, 2023, financial investments primarily consisted of U.S. Treasury securities and deferred compensation plan assets.

Cash Flow

The following table summarizes our cash flow data for the years ended December 31, 2023, 2022 and 2021 (in millions):

	For the Year Ended December 31,		
	2023	2022	2021
Net cash provided by operating activities	$ 1,075.6	$ 651.1	$ 596.8
Net cash used in investing activities	(55.1)	(835.1)	(352.7)
Net cash (used in) provided by financing activities	(656.1)	81.7	(200.3)
Effect of foreign currency exchange rate changes on cash, cash equivalents, and restricted cash and cash equivalents	52.8	(10.0)	(9.1)
Increase (decrease) in cash, cash equivalents, and restricted cash and cash equivalents	$ 417.2	$ (112.3)	$ 34.7

	As of December 31,		
	2023	2022	2021
Reconciliation of cash, cash equivalents, and restricted cash and cash equivalents:			
Cash and cash equivalents	$ 543.2	$ 432.7	$ 341.9
Restricted cash and cash equivalents (margin deposits, clearing funds, and interoperability funds)	834.8	530.3	745.9
Restricted cash and cash equivalents (included in other current assets)	5.1	4.2	4.4
Customer bank deposits (included in margin deposits, clearing funds, and interoperability funds)	14.0	12.7	—
Total	$ 1,397.1	$ 979.9	$ 1,092.2

Net Cash Flows Provided by Operating Activities

During the year ended December 31, 2023, net cash provided by operating activities was $314.2 million higher than net income. The variance is primarily attributable to the change in restricted cash and cash equivalents, driven by margin deposits, clearing funds and interoperability funds adjustment related to Cboe Clear Europe of $282.6 million and the adjustment for depreciation and amortization expense of $158.0 million, partially offset by the change in Section 31 fees payable of $95.2 million.

Net cash flows provided by operating activities were $1,075.6 million and $651.1 million for the years ended December 31, 2023 and 2022, respectively. The change in net cash flows provided by operating activities was primarily due to the change in net income, the change in restricted cash and cash equivalents, driven by margin deposits, clearing funds, and interoperability funds related to Cboe Clear Europe, and the change in benefit for deferred income taxes, partially offset by the adjustment for goodwill impairment and the change in Section 31 fees payable.

Net cash provided by operating activities was $416.1 million higher than net income for the fiscal year ended December 31, 2022. The variance is primarily attributable to the adjustment for goodwill impairment of $460.9 million, the adjustment for depreciation and amortization expense of $166.8 million, and the change in Section 31 fees payable of $106.3 million, partially offset by the change in restricted cash and cash equivalents of $217.5 million, driven by the change in margin and clearing funds related to Cboe Clear Europe for the year ended December 31, 2022, and the benefit for deferred income taxes of $155.7 million.

Net cash provided by operating activities was $651.1 million and $596.8 million for the years ended December 31, 2022 and 2021, respectively. The change in net cash flows provided by operating activities was primarily due to the adjustment for goodwill impairment and the change in Section 31 fees payable, partially offset by the change in net income, the change in restricted cash and cash equivalents, driven by margin deposits and clearing funds related to Cboe Clear Europe, the change in benefit for deferred income taxes, and the change in accounts receivable.

Net Cash Flows Used in Investing Activities

During the year ended December 31, 2023, net cash used in investing activities primarily consisted of purchases of available-for-sale financial investments of $89.8 million, contributions to investments of $57.1 million, and purchases of property and equipment and leasehold improvements of $45.0 million, partially offset by proceeds from maturities of available-for-sale financial investments of $135.7 million.

Net cash flows used in investing activities were $55.1 million and $835.1 million for the years ended December 31, 2023 and 2022, respectively. The variance is primarily due to the change in acquisitions, net of cash acquired, and the change in proceeds from maturities of available-for-sale financial investments, partially offset by the change in contributions to investments for the year ended December 31, 2023 compared to the year ended December 31, 2022.

During the year ended December 31, 2022, net cash used in investing activities primarily consisted of acquisitions, net of cash acquired of $708.3 million, purchases of available-for-sale financial investments of $104.7 million, and purchases of property and equipment and leasehold improvements of $59.8 million, partially offset by proceeds from maturities of available-for-sale financial investments of $51.2 million.

Net Cash Flows (Used in) Provided by Financing Activities

During the year ended December 31, 2023, net cash used in financing activities primarily consisted of principal payments of the current portion of long-term debt of $305.0 million, cash dividends on common stock of $223.5 million, and share repurchases of $83.9 million.

Net cash flows (used in) provided by financing activities were ($656.1) million and $81.7 million for the years ended December 31, 2023 and 2022, respectively. The variance is primarily due to the change in proceeds from the long-term debt issuance and the change in principal repayments of long-term debt, partially offset by the change in payments of contingent consideration related to acquisitions.

Net cash flows provided by financing activities totaled $81.7 million for the year ended December 31, 2022. During the year ended December 31, 2022, net cash provided by financing activities primarily consisted of proceeds from the long-term debt issuance of $663.6 million, partially offset by principal repayments of long-term debt of $220.0 million, cash dividends on common stock, share repurchases, and payments of contingent consideration related to acquisitions.

Net cash flows used in financing activities totaled $200.3 million for the year ended December 31, 2021. During the year ended December 31, 2021, net cash used in financing activities primarily consisted of cash dividends paid on common stock of $193.3 million and share repurchases of $81.3 million, partially offset by proceeds from long-term debt of $110.0 million.

Financial Assets

The following summarizes our financial assets excluding margin deposits, clearing funds, and interoperability funds as of December 31, 2023, 2022 and 2021 (in millions):

	As of December 31,		
	2023	2022	2021
Cash and cash equivalents	$ 543.2	$ 432.7	$ 341.9
Financial investments	57.5	91.7	37.1
Less deferred compensation plan assets	(36.7)	(27.5)	(28.0)
Less cash collected for Section 31 fees	(30.5)	(93.7)	(25.9)
Adjusted cash (1)	$ 533.5	$ 403.2	$ 325.1

(1) Adjusted cash is a non-GAAP measure and represents cash and cash equivalents plus financial investments, minus deferred compensation plan assets and cash collected for Section 31 fees. We have presented adjusted cash because we consider it an important supplemental measure of our liquidity and believe that it is frequently used by analysts, investors and other interested parties in the evaluation of companies.

Debt

The following summarizes our debt obligations as of December 31, 2023, 2022 and 2021 (in millions):

	As of December 31,		
	2023	2022	2021
Term Loan Agreement	$ —	$ 305.0	$ 160.0
3.650% Senior Notes	650.0	650.0	650.0
1.625% Senior Notes	500.0	500.0	500.0
3.000% Senior Notes	300.0	300.0	—
Revolving Credit Agreement	—	—	—
Cboe Clear Europe Credit Facility	—	—	—
Less unamortized discount and debt issuance costs	(10.8)	(13.0)	(10.7)
Total debt	$ 1,439.2	$ 1,742.0	$ 1,299.3

At December 31, 2023, we were in compliance with the covenants of our debt agreements.

In addition to the debt outstanding, as of December 31, 2023, we had an additional $400.0 million available through our revolving credit facility, with the ability to borrow another $200.0 million by increasing the commitments under the facility, subject to the agreement of the applicable lenders. Together with adjusted cash, we had nearly $1.0 billion available to fund our operations, capital expenditures, potential acquisitions, debt repayments and any dividends, net of minimum regulatory capital requirements of $145.7 million, which are subject to potential applicable regulatory restrictions and approvals and potential associated tax costs, as of December 31, 2023.

Dividends

The Company’s expectation is to continue to pay dividends. The decision to pay a dividend, however, remains within the discretion of the Company's Board of Directors and may be affected by various factors, including our earnings, financial condition, capital requirements, level of indebtedness and other considerations our Board of Directors deems relevant. Future debt obligations and statutory provisions, among other things, may limit, or in some cases prohibit, our ability to pay dividends.

Share Repurchase Program

In 2011, the Board of Directors approved an initial authorization for the Company to repurchase shares of its outstanding common stock of $100 million and subsequently approved additional authorizations, for a total authorization of $1.8 billion. The program permits the Company to purchase shares through a variety of methods, including in the open market or through privately negotiated transactions, in accordance with applicable securities laws. It does not obligate the

Company to make any repurchases at any specific time or situation. Share repurchases are repurchased to the Company's Treasury stock and ultimately retired or they are available to be redistributed.

Under the program, for the year ended December 31, 2023, the Company repurchased 661,721 shares of common stock at an average cost per share of $126.80, totaling $83.9 million. Since inception of the program through December 31, 2023, the Company has repurchased 19,610,088 shares of common stock at an average cost per share of $72.21, totaling $1.4 billion. The Company retired 2,453,428 and 744,127 shares of treasury stock in the years ended December 31, 2023 and 2022, respectively.

On August 16, 2022, President Biden signed into law H.R. 5376 (commonly known as the Inflation Reduction Act of 2022 or simply the "IRA"). Tax measures contained in the IRA include, among other items, a new excise tax of 1% on repurchases of stock by domestic corporations with stock traded on established securities markets. The amount on which the tax is imposed is reduced by the value of any stock issued by such corporation during the tax year and the tax generally applies to stock buy-back transactions occurring after December 31, 2022. This new tax has not had a material impact to the Company as of December 31, 2023.

As of December 31, 2023, the Company had $384.0 million of availability remaining under its existing share repurchase authorizations.

Lease and Obligations

The Company currently leases additional office space, data centers and remote network operations center, with lease terms remaining from 1 month to 162 months as of December 31, 2023.

Total rent expense related to current and former lease obligations for the years ended December 31, 2023, 2022 and 2021 totaled $34.5 million, $30.0 million and $25.6 million, respectively. In addition to our lease obligations, we have contractual obligations related to certain operating leases, data and telecommunications agreements, and our long-term debt outstanding.

Purchase obligations include our estimate of the minimum outstanding obligations under agreements to purchase goods or services that we believe are enforceable and legally binding and that specify all significant terms, including fixed or minimum quantities to be purchased; fixed or minimum and maximum amounts to be paid; and the approximate timing of the transaction. Purchase obligations include certain licensing agreements with various licensors which contain annual minimum fee requirements as well as payments calculated using agreed upon contract rates and reported cleared volumes. Purchase obligations exclude agreements that are cancellable at any time without penalty.

We have excluded from the contractual obligations listed below $848.8 million in margin deposits, clearing funds, and interoperability funds related to Cboe Clear Europe and Cboe Clear Digital. Clearing participants of Cboe Clear Europe are required to make deposits to a clearing fund. The cash deposits made by clearing participants are recorded in the consolidated balance sheet as current assets with equal and offsetting current liabilities. See Note 14 ("Clearing Operations") to the consolidated financial statements for additional information on Cboe Clear Europe and Cboe Clear Digital and the margin deposits, clearing funds, and interoperability funds.

Future minimum payments under these leases and agreements were as follows as of December 31, 2023:

	Payments Due by Period		
Contractual Obligations	Total	Less than 1 year	More than 1 year
Operating leases	$ 188.1	$ 26.6	$ 161.5
Purchase obligations	863.5	77.5	786.0
Principal payments of debt	1,450.0	—	1,450.0
Interest payments on debt	561.6	40.9	520.7
Total	$ 3,063.2	$ 145.0	$ 2,918.2

Commercial Commitments and Contractual Obligations

As of December 31, 2023, our commercial commitments and contractual obligations included operating leases, data and telecommunications agreements, equipment leases, our long-term debt outstanding, contingent considerations,

software development activities and other obligations. See Note 23 (“Commitments, Contingencies, and Guarantees”) to the consolidated financial statements for a discussion of commitments and contingencies, Note 12 (“Debt”) for a discussion of the outstanding debt, Note 14 (“Clearing Operations”) for information on Cboe Clear Europe and Cboe Digital’s clearinghouse exposure guarantees, and Note 24 (“Leases”) for discussion on operating leases and equipment leases.

Guarantees

We use Wedbush and Morgan Stanley to clear our routed equities transactions for our U.S. Equities exchanges. Wedbush and Morgan Stanley guarantee the trade until one day after the trade date, after which time the National Securities Clearing Corporation (“NSCC”) provides a guarantee. The BIDS Trading ATS platform delivers matched trades to BofA Securities, Inc. (“BOA”), which delivers the matched trades to the NSCC. BOA guarantees the trade until one day after the trade date, after which time the NSCC provides a guarantee. In the case of failure to perform on the part of Wedbush or Morgan Stanley on routed transactions for our U.S. Equities exchanges, we provide the guarantee to the counterparty to the trader. In the case of failure to perform on the part of BOA on transactions for the BIDS Trading ATS platform, BIDS has obligations to the counterparties to satisfy the trades. OCC acts as a central counterparty on all transactions in listed equity options in our Options segment, and as such, guarantees clearance and settlement of all of our options transactions. We believe that any potential requirement for us to make payments under these guarantees is remote and accordingly, have not recorded any liability in the consolidated financial statements for these guarantees. Similarly, with respect to trades in U.S. listed equity options and futures occurring on Cboe Options, C2, BZX, EDGX, and CFE, we deliver matched trades of our customers to the OCC, which acts as a central counterparty on all transactions occurring on these exchanges and, as such, guarantees clearance and settlement of all of those matched options and futures trades. With respect to U.S. government securities transactions executed on Cboe Fixed Income, we use Mirae Asset Securities (USA) Inc. to deliver matched trades to the Fixed Income Clearing Corporation (FICC) Government Securities Division (GSD), which acts as a central counterparty on all transactions occurring on Cboe Fixed Income and, as such, guarantees clearance and settlement of all of those matched trades. With respect to Canadian equities, we deliver matched trades of our customers to The Canadian Depository for Securities, which acts as a central counterparty on all transactions occurring on Cboe Canada Inc. and, as such, guarantees clearance and settlement of all of our matched Canadian equities trades. With respect to trades in options and futures occurring on Cboe Europe Derivatives, we deliver matched trades of our customers to Cboe Clear Europe, which acts as a central counterparty on all transactions occurring on Cboe Europe Derivatives and, as such, guarantees clearance and settlement of all of those matched options and futures trades. With respect to Australian equities and derivatives, we deliver matched trades of our customers to ASX Clear Pty Ltd and ASX Settlement Pty Ltd. ASX Clear Pty Ltd acts as a central counterparty on all transactions occurring on Cboe Australia and, as such, guarantees clearance and settlement on all of our matched trades in Australia. With respect to Japanese equities, we deliver matched trades of our customers to the Japanese Securities Clearing Corporation, which acts as a central counterparty on all transactions occurring on Cboe Japan and, as such, guarantees clearance and settlement on all of our matched trades in Japan. With respect to trades in digital assets occurring on Cboe Digital Exchange, we deliver matched trades of our customers to Cboe Clear Digital, which acts as a central counterparty on all transactions occurring on Cboe Digital Exchange and, as such, guarantees clearance and settlement of all of those matched spot and futures trades.

CRITICAL ACCOUNTING ESTIMATES

The preparation of consolidated financial statements in conformity with U.S. GAAP requires our management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of the amounts of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from those estimates. On an ongoing basis, the Company evaluates its estimates, including those related to areas that require a significant level of judgment or are otherwise subject to an inherent degree of uncertainty. The Company bases its estimates on historical experience, observance of trends in particular areas, information available from outside sources and various other assumptions that are believed to be reasonable under the circumstances. Information from these sources form the basis for making judgments about the carrying values of assets and liabilities that may not be readily apparent from other sources.

We have identified the estimates below as critical to our business operations and the understanding of our results of operations. The impact of, and any associated risks related to, these estimates on our business operations is discussed throughout "Management's Discussion and Analysis of Financial Condition and Results of Operations." For a detailed discussion on these estimates and other accounting policies, see Note 2 (“Summary of Significant Accounting Policies”) to the consolidated financial statements and related notes included elsewhere in this Annual Report on Form 10-K.

Goodwill and Other Intangible Assets

Description

Our acquisitions of Bats, Silexx Financial Systems, LLC ("Silexx"), Livevol, Inc. ("LiveVol"), Hanweck, FT Options, Trade Alert, BIDS Holdings, Cboe Asia Pacific, Cboe Digital, and Cboe Canada Inc. resulted in the recording of goodwill and other intangible assets, while our acquisition of Cboe Clear Europe, resulted in a bargain purchase gain and other intangible assets. In accordance with FASB Accounting Standards Codification ("ASC") 350 – Intangibles – Goodwill and Other, we test the carrying values of goodwill and indefinite-lived intangible assets for impairment at least annually, or more frequently when events or changes in circumstances signal indicators of impairment are present.

Judgments and Uncertainties

The estimated fair values of our reporting units are based on the market approach and the income approach (using discounted estimated future cash flows). The estimated fair values of indefinite-lived intangibles are based on the cost method and income approach. The discounted estimated future cash flow analysis requires judgments about the discount rate, forecasted revenue growth rate, and operating expenses, that are inherent in these fair value estimates over the estimated remaining operating period. Additionally, the analysis contains uncertainty surrounding future events. As such, actual results may differ from these estimates and lead to a revaluation of our goodwill, indefinite-lived intangible assets, and/or our reporting units.

Effect if Actual Results Differ from Assumptions

If updated estimates indicate that the fair value of goodwill or any indefinite-lived intangibles is less than the carrying value of the asset, an impairment charge is expected to be recorded in the consolidated statements of income in the period of the change in estimate, which could result in a material change to the consolidated financial statements.

Following the acquisition of Cboe Digital in the quarter ended June 30, 2022, negative events and trends in the broader digital asset environment emerged, such as deleveraging and bankruptcies, and certain negative trends in the broader digital asset environment that started in late 2021 intensified, such as the decline in digital asset prices, overall market activity, and market capitalization. Additionally, following the acquisition of Cboe Digital, the efforts to syndicate minority ownership interests in Cboe Digital to potential investors during the quarter ended June 30, 2022 became more challenging, and the outlook for the Digital segment's future market growth was negatively impacted. The Company considered these developments, in particular the syndication efforts during the quarter ended June 30, 2022, to be potential indications of impairment and performed an interim impairment test for the goodwill recognized in the Digital reporting unit during the quarter ended June 30, 2022. The Company concluded that the carrying value of the reporting unit exceeded its estimated fair value, which was based on the income approach and corroborated with the market approach, and recorded a goodwill impairment charge of $460.1 million in the consolidated statements of income during the quarter ended June 30, 2022, and also recognized a deferred tax asset of $116.2 million. This deferred tax asset, resulting from the excess of tax-deductible goodwill over book goodwill, relates to future tax deductions the Company expects to realize to reduce potential tax payments on future income. As a result, the carrying value of Cboe Digital decreased by $343.9 million, to $220.0 million as of June 30, 2022. The Company also performed testing over the intangible assets recognized as a result of the Cboe Digital acquisition during the quarter ended June 30, 2022, and based on the results of the assessments, determined there was no impairment required as the fair value approximated the carrying value. No other long lived assets were recognized as a result of the acquisition and subject to further assessment.

As a result of the finalization of the net working capital calculation associated with the acquisition of Cboe Digital during the quarter ended September 30, 2022, the Company recorded additional goodwill of $0.8 million. Subsequently, the Company concluded that the indicators of impairment outlined in the previous paragraph continued to be relevant and recorded an additional goodwill impairment charge of $0.8 million in the consolidated statements of income for the three months ended September 30, 2022, resulting in the write-down of the carrying value of the goodwill associated with the acquisition of Cboe Digital to zero.

During the Company's annual goodwill impairment analysis, completed in the fourth quarter of 2023, management identified a potential risk of goodwill impairment for the Europe and Asia Pacific reporting unit. Under the income approach, which used the discounted cash flow model, the fair value of the Europe and Asia Pacific reporting unit exceeded its carrying value by less than 5%. The reporting unit held $563.2 million of goodwill as of December 31, 2023. Key assumptions used in the discounted cash flow model include forecasted revenue growth rates, as well as forecasted operating margins. Management has assessed these assumptions against the historical performance of the reporting unit,

industry data, and selected guideline companies, where applicable, and found the assumptions used to be reasonable. Management notes there are key uncertainties, which includes uncertainties about forecasted expenses associated with the reporting unit's ongoing initiatives as well as continued macroeconomic uncertainties in the region where the reporting until primarily operates, which could negatively impact the forecasted revenue growth rates and operating margin assumptions. Therefore, management acknowledges the existence of uncertainties surrounding the potential for goodwill impairment within the Europe and Asia Pacific reporting unit, but concluded that the reporting unit is not impaired for the year ended December 31, 2023.

As a result of the Company's annual impairment analysis, in which the Company's other reporting units estimated fair values were substantially in excess of their carrying values, we do not consider our goodwill and indefinite-lived intangibles to have a significant risk of additional impairment, except as outlined above for the Europe and Asia Pacific segment, at December 31, 2023.

Income Taxes

Description

The Company's consolidated global income tax provision, deferred tax assets and liabilities, valuation allowances, and liabilities for unrecognized tax benefits are determined through the interpretation of tax laws and assumptions of future events to calculate an expectation of future tax consequences.

Judgments and Uncertainties

On an ongoing basis, the Company evaluates its tax estimates and judgments. This evaluation is based on factors including historical experience, such as the conclusions of examinations by tax authorities, changes in tax laws or rates, new examination activity, and results of any related legal processes. We use judgment in the evaluation of uncertain tax positions and the estimation of unrecognized tax benefits when determining the largest amount greater than 50% likely to be realized upon ultimate settlement with the taxing authority, assessing the likelihood of the benefit being realized upon settlement, and the calculating expected ultimate settlement amount.

Effect if Actual Results Differ from Assumptions

Significant changes in these estimates or judgments may result in an increase or decrease to our tax provision in a future period. Additionally, it is possible that the ultimate settlement may differ from the liabilities for unrecognized tax benefits currently reported if tax authorities ultimately reach a conclusion that differs from the Company's expectation. We believe assumptions made regarding income taxes to be reasonable and do not believe any change in the judgments made by management would result in a material change to the consolidated financial statements.

RECENT ACCOUNTING PRONOUNCEMENTS

See Note 3 ("Recent Accounting Pronouncements") to the consolidated financial statements for further discussion of recently adopted and recently issued accounting pronouncements that are applicable to the Company.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

As a result of our operating activities, we are exposed to market risks such as foreign currency exchange rate risk, equity risk, credit risk, interest rate risk, and liquidity risk. We have implemented policies and procedures to measure, manage and monitor and report risk exposures, which are reviewed regularly by management and our Board of Directors.

Foreign Currency Exchange Rate Risk

Our operations in Europe, Canada and Asia are subject to increased currency translation risk as revenues and expenses are denominated in foreign currencies, primarily the British pound, Euro, Australian dollar, and Canadian dollar.

We also have de minimis exposure to other foreign currencies, including the Japanese Yen, Philippine Peso, Singapore dollar, and Hong Kong dollar.

For the year ended December 31, 2023, our exposure to foreign-denominated revenues less cost of revenues and expenses is presented by primary foreign currency in the following table (in millions, except percentages):

	Year Ended December 31, 2023		
	British Pounds (1)	Euros (1)	Australian Dollars (1)
Foreign denominated % of:			
Revenues less cost of revenues	5.7 %	3.3 %	2.1 %
Operating expenses	8.9 %	6.6 %	4.8 %
Impact of 10% adverse currency fluctuation on:			
Revenues less cost of revenues	$ 11.0	$ 6.4	$ 3.9
Operating expenses	7.6	5.7	4.1

(1) An average foreign exchange rate to the U.S. dollar for the period was used. See Item 7 (“Management’s Discussion and Analysis of Financial Condition and Results of Operations”) for the table summarizing the changes in certain operational and financial metrics for more information.

Equity Risk

Our investment in European, Canadian, and Asia Pacific operations is exposed to volatility in currency exchange rates through translation of our net assets or equity to U.S. dollars. The assets and liabilities of our European businesses are denominated in British pounds or Euros. The assets and liabilities of our Canadian businesses are denominated in Canadian dollars. The assets and liabilities of our Asia Pacific businesses are denominated in Australian dollars, Japanese Yen, Singapore dollars, Hong Kong dollars, or Philippine Pesos. Fluctuations in currency exchange rates may create volatility in our reported results as we are required to translate foreign currency reported statements of financial condition and operational results into U.S. dollars for consolidated reporting. The translation of these non-U.S. dollar statements of financial condition into U.S. dollars for consolidated reporting results in a cumulative translation adjustment, which is recorded in accumulated other comprehensive income, net within stockholders' equity on our consolidated balance sheet.

Our primary exposure to this equity risk as of December 31, 2023 is presented by foreign currency in the following table (in millions):

	British Pounds (1)	Euros (1)	Canadian Dollars (1)
Net equity investment in Cboe Europe Equities and Derivatives, Cboe Clear Europe, and Cboe Canada	$ 633.6	$ 175.9	$ 531.7
Impact on consolidated equity of a 10% adverse currency fluctuation	63.4	17.6	53.2

(1) Converted to U.S. dollars using the foreign exchange rate of British pounds per U.S. dollar, Euros per U.S. dollar, and Canadian dollars per U.S. dollar, respectively, as of December 31, 2023.

Credit Risk

We are exposed to credit risk from third parties, including customers, counterparties and clearing agents. These parties may default on their obligations due to bankruptcy, lack of liquidity, operational failure or other reasons. We limit our exposure to credit risk by considering such risk when selecting the counterparties with which we make investments and execute agreements.

We do not have counterparty credit risk with respect to trades matched on our exchanges in the U.S., Canada, and Europe. With respect to listed equities, we deliver matched trades of our customers to the NSCC without taking on counterparty risk for those trades. NSCC acts as a central counterparty on all equity transactions occurring on BZX, BYX, EDGX and EDGA and, as such, guarantees clearance and settlement of all of our matched equity trades. Similarly, with respect to U.S. listed equity options and futures, we deliver matched trades of our customers to the OCC, which acts as a central counterparty on all transactions occurring on Cboe Options, C2, BZX, EDGX and CFE and, as such, guarantees clearance and settlement of all of our matched options and futures trades. With respect to U.S. government securities transactions, we deliver matched trades to FICC’s GSD without taking on counterparty risk for those trades. FICC GSD acts as a central counterparty on all U.S. government securities transactions occurring on Cboe Fixed Income and, as

such, guarantees clearance and settlement of all of those matched trades. With respect to Canadian equities, we deliver matched trades of our customers to The Canadian Depository for Securities, which acts as a central counterparty on all transactions occurring on MATCHNow and, as such, guarantees clearance and settlement of all of our matched Canadian equities trades. The BIDS Trading ATS platform delivers matched trades to BOA, which delivers the matched trades to the NSCC. BOA guarantees the trade until one day after the trade date, after which time the NSCC provides a guarantee. Thus, BIDS Trading is potentially exposed to credit risk to the counterparty between the trade date and one day after the trade date in the event BOA fails. With respect to Australian equities and derivatives, we deliver matched trades of our customers to ASX Clear Pty Ltd and ASX Settlement Pty Ltd. ASX Clear Pty Ltd acts as a central counterparty on all transactions occurring on Cboe Australia and, as such, guarantees clearance and settlement on all of our matched trades in Australia. With respect to Japanese equities, we deliver matched trades of our customers to the Japanese Securities Clearing Corporation, which acts as a central counterparty on all transactions occurring on Cboe Japan and, as such, guarantees clearance and settlement on all of our matched trades in Japan.

With respect to orders Cboe Trading routes to other markets for execution on behalf of our customers, Cboe Trading is exposed to some counterparty credit risk in the case of failure to perform on the part of our clearing firms, Morgan Stanley or Wedbush. Morgan Stanley and Wedbush guarantee trades until one day after the trade date, after which time NSCC provides a guarantee. The BIDS Trading ATS platform delivers matched trades to BOA, which delivers the matched trades to the NSCC. Thus, Cboe Trading is potentially exposed to credit risk to the counterparty to a trade routed to another market center between the trade date and one day after the trade date in the event that Morgan Stanley or Wedbush fails. The BIDS Trading ATS platform is potentially exposed to counterparty credit risk on equities trades between the trade date and one day after the trade date in the event that BOA fails. We believe that any potential requirement for us to make payments under these guarantees is remote and accordingly, have not recorded any liability in the consolidated financial statements for these guarantees.

Historically, we have not incurred any liability due to a customer's failure to satisfy its contractual obligations as counterparty to a system trade. Credit difficulties or insolvency, or the perceived possibility of credit difficulties or insolvency, of one or more larger or more visible market participants could also result in market-wide credit difficulties or other market disruptions.

We do not have counterparty credit risk with respect to institutional spot FX trades occurring on our platform because Cboe FX is not a counterparty to any FX transactions. All transactions occurring on our platform occur bilaterally between two banks or prime brokers as counterparties to the trade. While Cboe FX does not have direct counterparty risk, Cboe FX may suffer a decrease in transaction volume if a bank or prime broker experiences an event that causes other prime brokers to decrease or revoke the credit available to the prime broker experiencing the event. Therefore, Cboe FX may have risk that is related to the credit of the banks and prime brokers that trade FX on the Cboe FX platform.

We also have credit risk related to transaction fees that are billed in arrears to customers on a monthly basis. Our potential exposure to credit losses on these transactions is represented by the receivable balances in our balance sheet. Our customers are financial institutions whose ability to satisfy their contractual obligations may be impacted by volatile securities markets.

The Company is exposed to further credit and investment risk through our clearing operations. Cboe Clear Europe holds material amounts of clearing participant collateral, both cash and non-cash deposits, which are held or invested primarily to provide security of capital while minimizing credit risk as well as liquidity and market risks. Cboe Digital holds amounts of clearing participant collateral including cash and digital assets, which are held primarily to provide security of capital while minimizing credit risk as well as custody, valuation and market risks. The following is a summary of the risks associated with these deposits and how these risks are mitigated:

- *Credit Risk* - The credit risk is predominantly in the event a clearing participant fails to meet a financial or contractual obligation and related to custodians and settlement banks. Cboe Clear Europe attempts to mitigate this risk through minimum participant requirements for clearing participants and monitoring their financial health. To cover potential loss to Cboe Clear Europe in the event of a clearing participant default, collateral is required from clearing participants. Besides potential defaults of clearing participants, the main credit risk faced by the clearinghouse is exposure to clearing participants when a trade fails to settle. To help mitigate this risk, a fail fee is charged to discourage late settlements. This fee covers Cboe Clear Europe's costs but also acts as a deterrent as required by applicable settlement efficiency regulation. Cboe Clear Digital sets minimum financial requirements on custodian institutions and any clearing member that may expose the clearinghouse to credit risk. The financial strength of custodians and such clearing members are monitored routinely. Furthermore, Cboe Digital requires clearing members to post collateral (full or margined, depending on the product eligible for clearing) or other forms of financial guarantee and their trading activities are subject to pre-trade checks

enforced by Cboe Digital Exchange and administered by Cboe Clear Digital. On June 5, 2023, the CFTC approved an amended order of registration for Cboe Clear Digital to clear digital asset futures on a margined basis for futures commission merchants. The new products launched January 12, 2024. As of December 31, 2023, Cboe Digital does not expect a material loss concerning credit risk on any member participant, custodian, or settlement bank.

- *Liquidity Risk* - Liquidity risk is the risk Cboe Clear Europe may not be able to meet its payment obligations in the right currency, in the right place and at the right time. To help mitigate this risk, Cboe Clear Europe monitors its liquidity requirements closely and maintains funds and assets in a manner which attempt to minimize the risk of loss or delay in the access by the clearinghouse to such funds and assets. For example, holding funds with a central bank where possible or making only short-term investments serves to help reduce liquidity risks. Liquidity is mainly required for securities settlement. The payment and settlement obligations generally stem from the function of Cboe Clear Europe as a cash equity clearinghouse: shares are bought and sold by clearing participants on a trading platform or OTC, and netted to settle two days later. During the settlement the actual payment for and delivery of the shares take place, this process requires intraday liquidity. If counterparties, which receive shares against payment, are unable to settle, an overnight liquidity need arises. The overnight liquidity is typically very short term, and is usually limited to a few days. Cboe Clear Digital monitors its liquidity requirements closely and maintains funds and assets in a manner which attempt to minimize the risk of loss or delay in the access by the clearinghouse to such funds and assets. For example, only allowing highly liquid USD denominated assets to be posted as collateral. Cboe Clear Digital may not be able to meet its payment obligations in a timely manner in the event of delay in payment or default by a clearing member.

  Cboe Clear Europe entered into a €1.25 billion committed syndicated multicurrency revolving and swingline credit facility that is available to be drawn by Cboe Clear Europe towards (a) financing unsettled amounts in connection with the settlement of transactions in securities and other items processed through Cboe Clear Europe's clearing system and (b) financing any other liability or liquidity requirement of Cboe Clear Europe incurred in the operation of its clearing system, however we can give no assurance that this facility will be sufficient to meet all such obligations or sufficiently mitigate Cboe Clear Europe's liquidity risk to meet its payment obligations when due.

- *Custody Risk* – Cboe Digital holds customer digital clearing assets through accounts with third party custodians and, in the case of hot and warm wallets, through self-custody. Cboe Digital's custody strategy is designed to maximize liquidity and efficient access to assets by making those assets readily available. Cboe Digital monitors its cash and the digital asset balances it maintains with custodians. Digital assets require control of one or more unique public and private keys relating to the local or online digital wallet in which the digital assets are held. The networks require one or more private keys relating to a digital wallet to authorize a spending transaction. If private keys are lost or destroyed, this could prevent the ability to transfer the corresponding digital asset. Security breaches, computer malware, and computer hacking attacks have been a prevalent concern in digital asset markets. Cboe Digital has committed to securely store digital assets it holds on behalf of users. As such, Cboe Digital may be liable to its users for losses arising from theft or loss of user private keys. Cboe Digital has no reason to believe it will incur any expense associated with such potential liability because (i) it has no known or historical experience of claims to use as a basis of measurement, (ii) it accounts for and continually verifies the amount of digital assets within its control, and (iii) it has established security around custodial private keys to minimize the risk of theft or loss.

- *Valuation Risk* - Cboe Digital is exposed to risk with respect to digital asset prices and valuations which are largely based on the supply and demand for those digital assets in financial markets. Cboe Digital's valuation governance framework includes numerous controls and other procedural safeguards that are intended to maximize the quality of fair value measurements. New products and valuation techniques are reviewed and approved by senior management. Cboe Digital's valuation process for digital assets are fair value estimates that are also validated by the finance control function independently. Independent price verification is performed by finance control through benchmarking fair value estimates with observable market prices or other independent sources. Reasonably designed controls and governance framework are in place and are intended to help ensure quality third-party pricing sources were used.

- *Market Risk* - Cboe Clear Europe is also exposed to market risk in the event that a clearing participant defaults and the market prices of the securities in its open positions have moved adversely so the clearinghouse can only close out the participant's obligations at a loss. To help mitigate market risk, Cboe Clear Europe collects collateral on an end of day and intraday basis from clearing participants to cover for the probable loss during normal market conditions, together with contributions to the clearing fund to cover losses if a default occurred

during extreme but plausible market conditions. Adverse movements in exchange rates affecting the value of obligations and collateral are factored into the calculation of the amount of collateral to be collected. To help ensure an orderly market, Cboe Digital maintains digital assets to support its clearing operations which may be subject to significant changes in value and therefore exposed to market risk with the fluctuation in market prices. Cboe Digital monitors this risk on a daily, weekly and monthly basis. The business model is such that Cboe Digital earns digital assets and at times may accumulate positions that are subject to market risk. Customer positions do have market risk based on daily activity and settlement prices. Cboe Clear Digital is also exposed to market risk in the event that a clearing participant defaults and the market prices of the securities in its open positions have moved adversely so the clearinghouse can only close out the participant's obligations at a loss or the clearing participant has already realized trading losses in excess of the collateral at the time of default or the combination of the two. Cboe Clear Digital collects collateral on an end of day and intraday basis from clearing participants that are clearing margin eligible futures contracts. Cboe Clear Digital only allows collateral in USD at this time. Cboe Clear Digital maintains pre-funded resources to cover probable losses during normal market conditions due to default of clearing participants. Cboe Clear Digital clearing members clearing spot digital assets mostly operate on a fully funded basis. Cboe Clear Digital may allow certain well qualified members to trade in the spot market without fully funding their accounts. Cboe Clear Digital collects collateral from such members to cover probable losses under extreme but plausible market conditions as determined by Cboe Clear Digital. The adequacy of such collateral is routinely reviewed.

- *Investment Risk* – Cboe Clear Europe as of December 31, 2023 held $834.6 million of clearing member margin deposits, clearing funds, and interoperability funds which are held or invested primarily to provide security of capital while minimizing credit, market and liquidity risks. Effective August 14, 2023, Cboe Clear Europe enacted changes in its rules, and is able to invest the cash collateral received in the form of interoperability fund deposits from clearing participants in certain investments, typically securities issued by pre-approved sovereign issuers and reverse repurchase agreements with overnight maturities. When investments are made in accordance with the policy, Cboe Clear Europe receives the amount of investment earnings and pays the clearing participants those earnings minus a set basis point cost of collateral. Cboe Clear Europe is able to direct the investment of the cash interoperability fund deposits received from the clearing participants within the program parameters and receive an economic benefit from those investments. See Note 14 ("Clearing Operations") for more information. In the event that a sovereign government or reverse repurchase agreement counterparty defaults, the value we hold as collateral might not be sufficient to cover our capital requirements in the event of defaults. While Cboe Clear Europe seeks to achieve a reasonable rate of return which may generate interest income for clearing participants, Cboe Clear Europe is primarily concerned with preservation of capital and managing the risks associated with these deposits. As Cboe Clear Europe passes on interest revenues (minus costs) to the clearing members, this could include negative or reduced yield due to market conditions. While Cboe Clear Europe has policies and procedures that strive to help ensure that clearing participant collateral is protected, Cboe Clear Europe cannot absolutely assure that these measures and safeguards will be sufficient to protect margin deposits, clearing funds, and interoperability funds from a default or that we will not be materially and adversely affected in the event of a significant default.

On a regular basis, we review and evaluate changes in the status of our counterparties' creditworthiness. Credit losses such as those described above could adversely affect our consolidated financial position and results of operations. Any such effects to date have been minimal.

Interest Rate Risk

We have exposure to market risk for changes in interest rates relating to our cash and cash equivalents, financial investments, and indebtedness. As of December 31, 2023 and 2022, our cash and cash equivalents and financial investments were $600.7 million and $524.4 million, respectively, of which $244.3 million and $226.1 million is held outside of the United States in various foreign subsidiaries in 2023 and 2022, respectively. The remaining cash and cash equivalents and financial investments are denominated in U.S. dollars. We do not use our investment portfolio for trading or other speculative purposes. Due to the nature of these investments, we have not been exposed to, nor do we anticipate being exposed to, material risks due to changes in interest rates, assuming no change in the amount or composition of our cash and cash equivalents and financial investments.

As of December 31, 2023, we had $1,439.2 million in outstanding debt, all of which relates to our Senior Notes, which bear interest at fixed interest rates. Changes in interest rates will have no impact on the interest we pay on fixed-rate obligations. We are also exposed to changes in interest rates as a result of borrowings under our Revolving Credit Agreement and the Cboe Clear Europe Credit Facility, as these facilities bear interest at fluctuating rates. As of December

31, 2023, there were no outstanding borrowings under our Revolving Credit Agreement or Cboe Clear Europe Credit Facility, respectively. See Note 12 (“Debt”) to the consolidated financial statements for a discussion of debt agreements.

Liquidity Risk

We are exposed to liquidity risk under certain circumstances in relation to the cross-acceleration and cross-default provisions within the Term Loan Agreement and the Revolving Credit Agreement as a result of the Company, as guarantor, entering into the Cboe Clear Europe Credit Facility. A default of the Facility may allow lenders to accelerate any related drawn amounts and may result in the acceleration of the Company’s other outstanding debt to which a cross-acceleration or cross-default provision applies, which may limit the Company’s liquidity, business and financing activities. See Note 12 (“Debt”) to the consolidated financial statements for a discussion of debt agreements.

Item 8. Financial Statements and Supplementary Data

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Cboe Global Markets, Inc. and Subsidiaries

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Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors of
Cboe Global Markets, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Cboe Global Markets, Inc. and subsidiaries (the Company) as of December 31, 2023 and 2022, the related consolidated statements of income, comprehensive income, changes in stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2023, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2023, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 16, 2024 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing a separate opinion on the critical audit matters or on the accounts or disclosures to which they relate.

Evaluation of goodwill impairment analysis for the Europe and Asia Pacific reporting unit

As discussed in Notes 2 and 10 to the consolidated financial statements, the Company tests goodwill for impairment at the reporting unit level annually, or in interim periods if certain events occur indicating that the carrying value may be impaired. This involves estimating the fair value of the reporting unit using a discounted cash flow model.

We identified the evaluation of the Company's goodwill impairment analysis for the Europe and Asia Pacific reporting unit as a critical audit matter. The determination of the fair value of the Europe and Asia Pacific reporting unit required management to make assumptions about the forecasted revenue growth rates and operating margin assumptions within the discounted cash flow model used in the income approach. Evaluating these assumptions involved a higher degree of auditor judgment and the use of professionals with specialized skills and knowledge. Changes to these assumptions could impact the conclusions reached regarding the recoverability of goodwill for the Europe and Asia Pacific reporting unit.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Europe and Asia Pacific reporting unit goodwill impairment analysis, including controls over the forecasted revenue growth rates and operating margin assumptions. We evaluated the Company's forecasted revenue growth rates and operating margins by comparing historical revenue growth rate and operating margin forecasts to actual results. In addition, we involved valuation professionals with specialized skills and knowledge, who assisted with evaluating the forecasted revenue growth rates and operating margin assumptions by comparing them to peer companies.

Evaluation of unrecognized tax benefits

As discussed in Notes 2 and 21 to the consolidated financial statements, the Company recognizes the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based upon the technical merits of the position. The tax benefit recognized in the consolidated financial statements from such a position is measured based upon the largest benefit that has greater than 50% likelihood of being realized upon ultimate settlement.

We identified the evaluation of unrecognized tax benefits in certain jurisdictions as a critical audit matter. A higher degree of auditor judgment and the involvement of professionals with specialized skills and knowledge was required to evaluate the Company's estimate of tax benefits to be realized upon ultimate settlement of its tax positions.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls over the Company's unrecognized tax benefits process, including controls over the estimate of tax benefits to be realized upon ultimate settlement of tax positions. We evaluated the Company's ability to estimate its unrecognized tax benefits by comparing historical unrecognized tax benefits to actual results upon the conclusion of examinations by applicable taxing authorities. In addition, we involved tax professionals with specialized skills and knowledge who assisted in:

- analyzing the Company's tax positions, including the measurement of unrecognized tax benefits
- evaluating changes in applicable laws and regulations
- inspecting settlements with applicable taxing authorities.

/s/ KPMG LLP

We have served as the Company's auditor since 2020.

Kansas City, Missouri
February 16, 2024

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors of
Cboe Global Markets, Inc.:

Opinion on Internal Control Over Financial Reporting

We have audited Cboe Global Markets, Inc. and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2023 and 2022, the related consolidated statements of income, comprehensive income, changes in stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2023, and the related notes (collectively, the consolidated financial statements), and our report dated February 16, 2024 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG LLP

Kansas City, Missouri
February 16, 2024

Cboe Global Markets, Inc. and Subsidiaries
Consolidated Balance Sheets
December 31, 2023 and 2022
(In millions, except share and per share data)

	December 31, 2023	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	$ 543.2	$ 432.7
Financial investments	57.5	91.7
Accounts receivable, net of $4.5 allowance for credit losses at December 31, 2023 and $2.2 at December 31, 2022	337.3	369.8
Margin deposits, clearing funds, and interoperability funds	848.8	543.0
Digital assets - safeguarded assets	51.3	22.9
Income taxes receivable	74.5	48.3
Other current assets	66.7	47.6
Total current assets	1,979.3	1,556.0
Investments	345.3	253.2
Land	—	2.3
Property and equipment, net	109.2	108.2
Property held for sale	8.7	—
Operating lease right of use assets	136.6	111.7
Goodwill	3,140.6	3,122.8
Intangible assets, net	1,561.5	1,662.8
Other assets, net	206.3	181.9
Total assets	$ 7,487.5	$ 6,998.9
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable and accrued liabilities	$ 412.7	$ 420.2
Section 31 fees payable	51.9	147.1
Deferred revenue	5.9	11.7
Margin deposits, clearing funds, and interoperability funds	848.8	543.0
Digital assets - safeguarded liabilities	51.3	22.9
Income taxes payable	1.0	3.5
Current portion of long-term debt	—	304.7
Current portion of contingent consideration liabilities	11.8	24.1
Total current liabilities	1,383.4	1,477.2
Long-term debt	1,439.2	1,437.3
Non-current unrecognized tax benefits	243.8	196.1
Deferred income taxes	217.8	222.9
Non-current operating lease liabilities	150.8	129.3
Non-current portion of contingent consideration liabilities	—	15.0
Other non-current liabilities	67.5	55.8
Total liabilities	3,502.5	3,533.6
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, $0.01 par value: 20,000,000 shares authorized, no shares issued and outstanding at December 31, 2023 and December 31, 2022	—	—
Common stock, $0.01 par value: 325,000,000 shares authorized, 105,556,817 and 105,527,815 shares issued and outstanding, respectively at December 31, 2023 and 107,670,248 and 105,951,199 shares issued and outstanding, respectively at December 31, 2022	1.1	1.1
Common stock in treasury, at cost, 29,002 shares at December 31, 2023 and 1,719,049 shares at December 31, 2022	(10.5)	(131.0)
Additional paid-in capital	1,478.6	1,455.1
Retained earnings	2,525.2	2,171.1
Accumulated other comprehensive loss, net	(9.4)	(31.0)
Total stockholders' equity	3,985.0	3,465.3
Total liabilities and stockholders' equity	$ 7,487.5	$ 6,998.9

See accompanying notes to consolidated financial statements.

Cboe Global Markets, Inc. and Subsidiaries
Consolidated Statements of Income
Years ended December 31, 2023, 2022, and 2021
(In millions, except per share data)

	2023	2022	2021
Revenues:			
Cash and spot markets	$ 1,445.1	$ 1,777.6	$ 1,660.5
Data and access solutions	539.2	497.0	427.7
Derivatives markets	1,789.2	1,683.9	1,406.6
Total revenues	3,773.5	3,958.5	3,494.8
Cost of revenues:			
Liquidity payments	1,385.8	1,670.2	1,650.7
Routing and clearing	79.1	83.2	87.8
Section 31 fees	185.7	329.8	179.6
Royalty fees and other cost of revenues	204.9	133.6	100.6
Total cost of revenues	1,855.5	2,216.8	2,018.7
Revenues less cost of revenues	1,918.0	1,741.7	1,476.1
Operating expenses:			
Compensation and benefits	425.8	363.0	288.5
Depreciation and amortization	158.0	166.8	167.4
Technology support services	99.7	77.7	66.7
Professional fees and outside services	92.0	89.0	83.7
Travel and promotional expenses	37.6	23.7	9.7
Facilities costs	25.7	25.1	22.2
Acquisition-related costs	7.4	19.9	15.6
Goodwill impairment	—	460.9	—
Other expenses	13.9	26.0	16.4
Total operating expenses	860.1	1,252.1	670.2
Operating income	1,057.9	489.6	805.9
Non-operating (expenses) income:			
Interest expense	(62.4)	(60.0)	(48.0)
Interest income	12.0	3.6	0.6
Earnings in investments	39.5	7.2	1.0
Other income (expense), net	0.6	(7.5)	(3.4)
Income before income tax provision	1,047.6	432.9	756.1
Income tax provision	286.2	197.9	227.1
Net income	761.4	235.0	529.0
Net income allocated to participating securities	(3.9)	(0.9)	(1.7)
Net income allocated to common stockholders	$ 757.5	$ 234.1	$ 527.3
Basic earnings per share	$ 7.16	$ 2.20	$ 4.93
Diluted earnings per share	$ 7.13	$ 2.19	$ 4.92
Basic weighted average shares outstanding	105.8	106.3	107.0
Diluted weighted average shares outstanding	106.2	106.7	107.2

See accompanying notes to consolidated financial statements.

Cboe Global Markets, Inc. and Subsidiaries
Consolidated Statements of Comprehensive Income
Years ended December 31, 2023, 2022 and 2021
(In millions)

	2023	2022	2021
Net income	$ 761.4	$ 235.0	$ 529.0
Other comprehensive income (loss), net of income tax:			
Foreign currency translation adjustments	24.6	(85.6)	(19.3)
Unrealized holding losses on financial investments	(2.8)	(0.8)	—
Post-retirement benefit obligations	(0.2)	(0.2)	(0.1)
Comprehensive income	783.0	148.4	509.6
Comprehensive income allocated to participating securities	(3.9)	(0.9)	(1.7)
Comprehensive income allocated to common stockholders, net of income tax	$ 779.1	$ 147.5	$ 507.9

See accompanying notes to consolidated financial statements.

Cboe Global Markets, Inc. and Subsidiaries
Consolidated Statements of Changes in Stockholders' Equity
Years ended December 31, 2023, 2022 and 2021
(In millions)

	Preferred Stock	Common Stock	Treasury Stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive income (loss), net	Total stockholders' equity
Balance at December 31, 2020	$ —	$ 1.2	$ (1,250.4)	$ 2,713.3	$ 1,809.8	$ 75.0	$ 3,348.9
Cash dividends on common stock of $1.80 per share	—	—	—	—	(193.3)	—	(193.3)
Stock-based compensation	—	0.1	—	26.6	—	—	26.7
Repurchases of common stock from employee stock plans	—	—	(6.2)	—	—	—	(6.2)
Purchase of common stock	—	—	(81.3)	—	—	—	(81.3)
Retirement of treasury stock	—	(0.2)	1,231.1	(1,230.9)	—	—	—
Shares issued under employee stock purchase plan	—	—	—	0.4	—	—	0.4
Net income	—	—	—	—	529.0	—	529.0
Other comprehensive loss	—	—	—	—	—	(19.4)	(19.4)
Balance at December 31, 2021	$ —	$ 1.1	$ (106.8)	$ 1,509.4	$ 2,145.5	$ 55.6	$ 3,604.8
Cash dividends on common stock of $1.96 per share	—	—	—	—	(209.4)	—	(209.4)
Stock-based compensation	—	—	—	30.7	—	—	30.7
Repurchases of common stock from employee stock plans	—	—	(8.9)	—	—	—	(8.9)
Purchase of common stock	—	—	(100.9)	—	—	—	(100.9)
Retirement of treasury stock	—	—	85.6	(85.6)	—	—	—
Shares issued under employee stock purchase plan	—	—	—	0.6	—	—	0.6
Net income	—	—	—	—	235.0	—	235.0
Other comprehensive loss	—	—	—	—	—	(86.6)	(86.6)
Balance at December 31, 2022	$ —	$ 1.1	$ (131.0)	$ 1,455.1	$ 2,171.1	$ (31.0)	$ 3,465.3
Cash dividends on common stock of $2.10 per share	—	—	—	—	(223.5)	—	(223.5)
Stock-based compensation	—	—	—	41.3	—	—	41.3
Repurchases of common stock from employee stock plans	—	—	(13.9)	—	—	—	(13.9)
Purchase of common stock	—	—	(83.9)	—	—	—	(83.9)
Retirement of treasury stock	—	—	218.3	(34.5)	(183.8)	—	—
Shares issued under employee stock purchase plan	—	—	—	16.7	—	—	16.7
Net income	—	—	—	—	761.4	—	761.4
Other comprehensive income	—	—	—	—	—	21.6	21.6
Balance at December 31, 2023	$ —	$ 1.1	$ (10.5)	$ 1,478.6	$ 2,525.2	$ (9.4)	$ 3,985.0

See accompanying notes to consolidated financial statements.

Cboe Global Markets, Inc. and Subsidiaries
Consolidated Statements of Cash Flows
Years ended December 31, 2023, 2022 and 2021
(In millions)

	2023	2022	2021
Cash flows from operating activities:			
Net income	$ 761.4	$ 235.0	$ 529.0
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	158.0	166.8	167.4
Amortization of debt issuance cost and debt discount	2.6	2.4	2.2
Change in contingent consideration	(14.4)	(5.2)	(2.7)
Realized gain on available-for-sale financial investments	(2.7)	—	—
Provision for accounts receivable credit losses	4.0	1.1	0.4
Benefit for deferred income taxes	(15.2)	(155.7)	(18.9)
Stock-based compensation expense	41.3	30.7	26.6
Loss on disposal of property and equipment	0.1	0.3	0.4
Impairment charge of investment	1.8	10.6	5.6
Goodwill impairment	—	460.9	—
Equity (earnings) loss in investments	(36.9)	(4.2)	0.4
Gain on investment	—	(7.5)	—
Changes in assets and liabilities:			
Accounts receivable	39.4	(49.8)	12.0
Restricted cash and cash equivalents and customer bank deposits (included in margin deposits, clearing funds, and interoperability funds)	282.6	(217.5)	(66.2)
Restricted cash and cash equivalents (included in other current assets)	—	—	4.4
Income taxes receivable	(26.3)	(5.4)	10.3
Other current assets	(17.4)	(4.0)	(8.8)
Other assets	(26.7)	(20.8)	(47.4)
Accounts payable and accrued liabilities	(19.1)	38.8	45.0
Section 31 fees payable	(95.2)	106.3	(112.1)
Deferred revenue	(5.8)	(4.1)	4.9
Income taxes payable	(2.8)	(3.8)	3.9
Unrecognized tax benefits	47.7	89.1	33.2
Other liabilities	(0.8)	(12.9)	7.2
Net cash provided by operating activities	1,075.6	651.1	596.8
Cash flows from investing activities:			
Acquisitions, net of cash acquired	—	(708.3)	(151.5)
Proceeds from acquisition-related escrow	—	—	0.6
Contributions to investments	(57.1)	(14.6)	(209.8)
Purchases of available-for-sale financial investments	(89.8)	(104.7)	(101.2)
Proceeds from maturities of available-for-sale financial investments	135.7	51.2	160.2
Proceeds from sale of intangible assets	0.8	—	—
Proceeds from investments	—	1.1	—
Proceeds from insurance	0.3	—	—
Purchases of property and equipment and leasehold improvements	(45.0)	(59.8)	(51.0)
Net cash used in investing activities	(55.1)	(835.1)	(352.7)
Cash flows from financing activities:			
Proceeds from long-term debt	—	663.6	110.0
Principal payments of current portion of long-term debt	(305.0)	(220.0)	(20.0)
Debt issuance costs	—	(4.9)	—
Cash dividends on common stock	(223.5)	(209.4)	(193.3)
Repurchases of common stock from employee stock plans	(13.9)	(8.9)	(6.2)
Shares issued under employee stock purchase plan	(16.7)	(0.6)	(0.4)
Payments of contingent consideration related to acquisitions	(13.1)	(38.7)	(9.1)
Proceeds from Cboe Digital syndication	—	1.5	—
Purchase of common stock	(83.9)	(100.9)	(81.3)
Net cash (used in) provided by financing activities	(656.1)	81.7	(200.3)
Effect of foreign currency exchange rates on cash, cash equivalents, and restricted cash and cash equivalents	52.8	(10.0)	(9.1)
Increase (decrease) in cash, cash equivalents, and restricted cash and cash equivalents	417.2	(112.3)	34.7
Cash, cash equivalents, and restricted cash and cash equivalents:			
Beginning of period	979.9	1,092.2	1,057.5
End of period	$ 1,397.1	$ 979.9	$ 1,092.2
Reconciliation of cash, cash equivalents, and restricted cash and cash equivalents:			
Cash and cash equivalents	543.2	432.7	341.9
Restricted cash and cash equivalents (included in margin deposits, clearing funds, and interoperability funds)	834.8	530.3	745.9
Restricted cash and cash equivalents (included in other current assets)	5.1	4.2	4.4
Customer bank deposits (included in margin deposits, clearing funds, and interoperability funds)	14.0	12.7	—
Total	$ 1,397.1	$ 979.9	$ 1,092.2
Supplemental disclosure of cash transactions:			
Cash paid for income taxes, net of refunds	$ 286.4	$ 271.1	$ 209.8
Cash paid for interest	56.7	51.0	42.1
Supplemental disclosure of noncash investing activities:			
Accounts receivable acquired	$ —	$ 4.4	$ 3.5
Financial investments acquired	—	1.5	—
Other current assets acquired	—	1.6	1.0
Goodwill acquired	—	593.5	133.6
Intangible assets acquired	—	164.1	73.8
Property and equipment, net acquired	—	1.6	3.1
Data processing software and other assets acquired	—	2.0	—
Operating lease right of use asset acquired	—	1.2	—
Other assets, net acquired	—	—	0.5
Accounts payable and accrued liabilities assumed	—	(6.1)	(1.8)
Income taxes payable acquired	—	—	(0.1)
Deferred revenue acquired	—	(0.6)	—
Operating lease liability - non-current acquired	—	(1.2)	—
Contingent consideration related to acquisitions	—	(10.1)	(49.6)
Deferred income taxes acquired	—	(22.6)	(15.6)
Other non-current liabilities acquired	—	(0.4)	—
Supplemental disclosure of noncash financing activities:			
Paycheck Protection Program loan forgiveness	$ —	$ 1.3	$ —
Cboe Digital investor member revenue asset	(3.2)	(19.9)	—
Cboe Digital option grant liability	3.2	21.4	—

See accompanying notes to consolidated financial statements.

Cboe Global Markets, Inc. and Subsidiaries
Notes to Consolidated Financial Statements
As of December 31, 2023 and 2022 and for the
Years ended December 31, 2023, 2022 and 2021

1. NATURE OF OPERATIONS

Cboe Global Markets, Inc., the world's leading derivatives and securities exchange network, delivers cutting-edge trading, clearing and investment solutions to people around the world. Cboe provides trading solutions and products in multiple asset classes, including equities, derivatives, FX, and digital assets, across North America, Europe, and Asia Pacific. Above all, the Company is committed to building a trusted, inclusive global marketplace that enables people to pursue a sustainable financial future.

Cboe's subsidiaries include the largest options exchange and the third largest stock exchange operator in the U.S. In addition, the Company operates Cboe Europe, one of the largest stock exchanges by value traded in Europe, and owns Cboe Clear Europe, a leading pan-European equities and derivatives clearinghouse, BIDS Holdings, which owns a leading block-trading ATS by volume in the U.S., and provides block-trading services with Cboe market operators in Europe, Canada, Australia, and Japan, Cboe Australia, an operator of trading venues in Australia, Cboe Japan, an operator of trading venues in Japan, Cboe Digital, an operator of a U.S. based digital asset spot market and a regulated futures exchange, Cboe Clear Digital, an operator of a regulated clearinghouse, and Cboe Canada Inc., a recognized Canadian securities exchange. Cboe subsidiaries also serve collectively as a leading market globally for exchange-traded products ("ETPs") listings and trading.

The Company is headquartered in Chicago with offices in Amsterdam, Belfast, Hong Kong, Kansas City, London, Manila, New York, San Francisco, Sarasota Springs, Singapore, Sydney, Tokyo, and Toronto.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Principles of Accounting

These consolidated financial statements are prepared in conformity with accounting principles generally accepted in the United States ("GAAP") as established by FASB.

(b) Basis of Presentation

The accompanying financial statements are presented on a consolidated basis to include the accounts and transactions of Cboe Global Markets, Inc. and its majority owned subsidiaries and all significant intercompany accounts and transactions have been eliminated.

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosures of contingent assets and liabilities, and reported amounts of revenues and expenses. On an ongoing basis, management evaluates its estimates based upon historical experience, observance of trends, information available from outside sources and various other assumptions that management believes to be reasonable under the circumstances. Actual results may differ from these estimates under different conditions or assumptions.

In the opinion of management, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation of financial position, results of operations and cash flows at the dates and for the periods presented have been included.

Segment information

The Company operates six reportable business segments: Options, North American Equities, Europe and Asia Pacific, Futures, Global FX, and Digital which is reflective of how the Company's chief operating decision-maker reviews and operates the business. See Note 16 ("Segment Reporting") for more information.

(c) Use of Estimates

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities as well as disclosure of the amounts of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from those estimates. Material estimates that are particularly susceptible to significant change in the near term include the valuation of goodwill, indefinite-lived intangible assets, and unrecognized tax benefits.

(d) Cash and Cash Equivalents

The Company's cash and cash equivalents are exposed to concentrations of credit risk. The Company maintains cash at various regulated financial institutions and brokerage firms which, at times, may be in excess of the federal depository insurance limit. The Company's management regularly monitors these institutions and believes that the potential for future loss is remote. The Company considers liquid investments, including short-term repurchase agreements, with original or acquired maturities of three months or less to be cash equivalents.

(e) Financial Investments

Financial investments are classified as trading or available-for-sale.

Trading financial investments represent financial investments held by Cboe Trading that retain the industry-specific accounting classification required for broker-dealers and marketable securities held in a rabbi trust for the Company's non-qualified retirement and benefit plans. The investments held by the broker-dealer subsidiary are recorded at fair value with changes in unrealized gains and losses reflected within interest expense, net in the consolidated statements of income. The investments held in a trust are recorded at fair value with changes in unrealized gains or losses recorded within other income (expense) and the equal and offsetting charges in the related liability are recorded in compensation and benefits expense in the consolidated statements of income as it relates to employee compensation plans and recorded in professional fees and outside services expense in the consolidated statements of income as it relates to non-employee director compensation plans.

Available-for-sale financial investments are comprised of the financial investments not held by Cboe Trading, including highly liquid U.S. Treasury securities. Unrealized gains and losses, net of income taxes, are included as a component of accumulated other comprehensive income in the accompanying consolidated balance sheets.

Interest on financial investments, including amortization of premiums and accretion of discounts, is recognized as income when earned. Realized gains and losses on financial investments are calculated using the specific identification method and are included in interest expense, net in the accompanying consolidated statements of income.

(f) Accounts Receivable, Net

Accounts receivable are concentrated with the Company's member firms and market data distributors and are carried at amortized cost. The Company nets transaction fees and liquidity payments for each member firm on a monthly basis and recognizes the total owed from a member firm as accounts receivable, net and the total owed to a member firm as accounts payable and accrued liabilities in the consolidated balance sheets. On a periodic basis, management evaluates the Company's accounts receivable and records an allowance for expected credit losses using an aging schedule. The aging schedule applies loss rates based on historical loss information and, as deemed necessary, is adjusted for differences in the nature of the receivables that exist at the reporting date from the historical period. Due to the short-term nature of the accounts receivable, changes in future economic conditions are not expected to have a significant impact on the expected credit losses.

The accounts receivable are presented net of allowance for credit losses on the consolidated balance sheets and the associated losses are presented in other operating expenses on the consolidated statements of income.

(g) Property and Equipment, Net

Property and equipment, net is stated at cost less accumulated depreciation. Depreciation is computed using the straight-line method over the estimated lives of the assets, generally ranging from three to seven years. Expenditures for

repairs and maintenance are charged to expense as incurred. Depreciation of leasehold improvements is calculated using the straight-line method over the shorter of the related lease term or the estimated useful life of the assets.

Long-lived assets to be held and used are reviewed to determine whether any events or changes in circumstances indicate that the carrying values of the assets may not be recoverable. The Company bases this evaluation on such impairment indicators as the nature of the assets, the future economic benefit of the assets, any historical or future profitability measurements, as well as other external market conditions or factors that may be present. If such impairment indicators are present that would indicate that the carrying value of any asset may not be recoverable, the Company determines whether an impairment has occurred through the use of an undiscounted cash flow analysis of the asset at the lowest level for which identifiable cash flows exist. In the event of impairment, the Company recognizes a loss for the difference between the carrying value and the estimated value of the asset as measured using quoted market prices or, in the absence of quoted market prices, a discounted cash flow analysis.

The Company expenses software development costs as incurred during the preliminary project stage, while capitalizing costs incurred during the application development stage, which includes design, coding, installation and testing activities.

(h) Goodwill and Intangible Assets, Net

Goodwill represents the excess of purchase price over the value assigned to the net tangible and identifiable intangible assets of a business acquired. Goodwill is allocated to the Company's reporting units based on the assignment of the fair values of each reporting unit of the acquired company. The Company tests goodwill for impairment at the reporting unit level annually, or in interim periods if certain events occur indicating that the carrying value may be impaired. Interim impairment testing was performed during the quarter ended June 30, 2022 due to the acquisition of Cboe Digital, resulting in an impairment charge to goodwill. During the quarter ended September 30, 2022 the Company concluded that the factors indicative of impairment were still relevant, resulting in the write-down of the remaining carrying value of goodwill to zero. See Note 10 ("Goodwill, Intangible Assets, Net, and Digital Assets Held") for additional information. The annual impairment test is performed during the fourth quarter using October 1 carrying values, and if the fair value of the reporting unit is found to be less than the carrying value, an impairment loss is recorded. The Company performed its 2023 annual goodwill impairment test and determined that no additional impairment existed.

Intangible assets, net, primarily include acquired trademarks and trade names, customer relationships, strategic alliance agreements, licenses and registrations and non-compete agreements. Intangible assets with finite lives are amortized based on the discounted cash flow method applied over the estimated useful lives of the intangible assets and are tested for impairment if certain events occur indicating that the carrying value may be impaired.

Intangible assets deemed to have indefinite useful lives are not amortized, but instead are tested for impairment at least annually, usually concurrently with goodwill. Impairment exists if the fair value of the asset is less than the carrying value, and in that case, an impairment loss is recorded. The Company performed its 2023 annual intangible assets impairment test using October 1, 2023 carrying values and determined that no additional impairment existed.

(i) Treasury Stock

The Company accounts for the purchase of treasury stock under the cost method with the shares of stock repurchased reflected as a reduction to Cboe stockholders' equity and included in common stock in treasury, at cost in the consolidated balance sheets. Shares repurchased under the Company's share repurchase program are either available to be redistributed or they are retired. The Company accounts for the retirement of treasury stock by deducting its par value from common stock and reflecting any excess of cost over par value as a deduction from additional paid-in-capital or retained earnings on the consolidated balance sheets.

(j) Foreign Currency

The financial statements of foreign subsidiaries where the functional currency is not the U.S. dollar are translated into U.S. dollars using the exchange rate in effect as of each balance sheet date. Statements of income and cash flow amounts are translated using the average exchange rate during the period. The cumulative effects of translating the balance sheet accounts from the functional currency into the U.S. dollar at the applicable exchange rates are included in accumulated other comprehensive income (loss), net in the accompanying consolidated balance sheets. Foreign currency gains and losses are recorded as other (expense) income, net in the consolidated statements of income. The Company's operations in the United Kingdom, Amsterdam, Canada, Australia, Japan, Singapore, Philippines, and Hong Kong are

recorded in Pounds sterling, Euros, Canadian dollars, Australian dollars, Japanese Yen, Singapore dollars, Philippine pesos, and Hong Kong dollars, respectively.

(k) Income Taxes

Deferred taxes are recorded on a liability method whereby deferred tax assets are recognized for deductible temporary differences and operating loss and tax credit carryforwards, and deferred tax liabilities are recognized for taxable temporary differences. Temporary differences are the differences between the reported amounts of assets and liabilities and their tax bases. Deferred tax assets are reduced by valuation allowances when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates on the date of enactment.

The Company recognizes the tax benefit from an unrecognized tax benefit only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based upon the technical merits of the position. The tax benefit recognized in the consolidated financial statements from such a position is measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. Also, interest and penalties expense is recognized on the full amount of deferred benefits for unrecognized tax benefits. The Company's policy is to include interest and penalties related to unrecognized tax benefits in the income tax provision within the consolidated statements of income.

The Company elected to account for global intangible low-taxed income ("GILTI") in the period in which it is incurred, and therefore, has not provided any deferred tax impacts of GILTI in the consolidated financial statements.

(l) Revenue Recognition

For further discussion related to revenue recognition of fees, such as transaction and clearing fees and liquidity payments, access and capacity fees, market data fees, and regulation transaction and Section 31 fees, see Note 4 ("Revenue Recognition").

Concentrations of Revenue

For each of the years ended December 31, 2023, 2022, and 2021, one customer accounted for approximately 11% of the Company's total revenue. The revenues associated with this customer are included in the Options, North American Equities, Europe and Asia Pacific, Global FX and Futures segments and totaled $389.4 million, $415.3 million, and $376.2 million for the years ended December 31, 2023, 2022, and 2021, respectively.

No customer is contractually or otherwise obligated to continue to use the Company's services. The loss of, or a significant reduction of, participation by these customers may have a material adverse effect on the Company's business, financial position, results of operations and cash flows. The two largest clearing members clear the majority of the market-maker sides of transactions at all of the Company's U.S. options exchanges. If either of these clearing members were to withdraw from the business of market-maker clearing and market-makers were unable to transfer to another clearing member, this could create significant disruption to the U.S. options markets, including Cboe's.

(m) Earnings Per Share

The computation of basic earnings per share is calculated by reducing net income for the period by dividends paid or declared and undistributed net income for the period that are allocated to participating securities to arrive at net income allocated to common stockholders. Net income allocated to common stockholders is divided by the weighted average number of common shares outstanding during the period to determine net income per share allocated to common stockholders.

The computation of diluted earnings per share is calculated by dividing net income allocated to common stockholders by the sum of the weighted average number of common shares outstanding plus all additional common shares that would have been outstanding if the potentially dilutive common shares had been issued. The dilutive effect is calculated using the more dilutive of the two-class or treasury stock method.

(n) Stock-Based Compensation

The Company grants stock-based compensation to its employees through restricted stock units and grants restricted stock units, starting in 2023, to its directors. The Company records stock-based compensation expense for all stock-based compensation granted based on the grant-date fair value. The Company recognizes stock-based compensation expense related to stock-based compensation awards with graded vesting that have a service condition on a straight-line basis over the requisite service period of the entire award.

The amount of stock-based compensation expense related to awards of restricted stock and restricted stock units is based on the fair value of Cboe Global Markets, Inc. common stock at the date of grant. The fair value is based on a current market-based transaction of the Company's common stock. If a market-based transaction of the Company's common stock is not available, then the fair value is based on an independent third-party valuation using equal weighting of two valuation analysis techniques, discounted cash flows and valuation multiples observed from publicly traded companies in a similar industry.

On November 18, 2022, Cboe Digital Holdings Inc. ("Cboe Digital Holdings") entered into minority interest purchase agreements with certain digital asset industry participants, pursuant to which Cboe Digital Holdings agreed to issue Restricted Common Units in Cboe Digital. Cboe Digital Holdings also entered into a Warrant Agreement to issue Common Units of Cboe Digital in the future. Certain Cboe Digital investor members paid for the Restricted Common Units through the issuance of promissory notes, which are nonrecourse in nature. The issuances of Restricted Common Units are accounted for as in-substance stock options. A certain Cboe Digital investor member paid for the Restricted Common Units in exchange for cash. Expense associated with the Restricted Common Units is recognized as contra-revenue ratably over a five-year period. The Company uses a Black Scholes pricing model to estimate the fair value of the in-substance stock option created by the Restricted Common Units and promissory notes as well as the fair value of the Warrant Units. Contra-revenue will be recognized while the performance conditions of the Warrant Units remain probable in conformance with the requirements in ASC 606 – Revenue from Contracts with Customers. Further adjustments will be recognized in each reporting period until performance is complete relating to changes in the fair value of the option and Warrant liabilities in accordance with ASC 718 – Compensation – Stock Compensation. See Note 19 ("Stock-Based Compensation") for additional information.

Certain Cboe Digital investor members can earn additional Restricted Common Units if they meet certain performance-based metrics outlined in an equity incentive program ("Incentive Program Units"). The Incentive Program Units are subject to the same terms and conditions as the other Restricted Common Units and are similarly liability-classified awards. Cboe Digital authorized a maximum of 20 Common Units to be distributed over the two-year life of the incentive program. The cost associated with the Incentive Program Units will be recognized as contra-revenue ratably over the remaining service period associated with the Incentive Program Units. Further adjustments will be recognized in each reporting period until performance is complete relating to changes in the fair value of the incentive program liabilities in accordance with ASC 718 – Compensation – Stock Compensation. Based on the recorded balance of the liabilities, any measurement uncertainty related to this Level 3 measurement is immaterial as of December 31, 2023. See Note 19 ("Stock-Based Compensation") for more information.

(o) Business Combinations

The Company records identifiable assets, liabilities and goodwill acquired in a business combination at fair value at the acquisition date. Additionally, transaction-related costs are expensed in the period incurred.

(p) Debt Issuance Costs

All costs incurred to issue debt are capitalized as a contra-liability and amortized over the life of the debt using the interest method.

(q) Investments

The Company generally accounts for investments using the measurement alternative when it owns less than 20% of the outstanding voting stock of a company, there is an absence of readily determinable fair value for the respective investment, and the Company has an inability to exercise significant influence over the investment based upon the respective ownership interests held. The Company recognizes dividend income when declared.

In general, the equity method of accounting is used when the Company owns 20% to 50% of the outstanding voting stock of a company and when it is able to exercise significant influence over the operating and financial policies of a company. For equity method investments, the Company records the pro-rata share of earnings or losses each period and records any dividends received as a reduction in the investment balance. The equity method investment is inclusive of other-than-temporary declines in value, recognized by the investee, who considers a variety of factors such as the earnings capacity of the investment and the fair value of the investment compared to its carrying value. If the estimated fair value of the investment is less than the carrying value and the decline in value is considered to be other than temporary, the excess of the carrying value over the estimated fair value is recognized in the financial statements as an impairment.

(r) Leases

The Company determines if an arrangement contains a lease at inception. For arrangements where the Company is the lessee, operating leases are included in operating lease right of use ("ROU") assets, accrued liabilities, and non-current operating lease liabilities on the balance sheet as of December 31, 2023. The Company does not have any finance leases as of December 31, 2023.

ROU assets and operating lease liabilities are recognized based on the present value of the future lease payments over the lease term at commencement date. ROU assets also include any initial direct costs incurred and any lease payments made at or before the lease commencement date, less lease incentives received. The Company uses its incremental borrowing rate based on the information available at the lease commencement date in determining the lease liabilities, as the rate implicit in the Company's leases are generally not reasonably determinable. Lease terms may include options to extend or terminate when the Company is reasonably certain that the option will be exercised. Lease expense is recognized on a straight-line basis over the lease term.

The Company also has lease arrangements with lease and non-lease components. The Company elected the practical expedient not to separate non-lease components from lease components for the Company's leases. The Company elected to apply the short-term lease measurement and recognition exemption in which ROU assets and lease liabilities are not recognized for short-term leases. For short-term operating leases, lease expense is recognized on a straight-line basis over the lease term.

Leases with an initial term of 12 months or less are not recorded on the consolidated balance sheet and the Company recognizes lease expense in facilities costs within the consolidated statements of income for these leases on a straight-line basis over the lease term. Certain leases include one or more options to renew, with renewal terms that can extend the lease term from one to five years or more, and some of which include the Company's option to terminate the leases within one year. When the implicit rate in the Company's lease is not reasonably determinable, the Company applies an incremental borrowing rate based on the information available at the lease commencement date in determining the present value of lease payments.

(s) Margin Deposits, Clearing Funds, and Interoperability Funds

Margin deposits, clearing funds, and interoperability funds in the form of cash contributions by Cboe Clear Europe's clearing participants where title has transferred to Cboe Clear Europe are included as current assets with equal and offsetting current liabilities in the consolidated balance sheet. As a result of an update in its rules, effective August 14, 2023, Cboe Clear Europe may invest interoperability fund deposits provided by clearing participants subsequent to the effective date of the rules change. In accordance with the updated policy, Cboe Clear Europe has the option to maintain cash deposits provided by clearing participants at Clearstream Banking S.A., in the same manner done previously, or invest the cash in certain investments within the parameters of its investment policy. As such, the interoperability fund deposits are reflected in the consolidated balance sheet as of the effective date of the rules change. Changes in margin deposits, clearing funds, and interoperability funds, are presented net in the "restricted cash and cash equivalents and customer bank deposits (included in margin deposits, clearing funds, and interoperability funds)" line in the operating section of the consolidated statement of cash flows. Similarly, cash flows associated with related investment agreements as well as interest income earned on such investments will be classified as cash flows from operating activities in the consolidated statement of cash flows. Both activities are part of Cboe Clear Europe's principal operating activities and are presented within the operating section of the consolidated statement of cash flows.

When investments are made in accordance with its investment policy, Cboe Clear Europe receives the amount of investment earnings and pays clearing participants those earnings minus a set basis point cost of collateral. Related

interest income and interest expense are presented gross in the consolidated statement of income in other revenue and other cost of revenue, respectively, as it relates to a core operating activity of Cboe Clear Europe.

See Note 14 ("Clearing Operations") for more information.

Cboe Clear Digital is authorized, by license or not subject to licensing, to conduct money services business (“MSB”) services in 50 U.S. jurisdictions. Cboe Clear Digital performs a guarantee function whereby Cboe Clear Digital helps to ensure that the obligations of the transactions it clears are fulfilled. Cboe Clear Digital attempts to mitigate this risk by performing internal compliance and due diligence procedures as well as implementing internal risk controls. Cboe Clear Digital 's due diligence procedures include review of the personal and corporate information, financial position of the member participant, and monitoring of Cboe Clear Digital's risk exposure thresholds.

(t) Digital Assets Held

The Company determined that digital assets held should be accounted for under ASC 350 – Intangibles – Goodwill and Other, and included on the consolidated balance sheets within intangibles, net. As there is no inherent limit imposed on the useful life of the digital assets, they are classified as indefinite lived intangible assets and are not subject to amortization. Instead, they must be tested for impairment annually or more frequently if events or circumstances change that indicate that it’s more likely than not that the asset is impaired (i.e., if an impairment indicator exists). Therefore, the value of digital assets is determined at the date of acquisition and will only be remeasured in the event the Company concludes impairment exists. The Company will not record any increases in value during the period the digital assets are held; the only gains that will be recorded will be upon disposition (if the proceeds exceed the carrying value at the time of the disposition).

(u) Digital Assets – Safeguarded Assets and Liabilities

In accordance with the SEC issued Staff Accounting Bulletin 121 (“SAB 121”), the Company recorded a liability with respect to its obligation to safeguard customers' digital assets (Digital assets - safeguarded liabilities) along with a corresponding asset (Digital assets - safeguarded assets). The safeguarded assets and liabilities are measured at the fair value of the digital assets that the Company is safeguarding on behalf of its customers. In the event that the Company or its vendors fail to safeguard the customers’ digital assets, any resulting loss will reduce the safeguard asset with a corresponding loss recorded in other expenses in the consolidated statement of income.

3. RECENT ACCOUNTING PRONOUNCEMENTS

Recent Accounting Pronouncements – Adopted

On March 31, 2022, SAB 121 was issued, which sets out interpretive guidance from the staff of the SEC regarding the accounting for obligations to safeguard digital assets that an entity holds for its platform users. The guidance requires an entity to recognize a liability for the obligation to safeguard the users’ assets and recognize an associated asset for the digital assets held for users. Both the liability and asset will be measured initially and subsequently at the fair value of the digital assets being safeguarded. The guidance also requires additional disclosures related to the nature and amount of digital assets held on behalf of its platform users, with separate disclosure for each significant digital asset, and the vulnerabilities the entity has due to any concentration in such activities. The guidance, effective for interim or annual periods ending after June 15, 2022, was adopted by the Company as of June 30, 2022. As a result of adopting SAB 121, the Company recorded digital assets - safeguarded assets, with corresponding digital assets - safeguarded liabilities of $22.4 million, respectively, as of June 30, 2022, with no impact to the consolidated statements of income and cash flows.

Recent Accounting Pronouncements – Issued, not yet Adopted

In November 2023, the FASB issued ASU 2023-07, Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures. This ASU improves reportable segment disclosure requirements, primarily through enhanced disclosures about significant segment expenses. For public entities, the update is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. The Company expects to

adopt the update for the financial statements issued for the year ending December 31, 2024 and does not anticipate a material impact to the consolidated financial statements.

In December 2023, the FASB issued ASU 2023-08, Intangibles – Goodwill and Other – Crypto Assets (Subtopic 350-60): Accounting for and Disclosure of Crypto Assets. This ASU addresses the accounting and disclosure requirements for certain crypto assets and requires entities to subsequently measure certain crypto assets at fair value, with changes in fair value recorded in earnings in each reporting period. In addition, entities are required to provide additional disclosures about the holdings of certain crypto assets. For public entities, the update is effective for fiscal years and interim periods within those fiscal years, beginning after December 15, 2024. The Company expects to adopt the update for the financial statements issued in the first quarter of 2025 and does not anticipate a material impact to the consolidated financial statements.

In December 2023, the FASB issued ASU 2023-09, Income Taxes (Topic 740): Improvements to Income Tax Disclosures. This ASU addresses investor requests for more transparency about income tax information through improvements to income tax disclosures primarily related to the rate reconciliation and income taxes paid information. For public entities, the update is effective for fiscal years beginning after December 15, 2024. The Company expects to adopt the update for the financial statements issued for the year ending December 31, 2025 and does not anticipate a material impact to the consolidated financial statements.

4. REVENUE RECOGNITION

The Company presents three financial statement revenue captions within its consolidated statements of income that reflect the Company's diversified products, expansive geographical reach, and overall business strategy. Below is a summary of the Company's financial statement revenue captions:

Revenues

- *Cash and spot markets* – includes associated transaction and clearing fees, the portion of market data fees relating to associated U.S. tape plan market data fees, associated regulatory fees, and associated other revenue from Cboe's North American Equities, Europe and Asia Pacific, Global FX, and Digital segments.

- *Data and access solutions* – includes access and capacity fees, proprietary market data fees, and associated other revenue across Cboe's six segments.

- *Derivatives markets* – includes associated transaction and clearing fees, the portion of market data fees relating to associated U.S. tape plan market data fees, associated regulatory fees, and associated other revenue from Cboe's Options, Futures, Europe and Asia Pacific, and Digital segments.

The Company's main types of revenue contracts consist of the following, which are disaggregated from the consolidated statements of income.

- *Transaction and clearing fees* – Transaction fees represent fees charged by the Company for meeting the point-in-time performance obligation of executing a trade on its markets. These fees can be variable based on trade volume tiered discounts; however, as all tiered discounts are calculated monthly, the actual discount is recorded on a monthly basis. Transaction fees are recognized across all segments. Clearing fees, which include settlement fees, represent fees charged by the Company for meeting the point-in-time performance obligation for transactions cleared and settled by Cboe Clear Europe and Cboe Clear Digital, the derivatives clearing organization for Cboe Digital. Clearing fees can be variable based on trade volume tiered discounts; however, as all tiered discounts are calculated monthly, the actual discount is recorded on a monthly basis. Clearing fees are recognized in the Europe and Asia Pacific and Digital segments. Transaction and clearing fees, as well as any tiered volume discounts, are calculated and billed monthly in accordance with the Company's published fee schedules.

- *Access and capacity fees* – Access and capacity fees represent fees assessed for the opportunity to trade, including fees for trading-related functionality across all segments, terminal and other equipment rights, maintenance services, trading floor space and telecommunications services. Facilities, systems services and other fees are generally monthly fee-based. These fees are billed monthly in accordance with the Company's published fee schedules and recognized on a monthly basis when the performance obligations are met. All

access and capacity fees associated with the trading floor are recognized over time in the Options segment, as the performance obligations are met.

- *Market data fees* – Market data fees represent the fees received by the Company from the U.S. tape plans and fees charged to customers for proprietary market data. Fees from the U.S. tape plans are collected monthly based on published fee schedules and distributed quarterly to the Exchanges based on a known formula. A contract for proprietary market data is entered into and charged on a monthly basis in accordance with the Company's published fee schedules as the service is provided. Proprietary market data also includes revenue from various licensing agreements. Both types of market data are satisfied over time, and revenue is recognized on a monthly basis as the customer receives and consumes the benefit as the Company provides the data to meet its performance obligation. U.S. tape plan market data is recognized in the North American Equities and Options segments. Proprietary market data fees are recognized across all segments.

- *Regulatory fees* – There are two types of regulatory fees that the Company recognizes. The first type represents fees collected by the Company to cover the Section 31 fees charged to the Exchanges by the SEC for meeting the point-in-time performance obligation of executing a trade on its markets. The fees charged to customers are based on the fee set by the SEC per notional value of U.S. Equities exchange transactions and per round turn of Options transactions executed on the Company's U.S. securities markets. These fees are calculated and billed monthly and are recognized in the North American Equities and Options segments. As the Exchanges are responsible for the ultimate payment to the SEC, the Exchanges are considered the principal in these transactions. Regulatory fees also include the options regulatory fee ("ORF") which supports the Company's regulatory oversight function in the Options segment, along with other miscellaneous regulatory fees, and neither can be used for non-regulatory purposes. The ORF and miscellaneous fees are recognized when the performance obligation is fulfilled.

- *Other revenue* – Other revenue primarily includes interest income on investments (including from investments of interoperability fund deposits) from clearing operations, all fees related to the trade reporting facility operated in the Europe and Asia Pacific segment, listing fees, and revenue associated with advertisements through the Company's websites.

All revenue recognized in the consolidated statements of income is considered to be revenue from contracts with customers, with the exception of interest income from clearing operations. The following table depicts the disaggregated revenue contract types listed above within each respective financial statement caption in the consolidated statements of income (in millions):

	Cash and Spot Markets	Data and Access Solutions	Derivatives Markets	Total
Year Ended December 31, 2023				
Transaction and clearing fees	$ 1,149.7	$ —	$ 1,681.6	$ 2,831.3
Access and capacity fees	—	347.5	—	347.5
Market data fees	71.3	188.7	33.7	293.7
Regulatory fees	153.8	—	69.9	223.7
Other revenue	70.3	3.0	4.0	77.3
	$ 1,445.1	$ 539.2	$ 1,789.2	$ 3,773.5

	Cash and Spot Markets	Data and Access Solutions	Derivatives Markets	Total
Year Ended December 31, 2022				
Transaction and clearing fees	$ 1,375.5	$ —	$ 1,563.3	$ 2,938.8
Access and capacity fees	—	324.2	—	324.2
Market data fees	80.3	168.7	33.2	282.2
Regulatory fees	280.2	—	84.5	364.7
Other revenue	41.6	4.1	2.9	48.6
	$ 1,777.6	$ 497.0	$ 1,683.9	$ 3,958.5

	Cash and Spot Markets	Data and Access Solutions	Derivatives Markets	Total
Year Ended December 31, 2021				
Transaction and clearing fees	$ 1,366.5	$ —	$ 1,326.6	$ 2,693.1
Access and capacity fees	—	280.7	—	280.7
Market data fees	91.6	130.0	30.5	252.1
Regulatory fees	161.6	—	46.7	208.3
Other revenue	40.8	17.0	2.8	60.6
	$ 1,660.5	$ 427.7	$ 1,406.6	$ 3,494.8

The following table depicts the disaggregation of revenue according to segment (in millions):

	Options	North American Equities	Europe and Asia Pacific	Futures	Global FX	Digital	Corporate Items and Eliminations	Total
Year Ended December 31, 2023								
Transaction and clearing fees	$ 1,583.7	$ 946.3	$ 145.6	$ 98.0	$ 62.2	$ (4.5)	$ —	$ 2,831.3
Access and capacity fees	161.0	117.1	36.3	22.0	10.7	0.4	—	347.5
Market data fees	118.8	128.3	36.7	8.5	1.4	—	—	293.7
Regulatory fees	69.6	153.8	—	0.3	—	—	—	223.7
Other revenue	6.4	7.5	62.6	0.2	0.6	—	—	77.3
	$ 1,939.5	$ 1,353.0	$ 281.2	$ 129.0	$ 74.9	$ (4.1)	$ —	$ 3,773.5
Timing of revenue recognition								
Services transferred at a point in time	$ 1,659.7	$ 1,107.6	$ 208.2	$ 98.5	$ 62.8	$ (4.5)	$ —	$ 3,132.3
Services transferred over time	279.8	245.4	73.0	30.5	12.1	0.4	—	641.2
	$ 1,939.5	$ 1,353.0	$ 281.2	$ 129.0	$ 74.9	$ (4.1)	$ —	$ 3,773.5
Year Ended December 31, 2022								
Transaction and clearing fees	$ 1,471.7	$ 1,155.3	$ 161.9	$ 91.6	$ 58.0	$ 0.3	$ —	$ 2,938.8
Access and capacity fees	151.7	109.3	34.0	19.9	9.3	—	—	324.2
Market data fees	108.7	131.2	33.1	8.0	1.2	—	—	282.2
Regulatory fees	84.2	280.2	—	0.3	—	—	—	364.7
Other revenue	6.9	5.7	35.6	—	0.4	—	—	48.6
	$ 1,823.2	$ 1,681.7	$ 264.6	$ 119.8	$ 68.9	$ 0.3	$ —	$ 3,958.5
Timing of revenue recognition								
Services transferred at a point in time	$ 1,562.8	$ 1,441.2	$ 197.5	$ 91.9	$ 58.4	$ 0.3	$ —	$ 3,352.1
Services transferred over time	260.4	240.5	67.1	27.9	10.5	—	—	606.4
	$ 1,823.2	$ 1,681.7	$ 264.6	$ 119.8	$ 68.9	$ 0.3	$ —	$ 3,958.5
Year Ended December 31, 2021								
Transaction and clearing fees	$ 1,231.2	$ 1,173.1	$ 145.3	$ 95.2	$ 48.3	$ —	$ —	$ 2,693.1
Access and capacity fees	124.0	98.0	31.2	18.7	8.8	—	—	280.7
Market data fees	84.3	134.6	25.6	6.6	1.0	—	—	252.1
Regulatory fees	46.6	161.6	—	0.1	—	—	—	208.3
Other revenue	18.9	3.2	38.2	—	—	—	0.3	60.6
	$ 1,505.0	$ 1,570.5	$ 240.3	$ 120.6	$ 58.1	$ —	$ 0.3	$ 3,494.8
Timing of revenue recognition								
Services transferred at a point in time	$ 1,296.7	$ 1,337.9	$ 183.5	$ 95.3	$ 48.3	$ —	$ 0.3	$ 2,962.0
Services transferred over time	208.3	232.6	56.8	25.3	9.8	—	—	532.8
	$ 1,505.0	$ 1,570.5	$ 240.3	$ 120.6	$ 58.1	$ —	$ 0.3	$ 3,494.8

Contract liabilities as of December 31, 2023 primarily represent prepayments of transaction fees and certain access and capacity and market data fees to the Exchanges. The revenue recognized from contract liabilities and the remaining balance is shown below (in millions):

	Balance at December 31, 2022	Cash Additions	Revenue Recognized	Balance at December 31, 2023
Liquidity provider sliding scale (1)	$ —	$ 7.2	$ (7.2)	$ —
Other, net	11.7	18.7	(24.3)	6.1
Total deferred revenue	$ 11.7	$ 25.9	$ (31.5)	$ 6.1

(1) Liquidity providers are eligible to participate in the sliding scale program, which involves prepayment of transaction fees, and to receive reduced fees based on the achievement of certain volume thresholds within a calendar month. These transaction fees are amortized and recorded ratably as the transactions occur over the period.

5. ACQUISITIONS

On May 2, 2022, the Company purchased ErisX, which was subsequently rebranded to Cboe Digital. Cboe Digital operates a U.S. based digital asset spot market, a regulated futures exchange and a regulated clearinghouse. Ownership of Cboe Digital allows the Company to enter the digital asset spot and derivatives marketplaces through a digital-first platform developed with industry partners to focus on robust regulatory compliance, data and transparency. Eris Innovations Holdings, LLC (formerly Eris Exchange Holdings, LLC) was not a part of this transaction and the Company

retains its minority equity ownership interest in Eris Innovations Holdings, LLC. Of the acquisition's purchase price, $460.9 million was allocated to goodwill, $95.0 million was allocated to intangible assets, and $8.4 million was allocated to working capital. Prior to signing the acquisition agreement, the Company held a minority investment in ErisX. As a result of the acquisition of the remaining portion of ErisX, the Company recognized a $7.5 million gain, reflecting the change in fair value of the minority investment in ErisX as a result of the acquisition, which is included in other income (expense), net in the consolidated statement of income for the year ended December 31, 2022. See below for further discussion of intangible assets acquired. Additionally, the Company performed impairment testing during the year ended December 31, 2022, as there were market events that indicated it was more likely than not that these assets were impaired, resulting in the recognition of impairment charges to goodwill. See Note 10 ("Goodwill, Intangible Assets, Net, and Digital Assets Held") for more information on the impairments.

On June 1, 2022, the Company purchased Aequitas Innovations Inc. and Neo Exchange Inc. which at the time were recognized Canadian securities exchanges and were subsequently rebranded to Cboe Canada. Cboe Canada is a fintech organization that is comprised of a fully registered Canadian securities exchange with a diverse product and services set ranging from corporate listings to cash equities trading and a non-listed securities distribution platform. With ownership of Cboe Canada, the Company expects to further grow Canada as a hub for global equities trading. As of December 31, 2022, the allocation of purchase price includes adjustments within the measurement period resulting in a decrease to intangible assets, an increase in net working capital and a reduction in contingent consideration. See the table below for more information about the adjustments made to the Cboe Canada purchase price allocation. See below for further discussion of intangible assets acquired and Note 15 ("Fair Value Measurement") for the impact of the allocation adjustments on the Company's financial liabilities.

The following table presents the details of the adjustments made to the initial purchase price allocation for the Cboe Canada acquisition during the year ended December 31, 2023 (in millions):

	Initial purchase price allocation	Total adjustments	Adjusted purchase price allocation
Goodwill	$ 132.4	$ 0.2	$ 132.6
Intangible assets	130.1	(61.0)	69.1
Net working capital	(6.9)	16.6	9.7
Contingent consideration	(54.3)	44.2	(10.1)

The following table presents the details of intangible assets as of the acquisition date, inclusive of purchase price adjustments outlined above (in millions, except as stated). All acquired intangible assets with finite lives are amortized using the straight-line method.

	Cboe Digital	Useful Life (Years)	Cboe Canada	Useful Life (Years)
Trading registrations and licenses	$ 25.0	Indefinite	$ 15.1	Indefinite
Customer relationships	—		37.4	15
Technology	70.0	10	16.2	7
Trademarks and tradenames	—		0.4	5
Total identifiable intangible assets	$ 95.0		$ 69.1	

Acquisition-related costs relate to acquisitions and other strategic opportunities. The Company expensed $7.4 million of acquisition-related costs during the year ended December 31, 2023, all of which related to professional fees and other expenses. These acquisition-related expenses are included in acquisition-related costs in the consolidated statements of income.

The Company expensed $19.9 million of acquisition-related costs during the year ended December 31, 2022, all of which related to professional fees and other expenses. These acquisition-related expenses are included in acquisition-related costs in the consolidated statements of income.

The Company expensed $15.6 million of acquisition-related costs during the year ended December 31, 2021 which primarily included $15.0 million of professional fees, and $0.6 million of impairment charges related to facilities. These acquisition-related expenses are included in acquisition-related costs in the consolidated statements of income.

6. INVESTMENTS

As of December 31, 2023 and 2022, the Company's investments were comprised of the following (in millions):

	December 31, 2023	December 31, 2022
Equity method investments:		
Investment in 7Ridge Investments 3 LP	$ 292.0	$ 215.4
Total equity method investments	292.0	215.4
Other equity investments:		
Investment in Eris Innovations Holdings, LLC	20.0	20.0
Investment in Globacap Technology Limited	16.0	—
Investment in CSD Br	5.9	5.9
Investment in Coin Metrics Inc.	5.0	5.0
Investment in Cboe Vest Financial Group, Inc.	2.9	2.9
Investment in Effective Investing Limited	—	1.8
Investment in OCC	0.3	0.3
Other equity investments	3.2	1.9
Total other equity investments	53.3	37.8
Total investments	$ 345.3	$ 253.2

Equity Method Investments

The Company’s investment in the 7Ridge Fund represents a nonconsolidated variable interest entity (“VIE”). The Company has determined that consolidation of the VIE is not required as the Company is not the primary beneficiary of the 7Ridge Fund, as it does not have controlling financial interest and lacks the ability to unilaterally remove the general partner, 7Ridge Investments 3 GP Limited, direct material strategic decisions, or dissolve the entity (i.e. the Company does not have unilateral substantive “kick-out” or “liquidation” rights).

The Company’s interest in the 7Ridge Fund is equal to the carrying value of the investment as of December 31, 2023, or $292.0 million, which includes periodic capital contributions to the 7Ridge Fund, as well as the Company’s share of 7Ridge Fund’s profit or loss, including gains or losses arising from the fair value measurement of the investment held by the 7Ridge Fund, booked against the investment account. The carrying value of the investment is included in investments within the consolidated balance sheets. The Company’s maximum loss exposure, in the unlikely event that all of the VIE’s assets become worthless, is limited to the carrying value of Company’s investment.

Other Equity Investments

In the second quarter of 2022, the Company invested $5.0 million in a funding raise by Coin Metrics, Inc., a digital asset intelligence and crypto data startup, $5.9 million in a funding raise by CSD Br, a Brazilian bank and financial intermediary, and completed the purchase of ErisX, which was subsequently rebranded to Cboe Digital. Eris Innovations Holdings, LLC was not a part of this transaction and the Company retains its minority equity ownership interest in Eris Innovations Holdings, LLC. See Note 5 (“Acquisitions”) for more information. In the third quarter of 2022, the Company invested $1.8 million in a funding raise by Effective Investing Limited, an emerging global sustainability data provider measuring the social and environmental impact of companies and investment portfolios. In the fourth quarter of 2022 the Company invested an additional $0.1 million in a funding raise by StratiFi Technologies, Inc, a risk management platform that provides a one-stop-shop solution for portfolio risk analysis. The Company previously held a minority stake in StratiFi and the funding raise allowed the Company to maintain its current investment percentage.

In the second quarter of 2023, the Company invested $16.0 million in Globacap Technology Limited, a white label service provider to capital market participants, which focuses on three core areas: private placement, securities administration, and secondary liquidity. In the fourth quarter of 2023, the Company invested $1.3 million in Osaka Digital Exchange, an equity proprietary trading system in the Japanese equity markets focused on launching the first secondary trading market for security tokens in Japan.

Additionally, in the fourth quarter of 2023, Effective Investing Limited, a minority investment of the Company included within other equity investments, announced plans to wind down the company. The Company wrote off the investment as of December 31, 2023. The loss related to the write-off was included within other income (expense), net in the consolidated statements of income.

The carrying value of other equity investments is included in investments in the consolidated balance sheets. The Company accounts for these investments using the measurement alternative given the absence of readily determinable fair values for the respective investments and due to the Company's inability to exercise significant influence over the investments based upon the respective ownership interests held.

7. PROPERTY AND EQUIPMENT, NET

Property and equipment, net consisted of the following as of December 31, 2023 and 2022 (in millions):

	December 31, 2023	December 31, 2022
Construction in progress	$ 1.5	$ 7.7
Building	—	68.8
Furniture and equipment	322.9	291.3
Total property and equipment	324.4	367.8
Less accumulated depreciation	(215.2)	(259.6)
Property and equipment, net	$ 109.2	$ 108.2

Depreciation expense using the straight-line method was $33.0 million, $35.3 million and $33.5 million for the years ended December 31, 2023, 2022 and 2021, respectively.

The Company's former headquarters location was originally classified as held for sale on May 1, 2019, but was returned to held and used on May 1, 2021 due to the time elapsed since active marketing for the sale of the building commenced. The Company continued discussions with potential buyers. Effective July 27, 2023, the Company entered into an agreement to sell its former headquarters building, subject to customary closing conditions. The Company classified the associated land, building, and certain furniture and equipment of the former headquarters location as held for sale, performed an impairment assessment, and ceased depreciation effective August 1, 2023. Negotiations are ongoing and the Company expects to complete the sale in the first half of 2024. In connection with the sale, the Company anticipates providing seller financing to the purchaser in the form of a promissory note for a portion of the purchase price of the former headquarters. As of December 31, 2023, the total value of the property held for sale on the consolidated balance sheet was $8.7 million.

8. CREDIT LOSSES

Current expected credit losses are estimated for accounts receivable and certain notes receivable.

Accounts receivable represent amounts due from the Company's member firms. The allowance for accounts receivable credit losses is calculated using an aging schedule.

The allowance for notes receivable credit losses is associated with notes receivable included within other assets, net on the consolidated balance sheets and relates to promissory notes to fund the implementation and operation of the consolidated audit trail ("CAT"), which notes are to be repaid by Consolidated Audit Trail, LLC ("CATLLC"). CAT involves the creation of an audit trail that is required by SEA Rule 613, and it strives to enhance regulators' ability to monitor trading activity in the U.S. markets through a phased implementation. CATLLC is a national market system plan that was created by self-regulatory organizations that include the Company's six Exchanges, the other U.S. national securities exchanges and FINRA (who collectively are referred to as the "Plan Participants") to implement and operate the CAT. The funding of the CAT's implementation and operations is ultimately expected to be provided by Plan Participants and by broker-dealers (who are referred to as "Industry Members"). However, the funding to date has solely been provided to CATLLC by the Plan Participants in exchange for promissory notes.

On September 6, 2023, the SEC issued an order approving an amendment to the CAT national market system plan to implement a revised funding model ("CAT Funding Model") for Consolidated Audit Trail, LLC ("CATLLC") to fund the CAT. The approved CAT Funding Model contemplates two categories of CAT fees calculated based on the "executed equivalent shares" of transactions in eligible securities: (i) CAT fees assessed by CATLLC to Industry Members who are CAT Executing Brokers (the brokers responsible for executing each side of the transaction) to recover a portion of

historical CAT costs previously paid to CATLLC by the Plan Participants; and (ii) CAT fees assessed by CATLLC to CAT Executing Brokers and Plan Participants to fund prospective CAT costs. To date, the funding of the CAT has solely been provided by the SROs/Plan Participants has been done in exchange for promissory notes. The funds generated from the assessment of CAT fees to recover a portion of historical CAT costs will be used by CATLLC to repay a portion of these promissory notes to the Plan Participants.

The Plan Participants submitted fee filings during the first week of January 2024 with the SEC to implement the applicable transaction-based fee rates that are to be assessed by CATLLC to CAT Executing Brokers to recover a portion of historical CAT costs incurred prior to 2022. Additional CAT fees related to other historical CAT costs and to prospective CAT costs are planned to be introduced at a later time through separate fee filings submitted by the Plan Participants. Once the CAT fee related to ongoing prospective CAT costs becomes effective through fee filings submitted by the Plan Participants, it is anticipated there will no longer be any need for Plan Participants to fund CATLLC in exchange for promissory notes. On January 17, 2024, the SEC issued orders suspending each Plan Participant's fee filing and instituting proceedings to determine whether to approve or disapprove the fees, which orders were published in the Federal Register on February 13, 2024. Comments are due March 5, 2024, and rebuttal comments are due March 19, 2024.

Until the fees for historical CAT costs that are associated with the promissory notes are collected from CAT Executing Brokers and remitted by CATLLC to the Plan Participants, and until CAT fees assessed by CATLLC to CAT Executing Brokers and Plan Participants to fund prospective CAT costs are implemented, the Plan Participants may continue to incur additional significant costs, including additional promissory notes to fund CAT. Additionally, portions of promissory notes related to the funding of the implementation and operation of the CAT may not be collectible, including if the SEC finds that the SROs/Plan Participants did not satisfy any of the financial accountability milestones. The allowance for notes receivable credit losses associated with the CAT is calculated using a methodology that is primarily based on the structure of the notes and various potential outcomes under the CAT Funding Model. See Note 23 ("Commitments, Contingencies, and Guarantees") for more information.

The following represents the changes in allowance for credit losses during the years ended December 31, 2023 and 2022 (in millions):

	Allowance for notes receivable credit losses	Allowance for accounts receivable credit losses	Total allowance for credit losses
Balance at December 31, 2021	$ 30.1	$ 1.0	$ 31.1
Current period provision for expected credit losses	—	1.6	1.6
Write-offs charged against the allowance	—	(0.1)	(0.1)
Recoveries collected	—	(0.3)	(0.3)
Balance at December 31, 2022	$ 30.1	$ 2.2	$ 32.3
Current period provision for expected credit losses	—	4.0	4.0
Write-offs charged against the allowance	—	(1.6)	(1.6)
Recoveries collected	—	(0.1)	(0.1)
Balance at December 31, 2023	$ 30.1	$ 4.5	$ 34.6

9. OTHER ASSETS, NET

Other assets, net consisted of the following as of December 31, 2023 and 2022 (in millions):

	December 31, 2023	December 31, 2022
Software development work in progress	$ 3.5	$ 8.9
Data processing software	128.1	124.2
Less accumulated depreciation and amortization	(88.3)	(78.8)
Data processing software, net	43.3	54.3
Other assets (1)	163.0	127.6
Other assets, net	$ 206.3	$ 181.9

(1) At December 31, 2023 and 2022, the majority of the balance included notes receivable, net of allowance, a contra-revenue asset, and long-term prepaid assets. As of December 31, 2023 and 2022, the notes receivable, net balance was $136.9 million and $102.9 million, respectively. See Note 8 (“Credit Losses”) for more information on the notes receivable included within other assets, net on the consolidated balance sheets. See Note 19 (“Stock-Based Compensation”) for more information on the contra-revenue asset related to the issuance of Cboe Digital Restricted Common Units and Warrant Units included within other assets, net on the consolidated balance sheets. As of December 31, 2023 and 2022, the contra-revenue asset balance was $18.1 million and $19.9 million, respectively.

Amortization expense related to data processing software was $8.4 million, $7.2 million, and $7.3 million for the years ended December 31, 2023, 2022, and 2021, respectively.

10. GOODWILL, INTANGIBLE ASSETS, NET, AND DIGITAL ASSETS HELD

The following table presents the details of goodwill by segment (in millions):

	Options	North American Equities	Europe and Asia Pacific	Global FX	Digital	Total
Balance as of December 31, 2021	$ 305.8	$ 1,876.9	$ 575.5	$ 267.2	$ —	$ 3,025.4
Adjustments	—	0.2	3.4	—	0.8	4.4
Additions	—	132.4	—	—	460.1	592.5
Impairment	—	—	—	—	(460.9)	(460.9)
Changes in foreign currency exchange rates	—	(8.7)	(29.9)	—	—	(38.6)
Balance as of December 31, 2022	$ 305.8	$ 2,000.8	$ 549.0	$ 267.2	$ —	$ 3,122.8
Changes in foreign currency exchange rates	—	3.6	14.2	—	—	17.8
Balance as of December 31, 2023	$ 305.8	$ 2,004.4	$ 563.2	$ 267.2	$ —	$ 3,140.6

Goodwill has been allocated to specific reporting units for purposes of impairment testing - Options, North American Equities, Europe and Asia Pacific, and Global FX. No goodwill has been allocated to Futures. See below for further details on Cboe Digital’s goodwill. Goodwill impairment testing is performed annually in the fiscal fourth quarter or more frequently if conditions exist that indicate that the asset may be impaired.

Following the acquisition of Cboe Digital, which closed on May 2, 2022, in the quarter ended June 30, 2022, negative events and trends in the broader digital asset environment emerged, such as deleveraging and bankruptcies, and certain negative trends in the broader digital asset environment that started in late 2021 intensified, such as the decline in digital asset prices, overall market activity, and market capitalization. Additionally, following the acquisition of Cboe Digital, the efforts to syndicate minority ownership interests in Cboe Digital to potential investors during the quarter ended June 30, 2022 became more challenging, and the outlook for the Digital segment’s future market growth was negatively impacted. The Company considered these developments, in particular the syndication efforts during the quarter ended June 30, 2022, to be potential indications of impairment and performed an interim impairment test for the goodwill recognized in the Digital reporting unit during the quarter ended June 30, 2022. The Company concluded that the carrying value of the reporting unit exceeded its estimated fair value, which considered both market and income approaches, and recorded a goodwill impairment charge of $460.1 million in the consolidated statements of income during the quarter ended June 30, 2022, and also recognized a deferred tax asset of $116.2 million. This deferred tax asset, resulting from the excess of tax-deductible goodwill over book goodwill, relates to future tax deductions the Company expects to realize to reduce potential tax payments on future income. As a result, the carrying value of Cboe Digital decreased by $343.9 million, to $220.0 million

as of June 30, 2022. The Company also performed an impairment assessment over the intangible assets recognized as a result of the Cboe Digital acquisition during the quarter ended June 30, 2022, and based on the results of the assessments, determined there was no impairment required as the fair value approximated the carrying value. No other long lived assets were recognized as a result of the acquisition.

As a result of the finalization of the net working capital calculation associated with the acquisition of Cboe Digital during the quarter ended September 30, 2022, the Company recorded additional goodwill of $0.8 million. Subsequently, the Company concluded that the indicators of impairment outlined in the previous paragraph continued to be relevant and recorded an additional goodwill impairment charge of $0.8 million in the consolidated statements of income for the three months ended September 30, 2022. The Company determined there were no further impairment indicators for the year ended December 31, 2023.

The following table presents the details of the intangible assets by segment (in millions):

	Options	North American Equities	Europe and Asia Pacific	Global FX	Digital	Total
Balance as of December 31, 2021	$ 159.1	$ 991.4	$ 426.4	$ 91.7	$ —	$ 1,668.6
Adjustments	—	(61.0)	—	—	—	(61.0)
Additions	—	130.1	—	—	95.9	226.0
Amortization	(13.0)	(62.1)	(25.6)	(18.9)	(4.7)	(124.3)
Changes in foreign currency exchange rates	—	(5.6)	(40.9)	—	—	(46.5)
Balance as of December 31, 2022	$ 146.1	$ 992.8	$ 359.9	$ 72.8	$ 91.2	$ 1,662.8
Dispositions	—	—	—	—	(0.8)	(0.8)
Amortization	(12.0)	(59.5)	(21.5)	(16.6)	(7.0)	(116.6)
Changes in foreign currency exchange rates	—	2.0	14.1	—	—	16.1
Balance as of December 31, 2023	$ 134.1	$ 935.3	$ 352.5	$ 56.2	$ 83.4	$ 1,561.5

For the years ended December 31, 2023, 2022 and 2021, amortization expense was $116.6 million, $124.3 million and $126.6 million, respectively. The estimated future amortization expense is $93.9 million for 2024, $77.3 million for 2025, $70.0 million for 2026, $63.2 million for 2027, and $57.6 million for 2028.

The following tables present the categories of intangible assets by segment as of December 31, 2023 and 2022 (in millions, except as stated):

	December 31, 2023					Weighted Average Amortization Period (in years)
	Options	North American Equities	Europe and Asia Pacific	Global FX	Digital	
Trading registrations and licenses	$ 95.5	$ 606.0	$ 209.6	$ —	$ 25.0	Indefinite
Customer relationships	46.6	413.9	216.1	140.0	—	15
Market data customer relationships	53.6	322.0	61.6	64.4	—	8
Technology	28.1	56.9	34.2	22.5	70.0	7
Trademarks and tradenames	12.9	8.2	2.4	1.2	—	6
Digital assets held	—	—	—	—	0.1	Indefinite
Accumulated amortization	(102.6)	(471.7)	(171.4)	(171.9)	(11.7)	
	$ 134.1	$ 935.3	$ 352.5	$ 56.2	$ 83.4	

	December 31, 2022					Weighted Average Amortization Period (in years)
	Options	North American Equities	Europe and Asia Pacific	Global FX	Digital	
Trading registrations and licenses	$ 95.5	$ 605.3	$ 199.5	$ —	$ 25.0	Indefinite
Customer relationships	46.6	412.8	208.9	140.0	—	16
Market data customer relationships	53.6	322.0	58.4	64.4	—	9
Technology	28.1	56.4	32.8	22.5	70.0	8
Trademarks and tradenames	12.9	8.2	2.3	1.2	—	7
Digital assets held	—	—	—	—	0.9	Indefinite
Accumulated amortization	(90.6)	(411.9)	(142.0)	(155.3)	(4.7)	
	$ 146.1	$ 992.8	$ 359.9	$ 72.8	$ 91.2	

Cboe Digital holds customer digital assets in customer accounts, referred to as wallets, either through a licensed trust company, third-party custodian or in separate and distinct wallets managed by Cboe Digital. Cboe Digital, together with its third-party custodian, secures customers' digital assets and protects them from loss or theft. Customer digital assets are held in omnibus wallets for the benefit of customers of Cboe Digital and Cboe Digital maintains the records of the amount and type of digital asset owned by each of its customers in omnibus wallets. The amount of customer digital assets held by Cboe Digital is reflected within digital assets – safeguarded assets and digital assets – safeguarded liabilities in the consolidated balance sheets. In addition, Cboe Digital maintains an immaterial amount of its own digital assets to facilitate customer trading.

11. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

Accounts payable and accrued liabilities consisted of the following as of December 31, 2023 and 2022 (in millions):

	December 31, 2023	December 31, 2022
Compensation and benefit-related liabilities	$ 77.1	$ 90.2
Royalties	44.9	33.3
Accrued liabilities	70.3	87.7
Current operating lease liabilities	20.8	—
Rebates payable	75.1	75.2
Marketing fee payable	17.5	15.9
Current unrecognized tax benefits	82.3	90.4
Accounts payable	24.7	27.5
Total accounts payable and accrued liabilities	$ 412.7	$ 420.2

12. DEBT

The Company's debt consisted of the following as of December 31, 2023 and 2022 (in millions):

	December 31, 2023	December 31, 2022
Term Loan Agreement due December 2023, floating rate	$ —	$ 304.7
$650 million fixed rate Senior Notes due January 2027, stated rate of 3.650%	647.9	647.3
$500 million fixed rate Senior Notes due December 2030, stated rate of 1.625%	494.8	494.0
$300 million fixed rate Senior Notes due March 2032, stated rate of 3.000%	296.5	296.0
Revolving Credit Agreement	—	—
Cboe Clear Europe Credit Facility	—	—
Total debt	$ 1,439.2	$ 1,742.0

As described below in further detail the Company repaid in full all outstanding indebtedness under the Term Loan Agreement totaling $305.0 million during the year ended December 31, 2023.

Term Loan Agreement

On March 22, 2018, the Company entered into a Term Loan Credit Agreement (the "Term Loan Agreement"). The Term Loan Agreement matured on December 15, 2023 and initially provided for a senior unsecured term loan facility in an aggregate principal amount of $300 million, which amount was later increased to allow for an additional draw of $110 million on June 25, 2021 in order to fund a portion of the acquisition of Cboe Asia Pacific (formerly Chi-X Asia Pacific Holdings Limited) and was increased on March 29, 2022 to allow for additional delayed draws of $190 million on April 29, 2022 to fund a portion of the Cboe Digital (formerly ErisX) acquisition, and $175 million on May 31, 2022 to fund a portion of the Cboe Canada (formerly NEO) acquisition. On each of August 25, 2022 and September 22, 2022, the Company repaid $50 million, respectively, of outstanding indebtedness under the Term Loan Agreement, and on each of November 1, 2022, December 1, 2022, and December 27, 2022, the Company repaid $40 million, $50 million, and $30 million, respectively, of outstanding indebtedness under the Term Loan Agreement totaling $220 million repaid during the year ended December 31, 2022. On May 12, 2023, June 21, 2023, September 28, 2023, October 20, 2023, and October 27, 2023, the Company repaid $65 million, $75 million, $90 million, $60 million and $15 million respectively, of outstanding indebtedness under the Term Loan Agreement, totaling $305 million repaid during the year ended December 31, 2023. As of December 31, 2023 the Term Loan Agreement matured and was repaid in full.

Loans under the Term Loan Agreement bore interest, at the Company's option, at either (i) the Secured Overnight Financing Rate ("SOFR") as administered by the Federal Reserve Bank of New York (or a successor administrator) plus a margin of 0.65 percent per annum or (ii) a daily floating rate based on the agent's prime rate (subject to certain minimums based upon the federal funds effective rate or SOFR) plus a margin of 0.50 percent per annum.

The Term Loan Agreement contained customary representations, warranties, and affirmative and negative covenants for facilities of its type, including financial covenants, events of default, including cross-defaults from the Company's other indebtedness, and indemnification provisions in favor of the lenders thereunder. The negative covenants included restrictions regarding the incurrence of liens, the incurrence of indebtedness by the Company's subsidiaries and fundamental changes, subject to certain exceptions in each case. The financial covenants required the Company to meet a quarterly financial test with respect to a minimum consolidated interest coverage ratio of not less than 4.00 to 1.00 and a maximum consolidated leverage ratio of not greater than 3.50 to 1.00; provided that the consolidated leverage ratio may, subject to certain triggering events set forth in the Term Loan Agreement, be increased to 4.25 to 1.00 or 4.00 to 1.00 (from 3.50 to 1.00) for four consecutive fiscal quarters following certain acquisitions, provided this increase may be made only once and at the time it exercises such financial covenant step-up, the Company shall be exercising a like step-up under its revolving credit facility.

Senior Notes

On January 12, 2017, the Company entered into an indenture (the "Indenture"), by and between the Company and Computershare Trust Company, N.A. (as successor to Wells Fargo Bank, National Association), as trustee, in connection with the issuance of $650 million aggregate principal amount of the Company's 3.650% Senior Notes due 2027 ("3.650% Senior Notes"). The form and terms of the 3.650% Senior Notes were established pursuant to an Officer's Certificate, dated as of January 12, 2017, supplementing the Indenture. The Company used a portion of the net proceeds from the

3.650% Senior Notes to fund, in part, the Merger, including the payment of related fees and expenses and the repayment of Bats' existing indebtedness, and the remainder for general corporate purposes. The 3.650% Senior Notes mature on January 12, 2027 and bear interest at the rate of 3.650% per annum, payable semi-annually in arrears on January 12 and July 12 of each year, commencing July 12, 2017.

On December 15, 2020, the Company issued $500 million aggregate principal amount of 1.625% Senior Notes due 2030 ("1.625% Senior Notes"). The form and terms of the 1.625% Senior Notes were established pursuant to an Officer's Certificate, dated as of December 15, 2020, supplementing the Indenture. The Company used the net proceeds from the 1.625% Senior Notes to finance the acquisition of BIDS Trading, repay a portion of amounts outstanding under the term loan facility and all outstanding indebtedness under the revolving credit facility and the remainder for general corporate purposes, which may include the financing of future acquisitions or the repayment of other outstanding indebtedness. The 1.625% Senior Notes mature on December 15, 2030 and bear interest at the rate of 1.625% per annum, payable semi-annually in arrears on June 15 and December 15 of each year, commencing June 15, 2021.

On March 16, 2022, the Company issued $300 million aggregate principal amount of 3.000% Senior Notes due 2032 ("3.000% Senior Notes" and, together with the 1.625% Senior Notes and the 3.650% Senior Notes, the "Senior Notes"). The form and terms of the 3.000% Senior Notes were established pursuant to an Officer's Certificate, dated as of March 16, 2022, supplementing the Indenture. The Company used the net proceeds from the 3.000% Senior Notes, together with cash on hand, and the proceeds of additional borrowings, to partially fund its acquisition of Cboe Digital. The 3.000% Senior Notes mature on March 16, 2032 and bear interest at the rate of 3.000% per annum, payable semi-annually in arrears on March 16 and September 16 of each year, commencing September 16, 2022.

The Senior Notes are unsecured obligations of the Company and rank equally with all of the Company's other existing and future unsecured, senior indebtedness, but are effectively junior to the Company's secured indebtedness, to the extent of the value of the assets securing such indebtedness, and will be structurally subordinated to the secured and unsecured indebtedness of the Company's subsidiaries.

The Company has the option to redeem some or all of the Senior Notes, at any time in whole or from time to time in part, at the redemption prices set forth in the applicable Officer's Certificate. The Company may also be required to offer to repurchase the Senior Notes upon the occurrence of a Change of Control Triggering Event (as such term is defined in the applicable Officer's Certificate) at a repurchase price equal to 101 percent of the aggregate principal amount of Senior Notes to be repurchased.

Indenture

Under the Indenture, the Company may issue debt securities, which includes the Senior Notes, at any time and from time to time, in one or more series without limitation on the aggregate principal amount. The Indenture governing the Senior Notes contains customary restrictions, including a limitation that restricts the Company's ability and the ability of certain of the Company's subsidiaries to create or incur secured debt. Such Indenture also limits certain sale and leaseback transactions and contains customary events of default. At December 31, 2023, the Company was in compliance with these covenants.

Revolving Credit Agreement

On February 25, 2022, the Company entered into a Second Amended and Restated Credit Agreement (the "Revolving Credit Agreement"), which amended and restated the prior revolving credit agreement.

The Revolving Credit Agreement provides for a senior unsecured $400 million three-year revolving credit facility (the "Revolving Credit Facility") that includes a $25 million swing line sub-facility. The Company may also, subject to the agreement of the applicable lenders, increase the commitments under the Revolving Credit Facility by up to $200 million, for a total of $600 million. Subject to specified conditions, the Company may designate one or more of its subsidiaries as additional borrowers under the Revolving Credit Agreement provided that the Company guarantees all borrowings and other obligations of any such subsidiaries under the Revolving Credit Agreement. As of December 31, 2023, no subsidiaries were designated as additional borrowers.

Funds borrowed under the Revolving Credit Agreement may be used to fund working capital and for other general corporate purposes, including the making of any acquisitions the Company may pursue in the ordinary course of its business. As of December 31, 2023, no borrowings were outstanding under the Revolving Credit Agreement. Accordingly,

at December 31, 2023, $400 million of borrowing capacity was available for the purposes permitted by the Revolving Credit Agreement.

Loans under the Revolving Credit Agreement will bear interest, at the Company's option, at either (i) the Relevant Rate (defined herein) plus a margin (based on the Company's public debt ratings) ranging from 0.75 percent per annum to 1.25 percent per annum or (ii) a daily fluctuating rate based on the administrative agent's prime rate (subject to certain minimums based upon the federal funds effective rate or Term SOFR), which is subject to a 1 percent floor, plus a margin (based on the Company's public debt ratings) ranging from zero percent per annum to 0.25 percent per annum. "Relevant Rate" means with respect to any committed borrowing or swingline borrowing denominated in (a) Dollars, Term SOFR plus a spread adjustment of 0.10 percent per annum, (b) Sterling, SONIA plus a spread adjustment of 0.0326 percent per annum and (c) Euros, EURIBOR, as applicable, provided that each Relevant Rate is subject to a 0 percent floor.

Subject to certain conditions stated in the Revolving Credit Agreement, the Company and any subsidiaries designated as additional borrowers may borrow, prepay and reborrow amounts under the Revolving Credit Facility at any time during the term of the Revolving Credit Agreement. The Revolving Credit Agreement will terminate and all amounts owing thereunder will be due and payable on February 25, 2027, unless the commitments are terminated earlier, either at the request of the Company or, if an event of default occurs, by the lenders (or automatically in the case of certain bankruptcy-related events). The Revolving Credit Agreement contains customary representations, warranties, and affirmative and negative covenants for facilities of its type, including financial covenants, events of default and indemnification provisions in favor of the lenders. The negative covenants include restrictions regarding the incurrence of liens, the incurrence of indebtedness by the Company's subsidiaries and fundamental changes, subject to certain exceptions in each case. The financial covenants require the Company to meet a quarterly financial test with respect to a minimum consolidated interest coverage ratio of not less than 4.00 to 1.00 and a maximum consolidated leverage ratio of not greater than 3.50 to 1.00; provided that the consolidated leverage ratio may, subject to certain triggering events set forth in the Revolving Credit Agreement, be increased to 4.25 to 1.00 on one occasion and 4.00 to 1.00 on another occasion, in each case, for four consecutive fiscal quarters; provided that, prior to the exercise of the second such financial covenant step-up, the maximum consolidated leverage ratio shall have returned to a level of 3.50 to 1.00 for at least two consecutive fiscal quarters. At December 31, 2023, the Company was in compliance with these covenants and did not exercise financial covenant step-up.

Cboe Clear Europe Credit Facility

On July 1, 2020, EuroCCP (subsequently rebranded to Cboe Clear Europe), as borrower, the Company, as guarantor, entered into a Facility Agreement (as subsequently amended and restated, the "Facility" or "Cboe Clear Europe Credit Facility") with Bank of America Merrill Lynch International Designated Activity Company, as co-ordinator, facility agent, lender, sole lead arranger and sole bookrunner, Citibank N.A., as security agent, and certain other lenders named therein. The Facility was amended and restated, on July 1, 2021, June 30, 2022, and June 29, 2023, as described below.

The Facility provides for a €1.25 billion committed syndicated multicurrency revolving and swingline credit facility (i) that is available to be drawn by Cboe Clear Europe towards (a) financing unsettled amounts in connection with the settlement of transactions in securities and other items processed through Cboe Clear Europe's clearing system and (b) financing any other liability or liquidity requirement that Cboe Clear Europe incurred in the operation of its clearing system and (ii) under which the scheduled interest and fees on borrowings (but not the principal amount of any borrowings) are guaranteed by the Company. Subject to certain conditions, Cboe Clear Europe is able to increase the commitments under the Facility by up to €500 million, to a total of €1.75 billion.

Borrowings under the Facility are secured by cash, eligible government bonds and eligible equity assets deposited by Cboe Clear Europe into secured accounts. In addition, Cboe Clear Europe must ensure that at all times the aggregate of (a) each clearing participant's contribution to the relevant clearing fund, (b) each clearing participant's margin amount and (c) any cash equities purchased using the proceeds of the assets described in (a) and (b), less the amount of any such clearing participant contribution, margin amount or cash equities which have been transferred to (or secured in favor of) any provider of settlement or custody services to Cboe Clear Europe, is not less than €500 million.

Borrowings under the Facility's revolving loans and non-U.S. dollar swingline loans bear interest at the relevant floating base rate plus a margin of 1.60 percent per annum and (subject to certain conditions) borrowings under the Facility's U.S. dollar swingline loans bear interest as the higher of the relevant agent's prime commercial lending rate for U.S. dollars and 0.5 percent per annum over the federal funds effective rate. A commitment fee of 0.275 percent per annum is payable on the unused and uncalled amount of the Facility during the availability period.

Subject to certain conditions stated in the Facility, Cboe Clear Europe may borrow, prepay and reborrow amounts under the Facility at any time during the term of the Facility. The Facility will terminate and all amounts owing thereunder will be due and payable on June 28, 2024, unless the commitments are terminated earlier, either at the request of Cboe Clear Europe or, if an event of default occurs, by the Lenders (or automatically in the case of certain bankruptcy-related events).

The Facility contains customary representations, warranties and covenants for facilities of its type, including events of default of the Company and Cboe Clear Europe and indemnification provisions in favor of the Lenders. In particular, the covenants include restrictions regarding the incurrence of liens by Cboe Clear Europe and its subsidiaries, and an event of default will be triggered if Cboe Clear Europe ceases its business, subject to certain exceptions in each case. There is also a requirement for the net worth of (a) the Company to be no less than $1.75 billion on the date of each drawdown and delivery of compliance certificates and (b) Cboe Clear Europe to be the higher of €30 million and any such amount required for Cboe Clear Europe to meet minimum liquidity regulations under applicable regulation at all times.

As of December 31, 2023, no borrowings were outstanding under the Facility. Accordingly, at December 31, 2023, €1.25 billion of borrowing capacity was available for the purposes permitted by the Facility. At December 31, 2023, the Company and Cboe Clear Europe were in compliance with applicable covenants.

Small Business Administration's Paycheck Protection Program

On May 1, 2020, prior to Cboe's acquisition of Cboe Digital, Cboe Digital (formerly ErisX) received $1.3 million of proceeds from a loan issued under either the Small Business Administration ("SBA") Paycheck Protection Program ("PPP") under section 7(a)(36) of the Small Business Act or the SBA Paycheck Protection Program Second Draw Loans under Section 7(a)(37) of the SBA. On May 26, 2022, the PPP loan was forgiven and no further balance is due.

Notes Payments and Contractual Interest

The future expected repayments related to the Senior Notes as of December 31, 2023 are as follows (in millions):

2024	$ —
2025	—
2026	—
2027	650.0
Thereafter	800.0
Principal amounts repayable	1,450.0
Debt issuance costs	(5.9)
Unamortized discounts on notes	(4.9)
Total debt outstanding	$ 1,439.2

Interest expense recognized on the Term Loan Agreement, the Senior Notes, and the Revolving Credit Agreement is included in interest expense in the consolidated statements of income. The Company is also obligated to pay commitment fees under the terms of the Revolving Credit Agreement, Term Loan Agreement and Facility, which are also included in interest expense.

Components of interest expense, net recognized in the consolidated statements of income for the years ended December 31, 2023, 2022 and 2021 are as follows (in millions):

	Year Ended December 31, 2023	Year Ended December 31, 2022	Year Ended December 31, 2021
Components of interest expense:			
Contractual interest	$ 59.8	$ 57.6	$ 45.7
Amortization of debt discount and issuance costs	2.6	2.4	2.3
Interest expense	$ 62.4	$ 60.0	$ 48.0
Interest income	(12.0)	(3.6)	(0.6)
Interest expense, net	$ 50.4	$ 56.4	$ 47.4

13. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS), NET

The following represents the changes in accumulated other comprehensive income (loss), net by component (in millions):

	Foreign Currency Translation Adjustment	Unrealized Investment Gain/Loss	Post-Retirement Benefits	Total Accumulated Other Comprehensive Income (Loss), Net
Balance at December 31, 2021	$ 55.4	$ (0.1)	$ 0.3	$ 55.6
Other comprehensive loss	(85.6)	(0.8)	(0.2)	(86.6)
Balance at December 31, 2022	$ (30.2)	$ (0.9)	$ 0.1	$ (31.0)
Other comprehensive income (loss)	24.6	(2.8)	(0.2)	21.6
Balance at December 31, 2023	$ (5.6)	$ (3.7)	$ (0.1)	$ (9.4)

14. CLEARING OPERATIONS

Cboe operates two clearing houses, Cboe Clear Europe and Cboe Clear Digital, each of which acts as a central counterparty that provides clearing and settlement services.

Cboe Clear Europe

Cboe Clear Europe is a European equities central counterparty that provides post-trade services to stock exchanges, MTFs, over-the-counter (“OTC”) equities trades and an equity derivatives exchange. Cboe Clear Europe clears equities from eighteen European markets and the United States, as well as Depositary Receipts, ETFs, and equity-like instruments. In September 2021 Cboe Clear Europe began clearing equity derivatives for ten European markets, initially index futures and options and as of November 2023, single stock options. Through a novation process, Cboe Clear Europe becomes the buyer for every seller and the seller for every buyer, thereby protecting clearing participants from counterparty risk and allowing the settlement of trades in the event of a clearing participant default.

Cboe Clear Europe only assumes the guarantor role if it has an equal and offsetting claim against a clearing participant. For the period ended December 31, 2023, there have been no events of default for which a liability is required to be recognized in accordance with GAAP.

Cboe Clear Europe Clearing Participant Deposits

Cboe Clear Europe generally requires all clearing participants to deposit collateral to help mitigate Cboe Clear Europe’s exposure to credit risk in the event that a clearing participant fails to meet a financial or contractual obligation.

Margin Deposits

Margin deposits, which are predominately in the form of cash and cash equivalents, are deposits made by each clearing participant to Cboe Clear Europe to cover some or all of the credit risk of its failure to fulfill its obligations in the trade. Cboe Clear Europe maintains and manages all cash deposits related to margin deposits. Substantially all risks and rewards of margin deposit ownership, including net interest income, belong to Cboe Clear Europe and are recorded in cash and spot markets on the consolidated statements of income. In the event of a default, Cboe Clear Europe can access the defaulting participant’s margin deposits to cover the defaulting participant’s losses. For more information, see “Default and Liquidity Waterfalls” below.

Clearing Funds

The clearing fund mutualizes the risk of default among all clearing participants. Depending on their membership, clearing participants contribute to the cash-equity and/or derivatives segment of the clearing fund. Although the entire clearing fund is available to cover potential losses in the event that the margin deposits and the clearing fund deposits of a defaulting clearing participant are inadequate to fulfill that clearing participant’s outstanding financial obligations, the clearing fund first uses the product class segment of the Clearing Fund in which the defaulting participants was active (see “Default and Liquidity Waterfalls” below). In the event of a default, Cboe Clear Europe is generally required to liquidate the defaulting clearing participant’s open positions. To the extent that the positions remain open, Cboe Clear Europe is required to assume the defaulting clearing participant’s obligations related to the open positions. Clearing

participants are required to make contributions to the clearing fund that are proportional to their risk exposure in the form of cash or non-cash contributions, which generally consist of highly liquid securities.

Interoperability Fund

For the cash equity business line, Cboe Clear Europe has entered into interoperable arrangements with two other central counterparties ("CCPs"). Under these arrangements, margin is pledged to and from interoperable CCPs. The interoperability fund consists of collateral provided by clearing participants that is pledged by Cboe Clear Europe to the other interoperable CCPs, to cover margin calls Cboe Clear Europe receives from such interoperable CCPs.

Effective August 14, 2023, Cboe Clear Europe enacted changes to its rules, and is able to invest the cash collateral received in the form of interoperability fund deposits from clearing participants in certain investments, typically securities issued by pre-approved sovereign issuers and reverse repurchase agreements with overnight maturities. When investments are made in accordance with Cboe Clear Europe's investment policy, Cboe Clear Europe receives the amount of investment earnings and pays clearing participants those earnings minus a set basis point cost of collateral. As Cboe Clear Europe is able to direct the investment of the cash interoperability fund deposits received from the clearing participants within the program parameters and receives an economic benefit from those investments, these amounts are included in the Margin Deposits, Clearing Funds, and Interoperability fund captions in the consolidated balance sheets and the related interest income and expense is recorded in other revenue and other costs of revenue respectively on the consolidated statements of income.

Cboe Clear Europe Default and Liquidity Waterfalls

The default waterfall is the priority order in which the capital resources are expected to be utilized in the event of a default where the defaulting clearing participant's collateral would not be sufficient to cover the cost to liquidate its portfolio. If a default occurs and the defaulting clearing participant's collateral, including margin deposits and clearing fund deposits, are depleted, then additional capital is utilized in the following order:

- Cboe Clear Europe dedicated own resources: The Cboe Clear Europe default waterfall first utilizes its dedicated own resources in two forms and totaling 35% of Cboe Clear Europe capital requirements; the 'first skin in the game', equal to 25% of Cboe Clear Europe capital requirements before the use of clearing fund contributions described below and the 'second skin in the game', an amount between 10-25% of capital requirements as discussed in Note 18 ("Regulatory Capital").
- Clearing fund: Second, the Cboe Clear Europe default waterfall utilizes traditional CCP risk mutualization, in the event that default losses fully exhaust Cboe Clear Europe's dedicated own resources amount, whereby contributions applicable to a particular product class are applied first to any loss attributable to that product class.
- Pro rata contributions: Third, if the default losses caused cannot be covered by the first two layers, the non-defaulting clearing participants shall on demand make additional payments to Cboe Clear Europe on a pro rata basis in proportion to the amount of their clearing fund contributions to cover any such remaining losses, which is limited to an amount equal to twice their clearing fund contribution as established under Cboe Clear Europe's rules and regulations. In this scenario, contributions applicable to a particular product class are first applied to any losses attributable to that product class.

In addition to the default waterfall, the liquidity waterfall is the priority order in which the liquidity resources are expected to be utilized for Cboe Clear Europe's ordinary course business operations and in situations when additional liquidity resources and liquidity measures may be activated in case of a potential liquidity shortfall. Liquidity, intraday or overnight, is mainly required for securities settlement. In ordinary course business circumstances, liquidity resources include the collateral directly deposited with Cboe Clear Europe, FX swap arrangements, and reverse repurchase agreements, as well as the use of the Facility.

Cboe Clear Digital

Cboe Clear Digital is a digital asset and digital asset derivatives clearinghouse and central counterparty that provides clearing and settlement of digital asset trades. Cboe Clear Digital is registered as a Derivatives Clearing Organization ("DCO") regulated by the U.S. Commodity Futures Trading Commission ("CFTC") and is registered with the U.S. Treasury Financial Crimes Enforcement Network ("FinCEN") as a money services business ("MSB"). Cboe Clear Digital is authorized by license or not subject to licensing, to conduct MSB services in 50 U.S. jurisdictions. Cboe Clear Digital performs a guarantee function whereby Cboe Clear Digital helps to ensure that the obligations of the transactions it clears are fulfilled. Cboe Clear Digital attempts to mitigate this risk by performing internal compliance and due diligence

procedures as well as implementing internal risk controls. Cboe Clear Digital 's due diligence procedures include review of the personal and corporate information, financial position of the member participant, and monitoring of Cboe Clear Digital's risk exposure thresholds. As of December 31, 2023, Cboe Clear Digital does not expect a material loss concerning credit risk on any member participant.

Cboe Clear Digital Clearing Participant Deposits

Customer bank deposits

Cboe Clear Digital holds cash on behalf of its customers for the purposes of supporting clearing transactions. Customer cash may be invested in approved investments and any interest or gain received, or loss incurred on invested funds is recorded in the Consolidated Statement of Income. There was no interest, gains or losses on invested funds for the year ended December 31, 2023. The Company includes customer cash related to the clearing activity on the consolidated balance sheets in margin deposits, clearing funds, and interoperability funds, with a corresponding liability.

Digital assets - safeguarded assets

The Company holds digital assets on behalf of its customers. In accordance with the SEC issued Staff Accounting Bulletin 121 (“SAB 121”), the Company includes customer digital assets on the consolidated balance sheets in digital assets - safeguarded assets, with a corresponding offset in digital assets - safeguarded liabilities.

The details of our margin deposits, clearing funds, and interoperability funds as of December 31, 2023 and December 31, 2022, are as follows (in millions):

	December 31, 2023			
	Margin Deposits	Clearing Funds	Interoperability Funds	Total
Cboe Clear Europe central bank account	$ 361.3	$ 140.1	$ 271.0	$ 772.4
Cboe Clear Europe reverse repurchase and other	2.7	4.1	55.6	62.4
Cboe Clear Digital customer bank deposits	14.0	—	—	14.0
Total cash margin deposits, clearing funds, and interoperability funds	$ 378.0	$ 144.2	$ 326.6	$ 848.8

	December 31, 2023			
	Margin Deposits	Clearing Funds	Interoperability Funds	Total
Cboe Clear Europe non-cash contributions (1)	$ 637.0	$ 65.6	$ 228.0	$ 930.6

	December 31, 2022			
	Margin Deposits	Clearing Funds	Interoperability Funds (2)	Total
Cboe Clear Europe central bank account	$ 426.9	$ 103.4	$ 376.0	$ 906.3
Cboe Clear Europe reverse repurchase and other	—	—	—	—
Cboe Clear Digital customer bank deposits	12.7	—	—	12.7
Total cash margin deposits, clearing funds, and interoperability funds	$ 439.6	$ 103.4	$ 376.0	$ 919.0

	December 31, 2022			
	Margin Deposits	Clearing Funds	Interoperability Funds (2)	Total
Cboe Clear Europe non-cash contributions (1)	$ 338.2	$ 38.6	$ 89.3	$ 466.1

(1) These amounts are not reflected in the consolidated balance sheets, as Cboe Clear Europe does not have the ability to sell or repledge the amounts absent a clearing participant default.

(2) As of December 31, 2022, the interoperability funds were not reflected in the consolidated balance sheets, as Cboe Clear Europe did not have the ability to sell or repledge the amounts absent a clearing participant default in respect of non-cash contributions nor to invest the balances in respect of cash contributions at that point in time. See the updated rule change in respect of cash contributions discussed above.

The table below presents the Company's safeguarded digital assets held on behalf of its customers for the purposes of supporting clearing transactions as of December 31, 2023 and December 31, 2022 (in millions):

	December 31, 2023	December 31, 2022
Digital assets - safeguarded assets	$ 51.3	$ 22.9

The following depicts the Company's valuation of digital assets – safeguarded assets and safeguarded liabilities as of December 31, 2023 and December 31, 2022:

	December 31, 2023		
Digital Asset	Number of Units	Valuation per Unit	Fair value (in millions)
Bitcoin ("BTC")	821	$ 42,492	$ 34.9
Ethereum ("ETH")	6,270	2,282	14.3
Litecoin ("LTC")	16,329	74	1.2
Bitcoin Cash ("BCH")	1,374	261	0.4
USD Coin ("USDC")	506,652	1	0.5
			$ 51.3

	December 31, 2022		
Digital Asset	Number of Units	Valuation per Unit	Fair value (in millions)
Bitcoin ("BTC")	717	$ 16,540	$ 11.8
Ethereum ("ETH")	6,362	1,199	7.6
Litecoin ("LTC")	17,873	70	1.3
Bitcoin Cash ("BCH")	6,883	97	0.7
USD Coin ("USDC")	1,516,479	1	1.5
			$ 22.9

15. FAIR VALUE MEASUREMENT

Fair value is the price that would be received upon the sale of an asset or paid upon the transfer of a liability in an orderly transaction between market participants at the measurement date and in the principal or most advantageous market for that asset or liability. The fair value should be calculated based on assumptions that market participants would use in pricing the asset or liability, not on assumptions specific to the entity. In addition, the fair value of liabilities should include consideration of non-performance risk, including the Company's own credit risk.

The Company applied ASC 820 – Fair Value Measurement, which provides guidance for using fair value to measure assets and liabilities by defining fair value and establishing the framework for measuring fair value. ASC 820 applies to financial and nonfinancial instruments that are measured and reported on a fair value basis. The three-level hierarchy of fair value measurements is based on whether the inputs to those measurements are observable or unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect the Company's market assumptions.

The fair value hierarchy requires the use of observable market data when available and consists of the following levels:

- Level 1—Unadjusted inputs based on quoted markets for identical assets or liabilities.
- Level 2—Observable inputs, either direct or indirect, not including Level 1 measurements, corroborated by market data or based upon quoted prices in non-active markets.
- Level 3—Unobservable inputs that reflect management's best assumptions of what market participants would use in valuing the asset or liability.

The Company has included a tabular disclosure for financial assets and liabilities that are measured at fair value on a recurring basis in the consolidated balance sheets as of December 31, 2023 and 2022, respectively.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The following tables present the Company's fair value hierarchy for those assets and liabilities measured at fair value on a recurring basis as of December 31, 2023 and 2022 (in millions):

	December 31, 2023			
	Total	Level 1	Level 2	Level 3
Assets:				
U.S. Treasury securities (1)	$ 20.8	$ 20.8	$ —	$ —
Marketable securities (1):				
Mutual funds	17.1	17.1	—	—
Money market funds	19.6	19.6	—	—
Digital assets - safeguarded assets	51.3	—	51.3	—
Total assets	$ 108.8	$ 57.5	$ 51.3	$ —
Liabilities:				
Contingent consideration liabilities	$ 11.8	$ —	$ —	$ 11.8
Digital assets - safeguarded liabilities	51.3	—	51.3	—
Cboe Digital restricted common units liability (2)	18.7	—	—	18.7
Cboe Digital warrant liability (2)	5.9	—	—	5.9
Total liabilities	$ 87.7	$ —	$ 51.3	$ 36.4

	December 31, 2022			
	Total	Level 1	Level 2	Level 3
Assets:				
U.S. Treasury securities (1)	$ 64.2	$ 64.2	$ —	$ —
Marketable securities (1):				
Mutual funds	15.3	15.3	—	—
Money market funds	12.2	12.2	—	—
Digital assets - safeguarded assets	22.9	22.9	—	—
Total assets	$ 114.6	$ 114.6	$ —	$ —
Liabilities:				
Contingent consideration liabilities	$ 39.1	$ —	$ —	$ 39.1
Digital assets - safeguarded liabilities	22.9	22.9	—	—
Cboe Digital restricted common units liability (2)	15.5	—	—	15.5
Cboe Digital warrant liability (2)	5.9	—	—	5.9
Total liabilities	$ 83.4	$ 22.9	$ —	$ 60.5

(1) These amounts are reflected within financial investments in the consolidated balance sheets.
(2) These amounts are reflected within other non-current liabilities in the consolidated balance sheets.

The following is a description of the Company's valuation methodologies used for instruments measured at fair value on a recurring basis:

Financial Investments

Financial investments consist of highly liquid U.S. Treasury securities, and marketable securities held in a trust for the Company's non-qualified retirement and benefit plans, also referred to as deferred compensation plan assets. The deferred compensation plan assets have an equal and offsetting deferred compensation plan liability based on the value of the deferred compensation plan assets. These securities are valued by obtaining feeds from a number of live data sources, including active market makers and inter dealer brokers and therefore categorized as Level 1. No material adjustments were made to the carrying value of financial investments for the period ended December 31, 2023. See Note 17 ("Employee Benefit Plans") for more information.

Digital Assets – Safeguarded Assets and Liabilities

Digital assets – safeguarded assets and liabilities represents the Company's holdings of Bitcoin, Ethereum, Litecoin, Bitcoin Cash, and USD Coin on behalf of the Company's customers. The Company has determined the principal marketplace for digital assets to be the spot market of Cboe Digital Exchange, LLC ("Cboe Digital Exchange"). The

Company valued digital assets – safeguarded assets, and digital assets – safeguarded liabilities by using the closing prices at 4:00pm Central Time on Cboe Digital Exchange's spot market ("Cboe Digital spot market") as of December 31, 2023 for the underlying digital assets held on behalf of the Company's customers. During the year ended December 31, 2023, these assets and liabilities were transferred from Level 1 to Level 2 in the fair value hierarchy as they are not traded in active markets and are valued using prices that are quoted from an active exchange that has been identified as the principal market for the underlying digital assets held on behalf of the Company's customers. See Note 14 ("Clearing Operations") for additional details regarding digital assets held.

Contingent Consideration Liabilities

In connection with the acquisitions of Hanweck Associates, LLC ("Hanweck"), Cboe Asia Pacific, and Cboe Canada, the Company entered into contingent consideration arrangements with the sellers. The total fair value of the liabilities at December 31, 2023 was $11.8 million That value is based on the Company's estimate of the likelihood that certain performance targets in the respective acquisition agreements are expected to be accomplished. In connection with the contingent consideration arrangements, the Company paid a total of $13.1 million in contingent consideration to the sellers of Hanweck, Cboe Asia Pacific and Cboe Canada during the year ended December 31, 2023. Additionally, in December 2023, as a result of updated projections which exhibited a decrease in the likelihood of Cboe Japan and Cboe Canada achieving their contingency payment milestones as part of their purchase agreements, unmet milestones were written off and resulted in a reduction of the contingent consideration liability of $14.4 million for the Company, which is reflected within other expenses in the consolidated statements of income. In December 2022, MATCHNow contingent consideration expired and the remaining balance was not achieved, and thus written off and resulted in an operating gain of $5.2 million for the Company, which is reflected within other expenses in the consolidated statements of income. Because the fair value measurements relating to the contingent consideration liabilities are subject to management judgment, measurement uncertainty is inherent in the valuation of the contingent consideration liabilities as of the reporting date. Based on the recorded balance of the liabilities, any measurement uncertainty related to this Level 3 measurement is immaterial as of December 31, 2023.

Cboe Digital Syndication Liabilities

On November 18, 2022, Cboe Digital Holdings Inc. ("Cboe Digital Holdings") entered into minority interest purchase agreements with certain digital asset industry participants, pursuant to which Cboe Digital Holdings agreed to issue Restricted Common Units in Cboe Digital. Cboe Digital Holdings also entered into a Warrant Agreement to issue Common Units of Cboe Digital in the future. Certain Cboe Digital investor members paid for the Restricted Common Units through the issuance of promissory notes, which are nonrecourse in nature and are accounted for as in-substance stock options. The cost associated with the Restricted Common Units is recognized as contra-revenue ratably over a five-year period. The Company uses a Black Scholes option pricing model to estimate the fair value of the in-substance stock option created by the Restricted Common Units and promissory notes as well as the fair value of the Warrant Units. Contra-revenue will be recognized while the performance conditions of the Warrant Units remain probable in conformance with the requirements in ASC 606 – Revenue from Contracts with Customers. Further adjustments will be recognized in each reporting period until performance is complete relating to changes in the fair value of the option and Warrant liabilities in accordance with ASC 718 – Compensation – Stock Compensation. Based on the recorded balance of the liabilities, any measurement uncertainty related to this Level 3 measurement is immaterial as of December 31, 2023. See Note 19 ("Stock-Based Compensation") for more information.

Certain Cboe Digital investor members can earn additional Restricted Common Units if they meet certain performance-based metrics outlined in an equity incentive program. The Incentive Program Units are subject to the same terms and conditions as the other Restricted Common Units and are similarly liability-classified awards. Cboe Digital authorized a maximum of 20 Common Units to be distributed over the two-year life of the incentive program. The cost associated with the Incentive Program Units will be recognized as contra-revenue ratably over the remaining service period associated with the Incentive Program Units. Further adjustments will be recognized in each reporting period until performance is complete relating to changes in the fair value of the incentive program liabilities in accordance with ASC 718 – Compensation – Stock Compensation. Based on the recorded balance of the liabilities, any measurement uncertainty related to this Level 3 measurement is immaterial as of December 31, 2023. See Note 19 ("Stock-Based Compensation") for more information.

Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

Certain assets, such as goodwill and intangible assets, are measured at fair value on a non-recurring basis. For goodwill, the process involves using a market approach and income approach (using discounted estimated cash flows) to

determine the fair value of each reporting unit on a stand-alone basis. That fair value is compared to the carrying value of the reporting unit, including its recorded goodwill. In connection with the annual impairment evaluation of goodwill and indefinite lived intangibles, impairment is considered to have occurred if the fair value of the reporting unit is lower than the carrying value of the reporting unit. See “Digital Assets Held” below and Note 2 (“Summary of Significant Accounting Policies”) for discussion of valuation considerations specific to digital assets held. For the other intangible assets, the process also involves using a discounted cash flow method to determine the fair value of each intangible asset. Impairment is considered to have occurred if the fair value of the intangible asset is lower than its carrying value. These measurements are considered Level 3 and these assets are recognized at fair value if they are deemed to be impaired. In addition, property held for sale as of December 31, 2023 was also measured at fair value at September 30, 2023. See Note 7 (“Property and Equipment, Net”) for more information on property held for sale.

The Company performed impairment testing during the quarter ended June 30, 2022, as there were market events that indicated it was more likely than not that Cboe Digital’s assets were impaired, resulting in the recognition of an impairment charge to goodwill related to Cboe Digital. Subsequently, the Company concluded that the indicators of impairment observed during the quarter ended June 30, 2022, continued to be relevant and recorded additional goodwill impairment in the consolidated statements of income for the three months ended September 30, 2022. The Company determined there were no further impairment indicators for the period ended December 31, 2022. See Note 10 (“Goodwill, Intangible Assets, Net, and Digital Assets Held”) for more information on the impairment.

Equity investments without readily determinable fair values that are valued using the measurement alternative are measured at fair value on a non-recurring basis. No observable transactions or impairments impacted the measurements of the investments accounted for as other equity investments. See Note 6 (“Investments”) for more information.

Fair Value of Assets and Liabilities

The following tables present the Company's fair value hierarchy for certain assets and liabilities held by the Company as of December 31, 2023 and 2022 (in millions):

	December 31, 2023			
	Total	Level 1	Level 2	Level 3
Assets:				
U.S. Treasury securities (1)	$ 20.8	$ 20.8	$ —	$ —
Deferred compensation plan assets (1)	36.7	36.7	—	—
Digital assets - safeguarded assets	51.3	—	51.3	—
Digital assets held (2)	0.1	0.1	—	—
Total assets	$ 108.9	$ 57.6	$ 51.3	$ —
Liabilities:				
Contingent consideration liabilities	$ 11.8	$ —	$ —	$ 11.8
Deferred compensation plan liabilities (3)	36.7	36.7	—	—
Digital assets - safeguarded liabilities	51.3	—	51.3	—
Cboe Digital restricted common units liability (3)	18.7	—	—	18.7
Cboe Digital warrant liability (3)	5.9	—	—	5.9
Debt	1,305.7	—	1,305.7	—
Total liabilities	$ 1,430.1	$ 36.7	$ 1,357.0	$ 36.4

	December 31, 2022			
	Total	Level 1	Level 2	Level 3
Assets:				
U.S. Treasury securities (1)	$ 64.2	$ 64.2	$ —	$ —
Deferred compensation plan assets (1)	27.5	27.5	—	—
Digital assets - safeguarded assets	22.9	22.9	—	—
Digital assets held (2)	0.9	0.9	—	—
Total assets	$ 115.5	$ 115.5	$ —	$ —
Liabilities:				
Contingent consideration liabilities	$ 39.1	$ —	$ —	$ 39.1
Deferred compensation plan liabilities (3)	27.5	27.5	—	—
Digital assets - safeguarded liabilities	22.9	22.9	—	—
Cboe Digital restricted common units liability (3)	15.5	—	—	15.5
Cboe Digital warrant liability (3)	5.9	—	—	5.9
Debt	1,573.9	—	1,573.9	—
Total liabilities	$ 1,684.8	$ 50.4	$ 1,573.9	$ 60.5

(1) These amounts are reflected within financial investments in the consolidated balance sheets.
(2) These amounts are reflected within intangible assets, net in the consolidated balance sheets.
(3) These amounts are reflected within other non-current liabilities in the consolidated balance sheets.

Certain financial assets and liabilities, including cash and cash equivalents, accounts receivable, income tax receivable, accounts payable and Section 31 fees payable, and notes receivable are not measured at fair value on a recurring basis, but the carrying values approximate fair value due to their liquid or short-term nature.

Debt

The debt balance consists of fixed rate Senior Notes and a floating rate Term Loan Agreement. The fair values of the Senior Notes are classified as Level 2 under the fair value hierarchy and are estimated using prevailing market quotes. The fair value of the Term Loan Agreement was determined by utilizing a discounted cash flow analysis and is considered a Level 2 measurement.

At December 31, 2023 and 2022, the fair values of the Company's debt obligations were as follows (in millions):

	Fair Value	
	December 31, 2023	December 31, 2022
Term Loan Agreement	$ —	$ 306.3
3.650% Senior Notes	628.5	623.6
1.625% Senior Notes	412.7	390.7
3.000% Senior Notes	264.5	253.3

Digital Assets Held

Digital assets held, which are included within intangible assets, net in the consolidated balance sheets, are valued following a review of exchange prices for each specific digital asset throughout the holding period ended December 31, 2023. The Company will impair to the lowest observable value during the period for each digital asset type in accordance with Cboe Digital's policy, which states that the Company values digital assets held by using the closing prices at 4:00pm Central Time on Cboe Digital Exchange's spot market, which the Company determined is the principal market for digital assets. As part of Cboe Digital's pricing policy, the closing price on Cboe Digital's spot market is compared to three other exchanges (Coinbase, Bitstamp, and Kraken) and the CoinDesk Price Index to assess for reasonableness. These inputs are categorized in the fair value hierarchy as Level 1 as the marketplace is considered active.

Information on Level 3 Financial Liabilities

The following table sets forth a summary of changes in the fair value of the Company's Level 3 financial liabilities during the year ended December 31, 2023 and 2022 (in millions):

	Level 3 Financial Liabilities for the Year Ended December 31, 2023						
	Balance at Beginning of Period	Realized (Gains) Losses during Period	Adjustments	Additions	Settlements	Foreign Currency Translation	Balance at End of Period
Liabilities:							
Contingent consideration liabilities	$ 39.1	$ (14.4)	$ —	$ —	$ (13.1)	$ 0.2	$ 11.8
Cboe Digital restricted common units liability	15.5		0.1	3.1	—	—	18.7
Cboe Digital warrant liability	5.9	—	—	—	—	—	5.9
Total liabilities	$ 60.5	$ (14.4)	$ 0.1	$ 3.1	$ (13.1)	$ 0.2	$ 36.4

	Level 3 Financial Liabilities for the Year Ended December 31, 2022						
	Balance at Beginning of Period	Realized (Gains) Losses during Period	Adjustments	Additions	Settlements	Foreign Currency Translation	Balances at End of Period
Liabilities:							
Contingent consideration liabilities	$ 70.5	$ (5.2)	$ (44.3)	$ 57.7	$ (38.7)	$ (0.9)	$ 39.1
Cboe Digital restricted common units liability	—	—	—	15.5	—	—	15.5
Cboe Digital warrant liability	—	—	—	5.9	—	—	5.9
Total liabilities	$ 70.5	$ (5.2)	$ (44.3)	$ 79.1	$ (38.7)	$ (0.9)	$ 60.5

16. SEGMENT REPORTING

The Company operates six reportable business segments: Options, North American Equities, Europe and Asia Pacific, Futures, Global FX, and Digital which is reflective of how the Company's chief operating decision-maker reviews and operates the business, as discussed in Note 1 ("Nature of Operations"). Segment performance is primarily evaluated based on operating income (loss). The Company's chief operating decision-maker does not use segment-level assets or income and expenses below operating income (loss) as key performance metrics; therefore, such information is not presented below. The Company has aggregated all of its corporate costs, as well as other business ventures, within the Corporate Items and Eliminations totals based on the decision that those activities should not be used to evaluate the

operating performance of the segments; however, operating expenses that relate to activities of a specific segment have been allocated to that segment.

Options. The Options segment includes options on market indices ("index options"), as well as on the stocks of individual corporations ("equity options") and on ETPs such as exchange-traded funds ("ETFs") and exchange-traded notes ("ETNs"), which are "multi-listed" options and listed on a non-exclusive basis. These options are eligible to trade, as applicable, on Cboe Options, C2, BZX, EDGX, and/or other U.S. national security exchanges. Cboe Options is the Company's primary options market and offers trading in listed options through a single system that integrates electronic trading and traditional open outcry trading on the Cboe Options trading floor in Chicago. C2 Options, BZX Options, and EDGX Options are all-electronic options exchanges, and typically operate with different market models and fee structures than Cboe Options. The Options segment also includes applicable market data fees revenues generated from the consolidated tape plans, the licensing of proprietary options market data, index licensing, routing services, and access and capacity services.

North American Equities. The North American Equities segment includes U.S. equities and ETP transaction services that occur on fully electronic exchanges owned and operated by BZX, BYX, EDGX, and EDGA, equities transactions that occur on the BIDS Trading platform in the U.S. and Canada, and Canadian equities and other transaction services that occur on or through Cboe Canada Inc.'s order books. The North American Equities segment also includes listing services on Cboe Canada Inc., corporate and ETP listings on BZX, applicable market data fees revenues generated from the consolidated tape plans, the licensing of proprietary equities market data, routing services, and access and capacity services.

Europe and Asia Pacific. The Europe and Asia Pacific segment includes the pan-European listed equities and derivatives transaction services, ETPs, exchange-traded commodities, and international depository receipts that are hosted on MTFs operated by Cboe Europe Equities (Cboe Europe and Cboe NL equities exchanges) and Cboe Europe Derivatives ("CEDX"). It also includes the ETP listings business on RMs and clearing activities of Cboe Clear Europe, as well as the equities transaction services of Cboe Australia and Cboe Japan, operators of trading venues in Australia and Japan, respectively, along with equities transactions that occur on the BIDS Trading platform in Australia and Japan. Cboe Europe operates lit and dark books, a periodic auctions book, and Cboe BIDS Europe, a Large-in-Scale ("LIS") trading negotiation facility for UK symbols. Cboe NL, launched in October 2019 and based in Amsterdam, operates similar business functionality to that offered by Cboe Europe, and provides for trading only in European Economic Area ("EEA") symbols. Cboe Europe Derivatives, a pan-European derivatives platform launched in September 2021, offers futures and options based on Cboe Europe equity indices, and single stock options. This segment also includes Cboe Europe, Cboe NL, CEDX, Cboe Australia and Cboe Japan revenue generated from the licensing of proprietary market data and from access and capacity services.

Futures. The Futures segment includes transaction services provided by CFE, a fully electronic futures exchange, which includes offerings for trading of VIX futures and other futures products, the licensing of proprietary market data, as well as access and capacity services.

Global FX. The Global FX segment includes institutional FX trading services that occur on the Cboe FX fully electronic trading platform, non-deliverable forward FX transactions ("NDFs") offered for execution on Cboe SEF, as well as revenue generated from the licensing of proprietary market data and from access and capacity services. The segment includes transaction services for U.S. government securities executed on the Cboe Fixed Income fully electronic trading platform.

Digital. The Digital segment includes a U.S. based digital asset spot market, a regulated futures exchange, and a regulated clearinghouse, as well as revenue generated from the licensing of proprietary market data and from access and capacity services.

Summarized financial data of reportable segments was as follows (in millions):

	Options	North American Equities	Europe and Asia Pacific	Futures	Global FX	Digital	Corporate Items and Eliminations	Total
Year ended December 31, 2023								
Revenues	$ 1,939.5	$ 1,353.0	$ 281.2	$ 129.0	$ 74.9	$ (4.1)	$ —	$ 3,773.5
Operating income (loss)	851.3	118.0	32.7	86.1	24.7	(46.7)	(8.2)	1,057.9
Year ended December 31, 2022								
Revenues	$ 1,823.2	$ 1,681.7	$ 264.6	$ 119.8	$ 68.9	$ 0.3	$ —	$ 3,958.5
Operating income (loss)	740.5	146.6	38.1	55.2	8.8	(491.4)	(8.2)	489.6
Year ended December 31, 2021								
Revenues	$ 1,505.0	$ 1,570.5	$ 240.3	$ 120.6	$ 58.1	$ —	$ 0.3	$ 3,494.8
Operating income (loss)	538.0	156.1	56.0	66.0	2.7	—	(12.9)	805.9

Geographical Information

The following summarizes revenues less cost of revenues based on primary jurisdiction (in millions):

	United States	Non-U.S.	Total
Revenues less cost of revenues:			
Year ended December 31, 2023	$ 1,681.8	$ 236.2	$ 1,918.0
Year ended December 31, 2022	$ 1,531.3	$ 210.4	$ 1,741.7
Year ended December 31, 2021	$ 1,286.9	$ 189.2	$ 1,476.1

17. EMPLOYEE BENEFIT PLANS

Eligible U.S. employees are eligible to participate in the Cboe Options SMART Plan (“SMART Plan”). The SMART Plan is a defined contribution plan, which is qualified under Internal Revenue Code Section 401(k). In addition, eligible employees may participate in the Supplemental Employee Retirement Plan and the Deferred Compensation Plan. Each plan is a defined contribution plan that is non-qualified under the Internal Revenue Code. The Deferred Compensation Plan assets, held in a trust, are subject to the claims of general creditors of the Company and totaled $36.7 million at December 31, 2023. Although the value of the plan is recorded in financial investments on the consolidated balance sheets, there is an equal and offsetting liability in other non-current liabilities. The investment results of the Deferred Compensation Plan has no impact on net income as the investment results are recorded in equal amounts to both other income (expense), net and compensation and benefits expense in the consolidated statements of income. The Company contributed $15.0 million, $14.4 million, and $11.8 million to the defined contribution plans for the years ended December 31, 2023, 2022, and 2021, respectively.

Eligible employees outside of the U.S., which includes employees of Cboe Europe, Cboe NL, Cboe Clear Europe, BIDS, Cboe Asia Pacific, and Cboe Canada Inc. are eligible to participate in various employee-selected stakeholder contribution plans or plans covered by local jurisdictions or by applicable laws. The Company’s contribution amounted to $4.3 million, $3.0 million, and $2.3 million for the years ended December 31, 2023, 2022, and 2021, respectively. This expense is included in compensation and benefits in the consolidated statements of income.

Effective January 1, 2023, Directors may contribute a percentage of their cash and equity compensation to cash and equity deferred compensation plans that are maintained by the Company and defer income taxes thereon.

18. REGULATORY CAPITAL

As broker-dealers registered with the SEC, Cboe Trading, BIDS Trading, and Cboe Fixed Income are subject to the SEC’s Uniform Net Capital Rule (“Rule 15c3-1”), which requires the maintenance of minimum net capital, as defined therein. The SEC’s requirement also provides that equity capital may not be withdrawn or a cash dividend paid if certain minimum net capital requirements are not met. Cboe Trading, BIDS Trading, and Cboe Fixed Income compute the net capital requirements under the basic method provided for in Rule 15c3-1. As of December 31, 2023, Cboe Trading and BIDS Trading were required to maintain net capital equal to the greater of 6.67% of aggregate indebtedness items, as defined, or $0.1 million. Cboe Fixed Income was required to maintain net capital equal to the greater of 6.67% of aggregate indebtedness items, as defined, or $5.0 thousand.

As entities regulated by the FCA, Cboe Europe is subject to the Financial Resource Requirement ("FRR") and Cboe Chi-X Europe is subject to the Capital Resources Requirement ("CRR"). As a RIE, Cboe Europe computes its FRR in accordance with its Financial Risk Assessment, as agreed by the FCA. In accordance with the Markets in Financial Instruments Directive of the FCA requirements, Cboe Chi-X Europe computes its CRR as the greater of the base requirement of $0.1 million as of December 31, 2023, or the summation of the credit risk, market risk and fixed overheads requirements, as defined.

On March 8, 2019, Cboe NL received approval from the Dutch Ministry of Finance to operate a RM, a MTF, and an approved publication arrangement in the Netherlands. As a RM, Cboe NL is subject to minimum capital requirements, as established by the Dutch Ministry of Finance in the license dated March 8, 2019.

Cboe Clear Europe was granted authorization under European Market Infrastructure Regulation ("EMIR") by the National Competent Authority, DNB. Cboe Clear Europe is required by the EMIR, to maintain a minimum amount of capital to reflect an estimate of the capital required to wind down or restructure the activities of the clearinghouse, cover operational, legal and business risks and to reserve capital to meet credit, counterparty and market risks not covered by the clearing participants' collateral and clearing funds.

Prior to the amalgamation of Cboe Canada and MATCHNow into Cboe Canada Inc., effective January 1, 2024, MATCHNow was regulated by CIRO. As of December 31, 2023, CIRO set and monitored regulatory capital requirements for MATCHNow to protect its clients and counterparties. MATCHNow was required to maintain a prescribed minimum level of risk adjusted capital in accordance with such requirements as CIRO may have from time to time prescribed. Effective January 1, 2024 the amalgamated Cboe Canada Inc. is regulated by the Ontario Securities Commission ("OSC") in the same manner with which Cboe Canada is regulated by the OSC as described below.

As a designated contract market regulated by the CFTC, CFE is required to meet two capital adequacy tests: (i) its financial resources must be equal to at least twelve months of its projected operating costs and (ii) its unencumbered, liquid financial assets, which may include a line of credit, must be equal to at least six months of its projected operating costs. The amounts presented below represent the greater of the two capital adequacy requirements.

As a swap execution facility regulated by the CFTC, Cboe SEF is required to meet two capital adequacy tests: (i) its financial resources must exceed at least twelve months of its projected operating costs and (ii) its unencumbered, liquid financial assets must be equal to the greater of: (a) three months of projected operating costs or (b) its projected wind-down costs. The amounts presented below represent the greater of the two capital adequacy requirements.

As a designated contract organization regulated by the CFTC, Cboe Digital Exchange is required to meet two capital adequacy tests: (i) its financial resources must be equal to at least twelve months of its projected operating costs and (ii) its unencumbered, liquid financial assets, which may include a line of credit, must be equal to at least six months of its projected operating costs. The amounts presented below represent the greater of the two capital adequacy requirements.

As a derivatives clearing organization regulated by the CFTC, Cboe Clear Digital is required to meet two capital adequacy tests: (i) its financial resources must be equal to at least twelve months of its projected operating costs and (ii) its unencumbered, liquid financial assets, which may include a line of credit, must be equal to at least six months of its projected operating costs. The amounts presented below represent the greater of the two capital adequacy requirements.

Cboe Canada is regulated by the OSC. Cboe Canada is required to maintain sufficient financial resources for the proper performance of its functions and to meet its responsibilities. Cboe Canada must calculate the following financial ratios monthly: (i) current ratio, (ii) a debt to cash flow ratio, and (iii) a financial leverage ratio. Cboe Canada must report the monthly calculations to the OSC on a quarterly basis. Effective January 1, 2024 the amalgamated Cboe Canada Inc. is regulated by the OSC in the same manner.

Cboe Australia is regulated by the Australian Securities and Investments Commission ("ASIC"). Cboe Australia is required to maintain sufficient financial resources to operate the market properly in accordance with Section 794A(d) of the Corporations Act, which Cboe Australia satisfies by maintaining a prudent cash reserve, which must be equal to at least six months of its projected operating expenses.

Cboe Japan is regulated by the Japanese Financial Services Agency ("JFSA") and the Japan Securities Dealers Association ("JSDA"). Cboe Japan is required to maintain a minimum level of regulatory capital ratio of 120% in accordance with such requirements prescribed by the JFSA and JSDA.

The following table presents the Company's subsidiaries with regulatory capital requirements discussed above, as well as the actual and minimum regulatory capital requirements of the subsidiary as of December 31, 2023 (in millions):

Subsidiary	Regulatory Authority	Actual	Minimum Requirement
Cboe Trading	FINRA/SEC	$ 15.6	$ 0.9
BIDS Trading	FINRA/SEC	3.4	0.4
Cboe Fixed Income	FINRA/SEC	6.4	0.1
Cboe Europe	FCA	71.4	29.5
Cboe Chi-X Europe	FCA	0.1	0.1
Cboe NL	Dutch Authority for Financial Markets	17.2	5.9
Cboe Clear Europe	DNB	80.9	49.1
MATCHNow	CIRO	6.3	0.2
CFE	CFTC	59.2	37.5
Cboe SEF	CFTC	2.4	2.1
Cboe Digital Exchange	CFTC	49.6	5.2
Cboe Clear Digital	CFTC	32.0	5.6
Cboe Australia	ASIC	12.0	5.1
Cboe Japan	JFSA	8.7	4.0

19. STOCK-BASED COMPENSATION

Stock-based compensation is based on the fair value of the award on the date of grant, which is recognized over the related service period, net of actual forfeitures. The service period is the period over which the related service is performed, which is generally the same as the vesting period. Vesting may be accelerated for certain officers and employees as a result of attaining certain age and service based requirements in the Company's long-term incentive plan and award agreements.

Stock-based compensation expense relating to employee awards is included in compensation and benefits and acquisition-related costs in the consolidated statements of income. The Company recognized stock-based compensation expense related to employee awards of $33.9 million, $30.7 million, and $26.6 million for the years ended December 31, 2023, 2022, and 2021, respectively. Stock-based compensation expense relating to non-employee director awards is included in professional fees and outside services in the consolidated statements of income. The Company recognized stock-based compensation expense related to non-employee director awards of $1.9 million, $1.9 million, and $2.0 million for the years ended December 31, 2023, 2022, and 2021, respectively. Stock-based compensation expense relating to Restricted Common Units and Warrant Units granted to investor members of Cboe Digital are recorded as contra-revenue in the consolidated statements of income and is outlined further below.

The activity in the Company's restricted stock, consisting of restricted stock awards (“RSAs”), restricted stock units (“RSUs”), and performance-based restricted stock units (“PSUs”), was as follows:

RSAs and RSUs

The following table summarizes RSA and RSU activity during the years ended December 31, 2023, 2022 and 2021:

	Number of shares	Weighted average grant date fair value
Nonvested stock at January 1, 2021	342,082	$ 108.40
Granted	298,084	92.32
Vested	(166,598)	106.13
Forfeited	(30,249)	97.01
Nonvested stock at December 31, 2021	443,319	$ 99.22
Granted	369,037	119.97
Vested	(201,457)	99.87
Forfeited	(54,837)	106.07
Nonvested stock at December 31, 2022	556,062	$ 112.07
Granted	401,685	132.58
Vested	(237,315)	108.25
Forfeited	(82,251)	121.02
Nonvested stock at December 31, 2023	638,181	$ 125.25

RSUs entitle the holder to one share of common stock upon vesting with the exception of certain jurisdictions where the RSUs are settled in cash, typically vest over a three-year period, and vesting accelerates upon death, disability, or the occurrence of a qualified termination following a change in control. Vesting will also accelerate upon a qualified retirement where applicable and permitted. Where applicable and permitted, qualified retirement eligibility occurs once achieving 55 years of age and 10 years of service. Further, in connection with the grants of new equity awards starting in 2024, the Board and Compensation Committee revised the award agreements to provide that in the event of a participant’s retirement, all unvested outstanding RSUs and a pro-rata portion of unvested outstanding PSUs will continue to vest and be distributed in accordance with the award’s original vesting and settlement schedule, even after the applicable retirement date. Retirement eligibility will require, in addition to attaining 55 years of age and 10 years of aggregate service, submission of 6 months of advanced written notice of a retirement and submission, approval, and satisfactory completion of a transition plan. Unvested RSUs will be forfeited if the officer, or employee leaves the Company prior to the applicable vesting date, except in limited circumstances.

RSUs granted to non-employee members of the Board of Directors have a one-year vesting period and vesting accelerates upon the occurrence of a change in control of the Company. Unvested portions of the RSUs will be forfeited if the director leaves the Board of Directors prior to the applicable vesting date.

The RSUs have no voting rights but entitle the holder to receive dividend equivalents.

There were no remaining nonvested RSAs as of December 31, 2023.

In the year ended December 31, 2023, to satisfy employees’ tax obligations upon the vesting of restricted stock, the Company purchased 85,001 shares of common stock totaling $11.2 million as the result of the vesting of 219,527 shares of restricted stock.

PSUs

The following table summarizes restricted stock units contingent upon achievement of performance conditions, also known as PSUs, activity during the years ended December 31, 2023, 2022 and 2021:

	Number of Shares	Weighted average grant date fair value
Nonvested stock at January 1, 2021	122,666	$ 115.18
Granted	71,302	98.32
Vested	(29,468)	111.45
Forfeited	(12,090)	110.20
Nonvested stock at December 31, 2021	152,410	$ 108.41
Granted	64,668	141.41
Vested	(16,834)	96.00
Forfeited	(33,542)	95.40
Nonvested stock at December 31, 2022	166,702	$ 125.08
Granted	87,146	144.35
Vested	(55,399)	130.05
Forfeited	(63,965)	141.49
Nonvested stock at December 31, 2023	134,484	$ 127.72

PSUs include awards related to earnings per share during the performance period as well as awards related to total shareholder return during the performance period. The Company used the Monte Carlo valuation model method to estimate the fair value of the total shareholder return PSUs which incorporated the following assumptions for awards granted in February 2023: risk-free interest rate (4.10)%, three-year volatility (33.5)% and three-year correlation with S&P 500 Index (0.53). Each of these performance shares has a performance condition under which the number of units ultimately awarded will vary from 0% to 200% of the original grant, with each unit representing the contingent right to receive one share of the Company's common stock. The vesting period for the PSUs contingent on the achievement of performance conditions is three years. For each of the performance awards, the PSUs will be settled in shares of the Company's common stock following vesting of the PSU assuming that the participant has been continuously employed during the vesting period, subject to acceleration upon death, disability, or the occurrence of a qualified termination following a change in control. Participants have no voting rights with respect to the PSUs until the issuance of the shares of common stock. Dividends are accrued by the Company and will be paid once the PSUs, contingent on the achievement of performance conditions, vest.

In the year ended December 31, 2023, to satisfy employees' tax obligations upon the vesting of performance stock, the Company purchased 21,459 shares of common stock totaling $2.7 million as the result of the vesting of 55,399 shares of performance stock.

As of December 31, 2023, there were $49.0 million in total unrecognized compensation costs related to restricted stock, restricted stock units, and performance stock units. These costs are expected to be recognized over a weighted average period of 2.0 years. Forfeited PSUs include certain awards forfeited by Edward T. Tilly, former Chief Executive Officer of the Company, who resigned and voluntarily terminated his employment with the Company on September 18, 2023.

Employee Stock Purchase Plan

In May 2018, the Company's stockholders approved an Employee Stock Purchase Plan, ("ESPP"), under which a total of 750,000 shares of the Company's common stock will be made available for purchase to employees. The ESPP is a broad-based plan that permits employees to contribute up to 10% of wages and base salary to purchase shares of the Company's common stock at a discount, subject to applicable annual Internal Revenue Service ("IRS") limitations. Under the ESPP, a participant may not purchase more than a maximum of 312 shares of the Company's common stock during any single offering period. No participant may accrue options to purchase shares of the Company's common stock at a rate that exceeds $25,000 in fair market value of the Company's common stock (determined at the time such options are granted) for each calendar year in which such rights are outstanding at any time. The exercise price per share of common stock shall be 85% (for eligible U.S. and international employees) of the lesser of the fair value of the stock on the first day of the applicable offering period or the applicable exercise date.

The Company records compensation expense over the offering period related to the discount that is given to employees, which totaled $2.7 million, $0.6 million, and $0.4 million for the years ended December 31, 2023, 2022, and 2021, respectively. As of December 31, 2023, 552,734 shares were reserved for future issuance under the ESPP.

Cboe Digital Restricted Common Units

On November 18, 2022, Cboe Digital Holdings entered into minority interest purchase agreements with certain digital asset industry participants, pursuant to which Cboe Digital Holdings agreed to issue 185 Restricted Common Units in Cboe Digital. In addition, certain investor members and their affiliates are our customers, including trading permit holders, trading privilege holders, participants, and members. Certain Cboe Digital investor members paid for the Restricted Common Units through the issuance of promissory notes, which are nonrecourse in nature. The issuances of Restricted Common Units for nonrecourse promissory notes are accounted for as in-substance stock options. The promissory notes generally bear interest at a rate of 5% per annum and mature upon the earlier of the sale of vested Restricted Common Units, or either November 18, 2032 or November 18, 2037. One Cboe Digital investor member paid for the Restricted Common Units in exchange for cash.

The following table summarizes the option activity during the years ended December 31, 2023 and 2022 (in millions, except number of shares and contractual term):

	Number of shares	Weighted average exercise price	Aggregate intrinsic value	Weighted average remaining contractual term
Outstanding at January 1, 2022	—	$ —	$ —	—
Granted	185	0.3	—	6 years
Vested	—	—	—	—
Outstanding at December 31, 2022	185	$ 0.3	$ —	6 years
Granted	—	—	—	—
Vested	—	—	—	—
Outstanding at December 31, 2023	185	$ 0.3	$ —	5 years

Vesting of Restricted Common Units is based on certain conditions relating to the participation and performance of the Cboe Digital investor members on the Cboe Digital platforms, generally over a five-year period. Performance is generally measured based on participation on the Cboe Digital platforms and the investor members maintaining certain average daily volumes on the platforms. Due to the existence of an option for investor members to sell their shares immediately after vesting, the options are liability classified. The options expire upon the maturity of the promissory notes, which is either November 18, 2032 or November 18, 2037, unless the options are exercised.

The cost associated with the options will be recognized as contra-revenue, net of actual forfeitures and based on the continued probability of the satisfaction of performance conditions ratably over the vesting period. At December 31, 2022, $14.0 million of contra-revenue related to the options grants was included in other assets, net within the consolidated balance sheet. At March 31, 2023 the contra-revenue balance included in other assets, net within the consolidated balance sheet included a $0.1 million adjustment to the Restricted Common Units contra-revenue asset as a result of the finalization of the initial grant date fair value calculation. For the years ended December 31, 2023 and 2022, $3.1 million and zero contra-revenue related to the options grants was recognized, respectively. As of December 31, 2023 and 2022, $11.0 million and $14.0 million of contra-revenue related to the options grants was included in other assets, net on the consolidated balance sheets, respectively, and is expected to be recognized as contra-revenue in the consolidated statements of income over the remaining contractual term.

Changes in the fair value of the options, subsequent to the grant date, is recognized in other income (expense), net in the consolidated statements of income in the period in which the fair value of the options changes. The Company uses a Black Scholes pricing model to estimate the fair value of the in-substance stock options which incorporated the following assumptions as of December 31, 2023: risk-free interest rate range (3.81 to 3.90)%, expected dividend rate (0)%, expected volatility (60 to 65)%, and expected term of 3.9 to 5.9 years. For the year ended December 31, 2023, there was no change in the fair value of the options grants since the grant date.

Certain Cboe Digital investor members can earn additional Incentive Program Units. The Incentive Program Units are subject to the same terms and conditions as the other Restricted Common Units and are similarly liability-classified awards. Cboe Digital authorized a maximum of 20 Common Units to be distributed over the two-year life of the incentive program. For the year ended December 31, 2023, $0.6 million of contra-revenue related to the Incentive Program Units was recognized. As of December 31, 2023, $2.5 million of contra-revenue related to the Incentive Program Units is

included in other assets, net within the consolidated balance sheet and is expected to be recognized as contra-revenue in the consolidated statements of income over the remaining service period associated with the Incentive Program Units.

Cboe Digital Warrant Units

On November 18, 2022, Cboe Digital Holdings entered into a Warrant Agreement with an investor member to acquire up to 80 Common Units of Cboe Digital, subject to certain vesting events. The investor member is a customer of Cboe Digital. The vesting of the Warrant Units is based upon the achievement of certain conditions relating to the service provided by the investor member over a two-year period, of which some conditions represent conditions that are not service, performance, or market conditions and, therefore, the Warrant Units are liability classified. As of December 31, 2023, 40 Warrant Units have vested, but no Warrant Units have been exercised.

The cost associated with the Warrant Units will be recognized as contra-revenue ratably throughout the expected life of the Warrant Units before exercise. For the years ended December 31, 2023 and 2022, $1.3 million and zero contra-revenue related to the Warrant Units was recognized, respectively. As of December 31, 2023 and 2022, $4.6 million and $5.9 million of contra-revenue related to the Warrant Units is included in other assets, net within the consolidated balance sheets, respectively, and is expected to be recognized as contra-revenue in the consolidated statements of income over the remaining life of the Warrant Units.

The following table summarizes the Warrant Unit activity during the years ended December 31, 2023 and 2022 (in millions, except number of shares):

	Number of shares	Weighted average exercise price
Outstanding at January 1, 2022	—	$ —
Granted	80	0.2
Vested	—	—
Outstanding at December 31, 2022	80	$ 0.2
Granted	—	—
Vested, but not exercised	40	0.2
Outstanding and exercisable at December 31, 2023	40	0.2
Outstanding at December 31, 2023	80	$ 0.2

Changes in the fair value of the Warrant Units, subsequent to the grant date, is recognized in other income (expense), net in the consolidated statements of income in the period in which the fair value of the Warrant Units change. The Company uses a Black Scholes pricing model to estimate the fair value of the Warrant Units which incorporated the following assumptions as of December 31, 2023: risk-free interest rate (3.89)%, expected dividend rate (0)%, expected volatility (65)%, and expected term of 4.0 years. For the year ended December 31, 2023, there was no change in the fair value of the Warrant Units since the grant date.

20. EQUITY

Common Stock

The Company's common stock is listed on Cboe BZX under the trading symbol CBOE. As of December 31, 2023, 325,000,000 shares of the Company's common stock were authorized, $0.01 par value, and 105,556,817 and 105,527,815 shares were issued and outstanding, respectively. The holders of common stock are entitled to one vote per share.

Common Stock in Treasury, at Cost

The Company accounts for the purchase of treasury stock under the cost method with the shares of stock repurchased reflected as a reduction to Cboe stockholders' equity and included in common stock in treasury, at cost in the consolidated balance sheets. Shares repurchased under the Company's share repurchase program are retired or they are available to be redistributed. When treasury shares are redistributed, they are recorded at the average cost of the treasury shares acquired. When treasury shares are retired, they are removed from the common stock in treasury balance. The Company held 29,002 and 1,719,049 shares of common stock in treasury as of December 31, 2023 and December 31, 2022, respectively.

On December 14, 2023, the Board of Directors approved the retirement of 2,453,428 shares of treasury stock. These shares represent shares that were repurchased as part of the Company's share repurchase program since October, 2022, and shares purchased from employees to cover payroll withholding taxes in connection with the vesting of restricted stock. The retirement was recorded as a decrease to treasury stock, common stock, retained earnings, and additional paid-in capital on the consolidated balance sheets.

Share Repurchase Program

In 2011, the Board of Directors approved an initial authorization for the Company to repurchase shares of its outstanding common stock of $100 million and subsequently approved additional authorizations, for a total authorization of $1.8 billion. The Company expects to fund repurchases primarily through the use of existing cash balances. The program permits the Company to purchase shares, through a variety of methods, including in the open market or through privately negotiated transactions, in accordance with applicable securities laws. It does not obligate the Company to make any repurchases at any specific time or situation.

On August 16, 2022, President Biden signed into law H.R. 5376 (commonly known as the Inflation Reduction Act of 2022 or simply the "IRA"). Tax measures contained in the IRA include, among other items, a new excise tax of 1% on repurchases of stock by domestic corporations with stock traded on established securities markets. The amount on which the tax is imposed is reduced by the value of any stock issued by such corporation during the tax year and the tax generally applies to stock buy-back transactions occurring after December 31, 2022. This new tax has not had a material impact to the Company as of December 31, 2023.

Under the program, for the year ended December 31, 2023, the Company has repurchased 661,721 shares of common stock at an average cost per share of $126.80, totaling $83.9 million. Since inception of the program through December 31, 2023, the Company has repurchased 19,610,088 shares of common stock at an average cost per share of $72.21, totaling $1.4 billion.

As of December 31, 2023, the Company had $384.0 million of availability remaining under its existing share repurchase authorizations.

The table below shows the repurchased shares of common stock under the Company's share repurchase program during the periods presented as follows:

	Shares Repurchased	Average Repurchase Price Per Share	Amount of Repurchases (in millions)
2023			
Fourth quarter	33,507	$ 173.59	$ 5.8
Third quarter	—	—	—
Second quarter	61,141	132.45	8.1
First quarter	567,073	123.42	70.0
Total open market common stock repurchases	661,721		83.9
2022			
Fourth quarter	132,111	$ 116.07	$ 15.3
Third quarter	—	—	—
Second quarter	147,139	106.12	15.6
First quarter	596,988	117.25	70.0
Total open market common stock repurchases	876,238		100.9
2021			
Fourth quarter	—	$ —	$ —
Third quarter	—	—	—
Second quarter	331,373	101.57	33.7
First quarter	490,632	96.97	47.6
Total open market common stock repurchases	822,005		81.3

Purchase of Common Stock from Employees

The Company purchased 106,460 and 74,117 shares that were not part of the publicly announced share repurchase authorization from employees for an average price paid per share of $130.35 and $119.45 during the years ended December 31, 2023 and 2022, respectively. These shares consisted of shares retained to cover payroll withholding taxes in connection with the vesting of restricted stock units and performance share awards.

Preferred Stock

The Company has authorized the issuance of 20,000,000 shares of preferred stock, par value $0.01 per share, issuable from time to time in one or more series. For the years ended December 31, 2023, and 2022, the Company had no shares of preferred stock issued or outstanding.

Dividends

During the year ended December 31, 2023, the Company declared and paid cash dividends per share of $2.10, for an aggregate payout of $223.5 million. During the year ended December 31, 2022, the Company declared and paid cash dividends per share of $1.96, for an aggregate payout of $209.4 million.

Each share of common stock, including RSUs and PSUs, is entitled to receive dividend and dividend equivalents, respectively, if, as and when declared by the Board of Directors of the Company. The Company's expectation is to continue to pay dividends. The decision to pay a dividend, however, remains within the discretion of the Company's Board of Directors and may be affected by various factors, including earnings, financial condition, capital requirements, level of indebtedness and other considerations the Board of Directors deems relevant. Future debt obligations and statutory provisions, among other things, may limit, or in some cases prohibit, the Company's ability to pay dividends.

As a holding company, the Company's ability to declare and continue to pay dividends in the future with respect to its common stock will also be dependent upon the ability of its subsidiaries to pay dividends to it under applicable corporate law.

21. INCOME TAXES

Net deferred tax assets and liabilities consist of the following as of December 31, 2023 and 2022 (in millions):

	As of December 31,	
	2023	2022
Deferred tax assets:		
Accrued compensation and benefits	$ 19.3	$ 16.1
Property, equipment and technology, net	12.7	16.0
Investments	83.7	95.1
Operating leases	42.6	37.1
Other	84.2	75.7
Subtotal	242.5	240.0
Valuation allowances	(11.8)	(17.5)
Total deferred tax assets	230.7	222.5
Deferred tax liabilities:		
Intangibles	(384.7)	(390.1)
Property, equipment and technology, net	(17.4)	(20.4)
Prepaid expenses or assets	(4.4)	(4.4)
Operating leases	(33.9)	(28.2)
Total deferred tax liabilities	(440.4)	(443.1)
Net deferred tax liabilities	$ (209.7)	$ (220.6)

The Company provides valuation allowances against deferred tax assets if, based on management's assessment of historical and projected future operating results and other available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. Valuation allowances of $11.8 million and $17.5 million were recorded against gross deferred tax assets for certain investments, net operating and capital losses as of December 31, 2023 and 2022, respectively.

As of December 31, 2023, the Company has capital loss carryforwards of $5.0 million, which, if unused, will expire in 2024 and 2025. The Company also has net operating loss carryforwards of $16.7 million, most of which have a 20 year carryforward period.

The Company considers its non-U.S. earnings to be indefinitely reinvested outside of the U.S. to the extent these earnings are not subject to U.S. income tax under an anti-deferral tax regime. As of December 31, 2023, the cumulative amount of undistributed earnings in these subsidiaries is $116.6 million. Given our intent to reinvest these earnings for an indefinite period of time, the Company has not accrued a deferred tax liability on these earnings. A determination of an unrecognized deferred tax liability related to these earnings is not practicable.

The provision for income taxes for the years ended December 31, 2023, 2022 and 2021 consists of the following (in millions):

	Year Ended December 31,		
	2023	2022	2021
Current tax expense:			
Federal	$ 188.1	$ 210.4	$ 148.4
State	97.8	130.2	83.4
Foreign	15.5	13.0	14.2
Total current tax expense	301.4	353.6	246.0
Deferred income tax (benefit) expense:			
Federal	(3.4)	(126.2)	(24.3)
State	1.5	(22.7)	(7.3)
Foreign	(13.3)	(6.8)	12.7
Total deferred income tax benefit	(15.2)	(155.7)	(18.9)
Total	$ 286.2	$ 197.9	$ 227.1

For the years ended December 31, 2023, 2022, and 2021, income before taxes consists of the following (in millions):

	Year Ended December 31,		
	2023	2022	2021
U.S. operations	$ 1,010.5	$ 401.3	$ 714.0
Foreign operations	37.1	31.6	42.1
Total	$ 1,047.6	$ 432.9	$ 756.1

A reconciliation of the statutory federal income tax rate to the effective income tax rate for the years ended December 31, 2023, 2022, and 2021 is as follows:

	Year Ended December 31,		
	2023	2022	2021
Statutory U.S. federal income tax rate	21.0 %	21.0 %	21.0 %
Impact of federal, state and local tax law & rate changes, net	— %	(0.5)%	1.9 %
State taxes, net of federal benefit	4.3 %	4.5 %	4.3 %
Uncertain tax positions	2.9 %	20.6 %	3.2 %
Deduction for foreign-derived intangible income	(0.4)%	(1.0)%	(0.6)%
Valuation allowances	(0.5)%	0.6 %	— %
Other, net	— %	0.5 %	0.2 %
Effective income tax rate	27.3 %	45.7 %	30.0 %

A reconciliation of the beginning and ending unrecognized tax benefits, excluding interest and penalties, is as follows (in millions):

	2023	2022	2021
Balance as of January 1	$ 212.1	$ 162.1	$ 138.6
Gross increases related to prior year tax positions	—	21.8	3.4
Gross decreases related to prior year tax positions	(1.5)	—	(0.2)
Gross increases related to current year tax positions	31.1	32.9	26.5
Settlements	(2.5)	(3.7)	—
Lapse of statute of limitations	(1.7)	(1.0)	(6.2)
Balance as of December 31	$ 237.5	$ 212.1	$ 162.1

As of December 31, 2023, 2022 and 2021, the Company had $196.6 million, $177.1 million, and $162.1 million, respectively, of unrecognized tax benefits, net of federal benefit, which, if recognized in the future, would affect the effective income tax rate. Reductions to unrecognized tax benefits from the lapse of the applicable statutes of limitations and potential audit settlements during the next twelve months are estimated to be approximately $49.9 million.

Estimated interest costs and penalties are classified as part of the provision for income taxes in the Company's consolidated statements of income and were $14.3 million, $39.1 million, and $9.7 million, for the periods ended December 31, 2023, 2022 and 2021, respectively. Accrued interest and penalties were $88.5 million, $74.4 million and $35.8 million as of December 31, 2023, 2022 and 2021, respectively.

The following table summarizes the tax years that are either currently under audit or remain open and subject to examination by the tax authorities in the most significant jurisdictions in which Cboe operates:

U.S. Federal	2020-2023
California	2015-2023
Illinois	2020-2023
New York	2015-2023
New York City	2015-2023
United Kingdom	2020-2023
Netherlands	2017-2023

During 2023 the Company reached a settlement with the IRS under which the Company agreed to concede all claimed Section 199 deductions in exchange for concession of the IRS asserted penalties. The Company accordingly remeasured its Section 199 tax reserves and released its reserves associated with penalties and interest thereon during the year.

22. EARNINGS PER SHARE

The computation of basic net income per common share is calculated by reducing net income for the period by dividends paid or declared and undistributed net income for the period that are allocated to participating securities to arrive at net income allocated to common stockholders. Net income allocated to common stockholders is divided by the weighted average number of common shares outstanding during the period to determine net income per share allocated to common stockholders.

The computation of diluted net income per share is calculated by dividing net income allocated to common stockholders by the sum of the weighted average number of common shares outstanding plus all additional common shares that would have been outstanding if the potentially dilutive common shares had been issued. The dilutive effect is calculated using the more dilutive of the two-class or treasury stock method.

The following table sets forth the computation of basic and diluted earnings per share for the years ended December 31, 2023, 2022, and 2021 (in millions, except per share data):

	Year Ended December 31,		
	2023	2022	2021
Basic earnings per share numerator:			
Net income	$ 761.4	$ 235.0	$ 529.0
Net income allocated to participating securities	(3.9)	(0.9)	(1.7)
Net income allocated to common stockholders	$ 757.5	$ 234.1	$ 527.3
Basic earnings per share denominator:			
Weighted average shares outstanding	105.8	106.3	107.0
Basic earnings per share	$ 7.16	$ 2.20	$ 4.93
Diluted earnings per share numerator:			
Net income	$ 761.4	$ 235.0	$ 529.0
Net income allocated to participating securities	(3.9)	(0.9)	(1.7)
Net income allocated to common stockholders	$ 757.5	$ 234.1	$ 527.3
Diluted earnings per share denominator:			
Weighted average shares outstanding	105.8	106.3	107.0
Dilutive common shares issued under stock program	0.4	0.4	0.2
Total dilutive weighted average shares	106.2	106.7	107.2
Diluted earnings per share	$ 7.13	$ 2.19	$ 4.92

For the periods presented, the Company did not have shares of stock-based compensation that would have an anti-dilutive effect on the computation of diluted earnings per share.

23. COMMITMENTS, CONTINGENCIES, AND GUARANTEES

Legal Proceedings

As of December 31, 2023, the Company was subject to the various legal proceedings and claims discussed below, as well as certain other legal proceedings and claims that have not been fully resolved and that have arisen in the ordinary course of business.

The Company reviews its legal proceedings and claims, regulatory reviews and inspections and other legal proceedings on an ongoing basis and follows appropriate accounting guidance when making accrual and disclosure decisions. The Company establishes accruals for those contingencies where the incurrence of a loss is probable and can be reasonably estimated, and the Company discloses the amount accrued and the amount of a reasonably possible loss in excess of the amount accrued, if such disclosure is necessary for the consolidated financial statements to not be misleading. The Company does not record liabilities when the likelihood that the liability has been incurred is probable, but the amount cannot be reasonably estimated, or when the liability is believed to be only reasonably possible or remote. The Company's assessment of whether a loss is remote, reasonably possible, or probable is based on its assessment of the ultimate outcome of the matter following all appeals.

As of December 31, 2023, the Company does not believe that there is a reasonable possibility that any material loss exceeding the amounts already recognized for these legal proceedings and claims, regulatory reviews, inspections or other legal proceedings, if any, has been incurred. While the consequences of certain unresolved proceedings are not presently determinable, the outcome of any proceeding is inherently uncertain and an adverse outcome from certain matters could have a material effect on the financial position, results of operations, or cash flows of the Company in any given reporting period.

CAT Funding Model Order Litigation

On September 6, 2023, the SEC issued an order approving an amendment to the CAT National Market System Plan to implement a revised funding model for CATLLC to fund the CAT ("CAT Funding Model Order"). The approved CAT Funding Model contemplates two categories of CAT fees calculated based on the "executed equivalent shares" of transactions in eligible securities: (i) CAT fees assessed by CATLLC to Industry Members who are CAT Executing Brokers to recover a portion of historical CAT costs previously paid to CATLLC by the Plan Participants; and (ii) CAT fees assessed by CATLLC to CAT Executing Brokers and Plan Participants to fund prospective CAT costs.

On October 17, 2023, the American Securities Association ("AMA") and Citadel Securities, LLC ("Citadel") filed a Petition for Review of the CAT Funding Model Order in the U.S. Court of Appeals for the 11th Circuit ("11th Circuit"). On November 16, 2023, the Cboe securities exchanges, the NYSE securities exchanges, the Nasdaq securities exchanges and CATLLC filed motions to intervene on behalf of the SEC. On January 17, 2024, the 11th Circuit granted each of the motions to intervene on behalf of the SEC and established a briefing schedule. Briefing is expected to conclude during the second quarter of 2024. This challenge or any other challenge to the SEC order approving the CAT Funding Model and/or Plan Participant(s) fee filings may significantly delay implementation efforts. As a result, the Plan Participants may continue to incur additional significant costs, and/or it may result in them not being able to collect on the promissory notes related to the funding of the implementation and operation of the CAT. The Company believes the appeal is without merit and intends to vigorously litigate the matter.

Other

As self-regulatory organizations under the jurisdiction of the SEC, Cboe Options, C2, BZX, BYX, EDGX and EDGA are subject to routine reviews and inspections by the SEC. As a designated contract market under the jurisdiction of the CFTC, CFE, and Cboe Digital Exchange are subject to routine rule enforcement reviews and examinations by the CFTC. As a derivatives clearing organization under the jurisdiction of the CFTC, Cboe Clear Digital is also subject to routine audits and examinations by state regulators. Cboe SEF, LLC is a swap execution facility registered with the CFTC and subject to routine rule enforcement reviews and examinations by the CFTC. Cboe Trading, BIDS Trading and Cboe Fixed Income are subject to reviews and inspections by FINRA. The Company has from time to time received inquiries and investigative requests from the SEC's Division of Examinations and the CFTC's Division of Market Oversight as well as the SEC Division of Enforcement and CFTC Division of Enforcement seeking information about the Company's compliance with its obligations as a self-regulatory organization under the federal securities laws and Commodity Exchange Act as well as members' compliance with the federal securities laws and Commodity Exchange Act.

In addition, while Cboe Europe, Cboe Chi-X Europe, Cboe Clear Europe, Cboe NL, Cboe Australia, Cboe Japan, MATCHNow, and Cboe Canada have not been the subject of any litigation or regulatory investigation in the past that resulted in a material impact on the Company's financial position, results of operations, liquidity or capital resources, there is always the possibility of such action in the future. As Cboe Europe and Cboe Chi-X Europe are domiciled in the UK, it is likely that any action would be taken in the UK courts in relation to litigation or by the FCA in relation to any regulatory enforcement action. As Cboe Clear Europe is domiciled in the Netherlands, it is likely that any action would be taken in the Dutch courts in relation to litigation or by the DNB or Dutch Authority for Financial Markets in relation to any regulatory enforcement action. For Cboe NL, also domiciled in the Netherlands, it is likely that any actions would be taken in the Dutch courts in relation to litigation or Dutch Authority for Financial Markets in relation to any regulatory enforcement action. As Cboe Australia is domiciled in Australia, it is likely that any action would be taken in the Australian courts in relation to litigation or by the ASIC, in relation to any regulatory enforcement action. As Cboe Japan is domiciled in Japan, it is likely that any action would be taken in the Japanese courts in relation to litigation or by the JFSA or the JSDA in relation to any regulatory enforcement action. As Cboe Canada Inc. is domiciled in Canada, it is likely that any action would be taken in the Canadian courts in relation to litigation or by the OSC and/or CIRO in relation to any regulatory enforcement action.

Cboe Digital has committed to securely store all digital assets it holds on behalf of users. As such, Cboe Digital may be liable to its users for losses arising from theft or loss of user private keys. Cboe Digital has no reason to believe it will

incur any expense associated with such potential liability because (i) it has no known or historical experience of claims to use as a basis of measurement, (ii) it accounts for and continually verifies the amount of digital assets within its control, and (iii) it has established security around custodial private keys to minimize the risk of theft or loss. There were no loss events impacting safeguarded assets caused by the theft or loss of digital asset user private keys as of December 31, 2023.

The Company is also currently a party to various other legal proceedings in addition to those already mentioned. Management does not believe that the likely outcome of any of these other reviews, inspections, investigations or other legal proceedings is expected to have a material impact on the Company's financial position, results of operations, liquidity or capital resources.

See also Note 8 ("Credit Losses") for information on promissory notes related to the CAT.

See also Note 21 ("Income Taxes").

Contractual Obligations

The Company has contractual obligations related to licensing agreements with various licensors, some of which included fixed fees and/or variable fees calculated using agreed upon contracted rates and reported cleared volumes. Certain licensing agreements contain annual minimum fee requirements that total between $17.1 and $18.1 million each year for the next five years. Cboe Canada Inc. has purchase obligations primarily related to software development activities of $1.3 million in total over the next three years.

See Note 14 ("Clearing Operations") for information on the clearinghouse exposure guarantees for Cboe Clear Europe and Cboe Clear Digital.

See Note 24 ("Leases") for information on lease obligations.

24. LEASES

The Company currently leases office space, data centers, remote network operations centers, and equipment under non-cancelable operating leases with third parties as of December 31, 2023. Certain leases include one or more options to renew, with renewal terms that can extend the lease term from one to five years or more, and some of which include the Company's option to terminate the leases within one year. During the year ended December 31, 2023, $44.5 million of right of use assets and $44.5 million of lease liabilities were added related to new operating leases and existing lease extensions.

The following table presents the supplemental balance sheet information related to leases as of December 31, 2023 and 2022 (in millions):

	December 31, 2023	December 31, 2022
Operating lease right of use assets	$ 136.6	$ 111.7
Total leased assets	$ 136.6	$ 111.7
Current operating lease liabilities (1)	$ 20.8	$ 18.3
Non-current operating lease liabilities	150.8	129.3
Total leased liabilities	$ 171.6	$ 147.6

(1) These amounts are reflected within accounts payable and accrued liabilities in the consolidated balance sheets.

The following table presents operating lease costs and other information as of and for the years ended December 31, 2023 and 2022 (in millions, except as stated):

	Year Ended December 31, 2023	Year Ended December 31, 2022
Operating lease costs (1)	$ 34.5	$ 30.0
Lease term and discount rate information:		
Weighted average remaining lease term (years)	8.6	10.2
Weighted average discount rate	3.4 %	3.1 %
Supplemental cash flow information and non-cash activity:		
Cash paid for amounts included in the measurement of lease liabilities	$ 24.9	$ 20.9
Right-of-use assets obtained in exchange for lease liabilities	44.5	24.4

(1) Includes short-term lease and variable lease costs, which are immaterial.

The total rent expense related to lease obligations, reflected in technology support services and facilities costs line items on the consolidated statements of income, for the years ended December 31, 2023, 2022, and 2021 were $34.5 million, $30.0 million, and $25.6 million, respectively.

The maturities of the lease liabilities are as follows as of December 31, 2023 (in millions):

	December 31, 2023
2024	$ 26.6
2025	26.8
2026	27.9
2027	23.5
2028	21.3
After 2028 (1)	75.8
Total lease payments	$ 201.9
Less: Interest	(30.3)
Present value of lease liabilities	$ 171.6

(1) Total lease payments include $13.8 million related to options to extend lease terms that are reasonably certain of being exercised.

25. SUBSEQUENT EVENTS

On January 4, 2024, using cash on hand, the Company paid $69.9 million to the IRS to satisfy its U.S. federal income tax liabilities and accrued interest resulting from the settlement of Section 199 tax matters.

On February 7 and 8, 2024, the Company's Board of Directors and Compensation Committee, as applicable, approved granting $38.2 million of RSUs and $5.9 million of PSUs, with an effective date of February 19, 2024, to certain officers and employees at a fair value, based on the closing price of the Company's stock on the pricing date of February 19, 2024. The shares will have a three year vesting period based on achievement of certain service, performance and/or market conditions and vesting accelerates upon the occurrence of a termination of employment following a change in control of the Company or in the event of earlier death, or disability.

On February 8, 2024, the Company's Board of Directors declared a quarterly cash dividend of $0.55 per share. The dividend is payable on March 15, 2024 to stockholders of record at the close of business on February 29, 2024.

There have been no additional subsequent events that would require disclosure in, or adjustment to, the consolidated financial statements as of and for the year ended December 31, 2023.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

Not applicable.

Item 9A. Controls and Procedures

(a) Evaluation of Disclosure Controls and Procedures

The Company's management, with the participation of its Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's disclosure controls and procedures (as defined in Rule 13a-15(e) and Rule 15d-15(e) under the Securities Exchange Act of 1934 (the “Exchange Act”)) as of the end of the period covered by this report. Based upon that evaluation, the Company's Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of such period, the Company's disclosure controls and procedures are effective.

(b) Management's Annual Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting. The Company’s internal control system has been designed to provide reasonable assurance to management and the Board of Directors regarding the preparation and fair presentation of published financial statements.

Management assessed the effectiveness of the Company’s internal control over financial reporting as of December 31, 2023. Management based its assessment on criteria for effective internal control over financial reporting described in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Management’s assessment included evaluating the design of our internal control over financial reporting and testing the operational effectiveness of our internal control over financial reporting. The results of its assessment were reviewed with the audit committee of the Board of Directors.

As of the date of this Annual Report on Form 10-K, we have integrated the acquired Cboe Canada and Cboe Digital operations into our overall internal controls over financial reporting.

No changes occurred in the Company’s internal control over financial reporting during fourth quarter 2023 that have materially affected, or are reasonably likely to materially affect, the Company’s internal control over financial reporting. Based on its assessment of the Company’s internal control over financial reporting, management believes that, as of December 31, 2023, internal control over financial reporting is effective.

The effectiveness of the Company’s internal control over financial reporting as of December 31, 2023 has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report on page 109.

Item 9B. Other Information

None of our directors or executive officers adopted or terminated a Rule 10b5-1 trading agreement (as defined in Item 408(c) of Regulation S-K) during the quarter ended December 31, 2023.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

Information relating to our directors, including our audit committee and audit committee financial experts and the procedures by which stockholders can recommend director nominees, and our executive officers will be in our definitive Proxy Statement for our 2024 Annual Meeting of Stockholders planned to be held on May 16, 2024, which will be filed within 120 days of the end of our fiscal year ended December 31, 2023 ("2024 Proxy Statement") and is incorporated herein by reference. Information relating to our executive officers is included on pages 32 and 33 of this Annual Report on Form 10-K.

Code of Ethics

We have adopted a Code of Business Conduct and Ethics that applies to our Chief Executive Officer, Chief Financial Officer, and Chief Accounting Officer, as well as all other employees and directors. Our Code of Business Conduct and Ethics is available on our website at https://ir.cboe.com/corporate-governance/code-of-business-conduct-and-ethics. We will also provide a copy of the Code of Business Conduct and Ethics to stockholders at no charge upon written request.

Item 11. Executive Compensation

Information relating to our executive officer and director compensation and the compensation committee of our Board of Directors will be in the 2024 Proxy Statement and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information relating to security ownership of certain beneficial owners of our common stock, information relating to the security ownership of our management, and equity compensation plan information will be in the 2024 Proxy Statement and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Information regarding certain relationships and related transactions and director independence will be in the 2024 Proxy Statement and is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services

Information regarding principal accountant fees and services will be in the 2024 Proxy Statement and is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules

(a) *Documents filed as part of this report*

(1) *Financial Statements*

Our consolidated financial statements and the related reports of management and our independent registered public accounting firm which are required to be filed as part of this report are included in this Annual Report on Form 10-K beginning at page 107. These consolidated financial statements are as follows:

- Consolidated Balance Sheets as of December 31, 2023 and 2022
- Consolidated Statements of Income for the years ended December 31, 2023, 2022 and 2021
- Consolidated Statements of Comprehensive Income for the years ended December 31, 2023, 2022 and 2021
- Consolidated Statements of Changes in Stockholders' Equity for the years ended December 31, 2023, 2022 and 2021
- Consolidated Statements of Cash Flows for the years ended December 31, 2023, 2022 and 2021
- Notes to Consolidated Financial Statements

(2) *Financial Statement Schedules*

The Company has not included any financial statement schedules because they are not applicable or the required information is included in the consolidated financial statements or notes thereto.

(3) *List of Exhibits*

See (b) Exhibits below

(b) Exhibits

Exhibit No.	Description of Exhibit
3.1	Third Amended and Restated Certificate of Incorporation, incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on October 17, 2017.
3.2	Seventh Amended and Restated Bylaws, incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on August 5, 2021.
4.1	Indenture, dated as of January 12, 2017, by and between the Cboe Global Markets, Inc. (f/k/a CBOE Holdings, Inc.) and Wells Fargo Bank National Association, as trustee, incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on January 12, 2017.
4.2	Officer's Certificate, dated as of January 12, 2017, establishing the 3.650% Senior Notes due 2027 of Cboe Global Markets, Inc. (f/k/a CBOE Holdings, Inc.), incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on January 12, 2017.
4.3	Form of 3.650% Senior Notes due 2027 (included in Exhibit 4.2 hereto).
4.4	Officer's Certificate, dated as of December 15, 2020, establishing the 1.625% Senior Notes due 2030 of Cboe Global Markets, Inc., incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on December 15, 2020.
4.5	Form of 1.625% Senior Notes due 2030 (included in Exhibit 4.4 hereto).

4.6	Officers' Certificate, dated as of March 16, 2022, establishing the 3.000% Senior Notes due 2032 of Cboe Global Markets, Inc., incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on March 16, 2022.
4.7	Form of 3.000% Senior Notes due 2032 (included in Exhibit 4.6 hereto).
4.8	Description of Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934, incorporated by reference to Exhibit 4.6 to the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (File No. 001-34774) filed on February 22, 2020.
10.1	Term Loan Credit Agreement, dated as of March 22, 2018, by and among Cboe Global Markets, Inc., Bank of America, N.A., as administrative agent, and the lender parties thereto, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on March 23, 2018.
10.2	Amendment No. 1 to Term Loan Credit Agreement, dated as of May 29, 2020, by and among Cboe Global Markets, Inc. and, Bank of America, N.A., as administrative agent, and the lender parties thereto, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on June 3, 2020.
10.3	Amendment No. 2 to Term Loan Credit Agreement, dated as of June 25, 2021, by and between Cboe Global Markets, Inc., Bank of America, N.A., as administrative agent and initial lender, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on July 1, 2021.
10.4	Amendment No. 3 to Term Loan Credit Agreement, dated as of March 29, 2022, by and among between Cboe Global Markets, Inc. and, Bank of America, N.A., as administrative agent and initial lender, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on April 1, 2022.
10.5	Second Amended and Restated Credit Agreement, dated as of February 25, 2022, by and among Cboe Global Markets, Inc., with Bank of America, N.A., as administrative agent and as swing line lender, certain lenders named therein, BofA Securities, Inc., as sole lead arranger and sole bookrunner and certain syndication agents named therein, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on February 28, 2022.
10.6	Amendment and Restatement Agreement, dated June 30, 2022, by and among European Central Counterparty N.V., as borrower, Cboe Global Markets, Inc., as guarantor, Bank of America Europe Designated Activity Company, as co-ordinator and facility agent and Citibank N.A., London Branch as security agent relating to the Facility Agreement (as amended and restated), incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on July 5, 2022.
10.7	Amendment and Restatement Agreement, dated June 29, 2023, by and among Cboe Clear Europe N.V., as borrower, Cboe Global Markets, Inc., as guarantor, Bank of America Europe Designated Activity Company, as co-ordinator and facility agent and Citibank N.A., London Branch as security agent relating to a Facility Agreement originally dated July 1, 2020, by and among the same parties (as previously amended and restated by way of an amendment and restatement agreement dated July 1, 2021, and June 30, 2022, respectively, and further amended and restated, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-34771) filed on July 5, 2023.
10.8	Restated License Agreement, dated November 1, 1994, by and between Standard & Poor's Financial Services LLC (as successor-in-interest to Standard & Poor's, a division of McGraw-Hill, Inc.) and Cboe Exchange, Inc. (f/k/a Chicago Board Options Exchange, Incorporated) (the "S&P License Agreement"), incorporated by reference to Exhibit 10.1 to Amendment No. 6 to the Company's Registration Statement on Form S-4 (File No. 333-140574) filed on April 12, 2010.+
10.9	Amendment No. 1 to the S&P License Agreement, dated January 15, 1995, incorporated by reference to Exhibit 10.2 to Amendment No. 6 to the Company's Registration Statement on Form S-4 (File No. 333-140574) filed on April 12, 2010.+
10.10	Amendment No. 2 to the S&P License Agreement, dated April 1, 1998, incorporated by reference to Exhibit 10.3 to Amendment No. 6 to the Company's Registration Statement on Form S-4 (File No. 333-140574) filed on April 12, 2010.+
10.11	Amendment No. 3 to the S&P License Agreement, dated July 28, 2000, incorporated by reference to Exhibit 10.4 to Amendment No. 6 to the Company's Registration Statement on Form S-4 (File No. 333-140574) filed on April 12, 2010.+

10.12	Amendment No. 4 to the S&P License Agreement, dated October 27, 2000, incorporated by reference to Exhibit 10.5 to Amendment No. 6 to the Company's Registration Statement on Form S-4 (File No. 333-140574) filed on April 12, 2010.+
10.13	Amendment No. 5 to the S&P License Agreement, dated March 1, 2003, incorporated by reference to Exhibit 10.6 to Amendment No. 6 to the Company's Registration Statement on Form S-4 (File No. 333-140574) filed on April 12, 2010.+
10.14	Amended and Restated Amendment No. 6 to the S&P License Agreement, dated February 24, 2009, incorporated by reference to Exhibit 10.7 to Amendment No. 6 to the Company's Registration Statement on Form S-4 (File No. 333-140574) filed on April 12, 2010.+
10.15	Amended and Restated Amendment No. 7 to the S&P License Agreement, dated February 24, 2009, incorporated by reference to Exhibit 10.8 to Amendment No. 6 to the Company's Registration Statement on Form S-4 (File No. 333-140574) filed on April 12, 2010.+
10.16	Amendment No. 8 to the S&P License Agreement, dated January 9, 2005, incorporated by reference to Exhibit 10.9 to Amendment No. 6 to the Company's Registration Statement on Form S-4 (File No. 333-140574) filed on April 12, 2010.+
10.17	Amendment No. 10 to the S&P License Agreement, dated June 19, 2009, incorporated by reference to Exhibit 10.10 to Amendment No. 6 to the Company's Registration Statement on Form S-4 (File No. 333-140574) filed on April 12, 2010.+
10.18	Amendment No. 11 to the S&P License Agreement, dated as of April 29, 2010, incorporated by reference to Exhibit 10 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on May 11, 2010.
10.19	Amendment No. 12 to the S&P License Agreement, dated March 9, 2013, incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-34774) filed on May 7, 2013. +
10.20	Amendment No. 12 to the S&P License Agreement, dated March 9, 2013 incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-34774) filed on August 4, 2023.+
10.21	Amendment No. 13 to the S&P License Agreement, dated as of December 21, 2017, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on December 22, 2017.+
10.22	Amendment No. 14 to the S&P License Agreement, dated December 20, 2018, incorporated by reference to Exhibit 10.17 to the Company's Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-34774) filed on February 22, 2019.
10.23	Amendment No. 15 to the S&P License Agreement, dated January 25, 2019, incorporated by reference to Exhibit 10.18 to the Company's Annual Report on Form 10-K for the year ended December 31, 2018 (File No. 001-34774) filed on February 22, 2019.
10.24	Amendment No. 16 to the S&P License Agreement, made as of April 1, 2020, incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q (File No. 001-34774) filed on July 31, 2020.
10.25	Amendment No. 17 to the S&P License Agreement, made as of August 1, 2020, incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-34774) filed on October 30, 2020. +
10.26	Amendment No. 18 to the S&P License Agreement, made as of October 26, 2021, incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-34774) filed on October 29, 2021.+
10.27	Amendment No. 19 to the S&P License Agreement, effective as of February 23, 2022, incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-34774) filed on April 29, 2022.
10.28	Amendment No. 20 to the S&P License Agreement, effective as of April 25, 2022, incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q (File No. 001-34774) filed on July 29, 2022.+
10.29	Amendment No. 21 to the S&P License Agreement, effective as of October 20, 2022, incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-34774) filed on November 4, 2022.

10.30	Amendment No. 22 to the S&P License Agreement, effective as of September 1, 2022, incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q (File No. 001-34774) filed on November 4, 2022.+
10.31	Form of Amended and Restated Director Indemnification Agreement, incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017 (File No. 001-34774) filed on August 4, 2017.
10.32	Form of Second Amended and Restated Director Indemnification Agreement (filed herewith).
10.33	Offer Letter, dated September 18, 2023, between Cboe Global Markets, Inc. and Fredric J. Tomczyk, incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on September 19, 2023.*
10.34	Relocation Benefits for Fredric J. Tomczyk (filed herewith).*
10.35	Employment Agreement, by and between Cboe Global Markets, Inc. and Edward Tilly, dated February 9, 2023, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on February 14, 2023.*
10.36	Letter Agreement, dated September 18, 2023, between Cboe Global Markets, Inc. and Edward T. Tilly, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on September 19, 2023.*
10.37	Form of UK Executive Employment Agreement between Bats Global Markets, Inc. and certain executive officers, incorporated by reference to Exhibit 10.16 to Amendment No. 3 to Bats Global Markets, Inc.'s Registration Statement on Form S-1 (File No. 333-208565) filed on April 4, 2016.*
10.38	Relocation Benefits for David Howson, incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q (File No. 001-34774) filed on July 29, 2022.*
10.39	Cancellation Amendment of Employment Agreement and Participation in Executive Severance Plan, signed November 16, 2022, by and between Cboe Global Markets, Inc. and David Howson, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on November 17, 2022.*
10.40	Cboe Exchange, Inc. (f/k/a Chicago Board Options Exchange, Incorporated) Executive Retirement Plan, incorporated by reference to Exhibit 10.13 to Amendment No. 4 to the Company's Registration Statement on Form S-4 (File No. 333-140574) filed on August 14, 2009.*
10.41	Amendments to the Cboe Exchange, Inc. (f/k/a Chicago Board Options Exchange, Incorporated) Executive Retirement Plan, incorporated by reference to Exhibit 10.13 to the Company's Annual Report on Form 10-K for the year ended December 31, 2016 (File No. 001-34774) filed on February 22, 2017.*
10.42	Amendments to the Cboe Exchange, Inc. (f/k/a Chicago Board Options Exchange, Incorporated) Executive Retirement Plan, incorporated by reference to Exhibit 10.41 to the Company's Annual Report on Form 10-K for the year ended December 31, 2022 (File No. 001-34774) filed on February 17, 2023.*
10.43	Cboe Exchange, Inc. (f/k/a Chicago Board Options Exchange, Incorporated) Supplemental Retirement Plan, incorporated by reference to Exhibit 10.14 to Amendment No. 4 to the Company's Registration Statement on Form S-4 (File No. 333-140574) filed on August 14, 2009.*
10.44	Amendment No. 1 to the Cboe Exchange, Inc. (f/k/a Chicago Board Options Exchange, Incorporated) Supplemental Retirement Plan, incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2010 (File No. 001-34774) filed on November 12, 2010.*
10.45	Amendments to the Cboe Exchange, Inc. (f/k/a Chicago Board Options Exchange, Incorporated) Supplemental Retirement Plan, incorporated by reference to Exhibit 10.18 to the Company's Annual Report on Form 10-K for the year ended December 31, 2016 (File No. 001-34774) filed on February 22, 2017.*
10.46	Amendments to the Cboe Exchange, Inc. (f/k/a Chicago Board Options Exchange, Incorporated) Supplemental Retirement Plan incorporated by reference to Exhibit 10.45 to the Company's Annual Report on Form 10-K for the year ended December 31, 2022 (File No. 001-34774) filed on February 17, 2023.*
10.47	Cboe Exchange, Inc. (f/k/a Chicago Board Options Exchange, Incorporated) Deferred Compensation Plan for Officers, incorporated by reference to Exhibit 10.15 to Amendment No. 4 to the Company's Registration Statement on Form S-4 (File No. 333-140574) filed on August 14, 2009.*

10.48	Amendments to the Cboe Exchange, Inc. (f/k/a Chicago Board Options Exchange, Incorporated) Deferred Compensation Plan for Officers, incorporated by reference to Exhibit 10.16 to the Company's Annual Report on Form 10-K for the year ended December 31, 2016 (File No. 001-34774) filed on February 22, 2017.*
10.49	Amendments to the Cboe Exchange, Inc. (f/k/a Chicago Board Options Exchange, Incorporated) Deferred Compensation Plan for Officers, incorporated by reference to Exhibit 10.48 to the Company's Annual Report on Form 10-K for the year ended December 31, 2022 (File No. 001-34774) filed on February 17, 2023.*
10.50	Cboe Global Markets, Inc. Amended and Restated Executive Severance Plan, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on February 12, 2021.*
10.51	First Amendment to the Cboe Global Markets, Inc. Amended & Restated Executive Severance Plan, dated September 18, 2023, incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on September 19, 2023.*
10.52	Cboe Global Markets, Inc. Employee Stock Purchase Plan, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on May 18, 2018.*
10.53	Second Amended and Restated Cboe Global Markets, Inc. (f/k/a CBOE Holdings, Inc.) Long-Term Incentive Plan, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on May 24, 2016.*
10.54	Cboe Global Markets, Inc. Director Equity Deferral Plan, incorporated by reference to Exhibit 10.53 to the Company's Annual Report on Form 10-K for the year ended December 31, 2022 (File No. 001-34774) filed on February 17, 2023 *
10.55	Cboe Global Markets, Inc. Director Equity Deferral Plan, as amended and restated (filed herewith).*
10.56	Form of Restricted Stock Award Agreement (for Non-employee Directors), incorporated by reference to Exhibit 10.17 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017 (File No. 001-34774) filed on May 11, 2017.*
10.57	Form of Restricted Stock Award Agreement (for Non-employee CDN Directors), incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on August 2, 2019.*
10.58	Form of Restricted Stock Unit Award Agreement (for Non-employee US and CDN Directors), incorporated by reference to Exhibit 10.56 to the Company's Annual Report on Form 10-K for the year ended December 31, 2022 (File No. 001-34774) filed on February 17, 2023.*
10.59	Form of Restricted Stock Unit Award Agreement (for Non-employee CDN Directors), incorporated by reference to Exhibit 10.57 to the Company's Annual Report on Form 10-K for the year ended December 31, 2022 (File No. 001-34774) filed on February 17, 2023.*
10.60	Form of 2020 Edward Tilly Restricted Stock Unit Award Agreement (relative total shareholder return), incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on February 14, 2020.*
10.61	Form of 2020 Edward Tilly Restricted Stock Unit Award Agreement (earnings per share), incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on February 14, 2020.*
10.62	Form of 2020 Restricted Stock Unit Award Agreement (for Executive Officers), incorporated by reference to Exhibit 10.66 to the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (File No. 001-34774) filed on February 22, 2020.*
10.63	Form of 2020 Restricted Stock Unit Award Agreement (relative total shareholder return), incorporated by reference to Exhibit 10.67 to the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (File No. 001-34774) filed on February 22, 2020.*
10.64	Form of 2020 Restricted Stock Unit Award Agreement (earnings per share), incorporated by reference to Exhibit 10.68 to the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (File No. 001-34774) filed on February 22, 2020.*
10.65	Form of 2020 Restricted Stock Unit Award Agreement (3 Year Cliff Vest), incorporated by reference to Exhibit 10.69 to the Company's Annual Report on Form 10-K for the year ended December 31, 2019 (File No. 001-34774) filed on February 22, 2020.*

10.66	Form of 2021 Edward Tilly Restricted Stock Unit Award Agreement (relative total shareholder return), incorporated by reference to Exhibit 10.67 to the Company's Annual Report on Form 10-K for the year ended December 31, 2020 (File No. 001-34774) filed on February 19, 2021.*
10.67	Form of 2021 Edward Tilly Restricted Stock Unit Award Agreement (earnings per share), incorporated by reference to Exhibit 10.68 to the Company's Annual Report on Form 10-K for the year ended December 31, 2020 (File No. 001-34774) filed on February 19, 2021.*
10.68	Form of 2021 Restricted Stock Unit Award Agreement (for Executive Officers), incorporated by reference to Exhibit 10.69 to the Company's Annual Report on Form 10-K for the year ended December 31, 2020 (File No. 001-34774) filed on February 19, 2021.*
10.69	Form of 2021 Restricted Stock Unit Award Agreement (relative total shareholder return), incorporated by reference to Exhibit 10.70 to the Company's Annual Report on Form 10-K for the year ended December 31, 2020 (File No. 001-34774) filed on February 19, 2021.*
10.70	Form of 2021 Restricted Stock Unit Award Agreement (earnings per share), incorporated by reference to Exhibit 10.71 to the Company's Annual Report on Form 10-K for the year ended December 31, 2020 (File No. 001-34774) filed on February 19, 2021).*
10.71	Form of 2022 Edward Tilly Restricted Stock Unit Award Agreement (relative total shareholder return), incorporated by reference to Exhibit 10.61 to the Company's Annual Report on Form 10-K for the year ended December 31, 2021 (File No. 001-34774) filed on February 18, 2022.*
10.72	Form of 2022 Edward Tilly Restricted Stock Unit Award Agreement (earnings per share), incorporated by reference to Exhibit 10.62 to the Company's Annual Report on Form 10-K for the year ended December 31, 2021 (File No. 001-34774) filed on February 18, 2022.*
10.73	Form of 2022 Restricted Stock Unit Award Agreement (for Executive Officers), incorporated by reference to Exhibit 10.63 to the Company's Annual Report on Form 10-K for the year ended December 31, 2021 (File No. 001-34774) filed on February 18, 2022.*
10.74	Form of 2022 Restricted Stock Unit Award Agreement (relative total shareholder return), incorporated by reference to Exhibit 10.64 to the Company's Annual Report on Form 10-K for the year ended December 31, 2021 (File No. 001-34774) filed on February 18, 2022.*
10.75	Form of 2022 Restricted Stock Unit Award Agreement (earnings per share), incorporated by reference to Exhibit 10.65 to the Company's Annual Report on Form 10-K for the year ended December 31, 2021 (File No. 001-34774) filed on February 18, 2022.*
10.76	Form of 2022 Restricted Stock Unit Award Agreement without Retirement Vesting (relative total shareholder return), incorporated by reference to Exhibit 10.66 to the Company's Annual Report on Form 10-K for the year ended December 31, 2021 (File No. 001-34774) filed on February 18, 2022.*
10.77	Form of 2022 Restricted Stock Unit Award Agreement without Retirement Vesting (earnings per share), incorporated by reference to Exhibit 10.67 to the Company's Annual Report on Form 10-K for the year ended December 31, 2021 (File No. 001-34774) filed on February 18, 2022.*
10.78	Form of 2022 Restricted Stock Unit Award Agreement for David Howson, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on March 10, 2022.*
10.79	Form of 2023 Edward Tilly Restricted Stock Unit Award Agreement (relative total shareholder return), incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on February 14, 2023.*
10.80	Form of 2023 Edward Tilly Restricted Stock Unit Award Agreement (earnings per share), incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on February 14, 2023.*
10.81	Form of 2023 Restricted Stock Unit Award Agreement (for Executive Officers), incorporated by reference to Exhibit 10.83 to the Company's Annual Report on Form 10-K for the year ended December 31, 2022 (File No. 001-34774) filed on February 17, 2023.*
10.82	Form of 2023 Restricted Stock Unit Award Agreement (relative total shareholder return), incorporated by reference to Exhibit 10.84 to the Company's Annual Report on Form 10-K for the year ended December 31, 2022 (File No. 001-34774) filed on February 17, 2023.*

10.83	Form of 2023 Restricted Stock Unit Award Agreement (earnings per share), incorporated by reference to Exhibit 10.85 to the Company's Annual Report on Form 10-K for the year ended December 31, 2022 (File No. 001-34774) filed on February 17, 2023.*
10.84	Form of 2023 Restricted Stock Unit Award Agreement without Retirement Vesting (relative total shareholder return), incorporated by reference to Exhibit 10.86 to the Company's Annual Report on Form 10-K for the year ended December 31, 2022 (File No. 001-34774) filed on February 17, 2023.*
10.85	Form of 2023 Restricted Stock Unit Award Agreement without Retirement Vesting (earnings per share), incorporated by reference to Exhibit 10.87 to the Company's Annual Report on Form 10-K for the year ended December 31, 2022 (File No. 001-34774) filed on February 17, 2023.*
10.86	Restricted Stock Unit Award Agreement, dated October 12, 2023, for Fredric J. Tomczyk, incorporated by reference to Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q (File No. 001-34774) filed on November 3, 2023.*
10.87	Form of 2023 Restricted Stock Unit Award Agreement with Vesting Dates, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on August 18, 2023.*
10.88	Form of 2023 Restricted Stock Unit Award Agreement without Retirement Vesting (3 Year Cliff Vest), incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K (File No. 001-34774) filed on August 18, 2023.*
10.89	Form of 2024 Restricted Stock Unit Award Agreement (for Executive Officers) (filed herewith).*
10.90	Form of 2024 Restricted Stock Unit Award Agreement (relative total shareholder return) (filed herewith).*
10.91	Form of 2024 Restricted Stock Unit Award Agreement (earnings per share) (filed herewith).*
10.92	Form of 2024 Restricted Stock Unit Award Agreement without Retirement Vesting (relative total shareholder return) (filed herewith).*
10.93	Form of 2024 Restricted Stock Unit Award Agreement without Retirement Vesting (earnings per share) (filed herewith).*
10.94	Form of 2024 Restricted Stock Unit Award Agreement without Retirement Vesting (3 Year Cliff Vest) (filed herewith).*
21.1	Subsidiaries of Cboe Global Markets, Inc. (filed herewith).
23.1	Consent of Independent Registered Public Accounting Firm (filed herewith).
24.1	Powers of Attorney (incorporated by reference to the signature page of this Annual Report on Form 10-K).
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14 (filed herewith).
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14 (filed herewith).
32.1	Certificate of Chief Executive Officer pursuant to Rule 13a-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code (filed herewith).
32.2	Certificate of Chief Financial Officer pursuant to Rule 13a-14(b) and Section 1350 of Chapter 63 of Title 18 of the United States Code (filed herewith).
97.1	Cboe Global Markets, Inc. Executive Officer Incentive Compensation Clawback Policy (filed herewith).
101.INS	iXBRL Instance Document (filed herewith).
101.SCH	iXBRL Taxonomy Extension Schema Document (filed herewith).
101.CAL	iXBRL Taxonomy Extension Calculation Linkbase Document (filed herewith).
101.DEF	iXBRL Taxonomy Extension Definition Linkbase (filed herewith).

101.LAB	iXBRL Taxonomy Extension Label Linkbase Document (filed herewith).
101.PRE	iXBRL Taxonomy Extension Presentation Linkbase Document (filed herewith).
104	Cover Page Interactive Data File (embedded as Inline XBRL document).

*Indicates Management Compensatory Plan, Contract or Arrangement.
+Certain confidential portions (as indicated therein) of this exhibit have been omitted.

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Cboe Global Markets, Inc.
(Registrant)

Date: February 16, 2024

By: /s/ Jill M. Griebenow
Name: **Jill M. Griebenow**
Title: **Executive Vice President, Chief Financial Officer (Principal Financial Officer)**

POWERS OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Fredric J. Tomczyk, as attorney-in-fact and agent, with full power of substitution and re-substitution, to sign on his or her behalf, individually and in any and all capacities, including the capacities stated below, any and all amendments to this Annual Report on Form 10-K for the year ended December 31, 2023 and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting to said attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities on the dates indicated.

SIGNATURE	TITLE	DATE
/s/ FREDRIC J. TOMCZYK Fredric J. Tomczyk	Chief Executive Officer (Principal Executive Officer)	February 16, 2024
/s/ JILL M. GRIEBENOW Jill M. Griebenow	Executive Vice President, Chief Financial Officer (Principal Financial Officer)	February 16, 2024
/s/ ALLEN L. WILKINSON Allen L. Wilkinson	Senior Vice President, Chief Accounting Officer (Principal Accounting Officer)	February 16, 2024
/s/ WILLIAM M. FARROW III William M. Farrow III	Chairman	February 16, 2024
/s/ EDWARD J. FITZPATRICK Edward J. Fitzpatrick	Director	February 16, 2024
/s/ IVAN K. FONG Ivan K. Fong	Director	February 16, 2024
/s/ JANET P. FROETSCHER Janet P. Froetscher	Director	February 16, 2024
/s/ JILL R. GOODMAN Jill R. Goodman	Director	February 16, 2024

SIGNATURE	TITLE	DATE
/s/ ERIN A. MANSFIELD Erin A. Mansfield	Director	February 16, 2024
/s/ CECILIA H. MAO Cecilia H. Mao	Director	February 16, 2024
/s/ ALEXANDER J. MATTURRI Alexander J. Matturri	Director	February 16, 2024
/s/ JENNIFER J. McPEEK Jennifer J. McPeek	Director	February 16, 2024
/s/ RODERICK A. PALMORE Roderick A. Palmore	Director	February 16, 2024
/s/ JAMES E. PARISI James E. Parisi	Director	February 16, 2024

433 W Van Buren St.
Chicago, Ill
60607
United States

November 30, 2023

To: Fredric Tomczyk

Re: Relocation to Chicago – Relocation Repayment Agreement

Dear Fred,

This letter agreement serves to summarize the agreement between Cboe Global Markets, Inc. ("Cboe" or the "Company"), including its subsidiaries and affiliates, and you as it relates to certain relocation assistance benefits being extended to you or others under Cboe's relocation program set forth in the Transfer Benefit Summary attached hereto as Exhibit A. These benefits are being extended to you as a result of you having accepted the position of **Chief Executive Officer** in **Chicago, Illinois** requiring you to relocate your current residence**.**

In consideration of receipt of certain relocation assistance benefits, you agree to repay to Cboe the total value of any or all relocation assistance benefits, including expense reimbursements, paid to you or on your behalf by Cboe, in the event that you voluntarily terminate your employment with Cboe or are terminated for Cause (as that term is defined in the Cboe Global Markets, Inc. Executive Severance Plan) on or before twelve (12) months from September 19, 2023 (the "Transfer Date"), unless such repayment obligation is waived in the sole discretion of the Cboe Compensation Committee .

The amount of repayment that you will owe Cboe shall equal the total of relocation assistance benefits paid, including expense reimbursements. If your employment is terminated by Cboe without cause (including because of a reduction in force, illness, long-term disability, or death) within twelve (12) months of the Transfer Date, no such repayment of such relocation expenses will be required.

Any repayment required will be due and payable to Cboe within sixty (60) days of terminating employment. Cboe reserves the right to deduct any sums due and owing to Cboe from your final paycheck(s), including, without limitation, salary, commissions, bonuses, vacation or other paid leave, severance or separation pay, and expense reimbursements, up to the full amount of the expense owed to Cboe, as allowed by law. If such deduction does not fully satisfy the amount of reimbursement due, you agree to immediately repay the remaining unpaid balance to Cboe.

Further, as part of your relocation assistance benefits, Cboe Bats, LLC has leased a property under its name for you and your family. Cboe has agreed to pay for the first twelve (12 months) of that lease. You have been provided with a copy of the Lease Agreement for 118 Erie Street, Unit 15A, Chicago, Illinois 60611 (the "Lease Agreement") and you agree that you will abide by all the lease terms as the occupant(s) of the property. You also agree that you will be responsible for any fees, damages, early termination penalties (except to the extent the early termination was due to Cboe's termination of your employment without Cause), and any other extraneous charges that may be incurred by Cboe Bats, LLC under the Lease Agreement.

Nothing in this repayment agreement constitutes a contract or guarantee of employment for any specific term or limits either Cboe's or your right to terminate the employment relationship at any time.

If you have any questions regarding the subject matter of this letter agreement, please reach out to Jennifer Jorgensen, Senior Global Mobility Manager.

Sincerely,

/s/ Stephanie Foley

Stephanie Foley
EVP, Chief Human Resources Officer

I have read and accept the conditions set forth in the Global Permanent Transfer Benefit Summary attached hereto as Exhibit A and applying to repayment of relocation advances stated herein.

Signature:

/s/ Fred Tomczyk Jan 30, 2024

Fredric Tomczyk Date

Exhibit A

Item	Description
Eligibility	you must be a full-time Cboe associate. -your relocation and receipt of benefits must be approved by Cboe -You must execute the Repayment Agreement (which will be provided to you separately) -All reimbursable relocation expenses must be incurred after the date of approval of transfer by Cboe and through one year after the date you physically relocate to the new work location (hereinafter referred to as the "Transfer Date").
Temporary housing	You will receive assistance finding temporary and/or permanent housing from a destination service provider if needed. This will be paid for directly.
Temporary Housing	You will receive up to two months temporary housing in Chicago. Following the temporary housing you will receive 12 months rent paid directly landlord. The utilities and insurance expenses will also be covered expenses.
Transportation	You will receive a driver for the duration of your time as CEO.
Tax Assistance	Cboe will provide you (through company designated tax partner or your preferred partner) with: pre departure tax consultation; tax filing assistance in home country and new work country for the year of relocation and up to three years following the year of relocation if compensation paid by Cboe requires dual tax return filings; gross up of applicable relocation expenses. As a general rule, an associate is responsible for income tax obligations and has to pay the income tax due in their home country and the new work location, which includes income tax on any item you received reimbursement by Cboe Global Markets or which Cboe paid directly. You are advised to consult with a tax professional regarding questions about relocation expenses, tax implications and for any assistance needed in filing your tax returns.
Immigration	Your visa for you and your spouse will be processed by Fragomen and paid by Cboe Global Markets. This includes initial visas and any subsequent filings or renewals.

Exhibit 10.32

DIRECTOR INDEMNIFICATION AGREEMENT

THIS AMENDED AND RESTATED DIRECTOR INDEMNIFICATION AGREEMENT (this "Agreement") is made as of _____, 20___ by and between Cboe Global Markets, Inc., a Delaware corporation (the "Corporation"), and _____ ("Indemnitee").

RECITALS

WHEREAS, highly competent persons have become more reluctant to serve publicly-held companies as directors or in other capacities unless they are provided with adequate protection through insurance and adequate indemnification against inordinate risks of claims and actions against them arising out of their service to and activities on behalf of such publicly-held companies;

WHEREAS, the Third Amended and Restated Certificate of Incorporation of the Corporation (as the same may be further amended and/or restated from time-to-time, the "Certificate of Incorporation") requires indemnification of the directors (including in their capacity as committee members) of the Corporation, and Indemnitee may also be entitled to indemnification pursuant to the General Corporation Law of the State of Delaware (the "DGCL");

WHEREAS, the Certificate of Incorporation and the DGCL expressly provide that the indemnification provisions set forth therein are not exclusive, and thereby contemplate that contracts may be entered into between the Corporation and its directors with respect to indemnification;

WHEREAS, the Board has determined that the increased difficulty in attracting and retaining such persons is detrimental to the best interests of the Corporation and its stockholders and that the Corporation should act to assure such persons that there will be increased certainty of such protection in the future;

WHEREAS, it is reasonable, prudent and necessary for the Corporation contractually to obligate itself to indemnify, and to advance Expenses on behalf of, such persons so that they will serve or continue to serve the Corporation free from undue concern that they will not be so indemnified;

WHEREAS, Indemnitee is willing to serve, continue to serve or to take on additional service for or on behalf of the Corporation on the condition that Indemnitee be so indemnified; and

WHEREAS, Indemnitee is or was serving, or may be requested to serve, at the request of the Corporation as a director or officer, employee or agent of any other corporation, partnership, joint venture, trust, or other enterprise or non-profit entity, including service with respect to employee benefit plans (each, an "Other Enterprise") and, as such, may have certain rights to indemnification and/or insurance provided by such Other Enterprise(s) which Indemnitee and the Corporation intend to be primary to the obligation of the Corporation to indemnify Indemnitee as provided herein.

NOW, THEREFORE, in consideration of the covenants and agreements set forth below, and for other good and valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereto, intending to be legally bound, hereby agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) "Affiliate" has the meaning set forth in Rule 12b-2 of the Exchange Act.

(b) "Board" means the Board of Directors of the Corporation.

(c) "Bylaws" means the Seventh Amended and Restated Bylaws of the Corporation, as the same may be further amended and/or restated from time-to-time.

(d) "Constituent Documents" means the Certificate of Incorporation and the Bylaws.

(e) "Corporate Status" describes (i) the status of a person who (A) is or was a director or member of a committee of the Corporation or, (B) if at the time when such person was a director of the Corporation, is or was serving at the request of the Corporation as a director or officer, employee or agent of any Other Enterprise, and (ii) any action by or omission of such person in connection with such status.

(f) "Delaware Court" means the Chancery Court of the State of Delaware.

(g) "Exchange Act" means the Securities Exchange Act of 1934, as amended from time to time.

(h) "Expenses" means all reasonable attorneys' fees, costs, disbursements or expenses of the types customarily incurred in connection with prosecuting, defending, preparing to prosecute or defend, investigating, being or preparing to be a witness in, or otherwise participating in, any Proceeding (including by furnishing, or preparing to furnish, documents in response to a subpoena or otherwise in connection with any Proceeding), as well as any expenses incurred in connection with any appeal resulting from any Proceeding, including the premium, security for, and other costs relating to any cost bond, supersedeas bond, or other appeal bond or its equivalent. Expenses shall also include (i) any Federal, state, local or foreign taxes imposed on Indemnitee as a result of the actual or deemed receipt of any payments under this Agreement, including all interest, assessments, and other charges paid or payable with respect to such payments, (ii) subject to Section 4(a), any reasonable expenses incurred in connection with seeking recovery under any directors' and officers' liability insurance policies maintained by the Corporation, regardless of whether Indemnitee is ultimately determined to be entitled to such indemnification, advancement or Expenses or insurance recovery, as the case may be, and (iii) for purposes of Section 8(d) only, Expenses incurred by or on behalf of Indemnitee in connection with the interpretation, enforcement or defense of Indemnitee's rights under this Agreement, by litigation or otherwise. The term "Expenses," however, shall not include amounts paid in settlement by Indemnitee or the amount of judgments, fines or penalties against Indemnitee.

(i) "Proceeding" shall include any threatened, pending or completed action, suit, arbitration, alternate dispute resolution mechanism, investigation, inquiry, administrative

hearing or other proceeding, whether brought by or in the right of the Corporation or otherwise and whether of a civil, criminal, administrative, regulatory, legislative or investigative (formal or informal) nature, including any appeal therefrom, in which Indemnitee was, is or will be, or is threatened to be involved as a party or otherwise by reason of Indemnitee's Corporate Status, whether or not serving in such capacity at the time any liability or expense is incurred for which indemnification, reimbursement or advancement can be provided under this Agreement, including any such matter pending or threatened on or before the date of this Agreement, but excluding any initiated by Indemnitee except as otherwise expressly provided herein.

Section 2. Indemnity. The Corporation agrees to indemnify and hold harmless Indemnitee, in connection with Indemnitee's Corporate Status, to the fullest extent permitted by applicable law, as such may be amended from time to time. In furtherance of the foregoing indemnification, and without limiting the generality thereof:

(a) For Third-Party Proceedings. The Corporation shall indemnify Indemnitee in accordance with the provisions of this Section 2(a) if Indemnitee, by reason of Indemnitee's Corporate Status, is, or is threatened to be made, a party to or a participant in any Proceeding, other than a Proceeding by or in the right of the Corporation. Indemnitee shall be indemnified against all Expenses, judgments, fines and amounts paid in settlement (including all interest thereon) actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection with such Proceeding (or part thereof), if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Corporation or its Affiliates and, in the case of a criminal Proceeding, had no reasonable cause to believe that Indemnitee's conduct was unlawful.

(b) For Proceedings by or in the Right of the Corporation. The Corporation shall indemnify Indemnitee in accordance with the provisions of this Section 2(b) if Indemnitee, by reason of Indemnitee's Corporate Status, is, or is threatened to be made, a party to or a participant in any Proceeding by or in the right of the Corporation. Indemnitee shall be indemnified against all Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection with such Proceeding (or part thereof), if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Corporation or its Affiliates; provided, however, that no indemnification for Expenses shall be made under this Section 2(b) in respect of any claim, issue or matter as to which Indemnitee shall have been finally adjudged by a court to be liable to the Corporation, unless and only to the extent that, the Delaware Court shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnification.

(c) For Expenses Where Indemnitee is Wholly or Partly Successful. Notwithstanding any other provisions of this Agreement, to the fullest extent permitted by applicable law and to the extent that Indemnitee, by reason of Indemnitee's Corporate Status, is a party to (or participant in) and is successful, on the merits or otherwise, in defense of any Proceeding or any claim, issue or matter therein, in whole or in part, the Corporation shall indemnify Indemnitee against all Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection with each successfully resolved claim, issue or matter. However, except as provided in Section 9(f), the Corporation shall not be obligated

under this Section 2(c) to indemnify Indemnitee for any such amount if and to the extent that payment has actually been made to or on behalf of Indemnitee under any insurance policy, contract, agreement or otherwise (including, without limitation, any payment made by or on behalf of an Other Enterprise). In that event, the Corporation shall be obligated to indemnify Indemnitee with respect to any excess beyond such amount actually paid to or on behalf of Indemnitee. For purposes of this Section 2(c) and without limitation, the termination of any claim, issue or matter in such a Proceeding by dismissal, with or without prejudice, shall be deemed to be a successful result as to such claim, issue or matter.

(d) For Expenses When Indemnitee Serves as a Witness. Notwithstanding any other provision of this Agreement, to the fullest extent permitted by applicable law, the Corporation shall indemnify Indemnitee in accordance with the provisions of this Section 2(d) if Indemnitee, by reason of Indemnitee's Corporate Status, is or prepares to serve as a witness in any Proceeding to which Indemnitee is not a party, for all Expenses actually and reasonably incurred by Indemnitee or on Indemnitee's behalf in connection therewith; it being understood, however, that the Corporation shall have no obligation under this Section 2(d) to compensate Indemnitee for Indemnitee's time or efforts so expended.

For purposes of this Agreement, Indemnitee shall be deemed to have acted in a manner "not opposed to the best interests of the Corporation or its Affiliates" if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in the interest of the Corporation or its Affiliates.

Section 3. Exceptions to Right to Indemnification. Notwithstanding any provision in this Agreement, the Corporation shall not be obligated under this Agreement to make any indemnity in connection with:

(a) any amount paid in settlement absent prior written consent to such settlement by the Corporation (such consent not to be unreasonably withheld);

(b) except as provided in Section 9(f), any amount otherwise indemnifiable (or for which advancement is provided hereunder) if and to the extent that payment has actually been made to or on behalf of Indemnitee under any insurance policy, contract, agreement or otherwise, except with respect to any excess beyond the amount paid under any insurance policy, contract, agreement or otherwise, including, without limitation, any such payment made by or on behalf of an Other Enterprise, it being understood that, consistent with Section 9(i), if applicable, such Other Enterprise shall be primarily responsible for Jointly Indemnifiable Proceedings;

(c) any claim made against Indemnitee for (i) an accounting of profits made from the purchase and sale (or sale and purchase) by Indemnitee of securities of the Corporation within the meaning of Section 16(b) of the Exchange Act or similar provisions of state statutory law or common law, or (ii) any reimbursement of the Corporation by Indemnitee of any bonus or other incentive-based or equity-based compensation or of any profits realized by Indemnitee from the sale of securities of the Corporation, as required in each case under the Exchange Act, or the payment to the Corporation of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 306 of the Sarbanes-Oxley Act of 2002; and

(d) except as provided in Section 8(d), in connection with any Proceeding (or any part of any Proceeding) initiated by Indemnitee, including any Proceeding (or any part of any Proceeding) initiated by Indemnitee against the Corporation, any of its Affiliates or any Other Enterprise, or any such entity's directors, officers, employees, agents or other indemnitees, unless (i) the Board authorized the Proceeding (or such part of the Proceeding) prior to its initiation or (ii) the Corporation provides the indemnification, in its sole discretion, pursuant to the powers vested in the Corporation under applicable law.

Section 4. Advancement of Expenses.

(a) This Section 4 shall not apply to any claim made by Indemnitee for which indemnity is excluded pursuant to Section 3. The Corporation shall advance, to the extent not prohibited by applicable law, Expenses incurred by Indemnitee in connection with defending any Proceeding (or any part of any Proceeding), and such advancement shall be made within thirty (30) days after the receipt by the Corporation of a statement or statements requesting such advances from time to time, whether prior to or after final disposition of any Proceeding; provided, that any request for advancement of attorneys' and other experts' fees and costs must be accompanied by a detailed billing statement, redacted only as necessary to preserve any applicable attorney-client or other legally recognized privilege. Such statements shall reasonably evidence the Expenses incurred by Indemnitee or on Indemnitee's behalf and shall include reasonable backup for all costs and disbursements in excess of $250.00. With respect to any attempt to secure recovery under any applicable directors' and officers' liability insurance policies maintained by the Corporation, the Corporation shall be entitled (absent a conflict of interest with Indemnitee) to secure such recovery on behalf of Indemnitee, and Indemnitee shall be entitled to advancement of Expenses if, and only if, the actions of Indemnitee and its attorneys and other advisors in such regard are not duplicative of those of the Corporation or (absent a conflict of interest) any other person or entity seeking recovery thereunder.

(b) Any advancement of Expenses pursuant to this Section 4 shall be made only upon delivery to the Corporation of an instrument, by or on behalf of Indemnitee, in substantially the form attached hereto as Exhibit A (each such instrument, an "Undertaking") to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal or otherwise in accordance with Delaware law that Indemnitee is not entitled to be so indemnified for such Expenses. No security shall be required in connection with any Undertaking and any Undertaking shall be accepted without reference to Indemnitee's ability to make repayment.

(c) Notwithstanding anything herein to the contrary, in no event shall the Corporation be required to advance any Expenses to Indemnitee if the Corporation directly brings a Proceeding alleging that Indemnitee (i) committed an act or omission not in good faith or (ii) committed an act of intentional misconduct or a knowing violation of law.

Section 5. Procedure for Requesting Indemnification. To obtain indemnification under this Agreement, Indemnitee shall submit to the Corporation a written request, including such documentation and information as is reasonably available to Indemnitee and is reasonably necessary to determine whether and to what extent Indemnitee is entitled to indemnification. In addition, Indemnitee shall promptly notify the Corporation in writing upon being served with any

summons, citation, subpoena, complaint, indictment, information or other document relating to any Proceeding or matter which Indemnitee may seek indemnification or advancement of Expenses hereunder. The omission or delay by Indemnitee to request indemnification hereunder or provide the notice required by the immediately preceding sentence will not relieve the Corporation from any liability which it may have to Indemnitee hereunder or otherwise, except to the extent that the Corporation is materially prejudiced by the delay, and any such delay shall not constitute a waiver by Indemnitee of any rights under this Agreement.

Section 6. Procedures for Determining Entitlement to Indemnification.

(a) Determination to be Made by the Board. Upon written request by Indemnitee for indemnification pursuant to Section 5, a determination with respect to Indemnitee's entitlement thereto shall be made by the Board. The Board's determination of Indemnitee's right to indemnification shall be made within the following time frames:

(i) if there has been a final disposition of the Proceeding that was the basis for Indemnitee's claim for indemnification, the Board's determination with respect to Indemnitee's entitlement to indemnification shall be made within the later of thirty (30) days after receipt by the Corporation of the request therefor and thirty (30) days after the Indemnitee provides the Corporation with written notice of the final disposition of the applicable Proceeding; and

(ii) if there has not been a final disposition of the Proceeding that was the basis for Indemnitee's claim for indemnification and the Board decides not to wait until the final disposition of that Proceeding to make a determination with respect to Indemnitee's entitlement to indemnification, the Board's determination with respect to Indemnitee's entitlement to indemnification shall be made within sixty (60) days after receipt by the Corporation of the request therefor; provided, however, that such 60-day period may be extended for a reasonable time, not to exceed an additional thirty (30) days, if the Board in good faith requires such additional time for the obtaining or evaluating of documentation and/or information relating thereto.

Any such determination by the Board shall be promptly communicated to Indemnitee by written notice, which notice shall include (if applicable) a description of the reason(s) why Indemnitee's request for indemnification hereunder was denied. In making any such determination, the Board shall act in good faith and provide Indemnitee with a reasonable opportunity to appear before, and present Indemnitee's case to, the Board.

(b) Duty to Cooperate. Indemnitee shall cooperate with the Board with respect to the Board's determination as to whether Indemnitee's is entitled to indemnification, including providing to the Board and its representatives and advisors, upon reasonable advance request, that part of any documentation or information which is not subject to any legally recognized privilege or otherwise protected from disclosure and which is reasonably available to Indemnitee and reasonably pertinent to such determination. Any Expenses incurred by Indemnitee in providing such cooperation shall be borne by the Corporation (irrespective of the determination as to Indemnitee's entitlement to indemnification) and the Corporation hereby agrees to indemnify and hold Indemnitee harmless therefrom.

(c) Presumptions. In making a determination with respect to entitlement to indemnification hereunder, the Board shall, to the fullest extent not prohibited by applicable law, presume that Indemnitee is entitled to indemnification under this Agreement if Indemnitee has submitted a request for indemnification in accordance with Section 5, and the Corporation shall, to the fullest extent not prohibited by applicable law, have the burden of proof to overcome that presumption in connection with the making by the Board of any determination contrary to that presumption. Neither the failure of the Corporation to have made a determination prior to the commencement of any action pursuant to this Agreement that indemnification is proper in the circumstances because Indemnitee has met the applicable standard of conduct, nor an actual determination by the Corporation that Indemnitee has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that Indemnitee has not met the applicable standard of conduct.

(d) Effect of Proceeding. The termination of any Proceeding or of any claim, issue or matter therein, by judgment, order, settlement, conviction, or upon a plea of *nolo contendere* or its equivalent, shall not (except as otherwise expressly provided in this Agreement) of itself adversely affect the right of Indemnitee to indemnification or create a presumption that Indemnitee did not act in good faith and in a manner which Indemnitee reasonably believed to be in or not opposed to the best interests of the Corporation or its Affiliates or, with respect to any criminal Proceeding, that Indemnitee had reasonable cause to believe that Indemnitee's conduct was unlawful.

(e) Reliance as Safe Harbor. For purposes of any determination of good faith, Indemnitee shall be deemed to have acted in good faith if Indemnitee's action is based on the records or books of account of the Corporation or Other Enterprise, including financial statements, or on information supplied to Indemnitee by the officers of the Corporation or Other Enterprise on matters that Indemnitee reasonably believes are within such officers' duties, or on the advice of legal counsel for the Corporation or Other Enterprise or on information or records given or reports made to the Corporation or Other Enterprise by an independent certified public accountant or by an appraiser or other expert selected with reasonable care by the Corporation or Other Enterprise. The provisions of this Section 6(e) shall not be deemed to be exclusive or to limit in any way the other circumstances in which Indemnitee may be deemed to have met the applicable standard of conduct set forth in this Agreement. Whether or not the foregoing provisions of this Section 6(e) are satisfied, it shall in any event be presumed (subject to such presumption being rebutted) that Indemnitee has at all times acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Corporation.

(f) Partial Disputes. If the Corporation disputes a portion of the amounts for which indemnification is requested, the undisputed portion shall be paid and only the disputed portion withheld pending resolution of any such dispute.

(g) No Imputed Knowledge, Actions or Omissions. The knowledge and/or actions, or failure to act, of any director, officer, trustee, partner, managing member, fiduciary, agent or employee of the Corporation, any of its Affiliates or any Other Enterprise shall not be imputed to Indemnitee for purposes of determining the right to indemnification under this Agreement.

(h) No Determination Required Prior to Final Disposition. Notwithstanding anything in this Agreement to the contrary, no determination as to entitlement of Indemnitee to indemnification under this Agreement shall be required to be made prior to the final disposition of the applicable Proceeding.

Section 7. Defense of Proceedings. The Corporation shall be entitled to participate at its own expense in the defense of any Proceeding relating to Indemnitee's Corporate Status. The Corporation shall also be entitled to assume the defense thereof, with counsel reasonably satisfactory to Indemnitee unless (a) the named parties in any such Proceeding (including any impleaded parties) include the Corporation or any Affiliate of the Corporation and Indemnitee, and Indemnitee reasonably believes that there may be one or more legal defenses available to Indemnitee that are different from or in addition to those available to the Corporation or such subsidiary, or (b) any such representation by such counsel would be precluded under the applicable standards of professional conduct then prevailing. The Corporation shall not, without the prior written consent of Indemnitee (which shall not be unreasonably withheld), effect any settlement of any Proceeding relating to Indemnitee's Corporate Status unless such settlement solely involves the payment of money by the Corporation and includes a complete and unconditional release of Indemnitee from all liability on all claims that are the subject matter of such Proceeding.

Section 8. Remedies of Indemnitee.

(a) Subject to Section 8(e), in the event that (i) the Board determines pursuant to Section 6(a) that Indemnitee is not entitled to indemnification under this Agreement, (ii) no determination of entitlement to indemnification shall have been made by the Board pursuant to Section 6(a) within the applicable time period (or any extension thereof) set forth in Section 6(a), (iii) advancement of Expenses is not timely made pursuant to Section 4, (iv) payment of indemnification is not made pursuant to Section 2(c), Section 2(d) or the last sentence of Section 6(b) within thirty (30) days after receipt by the Corporation of a written request therefor which includes a statement of fees that reasonably evidences the Expenses incurred by Indemnitee or on Indemnitee's behalf and which includes reasonable backup for all Expenses in excess of $250.00 (including, with respect to attorneys' and other experts' fees and costs, a detailed billing statement, redacted only as necessary to preserve any applicable attorney-client other legally recognized privilege), or (v) payment of indemnification pursuant to Section 2 (other than subsections (c) and (d) thereof which are covered above) is not made within thirty (30) days after a determination has been made that Indemnitee is entitled to indemnification, Indemnitee shall be entitled to an adjudication by the Delaware Court of Indemnitee's entitlement to such indemnification or advancement of Expenses.

(b) Any Proceeding commenced pursuant to this Section 8 shall be conducted in all respects as a *de novo* trial on the merits and Indemnitee shall not be prejudiced by reason of either (i) an adverse determination by the Board pursuant to Section 6(a) that Indemnitee is not entitled to indemnification, or (ii) the absence of a determination by the Board pursuant to Section 6(a) that Indemnitee is entitled to indemnification, if such was the case. In any Proceeding commenced pursuant to this Section 8 the Corporation shall have the burden of proving, by clear and convincing evidence, that Indemnitee is not entitled to indemnification or advancement of Expenses, as the case may be.

(c) If a determination shall have been made pursuant to Section 6(a) that Indemnitee is entitled to indemnification, the Corporation shall be bound by such determination in any Proceeding commenced pursuant to this Section 8, absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statement not materially misleading, in connection with the request for indemnification, or (ii) a prohibition of such indemnification under applicable law.

(d) The Corporation shall indemnify Indemnitee against any and all Expenses and, if requested by Indemnitee, shall (within thirty (30) days after receipt by the Corporation of a written request therefor) advance, to the extent not prohibited by applicable law, such Expenses to Indemnitee, which are reasonably incurred by Indemnitee or on Indemnitee's behalf in connection with any Proceeding brought by Indemnitee against the Corporation for the interpretation, enforcement or defense of Indemnitee's rights to indemnification or advancement of Expenses under this Agreement or, subject to Section 4, under any directors' and officers' liability insurance policies maintained by the Corporation.

(e) The Corporation shall be precluded from asserting in any Proceeding, including, without limitation, a Proceeding under this Section 8, that the provisions of this Agreement are not valid, binding and enforceable or that there is insufficient consideration for this Agreement and shall stipulate in court that the Corporation is bound by all the provisions of this Agreement.

Section 9. Non-exclusivity; Survival of Rights; Insurance; Subrogation.

(a) The rights of indemnification and to receive advancement of Expenses as provided by this Agreement (i) shall not be deemed exclusive of any other rights to which Indemnitee may at any time be entitled under applicable law (as amended from time to time), the Constituent Documents, any agreement, a vote of stockholders or a resolution of directors, or otherwise, and every other right and remedy shall be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise and (ii) shall be interpreted independently of, and without reference to, any other such rights to which Indemnitee may at any time be entitled. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other right or remedy.

(b) No supplement, modification or amendment of this Agreement or of any provision hereof shall limit or restrict any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee in Indemnitee's Corporate Status prior to such supplement, modification or amendment.

(c) To the extent that a change in Delaware law, whether by statute or judicial decision, permits greater indemnification or advancement of Expenses than would be afforded currently under the Constituent Documents and this Agreement, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits so afforded by such change; provided, however, that no change in Delaware law shall have the effect of reducing the benefits available to Indemnitee hereunder based on Delaware law as in effect on the date hereof or as such benefits may improve as a result of amendments to Delaware law after the date hereof.

(d) To the extent that there is a conflict or inconsistency between the terms of this Agreement and the Constituent Documents, it is the intent of the parties hereto that Indemnitee shall enjoy the greater benefits regardless of whether contained herein or in the Constituent Documents.

(e) The Corporation shall use its reasonable efforts to maintain in effect at all times (subject to appropriate cost considerations) an insurance policy or policies providing directors' and officers' liability insurance for directors and officers of the Corporation. The Corporation shall advise Indemnitee as to the general terms of, and the amounts of coverage provided by, any such directors' and officers' liability insurance policy and shall promptly notify Indemnitee if, at any time, any such insurance policy will no longer be maintained or the amount of coverage under any such insurance policy will be decreased. If, at the time of the receipt of a notice of a claim pursuant to the terms hereof, the Corporation has director and officer liability insurance in effect, the Corporation shall give prompt notice of such claim or of the commencement of a Proceeding, as the case may be, to the insurers in accordance with the procedures set forth in the respective policies. The Corporation shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of Indemnitee, all amounts payable as a result of such Proceeding in accordance with the terms of such policies. The provisions of this Section 9(e) shall not (i) restrict the Corporation's right to purchase any type of directors' and officers' liability coverage (or any other insurance coverage that is reserved to or benefits solely or primarily independent or non-executive directors) or (ii) afford any officer or non-executive director who is not insured under any such insurance policy a claim against the Corporation, Indemnitee, or any other entity arising from the purchase or existence of such insurance coverage.

(f) In the event that Indemnitee has rights to indemnification, advancement of Expenses and/or insurance provided by another entity which is not an Other Enterprise (each, an "Other Indemnitor"), the Corporation hereby agrees that as between the Corporation and any such Other Indemnitor (i) the Corporation is the indemnitor of first resort with respect to expenses or liabilities incurred by Indemnitee by reason of Indemnitee's Corporate Status (*i.e.*, its obligations to Indemnitee are primary and any obligation of the Other Indemnitor to advance expenses or to provide indemnification for the same expenses or liabilities incurred by Indemnitee are secondary), (ii) the Corporation shall be required to advance the full amount of Expenses incurred by Indemnitee by reason of Indemnitee's Corporate Status and shall be liable for the full amount of all Expenses, judgments, penalties, fines and amounts paid in settlement to the extent legally permitted and as required by the terms of this Agreement and the Constituent Documents (or any other agreement between the Corporation and Indemnitee) by reason of Indemnitee's Corporate Status, without regard to any rights Indemnitee may have against the Other Indemnitor, and (iii) the Corporation irrevocably waives, relinquishes and releases the Other Indemnitor from any and all claims against the Other Indemnitor for contribution, subrogation or any other recovery of any kind in respect thereof. The Corporation further agrees that no advancement or payment by an Other Indemnitor on behalf of Indemnitee with respect to any claim that arises by reason of Indemnitee's Corporate Status for which Indemnitee has sought indemnification from the Corporation shall affect the foregoing and the Other Indemnitor shall have a right of contribution and/or be subrogated to the extent of such advancement or payment to all of the rights of recovery of Indemnitee against the Corporation. The Corporation

and Indemnitee agree that an Other Indemnitor is an express third party beneficiary of the terms hereof.

(g) Except as provided in Section 9(f), in the event of any payment under this Agreement, the Corporation shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee (other than against an Other Indemnitor), who shall execute all papers required and take all action necessary to secure such rights, including execution of such documents as are necessary to enable the Corporation to bring a Proceeding to enforce such rights.

(h) Except as provided in Section 9(f), the Corporation's obligation to indemnify or advance Expenses hereunder to Indemnitee who is or was serving in Indemnitee's Corporate Status shall be reduced by any amount Indemnitee has actually received as indemnification or advancement of Expenses from another person or entity.

(i) Given that certain Proceedings may arise for which Indemnitee shall be entitled to indemnification or advancement of Expenses from both an Other Enterprise and the Corporation ("Jointly Indemnifiable Proceedings") due to the relationship between any such Other Enterprise and the Corporation and the service of Indemnitee as a director or officer, employee or agent of such Other Enterprise at the request of the Corporation, Indemnitee agrees that the indemnification provided hereunder shall be secondary to any and all indemnification to which Indemnitee is entitled from such Other Enterprise(s), and will only be paid to the extent the primary indemnification is not promptly paid by such Other Enterprise(s) and Indemnitee is otherwise entitled to indemnification under this Agreement. Under no circumstance shall any Other Enterprise be entitled to any right of contribution, subrogation or any other recovery of any kind by the Corporation in respect of such Other Enterprise's indemnification obligations, and any right of recovery Indemnitee may have from any such Other Enterprise shall reduce the rights of Indemnitee and the obligations of the Corporation hereunder. In the event that the Corporation shall make any payment to Indemnitee in respect of indemnification or advancement with respect to any Jointly Indemnifiable Proceeding, the Corporation shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee against such Other Enterprise(s), and Indemnitee shall execute all papers reasonably required and shall do all things that may be reasonably necessary to secure such rights, including the execution of such documents as may be necessary to enable the Corporation to bring a Proceeding to enforce such rights.

Section 10. Contribution. Unless precluded by Section 3 or as a result of an adverse determination pursuant to Section 6(a), to the fullest extent permissible under applicable law, if the indemnification provided for in this Agreement is unavailable to Indemnitee for any reason whatsoever, the Corporation, in lieu of indemnifying Indemnitee, shall contribute to the amount incurred by Indemnitee, whether for judgments, fines, penalties, excise taxes, amounts paid or to be paid in settlement and/or for Expenses, in connection with any claim relating to an indemnifiable event under this Agreement, in such proportion as is deemed fair and reasonable in light of all of the circumstances of such Proceeding in order to reflect (a) the relative benefits received by the Corporation and Indemnitee as a result of the event(s) and/or transaction(s) giving cause to such Proceeding; and/or (b) the relative fault of the Corporation (and its

directors, officers, employees and agents other than Indemnitee) and Indemnitee in connection with such event(s) and/or transaction(s).

Section 11. Duration; Binding Effect. The rights granted to Indemnitee hereunder shall continue and survive any termination of this Agreement and any termination of Indemnitee's Corporate Status and shall inure to the benefit of Indemnitee, Indemnitee's personal representatives, heirs, executors, administrators and beneficiaries. This Agreement will be binding upon the Corporation but will not, absent the written consent of Indemnitee, otherwise be assignable, transferable or delegable by the Corporation.

Section 12. Severability. The invalidity or unenforceability of any provision hereof (including without limitation, each portion of any Section of this Agreement containing any such provision held to be invalid or unenforceable, that is not itself invalid or unenforceable) shall in no way affect the validity or enforceability of any other provision. This Agreement is intended to confer upon Indemnitee indemnification rights to the fullest extent permitted by applicable law. In the event any provision hereof conflicts with any applicable law, such provision shall be deemed modified, consistent with this intent, to the extent necessary to resolve such conflict. To the fullest extent possible, the provisions of this Agreement (including, without limitation, each portion of any Section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested thereby.

Section 13. Integration. This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof and supersedes all prior agreements and understandings, oral, written and implied, between the parties hereto with respect to the subject matter hereof; provided, however, that this Agreement is a supplement to and in furtherance of the Constituent Documents, any employment agreement between Indemnitee and the Corporation or any of its subsidiaries and applicable law, and shall not be deemed a substitute therefor, nor to diminish or abrogate any rights of Indemnitee thereunder.

Section 14. Modification and Waiver. No supplement, modification or amendment of this Agreement shall be binding unless executed in writing by the parties thereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions of this Agreement nor shall any waiver constitute a continuing waiver.

Section 15. Notices. All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed to have been duly given if (a) delivered by hand, upon receipt by the party to whom said notice or other communication shall have been directed, (b) mailed by certified or registered mail with postage prepaid, on the third business day after the date on which it is so mailed, (c) mailed by reputable overnight courier, one day after deposit with such courier and with written verification of receipt (d) sent by facsimile transmission, upon receipt by the sender of a printed confirmation of transmittal, or (e) sent by e-mail transmission, upon receipt by the sender of electronic confirmation of such transmittal:

(a) If to Indemnitee:

or to any other address as may have been furnished to the Corporation by Indemnitee.

(b) If to the Corporation to:

Cboe Global Markets, Inc.
433 W. Van Buren St.
Chicago, Illinois 60607
Attention: General Counsel
E-mail: psexton@cboe.com

or to any other address as may have been furnished to Indemnitee by the Corporation.

Section 16. Governing Law and Consent to Jurisdiction. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to its conflict of laws rules which would require the application of the laws of a jurisdiction other than the State of Delaware. The Corporation and Indemnitee hereby irrevocably and unconditionally (a) agree that any Proceeding arising out of or in connection with this Agreement shall be brought only in the Delaware Court, and not in any other state or federal court in the United States of America or any court in any other country, (b) consent to submit to the exclusive jurisdiction of the Delaware Court for purposes of any Proceeding arising out of or in connection with this Agreement, (c) waive any objection to the laying of venue of any such Proceeding in the Delaware Court, (d) waive, and agree not to plead or to make, any claim that any such Proceeding brought in the Delaware Court has been brought in an improper or inconvenient forum, and (e) agree to accept service of any summons, complaint or other pleading which is made in the manner provided in Section 15, provided that nothing in this Section 16 shall affect the right of a party hereto to serve such summons, complaint or other pleading in any other manner permitted by applicable law.

Section 17. Third Party Beneficiaries. Nothing in this Agreement, expressed or implied, is intended or shall be construed to confer any right, remedy or claim upon any person other than the parties, the Corporation's successors and permitted assigns, and Indemnitee's personal representatives, heirs, executors, administrators and beneficiaries.

Section 18. Interpretation. Use of the masculine pronoun shall be deemed to include usage of the feminine pronoun where appropriate. The headings of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction thereof. The word "including" means "including but not limited to" or "including without limitation." Unless the context expressly indicates otherwise, reference to any Section means such Section of this Agreement.

Section 19. No Construction as Employment Agreement. Nothing contained in this Agreement will be construed as giving Indemnitee any right to be retained in the employ of the Corporation of any of its Affiliates.

Section 20. Execution. This Agreement may be executed in one or more counterparts, each of which shall be deemed to be an original and all of which together shall be deemed to be one and the same instrument, notwithstanding that both parties are not signatories to the original

or same counterpart. Each counterpart may be delivered by e-mail (as a .pdf, .tif or similar un-editable attachment), which transmission shall be deemed delivery of an originally executed counterpart hereof.

[REMAINDER OF PAGE BLANK, SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties have caused this Agreement to be signed as of the day and year first above written.

Cboe Global Markets, Inc.

By:_____
Name: Patrick Sexton
Title: Executive Vice President, General Counsel & Corporate Secretary

Indemnitee:

_____
Name:

(Signature Page to Indemnification Agreement)

EXHIBIT A — GENERAL FORM OF UNDERTAKING FOR ADVANCEMENT OF EXPENSES

1. This instrument (this "Undertaking") is being executed by the undersigned in favor of Cboe Global Markets, Inc., a Delaware corporation (the "Corporation"), pursuant to that certain Amended and Restated Director Indemnification Agreement, made as of [DATE] (the "Indemnification Agreement"), by and between the Corporation and the undersigned. Capitalized terms used but not defined in this Undertaking shall have the meanings ascribed to such terms in the Indemnification Agreement.

2. I am requesting advancement of Expenses which have been or will be actually and reasonably incurred by me or on my behalf in connection with a Proceeding to which I am a party or am threatened to be made a party, or in which I am or may be participating, by reason of my Corporate Status.

3. With respect to all matters related to such Proceeding, I believe I acted in good faith and in a manner I reasonably believed to be in or not opposed to the best interests of the Corporation or its Affiliates, and, with respect to any criminal Proceeding, I had no reasonable cause to believe that my conduct was unlawful.

4. I hereby undertake to repay any advancement of Expenses if it shall ultimately be determined by final judicial decision from which there is no further right to appeal or otherwise in accordance with Delaware law that I am not entitled to be so indemnified for such Expenses.

5. I am requesting advancement of Expenses in connection with the following matter: **[PROVIDE DETAILS]**

_____

Name of Indemnitee:
Dated:

Exhibit 10.55

Cboe Confidential

Cboe Global Markets, Inc. Director Equity Deferral Plan
As Amended and Restated Effective December 14, 2023

Cboe Global Markets, Inc. has established this Cboe Global Markets, Inc. Director Equity Deferral Plan (the "Plan") to permit non-employee members of the Board of Directors of Cboe Global Markets, Inc. (the "Corporation") and its Affiliates to defer their restricted stock unit awards granted under the Second Amended and Restated Cboe Global Markets, Inc. (f/k/a Cboe Holdings, Inc.) Long-Term Incentive Plan (the "LTIP"). The Plan was established effective as of December 21, 2022 and has been amended from time to time thereafter including this complete amendment and restatement effective as of December 14, 2023 (the "Plan Effective Date") as a sub-plan under the LTIP and forms a part of, is incorporated in, and is subject to the terms of the LTIP.

Background

A. The Board of Directors and stockholders of the Corporation previously adopted the LTIP.

B. Section 7.6 of the LTIP provides that the Committee shall have the discretion to allow Participants to elect, consistent with the requirements of Code Section 409A, to defer the delivery of shares of Stock or other property that would otherwise be issuable to the Participant upon the vesting or settlement of restricted stock units ("RSUs"). The Plan forms a part of, and supersedes any inconsistent provisions of, each Award Agreement which evidences RSUs granted to the extent a Participant elects to defer the receipt of all or any portion of the shares of Stock otherwise deliverable upon settlement of the RSU.

C. Except as otherwise specifically provided herein, capitalized terms used herein shall have the same meaning as when used in the LTIP or the Award Agreement.

Provisions

1. Eligibility for Deferral Program. Only non-employee Directors of the Corporation and its Affiliates shall be eligible to defer the delivery of shares of Stock that would otherwise be payable upon the settlement of RSUs pursuant to the Plan (the "Eligible Participants"); provided, however, an Eligible Participant shall: (i) be an active member of the Board and (ii) be a tax resident of the United States or Canada.

2. Deferral Election.

(a) Terms of Deferral Election. An Eligible Participant may elect to defer delivery of 100% of the shares of Stock that would otherwise be deliverable upon the settlement of the RSUs awarded under an Award Agreement (the "Election"). Except as otherwise provided in Section 4 or 5 below, delivery of the designated shares of Stock payable upon settlement of the RSUs under an Award Agreement may be deferred, at the Eligible Participant's Election, until the Eligible Participant's Separation from Service or a specified date, and shall then be paid in a lump sum on the next following February 1. Each separately identified amount to which an Eligible Participant

is entitled to payment on a determinable date under an Award Agreement shall be considered a separate payment for purposes of applying the provisions of Code Section 409A.

(b) Procedure for Electing Deferral. An Eligible Participant's Election shall be made prior to the calendar year in which such grant occurs or at such other time as the Committee determines is compliant with the requirements of Code Section 409A. An Eligible Participant's Election Form shall become irrevocable on the last permissible date for making such Election under Code Section 409A, except as otherwise provided hereunder or determined by the Committee.

(i) First-Year of Participation. The Committee may allow an Eligible Participant who first becomes eligible to participate in the LTIP, and who is not a participant in another plan maintained by the Corporation which is considered to be of a similar type as defined in Treasury Regulation Section 1.409A -1(c)(2), or as otherwise provided by the Code, to make an Election within 30 days after the Eligible Participant first becomes eligible to participate in the LTIP. Such Election shall be effective only with regard to compensation paid for services performed following the making of the Election.

(c) Other Matters Relating to Deferral Elections. An Eligible Participant's Election Form shall form part of, and supersede any inconsistent terms of, the Award Agreement to which it applies with respect to those RSUs where delivery of the shares of Stock otherwise deliverable thereunder is deferred and, more particularly, shall supersede the provisions of the Award Agreement regarding the settlement and timing of settlement of those RSUs where delivery of the shares of Stock otherwise deliverable thereunder is deferred, except as otherwise expressly provided in Section 3, 4 or 5 below. "Deferred Shares" means the shares of Stock issuable with respect to RSUs that have vested under and in accordance with the LTIP and the Award Agreement but whose payment has been deferred pursuant to the Eligible Participant's valid and effective Election Form. Shares of Stock deliverable upon the vesting of an RSU that are not subject to the Eligible Participant's valid and effective Election Form shall be delivered in accordance with the terms of the LTIP and the Award Agreement. In no event shall the Plan or the Eligible Participant's Election Form modify, change or affect in any way the vesting of the Eligible Participant's RSUs under the LTIP or the Award Agreement.

3. Payment of Deferred Shares. Payment of Deferred Shares shall be made on the February 1 next following the event triggering the payment in a lump sum. "Separation from Service" means a termination of service with the Corporation that constitutes a "separation from service" as described under Code Section 409A. For purposes of the determination of whether an Eligible Participant has had a "separation from service" as described under Code Section 409A, the term "Corporation" means the Corporation and any Affiliate with which the Corporation would be considered a single employer under Code Sections 414(b) or 414(c) of the Code.

4. Death or Becoming Disabled. Notwithstanding anything in the Plan or any Election Form to the contrary, Deferred Shares shall be delivered in a lump sum on the February 1 next following the death of the Eligible Participant or after the date that the Eligible Participant becomes Disabled.

5. Change in Control. Except as otherwise expressly provided in the Eligible Participant's Election Form, Deferred Shares shall be delivered in a cash lump sum upon a "Change in Control Event". Eligible Participants will have the option to continue to defer delivery of their Deferred Shares if, pursuant to such Change in Control Event, the surviving entity is public company with securities listed on a public stock exchange. For purposes of the Plan, "Change in Control Event" means a change in the ownership of the Corporation, a change in the effective control of the Corporation, or a change in the ownership of a substantial portion of the assets of the Corporation as described in Code Section 409A.

6. Subsequent Changes in the Time of Payment of Deferred Shares. Except as otherwise provided in Sections 4 and 5 above, payment of the Deferred Shares payable pursuant to an Eligible Participant's Election Form may be further deferred, at the Eligible Participant's election, as long as such election (i) is made in writing at least 12 months before the scheduled payment date, (ii) with respect to any payment described in Treasury Regulation Section 1.409A-3(a)(4) (payment at a specified time or pursuant to a fixed schedule) may not take effect until at least 12 months following the date the new election is made, and (iii) except as otherwise provided by Code Section 409A, provides for a new payment date that is at least five years after the scheduled payment date. Any election to change the time of payment must be made in a manner consistent with Code Section 409A and in a form acceptable to the Committee. Any such election shall be irrevocable when filed with the Committee.

7. Dividend Equivalents. If any dividend equivalents are credited with respect to the Deferred Shares in accordance with the Award Agreement, such dividend equivalents shall be distributed as set forth in the applicable Award Agreement.

8. Prohibition on Acceleration of Payments. The time or schedule of any payment or amount scheduled to be paid hereunder may not be accelerated except as otherwise permitted under Code Section 409A.

9. Code Section 409A. Code Section 409A, when referred to in the Plan, means such Section, and any replacement thereof or successor thereto, as well as the guidance and Treasury Regulations issued thereunder. Payments hereunder shall be made upon the date specified or a later date within the same taxable year of the Eligible Participant or, if later, by the 15th day of the third calendar month following the date specified; provided, however, the Eligible Participant may not, directly or indirectly, designate the taxable year of the payment. Notwithstanding the foregoing, the Committee reserves the right to delay any payment to the extent permitted by Code Section 409A. Payments made hereunder are intended to comply with Section 409A of the Code. Accordingly, other provisions of the LTIP, the Award Agreement, the Election Form or the Plan notwithstanding, the provisions of this Section 9 will apply in order that the RSUs and the deferrals of Deferred Shares comply with Code Section 409A. In addition, the Committee reserves the right, to the extent the Committee deems necessary or advisable in its sole discretion, to unilaterally amend or modify the Plan, and the Committee may, to the extent the Committee deems necessary or advisable in its sole discretion, unilaterally amend or modify the Eligible Participant's Election Form, to ensure that all RSUs and all deferrals of Deferred Shares have terms that comply, and in operation comply, with Code Section 409A (including, without limitation, the avoidance of penalties thereunder). Other provisions of the LTIP, the Award Agreement, the Election Form and the Plan notwithstanding, the Corporation and the Committee make no representations that the RSUs or the deferrals of Deferred Shares will be exempt from any penalties that may apply under

Code Section 409A or other applicable law, make no undertaking to preclude Code Section 409A from applying to the RSUs and the deferrals of Deferred Shares and will not indemnify or provide a gross up payment to an Eligible Participant (or any beneficiary) for any taxes, interest or penalties imposed under Code Section 409A or other applicable law.

10. Claims Procedure. Claims for benefits under the Plan may be filed with the Committee on forms supplied by the Committee.

11. Administration. The Plan shall be administered by the Committee. The Committee shall have the authority, in its sole discretion, to interpret and enforce the Plan and to decide or resolve any and all questions, including interpretations of the Plan, as they may arise in such administration. A majority vote of the Committee members shall control any decision. Members of the Committee may be Eligible Participants. The Committee may, from time to time, employ agents and delegate to them such administrative duties as it sees fit, and may from time to time consult with counsel who may be counsel to the Corporation. The decision or action of the Committee with respect to any question arising out of or in connection with the administration, interpretation or application of the Plan shall be final, conclusive and binding upon all persons having any interest in the Plan. The Corporation shall indemnify and hold harmless the members of the Committee against any and all claims, loss, damage, expense or liability arising from any action or failure to act with respect to the Plan on account of such member's service on the Committee, except in the case of gross negligence or willful misconduct.

12. Amendment and Termination of the Plan. The Board may at any time amend, alter, suspend or terminate the Plan by written instrument. Upon termination of the Plan, each affected Eligible Participant's Deferred Shares shall be distributed in accordance with Code Section 409A. No amendment, alteration, suspension or termination of the Plan (i) shall materially impair the rights of any Participant, unless mutually agreed otherwise between the Participant and the Corporation, which agreement must be in writing and signed by the Participant and the Corporation, or (ii) impose any additional obligation on the Corporation or right on the Participant unless evidenced in writing and signed by the Corporation.

Exhibit 10.89

For Employees – With Restrictive Covenants

CBOE GLOBAL MARKETS, INC. LONG-TERM INCENTIVE PLAN

RESTRICTED STOCK UNIT AWARD AGREEMENT

This RESTRICTED STOCK UNIT AWARD AGREEMENT (this "Agreement") is dated effective _____ (the "Award Date"), and is between Cboe Global Markets, Inc. (the "Corporation") and _____ ("Participant"). Any term capitalized but not defined in this Agreement will have the meaning set forth in the Second Amended and Restated Cboe Global Markets, Inc. (formerly CBOE Holdings, Inc.) Long-Term Incentive Plan (as may be amended from time to time, the "Plan").

1. Award. The Corporation hereby awards to Participant _____ Restricted Stock Units (the "Restricted Stock Units"). The Restricted Stock Units will be subject to the terms and conditions of the Plan and this Agreement. Each Restricted Stock Unit is a notional amount that represents one unvested share of Stock and entitles Participant, subject to the terms of this Agreement, to receive a share of Stock if and when the Restricted Stock Unit vests.

2. No Rights as Stockholder; Dividend Equivalents. Participant shall have no voting rights with respect to shares of Stock represented by Restricted Stock Units until the date of the issuance of the shares of Stock (as evidenced by the appropriate entry on the books of the Corporation or of a duly authorized transfer agent of the Corporation). Notwithstanding the foregoing, in the event that the Corporation declares a cash dividend on shares of Stock, on the payment date of the dividend, Participant will be credited with Dividend Equivalent Rights equal to the amount of the cash dividend per share multiplied by the number of Restricted Stock Units held by Participant on the dividend's record date. The Dividend Equivalent Rights credited to Participant under the preceding sentence will be distributed to Participant at the same time as the underlying cash dividend is distributed to shareholders of the Corporation.

3. Vesting; Effect of Termination of Service; Change in Control.

(a) Subject to Sections 3(b), 3(c) and 3(d) below, Participant's Restricted Stock Units will vest (i) thirty-three percent (33%) on the twelve (12) month anniversary of the Award Date, provided that Participant has remained in Service continuously through such date, (ii) thirty-three percent (33%) on the twenty-four (24) month anniversary of the Award Date, provided that Participant has remained in Service continuously through such date, and (iii) thirty-four percent (34%) on the thirty-six (36) month anniversary of the Award Date, provided that Participant has remained in Service continuously through such date.

(b) The Restricted Stock Units will vest in full upon the earliest to occur of (i) Participant's death or (ii) Participant's becoming Disabled, provided that such condition qualifies as "disability" for purposes of Section 409A, in each case, if prior to any forfeiture event under Section 3(d) below.

In the event of Participant's Retirement (as defined below) and satisfaction of the terms thereof, the Restricted Stock Units shall remain outstanding upon Participant's Retirement and be distributed as if Participant remained in Service continuously through each vesting date pursuant to Section 3(a), in accordance with the terms of this Agreement. For purposes

of this Agreement, "Retirement" means a determination by the Corporation or its Affiliate in their sole discretion, that Participant: (i) has completed a minimum of ten (10) full years of continuous and unbroken Service as of their Retirement date, (ii) has attained the age of fifty-five (55) as of their Retirement date, (iii) has provided the Corporation's Board, CEO, President, and/or COO with at least six (6) months' advance written revocable notice of their Retirement date (unless the notice period is waived by the Corporation or their Affiliate in its sole discretion), (iv) has their Retirement date and transition plan approved and not revoked by the Corporation's Board, CEO, President, and/or COO through their Retirement date, (v) remains in Service continuously and in good standing until their Retirement date, (vi) has successfully transitioned responsibilities, as determined at the sole discretion of the Corporation's Board, CEO, President, and/or COO, and (vii) has a separation from Service.

(c) This subsection 3(c) shall apply to this Agreement, this Award and to Replacement Award provided to Participant to replace this Award in lieu of Section 8.2(b) of the Plan. Upon a termination of Participant's Service by the Corporation or its Affiliate without Cause or by Participant for "Good Reason" (as defined below), in each case, upon or within two years after a Change in Control and prior to any forfeiture event under Section 3(d) below, this Award or any Replacement Award held by Participant shall become fully vested and free of restrictions and shall be distributed upon or within 60 days of such termination of Service. Notwithstanding the foregoing, if this Award or the Replacement Award, as applicable, is considered deferred compensation subject to Section 409A, payment shall be made pursuant to the Award's original schedule if necessary to comply with Section 409A.

For purposes of this Award "Good Reason" shall be deemed to exist if, and only if, without Participant's express written consent:

(i) The Corporation or its Affiliate assigns to Participant authorities, duties or responsibilities (including titles) that are inconsistent in any material and adverse respect with Participant's immediately preceding authorities, duties or responsibilities with the Corporation or its Affiliate (including any material and adverse diminution of such immediately preceding authorities, duties or responsibilities);

(ii) The Corporation or its Affiliate materially reduces Participant's base compensation;

(iii) The Corporation or its Affiliate requires Participant to relocate his or her principal business office or principal place of residence outside the metropolitan area in which Participant worked or resided at the time the Restricted Stock Units were awarded (or outside the immediately preceding location of Participant's principal business office with the Corporation or its Affiliate), or assigns to Participant duties that would reasonably require such relocation;

(iv) The Corporation or its Affiliate materially breaches the terms of any agreement pursuant to which services are provided to the Corporation or its Affiliate by Participant; or

(v) The Corporation or its Affiliate terminates, reduces or limits Participant's participation in any bonus or incentive compensation arrangement relative to the level of participation of other employees of similar rank for a reason that is not reasonably related to Participant's level of job performance or local legal requirements and provided that such action results in a material reduction in the aggregate value of Participant's incentive compensation below the aggregate value as of the immediately preceding bonus or incentive compensation performance period and provided further that a mere change in the form of payment of the award (whether cash or shares of Stock) without a reduction in the aggregate grant value of the award shall not be considered a reduction of Participant's participation.

Participant's voluntary termination of Service shall not be considered a termination of Service for Good Reason unless Participant terminates his or her Service within 120 days after the initial existence of the condition constituting Good Reason; provided, Participant provides written notice to the Corporation or its Affiliate of Participant's intention to resign for Good Reason, which notice specifies in reasonable detail the breach or action giving rise thereto within 90 days of its initial existence, and the Corporation or its Affiliate does not cure such breach or action within 30 days after the date of Participant's notice.

(d) If Participant's Service is terminated for any reason before all of Participant's Restricted Stock Units have vested under this Agreement (including pursuant to an event described in Section 3(b) or 3(c) above), Participant's unvested Restricted Stock Units will be forfeited upon the effective date of such termination of Service. Notwithstanding anything herein to the contrary, any outstanding Restricted Stock Units not previously settled shall be cancelled and forfeited immediately if, in the sole opinion and discretion of the Committee or its delegate, Participant engages in any activity that constitutes Cause, whether or not Participant experiences a separation from Service, is no longer in Service, or remains in Service. Neither the Corporation nor any Affiliate will have any further obligations to Participant under this Agreement if Participant's Restricted Stock Units are forfeited pursuant to this Section 3(d).

4. Terms and Conditions of Distribution.

(a) Distribution of a share of Stock that corresponds to a vested Restricted Stock Unit shall be made to Participant as soon as practicable after the Restricted Stock Unit vests, but not later than two and a half (2½) months after the end of the calendar year in which such vesting occurs (except that, in the event of Retirement, distribution shall be made not later than sixty (60) days after the applicable vesting date pursuant to Section 3(a) and Participant shall not be permitted, directly or indirectly, to designate the taxable year of distribution).

(b) Subject to Section 4(c), distribution of a share of Stock that corresponds to a Restricted Stock Unit that vested due to death or Participant's becoming Disabled shall be made to Participant as soon as practicable following the earlier to occur of the following dates: (i) the date on which such Restricted Stock Unit would otherwise have vested in accordance with Section 3(a) or clauses (i) or (ii) of the first paragraph of Section 3(b), or

(ii) Participant's "separation from service" as defined for purposes of Section 409A (or, if Participant is a "specified employee" as defined for purposes of Section 409A on the date of such separation from service, the date that is the first day of the seventh (7th) month following Participant's separation from service).

(c) If Participant dies before the date on which the Corporation would have distributed shares of Stock in satisfaction of vested Restricted Stock Units, the Corporation will distribute such shares of Stock to Participant's designated beneficiary(ies) or, if none are designated or surviving, to Participant's estate or personal representative. The Corporation is not required to issue or deliver any shares of Stock before completing the steps necessary to comply with applicable Federal and state securities laws (including any registration requirements) and applicable stock exchange rules and practices. The Corporation will use commercially reasonable efforts to cause compliance with those laws, rules and practices. The foregoing provisions are subject in all cases to the requirements of Section 409A.

5. Nontransferability. Unvested Restricted Stock Units may not be sold, transferred, exchanged, pledged, assigned, garnished, or otherwise alienated or hypothecated, other than by will or by the laws of descent and distribution. Any effort to assign or transfer the rights under this Agreement will be wholly ineffective, and will be grounds for termination by the Committee of all rights of Participant under this Agreement.

6. Administration. The Committee administers the Plan. Participant's rights under this Agreement are expressly subject to the terms and conditions of the Plan and to any guidelines the Committee adopts from time to time. The interpretation and construction by the Committee of the Plan and this Agreement, and such rules and regulations as may be adopted by the Committee for purposes of administering the Plan and this Agreement, will be final and binding upon Participant.

7. Securities Law Requirements. If at any time the Board or Committee determines that issuing Stock pursuant to this Agreement would violate applicable securities laws, the Corporation will not be required to issue such Stock. The Board or Committee may declare any provision of this Agreement or action of its own null and void, if it determines the provision or action fails to comply with applicable securities laws. The Corporation may require Participant to make written representations it deems necessary or desirable to comply with applicable securities laws.

8. Payment of Withholding Taxes. Participant acknowledges that, regardless of any action taken by the Corporation or, if different, the Affiliate of the Corporation that employs Participant (the "Employer"), the ultimate liability for all income tax, social contributions, payroll tax, fringe benefits tax, payment on account or other tax-related items related to Participant's participation in the Plan and legally applicable to Participant or deemed by the Corporation or the Employer in their sole discretion to be an appropriate charge to Participant even if legally applicable to the Corporation or the Employer ("Tax-Related Items"), is and remains Participant's responsibility and may exceed the amount actually withheld by the Corporation or the Employer, if any. Participant further acknowledges that the Corporation and/or the Employer (a) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the

Restricted Stock Units, including, but not limited to, the grant, vesting or settlement of the Restricted Stock Units, the subsequent sale of shares of Stock acquired pursuant to such settlement; and (b) do not commit to and is under no obligation to structure the terms of the grant or any aspect of the Restricted Stock Units to reduce or eliminate Participant's liability for Tax-Related Items or achieve any particular tax result. Further, if Participant is subject to Tax-Related Items in more than one jurisdiction between the Award Date and the date of any relevant taxable or tax withholding event, as applicable, Participant acknowledges that the Corporation and/or the Employer (or former employer, as applicable) may be required to withhold or account for Tax-Related Items in more than one jurisdiction.

Prior to the relevant taxable or tax withholding event, as applicable, Participant agrees to make adequate arrangements satisfactory to the Corporation and/or the Employer to satisfy all Tax-Related Items. In this regard, Participant authorizes the Corporation, or its respective agents, at their discretion, to satisfy the obligations with regard to all Tax-Related Items by one or a combination of the following: (i) withholding from Participant's wages or other cash compensation paid to Participant by the Corporation and/or the Employer; (ii) withholding from the shares of Stock to be delivered upon settlement of the Restricted Stock Units or other awards granted to Participant or (iii) permitting Participant to tender to the Corporation or to the Employer cash or, if allowed by the Committee, shares of Stock to the Corporation.

Notwithstanding the foregoing, if Participant is subject to Section 16 of the Exchange Act, pursuant to Rule 16a-2 promulgated thereunder, any tax withholding obligations shall be satisfied by having the Corporation withhold from the shares of Stock to be delivered upon settlement of the Restricted Stock Units.

Depending on the withholding method, the Corporation may withhold or account for Tax-Related Items by considering applicable statutory withholding rates (as determined by the Corporation in good faith and in its sole discretion) or other applicable withholding rates, including maximum applicable rates, in which case Participant will receive a refund of any over-withheld amount in cash and will have no entitlement to the share equivalent. If the obligation for Tax-Related Items is satisfied by withholding from the shares of Stock to be delivered upon settlement of the Restricted Stock Units, for tax purposes, Participant is deemed to have been issued the full number of shares of Stock subject to the Restricted Stock Units, notwithstanding that a number of shares of Stock are held back solely for the purpose of paying the Tax-Related Items. Participant will have no further rights with respect to any shares of Stock that are retained by the Corporation pursuant to this provision.

Participant agrees to pay to the Corporation or the Employer any amount of Tax-Related Items that the Corporation or the Employer may be required to withhold or account for as a result of Participant's participation in the Plan that cannot be satisfied by the means previously described. The Corporation may refuse to issue or deliver shares of Stock or proceeds from the sale of shares of Stock until arrangements satisfactory to the Corporation have been made in connection with the Tax-Related Items.

9. Restrictive Covenants. Participant understands the global nature of the Corporation's businesses and the effort the Corporation and its Affiliates (collectively referred to in this Section as "Cboe") undertake to develop and protect their business and their competitive advantage. Accordingly, Participant agrees that the scope and duration of the restrictions described in this Agreement are reasonable and necessary to protect the legitimate business interests of Cboe. Participant further agrees that during the period of Participant's Service and for a period of two (2) years following Participant's separation from Service, Participant shall not, without the express written approval of the Chief Executive Officer:

(a) singly, jointly, or in any other capacity, in a manner that contributes to any research, technology, development, account, trading, marketing, promotion, or sales and that relates to Participant's Service with Cboe, directly or beneficially, manage, join, participate in the management, operation or control of, or work for (as an employee, consultant or independent contractor), or permit the use of his or her name by, or provide financial or other assistance to, or be connected in any manner with (i) any exchange, facility, clearinghouse, electronic communications network ("ECN"), electronic foreign currency exchange market ("FX") matching platform, multilateral trading facility, or alternative trading system ("ATS"); (ii) the ECN, ATS or FX business lines of any full service broker dealer or any digital asset or data and access solutions business line of any company; or (iii) any business line of any company that is substantially similar to any additional business line developed or entered into by Cboe during Participant's Service, provided that, in the case of clauses (i), (ii) and (iii), such entity or business line that directly competes with Cboe;

(b) provide any service or assistance that (i) is of the general type of service or assistance provided by Participant to Cboe, (ii) relates to any technology, account, product, project or piece of work with which Participant was involved during his Service, and (iii) contributes to causing an entity to come within the definition described in Section 9(a) above;

(c) solicit or accept if offered to Participant, with or without solicitation, on his or her own behalf or on behalf of any other person, the services of any person who is a then-current employee of Cboe (or was an employee of Cboe during the year preceding such solicitation), nor solicit any of Cboe's then-current employees (or an individual who was employed by or engaged by Cboe during the year preceding such solicitation) to terminate employment or an engagement with Cboe, nor agree to hire any then-current employee (or an individual who was an employee of Cboe during the year preceding such hire) of Cboe into employment with Participant or any company, individual or other entity; or

(d) directly or indirectly divert or attempt to divert from Cboe any business in which Cboe has been actively engaged during Participant's Service, nor interfere with the relationships of Cboe or with their sources of business.

10. Confidentiality. Participant acknowledges that the Corporation or an Affiliate may disclose secret or confidential information to Participant during the period of Participant's Service to enable Participant to perform his or her duties. Participant agrees that, subject to the following sentence, Participant shall not during his or her Service (except in

connection with the proper performance of his or her duties) and thereafter, without the prior written consent of the Corporation, disclose to any person or entity any material or significant secret or confidential information concerning the business of the Corporation or an Affiliate that was obtained by Participant in the course of Participant's Service. This paragraph shall not be applicable if and to the extent Participant is required to testify in a legislative, judicial or regulatory proceeding pursuant to an order of Congress, any state or local legislature, a judge, or an administrative law judge, or if such secret or confidential information is required to be disclosed by Participant by any law, regulation or order of any court or regulatory commission, department or agency. Participant further agrees that if Participant's Service is terminated for any reason, Participant will not take, but will leave with the Corporation or an Affiliate, all records and papers and all matter of whatever nature that bears secret or confidential information of the Corporation or an Affiliate. For purposes of this Agreement, the term "secret or confidential information" shall include, but not be limited to, any and all records, notes, memoranda, data, writings, research, personnel information, customer information, clearing members' information, the Corporation's and any Affiliate's financial information and plans, processes, methods, techniques, systems, formulas, patents, models, devices, compilations or any other information of whatever nature in the possession or control of the Corporation or an Affiliate, that has not been published or disclosed to the general public, the options industry, the equities industry, the foreign currency exchange industry or the commodities futures industry, provided that such term shall not include knowledge, skills, and information that is common to the trade or profession of Participant.

Notwithstanding anything in this Agreement to the contrary, nothing in this Agreement prohibits Participant from confidentially or otherwise communicating or filing a charge or complaint with a governmental or regulatory entity, participating in a governmental or regulatory entity investigation, or giving truthful testimony or making other disclosures to a governmental or regulatory entity (in each case, without having to disclose any such conduct to the Corporation or an Affiliate), or from responding if properly subpoenaed or otherwise required to do so under applicable law. In addition, nothing in this Agreement limits Participant's right to receive an award from a governmental or regulatory entity for information provided to such an entity (and not as compensation for actual or alleged personal injury or damages to Participant).

Pursuant to the Defend Trade Secrets Act of 2016 (18 U.S.C. 1833(b)), Participant shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that is made in confidence either directly or indirectly to a federal, state, or local government official, or to an attorney, solely for the purpose of reporting or investigating a violation of law. Participant shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret made in a complaint, or other document filed in a lawsuit or other proceeding, if such filing is made under seal. If Participant files a lawsuit or other action alleging retaliation by the Corporation or an Affiliate for reporting a suspected violation of law, Participant may disclose the trade secret to his or her attorney and use the trade secret in the court proceeding or other action, if Participant files any document containing the trade secret under seal and does not disclose the trade secret, except pursuant to court order. This

paragraph will govern to the extent it may conflict with any other provision of this Agreement.

11. Judicial Modification. If the final judgment of a court of competent jurisdiction declares that any term or provision of Section 9 or 10 is invalid or unenforceable, the parties agree that (a) the court making the determination of invalidity or unenforceability shall have the power to reduce the scope, duration, or geographic area of the term or provision, to delete specific words or phrases, or to replace any invalid or unenforceable term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, (b) the parties shall request that the court exercise that power, and (c) this Agreement shall be enforceable as so modified after the expiration of the time within which the judgment or decision may be appealed.

12. Remedies. Participant agrees that in the event of a breach or threatened breach of any of the covenants contained in Sections 9 or 10 of this Agreement, in addition to any other penalties or restrictions that may apply under any employment agreement, state law, or otherwise, Participant shall forfeit, upon written notice to such effect from the Corporation, any and all Awards granted to him or her under the Plan and this Agreement, including vested Awards. The forfeiture provisions of this Section 12 shall continue to apply, in accordance with their terms, after the provisions of any employment or other agreement between the Corporation and Participant have lapsed. Participant consents and agrees that if Participant violates or threatens to violate any provisions of Sections 9 or 10 of this Agreement, the Corporation or its successors in interest shall be entitled, in addition to any other remedies that they may have, including money damages, to an injunction to be issued by a court of competent jurisdiction restraining Participant from committing or continuing any violation of Sections 9 or 10. In the event that Participant is found to have breached any provision set forth in Section 9 of this Agreement, the time period provided for in that provision shall be deemed tolled (*i.e.*, it will not begin to run) for as long as Participant was in violation of that provision. The provisions of Sections 9 and 10 of this Agreement shall continue to apply, in accordance with their terms, after Participant's service has terminated and after provisions of any employment or other agreement between the Corporation and Participant have lapsed.

13. Representations and Warranties. Participant represents and warrants to the Corporation that Participant has received a copy of the Plan and this Agreement, has read and understands the terms of the Plan and this Agreement, and agrees to be bound by their terms and conditions in all respects.

14. No Limitation on the Corporation's Rights. The granting of Restricted Stock Units under this Agreement shall not and will not in any way affect the Corporation's right or power to make adjustments, reclassifications or changes in its capital or business structure or to merge, consolidate, reincorporate, dissolve, liquidate or sell or transfer all or any part of its business or assets.

15. Plan and Agreement Not a Contract of Employment or Service. Neither the Plan nor this Agreement is a contract of employment or Service, and no terms of Participant's employment or Service will be affected in any way by the Plan, this Agreement or related instruments, except to the extent specifically expressed therein. Neither the Plan nor this

Agreement will be construed as conferring any legal rights on Participant to continue to be employed or remain in Service, nor will it interfere with the Corporation's or any Affiliate's right to discharge Participant or to deal with Participant regardless of the existence of the Plan or this Agreement.

16. Entire Agreement and Amendment. This Agreement and the Plan constitute the entire agreement between the parties hereto with respect to the Restricted Stock Units, and all prior oral and written representations are merged in this Agreement and the Plan. Notwithstanding the preceding sentence, this Agreement shall not in any way affect the terms and provisions of the Plan. This Agreement may be amended, modified, or terminated only in accordance with the Plan. The headings in this Agreement are inserted for convenience and identification only and are not intended to describe, interpret, define or limit the scope, extent, or intent of this Agreement or any provision hereof.

17. Notice. Any notice or other communication required or permitted under this Agreement must be in writing and must be delivered personally, sent by certified, registered or express mail, sent by overnight courier (at the sender's expense), or (if from the Corporation or the Corporation's stock plan administrator) by electronic mail. Notice will be deemed given (a) when delivered personally, (b) if mailed, three days after the date of deposit in the U.S. mail, (c) if sent by overnight courier, on the regular business day following the date sent, or (d) when electronically mailed. Notice to the Corporation should be sent to Cboe Global Markets, Inc., 433 West Van Buren Street, Chicago, Illinois 60607, Attention: General Counsel. Notice to Participant should be sent to the mailing address and/or electronic mailing address set forth on the Corporation's records. Either party may change the address to which the other party must give notice under this Section 17 by giving the other party written notice of such change, in accordance with the procedures described above or otherwise established by the Corporation or its stock plan administrator.

18. Successors and Assigns. The terms of this Agreement will be binding upon the Corporation and its successors and assigns.

19. Governing Law. To the extent not preempted by Federal law, the Plan, this Agreement, and documents evidencing rights relating to the Plan or this Agreement will be construed, administered and governed in all respects under and by the laws of the State of Delaware, without giving effect to its conflict of laws principles. If any provision of this Agreement will be held by a court of competent jurisdiction to be invalid or unenforceable, the remaining provisions hereof will continue to be fully effective. The jurisdiction and venue for any disputes arising under, or any action brought to enforce (or otherwise relating to), this Agreement will be exclusively in the courts in the State of Illinois, County of Cook, including the Federal Courts located therein (should Federal jurisdiction exist).

20. Plan Document Controls. The rights granted under this Agreement are in all respects subject to the provisions set forth in the Plan to the same extent and with the same effect as if set forth fully in this Agreement. If the terms of this Agreement conflict with the terms of the Plan document, the Plan document will control.

21. Counterparts. This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute but one and the same instrument.

22. Waiver; Cumulative Rights. The failure or delay of either party to require performance by the other party of any provision of this Agreement will not affect its right to require performance of such provision unless and until such performance has been waived in writing. Each right under this Agreement is cumulative and may be exercised in part or in whole from time to time.

23. Tax Consequences. Participant agrees to determine and be responsible for all tax consequences to Participant with respect to the Restricted Stock Units.

24. Section 409A. The Restricted Stock Units granted hereunder are intended to comply with, or otherwise be exempt from, Section 409A, including the exceptions and exemptions for short term deferrals, stock rights, and separation pay arrangements. This Agreement and all Restricted Stock Units shall be administered, interpreted, and construed in a manner consistent with Section 409A. Should any provision of this Agreement, or any other agreement or arrangement contemplated by this Agreement, be found not to comply with, or otherwise be exempt from, the provisions of Section 409A, such provision shall be modified and given effect (retroactively if necessary), in the sole discretion of the Corporation, and without the consent of Participant, in such manner as the Corporation determines to be necessary or appropriate to comply with, or to effectuate an exemption from, Section 409A. Notwithstanding the forgoing, no provision of this Agreement, or any other agreement or arrangement contemplated by this Agreement shall be construed as a guarantee by the Corporation of any particular tax effect to Participant. Each payment made under this Agreement shall be designated as a separate payment within the meaning of Section 409A. Any payment that is subject to Section 409A and payable upon Participant's termination of employment or other similar event shall not be made unless Participant has experienced a "separation from service" as defined under Section 409A. Any payment subject to Section 409A that is to be made upon a "separation from service" to Participant on any date when he or she is a "specified employee" as defined under Section 409A shall not be paid before the date that is six (6) months following Participant's "separation from service" or, if earlier, Participant's death.

25. Compensation Recovery. Notwithstanding anything in this Agreement to the contrary, the Restricted Stock Units, Dividend Equivalent Rights and any shares of Stock issued pursuant to the Restricted Stock Units and any proceeds therefrom shall be subject to and remain subject to any compensation recovery policies of the Corporation (i) currently in effect, (ii) as may be adopted by the Corporation to comply with applicable laws and/or the rules and regulations of the securities exchange or inter-dealer quotation system on which the shares of Stock are listed or quoted, including, without limitation, pursuant to Section 10D of the Exchange Act and Rule 10D-1 thereunder, or (iii) as may be adopted by the Corporation to help facilitate the Corporation's objectives, including, without limitation, related to eliminating or reducing fraud, misconduct, wrongdoing, or violations of law by an employee or similar considerations and, in each case, as may be amended from time to time (the "Policies"), with the provisions contained in such Policies deemed incorporated into this Agreement without Participant's additional or separate consent. For purposes of

the foregoing, Participant expressly and explicitly authorizes the Corporation to issue instructions, on Participant's behalf, to any brokerage firm and/or third-party administrator engaged by the Corporation to hold any shares of Stock and other amounts acquired pursuant to the Restricted Stock Units to re-convey, transfer or otherwise return such shares of Stock and/or other amounts to the Corporation upon the Corporation's enforcement of the Policies. No recovery of compensation as described herein will be an event giving rise to a right to resign for "Good Reason" or "constructive termination" (or similar term) under any plan of, or agreement with, the Corporation, the Employer and/or Participant.

26. Addendum to Agreement. Notwithstanding any provision of this Agreement to the contrary, if Participant resides or is employed outside the U.S. or transfers residence or employment outside the U.S., the Restricted Stock Units shall be subject to such special terms and conditions as are set forth in the addendum to this agreement (the "Addendum"). Further, if Participant transfers residency and/or employment to another country, any special terms and conditions for such country will apply to the Restricted Stock Units to the extent the Corporation determines, in its sole discretion, that the application of such terms and conditions is necessary or advisable in order to comply with local law or to facilitate the operation and administration of the Restricted Stock Units and the Plan (or the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer). In all circumstances, the Addendum shall constitute part of this Agreement.

IN WITNESS WHEREOF, the Corporation and Participant have duly executed this Agreement as of the date first written above.

Cboe Global Markets, Inc.

_____ By: _____

Participant's Name

_____ Its: _____

Participant's Signature

ADDENDUM

CBOE GLOBAL MARKETS, INC. LONG-TERM INCENTIVE PLAN
RESTRICTED STOCK UNIT AWARD AGREEMENT

This Addendum to the Agreement includes additional terms and conditions that govern the Restricted Stock Units if Participant resides and/or is employed outside of the United States or transfers residence or employment outside the United States. Certain capitalized terms used but not defined in this Addendum have the meanings set forth in the Agreement or the Plan.

1. Nature of Grant. In accepting the Restricted Stock Units, Participant acknowledges that:

(a) the Plan is established voluntarily by the Corporation, is discretionary in nature and may be modified, amended, suspended or terminated by the Corporation at any time, to the extent permitted by the Plan;

(b) the award of the Restricted Stock Units is exceptional, discretionary, voluntary and occasional and does not create any contractual or other right to receive future grants of Restricted Stock Units, or benefits in lieu of Restricted Stock Units, even if Restricted Stock Units have been granted in the past;

(c) all decisions with respect to future Restricted Stock Unit awards, if any, will be at the sole discretion of the Corporation;

(d) Participant is voluntarily participating in the Plan;

(e) the Restricted Stock Units and any shares of Stock that may be received in settlement of the Restricted Stock Units, and the income and value of same, (i) are an extraordinary item that does not constitute compensation of any kind for services of any kind rendered to the Corporation or the Affiliate that employs Participant (the "Employer"), and which is outside the scope of Participant's employment contract, if any, (ii) are not intended to replace any pension rights or compensation, and (iii) are not part of normal or expected compensation or salary for any purpose, including, but not limited to, calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, holiday pay, bonuses, long-service awards, leave-related payments, pension or retirement or welfare benefits or similar payments;

(f) the Restricted Stock Unit award will not be interpreted to form an employment or non-employee director contract or relationship with the Corporation or any Affiliate, nor does it amend any legal relationship or legal entitlement between Participant and the Employer;

(g) this Agreement, the transactions contemplated hereunder and the vesting schedule set forth herein do not constitute an express or implied promise of Participant's further employment for the vesting period, for any period, or at all, and will not interfere with Participant's right or the right of the Corporation or the Employer to terminate Participant's employment relationship at any time with or without cause;

(h) unless otherwise agreed with the Corporation, the Restricted Stock Units and the shares of Stock underlying the Restricted Stock Units, and the income and value of same, are not granted as consideration for, or in connection with, the service Participant may provide as a director of an Affiliate;

(i) the future value of the underlying shares of Stock is unknown, indeterminable and cannot be predicted with certainty;

(j) neither the Corporation, the Employer nor any Affiliate shall be liable for any foreign exchange rate fluctuation between Participant's local currency and the United States Dollar that may affect the value of the Restricted Stock Units or of any amounts due to Participant pursuant to the settlement of the Restricted Stock Units or the sale of any shares of Stock Participant may acquire upon such settlement;

(k) in consideration of the grant of the Restricted Stock Units, no claim or entitlement to compensation or damages shall arise from termination of the Restricted Stock Units or diminution in value of the Restricted Stock Units or shares of Stock acquired upon vesting of the Restricted Stock Units resulting from Participant's termination of Service (for any reason whatsoever and whether or not in breach of local labor laws) and Participant irrevocably releases the Corporation and the Employer from any such claim that may arise; and

(l) the Restricted Stock Units and the benefits evidenced by this Agreement do not create any entitlement not otherwise specifically provided for in the Plan or provided by the Corporation in its discretion, to have the Restricted Stock Units or any such benefits transferred to, or assumed by, another company or to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Corporation.

2. Participants in the European Union. If Participant resides and/or is employed in a European Union ("EU") member state, the following provision shall replace Section 3(b) of the Agreement in its entirety and any other provisions regarding Retirement shall be disregarded and of no effect:

> (b) The Restricted Stock Units will vest in full upon the earlier to occur of (i) Participant's death or (ii) Participant's becoming Disabled, provided that such condition qualifies as "disability" for purposes of Section 409A, in each case, if prior to any forfeiture event under Section 3(d) below.

3. Payment of Withholding Taxes. Participant acknowledges and agrees that if Participant is subject to tax and/or social contributions in more than one jurisdiction, the Corporation or its Affiliate(s) may be required to withhold or account for taxes and/or social contributions in more than one jurisdiction, in accordance with the methods of withholding described in Section 8 of the Agreement.

4. Data Privacy.

(a) Data Collection and Usage. The Corporation and the Employer will collect, process and use certain personal information about Participant, specifically, Participant's name, home address, email address and telephone number, date of birth, social security or insurance number, passport number or other identification number, salary, nationality, job title, any shares of Stock or directorships held in the Corporation, details of all Restricted Stock Units or any other entitlement to shares of Stock awarded, canceled, exercised, vested, unvested or outstanding in Participant's favor ("Data"), for the exclusive purpose of implementing, administering and managing the Plan.

(b) Recipients of Data.

a. Stock Plan Administration Service Providers. The Corporation and the Employer transfer Data to Fidelity Stock Plan Services, LLC (and/or its affiliates, collectively "Fidelity"), the designated broker assisting in the implementation, administration and management of the Plan. In the future, the Corporation may select a different service provider and share Data with such other provider serving in a similar manner.

b. Other Service Provider Data Recipients. The Corporation also may transfer Data to other third party service providers, if necessary to ensure compliance with applicable tax, exchange control, securities and labor law. Such third party service providers may include the Corporation's legal counsel as well as its auditor, human resources consultant and payroll vendor. Wherever possible, the Corporation will anonymize data, but Participant understands that his or her Data may need to be transferred to such providers to ensure compliance with applicable law and/or tax requirements.

c. Securities or Other Regulatory Authorities. In addition to the recipients identified herein and where required under applicable law, Data also may be disclosed to certain securities or other regulatory authorities, including where the Corporation's securities are listed or traded or regulatory filings are made. The legal basis, where required, for such disclosure is compliance with applicable law.

(c) International Data Transfers. The Corporation, Fidelity and other service providers described above are located in the United States. The United States may have different data privacy laws and protections than Participant's country of residence (or country of employment, if different).

(d) Legal Basis for Collection, Processing and Transfer of Data.

a. Participants within the EU / European Economic Area ("EEA"), Switzerland and the United Kingdom

i. The collection, processing and transfer of Data is necessary for the legitimate purpose of the Corporation and Employer's administration of the Plan and Participant's participation in the Plan.

ii. When transferring Data to potential recipients outside the EU/EEA, Switzerland and/or the United Kingdom, the Corporation and the Employer strive to provide appropriate safeguards in accordance with Standard Contractual Clauses or other legally binding and permissible arrangements. For further information on the transfer of Participant's personal data outside of the EU/EEA, Switzerland and/or the United Kingdom, Participant may contact his or her human resources representative.

b. Participants outside the EU / EEA, Switzerland and the United Kingdom

i. Participant hereby explicitly and unambiguously consents to the collection, processing and use, in electronic or other form, of Participant's Data by the Corporation and the transfer of Data to the recipients mentioned above, including recipients located in countries which do not adduce an adequate level of protection from a non-U.S. data protection law perspective, for the purposes described above. Upon transfer of Participant's Data to Fidelity, Participant may be asked to agree to separate terms and data processing practices with Fidelity, with such agreement being a condition of the ability to participate in the Plan.

ii. Participation in the Plan is voluntary and Participant understands that Participant is providing the consent herein on a purely voluntary basis. If Participant does not consent, or later seeks to revoke his or her consent, Participant's employment status or Service and career with the Employer will not be adversely affected. The only consequence of refusing or withdrawing consent is that the Corporation would not be able to grant Restricted Stock Units or other equity awards to Participant or administer or maintain such awards. Therefore, Participant understands that refusing or withdrawing his or her consent may affect Participant's ability to participate in the Plan. For more information on the consequences of Participant's refusal to consent or withdrawal of consent, Participant understands that Participant may contact his or her human resources representative.

(e) Data Retention. Participant understands that Data will be held only as long as is necessary to implement, administer and manage his or her participation in the Plan or comply with applicable laws. When the Corporation no longer needs the Data, the Corporation will remove it from its systems.

(f) Data Subject Rights. Participant understands that Participant may have the right under applicable law to (i) access or copy Data that the Corporation possesses, (ii) rectify incorrect Data, (iii) delete Data, (iv) restrict processing of Data, (v) opt out of the Plan, or (vi) lodge complaints with the competent supervisory authorities in Participant's jurisdiction. To receive clarification regarding these rights or to exercise these rights, Participant understands that Participant can contact his or her local human resources representative.

5. No Advice Regarding Grant. The Corporation is not providing any tax, legal or financial advice, nor is the Corporation making any recommendations regarding Participant's participation in the Plan, or Participant's acquisition or sale of the underlying shares of Stock. Participant should consult with his or her own personal tax, legal and financial advisors regarding Participant's participation in the Plan before taking any action related to the Plan.

6. Imposition of Other Requirements. The Corporation reserves the right to impose other requirements on Participant's participation in the Plan, on the Restricted Stock Units and on any shares of Stock acquired under the Plan, to the extent the Corporation determines it is necessary or advisable for legal or administrative reasons. Such requirements may include (but are not limited to) requiring Participant to sign any agreements or undertakings that may be necessary to accomplish the foregoing.

7. Insider Trading/Market Abuse Laws. By participating in the Plan, Participant agrees to comply with the Corporation's policy on insider trading (to the extent that it is applicable to Participant). Participant further acknowledges that, depending on Participant's or the broker's country of residence or where the shares of Stock are listed, Participant may be subject to insider trading restrictions and/or market abuse laws, which may affect Participant's ability to accept, acquire, sell or otherwise dispose of shares of Stock, rights to shares of Stock (e.g., Restricted Stock Units) or rights linked to the value of shares of Stock, during such times Participant is considered to have "inside information" regarding the Corporation as defined by the laws or regulations in Participant's country. Local insider trading laws and regulations may prohibit the cancellation or amendment of orders Participant places before Participant possessed inside information. Furthermore, Participant could be prohibited from (i) disclosing the inside information to any third party (other than on a "need to know" basis) and (ii) "tipping" third parties or causing them otherwise to buy or sell securities. Participant understands that third parties include fellow employees. Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable Corporation insider trading policy. Participant acknowledges that it is Participant's responsibility to comply with any applicable restrictions, and that Participant should therefore consult Participant's personal advisor on this matter.

8. Foreign Asset/Account Reporting; Exchange Controls. Participant's country may have certain foreign asset and/or account reporting requirements and/or exchange controls which may affect Participant's ability to acquire or hold shares of Stock under the Plan or cash received from participating in the Plan (including from any dividends received or sale proceeds arising from the sale of shares of Stock) in a brokerage or bank account outside Participant's country. Participant may be required to report such accounts, assets or transactions to the tax or other authorities in his or her country. Participant also may be required to repatriate sale proceeds or other funds received as a result of Participant's participation in the Plan to his or her country through a designated bank or broker and/or within a certain time after receipt. Participant acknowledges that it is his or her responsibility to be compliant with such regulations, and Participant should consult his or her personal legal advisor for any details.

9. Language. If Participant is resident in a country where English is not an official language, Participant acknowledges that Participant is sufficiently proficient in English to understand the terms and conditions of the Agreement or has had the ability to consult with an advisor who is sufficiently proficient in the English language. Participant further acknowledges and agrees that it is Participant's express intent that the Agreement, the Addendum and the Plan and all other documents, notices and legal proceedings entered into, given or instituted pursuant to the Restricted Stock Units be drawn up in English. If Participant has received the Agreement, the Addendum or any other document related to the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

10. Annex to Addendum. Notwithstanding any provision of the Agreement or Addendum to the contrary, the Restricted Stock Units shall be subject to such special terms and conditions for Participant's country of residence (and country of employment, if different), as are set forth in the annex to this Addendum (the "Annex"). Further, if Participant transfers residency and/or employment to another country, the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer. In all circumstances, the Annex shall constitute part of this Addendum.

ANNEX

This Annex to the Addendum includes additional terms and conditions that govern the Restricted Stock Units if Participant resides and/or is employed in the country addressed herein or transfers residence or employment to the country addressed herein. If Participant transfers residence and/or employment to another country, the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer. Certain capitalized terms used but not defined in this Annex have the meanings set forth in the Agreement (including the Addendum) or the Plan.

Australia

1. Tax Notification. The Plan is a plan to which Subdivision 83A-C of the Income Tax Assessment Act 1997 (Cth) (the "Act") applies (subject to conditions in the Act).

2. Offer Document. The Corporation is pleased to provide this offer to participate in the Plan. This offer document sets out information regarding the award for Australian-resident Participants ("Australian Participants"). It is for informational purposes and is intended to comply with the provisions of the Australian Corporations Act 2001 (Cth) ("Corporations Act 2001") and Australian Securities and Investments Commission ("ASIC") Instrument 22-0283.

   Additional Documents

   In addition to the information set out in the Agreement (including the Addendum and this Annex), Participant is also being provided with copies of the following documents:

   1. the Plan; and
   2. the Plan Prospectus describing the terms of the Plan (the "Plan Prospectus"); and
   3. any supplemental documents to the Plan and Plan Prospectus, as necessary.

   These additional documents provide further information to help Participant make an informed investment decision about participating in the Plan. Neither the Plan nor the Plan Prospectus is a prospectus for the purposes of the Corporations Act 2001.

   Participant should not rely upon any oral statements made in relation to this offer. Participant should rely only upon the statements contained in the Agreement and the additional documents when considering participation in the Plan.

   General Information Only

   Any information given by the Corporation or any subsidiary or affiliate in relation to the Restricted Stock Units is general and does not take into account an Australian Participant's objectives, financial situation and needs. Australian Participants should consider obtaining their own financial product advice from an independent person who is licensed by ASIC to give such advice.

Acquisition Price

No acquisition price is payable by Participant for the Corporation to grant Participant the number of Restricted Stock Units set forth in the Agreement or for Participant to acquire shares of Stock upon settlement of the Restricted Stock Units.

Shares of Stock

A share of common stock of a U.S. corporation is analogous to an ordinary share of an Australian Corporation. Each holder of a share of common stock is entitled to one vote for every share held.

The shares of Stock are traded on Cboe BZX in the United States of America under the symbol "CBOE".

Shares of Stock are not liable to any further calls for payment of capital or for other assessment by the Corporation and have no sinking fund provisions, pre-emptive rights, conversion rights or redemption provisions.

Risks of Acquiring Shares of Stock

This paragraph provides Australian Participants with general information about the risks of acquiring and holding shares of Stock. Before accepting the grant of Restricted Stock Units, Australian Participants should satisfy themselves that they have a sufficient understanding of these matters and should consider whether shares of Stock are a suitable investment for them, having regard to their own investment objectives, financial circumstances and taxation position.

(a) *Price of shares of Stock may fluctuate:* The price at which a share of Stock is quoted on the Cboe BZX may increase or decrease due to a number of factors. Some of the factors that may affect the price of the shares of Stock include fluctuations in the domestic and international market for listed stocks, general economic conditions, including interest rates, inflation rates, changes to government fiscal, monetary or regulatory policies, legislation or regulation, the nature of the markets in which the Corporation operates and general operational and business risks.

More information about potential factors that could affect the Corporation's business and financial results is included in the Corporation's Quarterly Reports on Form 10-Q and Annual Reports on Form 10-K. Copies of these forms are available at http://www.sec.gov/ and upon request to the Corporation.

In addition, Participant should be aware that the value of the shares of Stock Participant may acquire will be affected by the U.S./Australian dollar exchange rate. Participation in the Plan involves certain risks related to fluctuations in this rate of exchange.

(b) *Trading in shares of Stock may not be liquid:* There can be no guarantee that an active market in shares of Stock will continue or that the price of shares of Stock will increase. The number of potential buyers or sellers of shares of Stock on the Cboe BZX

may vary at any time. This may increase the volatility of the market price of shares of Stock. It may also affect the prevailing market price at which shareholders are able to sell their shares of Stock. This may result in shareholders receiving a market price for their shares of Stock that is less than the price that shareholders paid.

(c) *Risk of dilution:* In the future, the Corporation may elect to issue stock (or securities convertible into stock) including in connection with fundraisings for acquisitions that the Corporation may decide to make. Shareholders may be diluted as a result of such issues of stock or securities or such issues may reduce the market price of shares of Stock.

(d) *Dividends on shares of Stock*: The Corporation may pay dividends on shares of Stock. Payment of future dividends, and the timing and amount of any dividends the Corporation determines to pay, are at the discretion of the Board.

Market Price of shares of Stock in Australian Dollars

An Australian Participant can, from time to time, ascertain the market price of the shares of Stock by obtaining that price from the Corporation website (http://ir.cboe.com/) or The Wall Street Journal. The Australian dollar equivalent of that price can be obtained at the website of the Reserve Bank of Australia (http://www.rba.gov.au/statistics/frequency/exchange-rates.html).

This will not be a prediction of what the market price per share will be when the Restricted Stock Units vest and the shares of Stock are issued or of the applicable exchange rate on the actual vesting date or the date the shares of Stock are issued.

Canada

1. Settlement of Restricted Stock Units: Notwithstanding anything to the contrary in the Agreement or any related document, if Participant is resident or employed in Canada, the Corporation shall have absolute discretion to settle the Restricted Stock Units in shares of Stock or in the form of a cash payment or in any combination of the foregoing.

2. Securities Law Notification: Participant acknowledges and agrees that he or she is permitted to sell shares of Stock acquired under the Plan through the designated broker appointed under the Plan, provided the resale of shares of Stock takes place outside of Canada through facilities of a stock exchange on which the shares of Stock are listed. The shares of Stock currently are listed on Cboe BZX in the United States.

3. Termination of Employment: Except as may be determined by the Committee and except as otherwise provided in Section 3 of the Agreement, for purposes of Section 3(d) of the Agreement, Participant's Service will be considered terminated as of the date Participant ceases to be an employee of the Corporation (or, if different, the Affiliate to which Participant provides Service) for any reason, whether lawful or otherwise (including, without limitation, by reason of resignation, death, frustration of contract, termination for Cause, termination without Cause, or constructive dismissal), without regard to any pay in lieu of notice (whether by way of lump sum or salary continuance), benefits continuance,

or other termination related payments or benefits, whether pursuant to the common law or otherwise, to which Participant may then be entitled (the "Termination Date"). In the event that the Termination Date cannot reasonably be determined under the terms of the Plan and the Agreement, the Committee and its delegate shall have the exclusive discretion to determine when the Termination Date occurs for purposes of the Plan (including whether Participant may still be considered to be providing Service while on any leave of absence).

Unless otherwise extended by the Corporation, or as may be required to satisfy the minimum requirements of applicable employment or labour standards legislation, any portion of the award that is not vested on the Termination Date shall terminate immediately and be null and void, and Participant will have no entitlement to further vesting in the Restricted Stock Units or compensation in lieu thereof following the Termination Date, and Participant waives any claim to damages in respect thereof whether related or attributable to any contractual or common law termination entitlements or otherwise. For additional clarity, if applicable employment or labour standards legislation specifically requires continued entitlement to vesting during a statutory notice period, Participant's right to vest in the Restricted Stock Units, if any, will be allowed to continue for that minimum notice period but then immediately terminate effective as of the last day of Participant's minimum statutory notice period.

Hong Kong

1. Settlement in Shares of Stock. Notwithstanding anything to the contrary in the Agreement, the Addendum or the Plan, the Restricted Stock Units shall be settled only in shares of Stock (and may not be settled in cash).

2. Disposal of Shares of Stock. If, for any reason, shares of Stock are issued to Participant within six (6) months after the Award Date, Participant agrees that Participant will not sell or otherwise dispose of any such shares of Stock prior to the six (6) month anniversary of the Award Date.

3. IMPORTANT NOTICE/WARNING. *The contents of this document have not been reviewed by any regulatory authority in Hong Kong. Participant is advised to exercise caution in relation to the offer. If Participant is in any doubt about any of the contents of the documents, Participant should obtain independent professional advice. The Restricted Stock Units and shares of Stock issued in settlement of the Restricted Stock Units do not constitute a public offering of securities under Hong Kong law and are available only to employees of the Corporation or its Affiliates. The Agreement, the Plan and other incidental communication materials have not been prepared in accordance with and are not intended to constitute a "prospectus" for a public offering of securities under the applicable securities legislation in Hong Kong. The Restricted Stock Units are intended only for the personal use of each eligible employee of the Employer, the Corporation or an Affiliate and may not be distributed to any other person.*

4. Wages. The Restricted Stock Units and shares of Stock subject to the Restricted Stock Units do not form part of Participant's wages for purposes of calculating any statutory or contractual payments under Hong Kong law.

Japan

1. Vesting. If Participant resides and/or is employed in Japan, the following provision shall replace Section 3(b) of the Agreement in its entirety and any other provisions regarding Retirement shall be disregarded and of no effect:

(b) The Restricted Stock Units will vest in full upon the earlier to occur of (i) Participant's death or (ii) Participant's becoming Disabled, provided that such condition qualifies as "disability" for purposes of Section 409A, in each case, if prior to any forfeiture event under Section 3(d) below.

Netherlands

1. Exclusion of Claim: Participant acknowledges and agrees that Participant will have no entitlement to compensation or damages insofar as such entitlement arises or may arise from Participant ceasing to have rights under the Plan, whether or not as a result of termination of Participant's Service (whether such termination is in breach of contract or otherwise), or from the loss of diminution in value of the shares of Stock underlying the Restricted Stock Units. Upon the grant of the Restricted Stock Units, Participant shall be deemed to have waived irrevocably such entitlement.

Philippines

1. Settlement in Cash. Notwithstanding anything to the contrary in the Agreement, the Addendum or the Plan, the Restricted Stock Units shall be settled only in cash (and shall not be settled in shares of Stock), unless otherwise determined by the Corporation.

2. Vesting. If Participant resides and/or is employed in the Philippines, the following provision shall replace Section 3(b) of the Agreement in its entirety and any other provisions regarding Retirement shall be disregarded and of no effect:

(b) The Restricted Stock Units will vest in full upon the earlier to occur of (i) Participant's death or (ii) Participant's becoming Disabled, provided that such condition qualifies as "disability" for purposes of Section 409A, in each case, if prior to any forfeiture event under Section 3(d) below.

Singapore

1. Securities Law Information. The grant of the Restricted Stock Units under the Plan is being made pursuant to the "Qualifying Person" exemption under section 273(1)(f) of the Securities and Futures Act (Chapter 289, 2006 Ed.) ("SFA"). The Plan has not been and will not be lodged or registered as a prospectus with the Monetary Authority of Singapore and is not regulated by any financial supervisory authority pursuant to any legislation in Singapore. Accordingly, statutory liability under the SFA in relation to the content of prospectuses would not apply. Participant should note that the Restricted Stock Units are subject to section 257 of the SFA and Participant will not be able to make any subsequent sale of shares of Stock in Singapore, or any offer of such subsequent sale of shares of Stock

subject to the Restricted Stock Units in Singapore, unless such sale or offer is made (i) after six (6) months from the Award Date or (ii) pursuant to the exemptions under Part XIII Division (1) Subdivision (4) (other than section 280) of the SFA.

Switzerland

1. Securities Law Information. Neither the Agreement nor any other materials relating to the grant of Restricted Stock Units (a) constitutes a prospectus according to articles 35 et seq. of the Swiss Federal Act on Financial Services ("FinSA"), (b) may be publicly distributed or otherwise made publicly available in Switzerland to any person other than an employee of the Corporation or one of its Affiliates or (c) has been or will be filed with, approved or supervised by any Swiss reviewing body according to article 51 FinSA or any Swiss regulatory authority, including the Swiss Financial Market Supervisory Authority, FINMA.

United Kingdom (Including Northern Ireland)

1. Payment of Withholding Taxes. The following provision supplements the section of the Agreement titled "Payment of Withholding Taxes":

> Without limitation to the section of the Agreement titled 'Payment of Withholding Taxes', Participant agrees that Participant is liable for all income tax and employee national insurance contributions or other social contributions or withholding taxes ("Tax-Related Items") and hereby covenants to pay all such Tax-Related Items, as and when requested by the Corporation, the Employer or by HM's Revenue and Customs ("HMRC") (or any other tax authority or any other relevant authority). Participant also agrees to indemnify and keep indemnified the Corporation and the Employer against any Tax-Related Items that they are required to pay or withhold or have paid or will pay on Participant's behalf to HMRC (or any other tax authority or any other relevant authority).
>
> Notwithstanding the foregoing, if Participant is a director or executive officer (as within the meaning of Section 13(k) of the U.S. Securities Exchange Act of 1934, as amended), the terms of the immediately foregoing provision will not apply. In the event that Participant is a director or executive officer and income tax due is not collected from or paid by Participant within 90 days after the U.K. tax year in which an event giving rise to the indemnification described above occurs, the amount of any uncollected tax may constitute a benefit to Participant on which additional income tax and national insurance contributions may be payable. Participant acknowledges that Participant ultimately will be responsible for reporting and paying any income tax due on this additional benefit directly to HMRC under the self-assessment regime and for reimbursing the Corporation or the Employer (as applicable) for the value of any employee national insurance contributions due on this additional benefit, which the Corporation and/or the Employer may recover from Participant at any time

thereafter by any of the means referred to in section of the Agreement titled "Payment of Withholding Taxes".

2. Exclusion of Claim. Participant acknowledges and agrees that Participant will have no entitlement to compensation or damages insofar as such entitlement arises or may arise from Participant's ceasing to have rights under or to be entitled to the Restricted Stock Units, whether or not as a result of termination of Service (whether such termination is in breach of contract or otherwise), or from the loss or diminution in value of the Restricted Stock Units. Upon the award of the Restricted Stock Units, Participant shall be deemed irrevocably to have waived any such entitlement.

3. Section 2 of the Addendum. Section 2 of the Addendum (Participants in the European Union) shall not apply to the Restricted Stock Units.

Exhibit 10.90
For Employees – With Restrictive Covenants

CBOE GLOBAL MARKETS, INC. LONG-TERM INCENTIVE PLAN
RESTRICTED STOCK UNIT AWARD AGREEMENT – PERFORMANCE BASED

This RESTRICTED STOCK UNIT AWARD AGREEMENT (this "Agreement") is dated effective _____(the "Award Date"), and is between Cboe Global Markets, Inc. (the "Corporation") and _____ ("Participant"). Any term capitalized but not defined in this Agreement will have the meaning set forth in the Second Amended and Restated Cboe Global Markets, Inc. (formerly CBOE Holdings, Inc.) Long-Term Incentive Plan (as may be amended from time to time, the "Plan").

1. Award. The Corporation hereby awards to Participant _____ Restricted Stock Units (the "Restricted Stock Units"). The Restricted Stock Units will be subject to the terms and conditions of the Plan and this Agreement. Each Restricted Stock Unit is a notional amount that represents one unvested share of Stock and entitles Participant, subject to the terms of this Agreement, to receive a share of Stock if and when the Restricted Stock Unit vests.

2. No Rights as Stockholder; Dividend Equivalents. Participant shall have no voting rights with respect to shares of Stock represented by Restricted Stock Units until the date of the issuance of the shares of Stock (as evidenced by the appropriate entry on the books of the Corporation or of a duly authorized transfer agent of the Corporation). Notwithstanding the foregoing, in the event that the Corporation declares a cash dividend on shares of Stock, on the payment date of the dividend, Participant will be credited with Dividend Equivalent Rights equal to the amount of the cash dividend per share multiplied by the number of Restricted Stock Units held by Participant on the dividend's record date. The Dividend Equivalent Rights credited to Participant under the preceding sentence will be deemed to be reinvested in additional Restricted Stock Units, which will be subject to the same terms regarding vesting, forfeiture, and distribution as Restricted Stock Units awarded to Participant under this Agreement.

3. Performance Period. The Performance Period for the Restricted Stock Units shall be the three (3) year period commencing on _____ and ending on _____.

4. Vesting; Effect of Termination of Service; Change in Control.

(a) Subject to Sections 4(b), 4(c) and 4(d) below, Participant's Restricted Stock Units will vest upon the expiration of the Performance Period, subject to and contingent upon achievement of the Performance Goal described in Exhibit A hereto and Participant's continued Service through the last day of the Performance Period. Notwithstanding the foregoing, in the event of Participant's Retirement (as defined below), and satisfaction of the terms thereof, prior to expiration of the Performance Period, the Restricted Stock Units shall remain outstanding upon Participant's Retirement and be distributed as if Participant remained in Service continuously through the vesting date in accordance with the preceding sentence and Participant shall be entitled to receive (i) the number of Restricted Stock Units that would have vested in accordance with the preceding sentence based on the level of achievement of the Performance Goal actually

achieved if Participant had continued Service through the last day of the Performance Period, multiplied by (ii) a fraction, the numerator of which is the number of days during the Performance Period on which Participant was providing Service, and the denominator of which is 1,095. For purposes of this Agreement, "Retirement" means a determination by the Corporation or its Affiliate in their sole discretion, that Participant: (i) has completed a minimum of ten (10) full years of continuous and unbroken Service as of their Retirement date, (ii) has attained the age of fifty-five (55) as of their Retirement date, (iii) has provided the Corporation's Board, CEO, President, and/or COO with at least six (6) months' advance written revocable notice of their Retirement date (unless the notice period is waived by the Corporation or its Affiliate in their sole discretion), (iv) has their Retirement date and transition plan approved and not revoked by the Corporation's Board, CEO, President, and/or COO through their Retirement date, (v) remains in Service continuously and in good standing until their Retirement date, (vi) has successfully transitioned responsibilities, as determined at the sole discretion of the Corporation's Board, CEO, President, and/or COO, and (vii) has a separation from Service.

(b) The Restricted Stock Units will vest at the Target level of achievement of the Performance Goal (as described in Exhibit A), upon the earlier to occur of (i) Participant's death or (ii) Participant's becoming Disabled, provided that such condition qualifies as "disability" as defined for purposes of Section 409A, in each case, if prior to any forfeiture event under Section 4(d) below.

(c) This subsection 4(c) shall apply to this Agreement, this Award and any Replacement Award provided to Participant to replace this Award in lieu of Section 8.2(b) of the Plan. Upon a termination of Participant's Service by the Corporation or its Affiliate without Cause or by Participant for "Good Reason" (as defined below), in each case, upon or within two years after a Change in Control and prior to any forfeiture event under Section 4(d) below, this Award or any Replacement Award held by Participant shall become fully vested and free of restrictions at the Target level of achievement of the Performance Goal (as described in Exhibit A, as amended by the Replacement Award, if any), except that vesting shall be, to the extent determinable, at the level of achievement of the Performance Goal actually achieved as of the date of termination of Service (with similar performance assumed to be achieved through the remainder of the Performance Period) if greater than the Target level of achievement, and shall be distributed upon or within 60 days of such termination of Service. Notwithstanding the foregoing, if this Award or the Replacement Award, as applicable, is considered deferred compensation subject to Section 409A, payment shall be made pursuant to the Award's original schedule if necessary to comply with Section 409A.

For purposes of this Award "Good Reason" shall be deemed to exist if, and only if, without Participant's express written consent:

(i) The Corporation or its Affiliate assigns to Participant authorities, duties or responsibilities (including titles) that are inconsistent in any material and adverse respect with Participant's immediately preceding authorities, duties or responsibilities with the Corporation or its Affiliate (including any material and adverse diminution of such immediately preceding authorities, duties or responsibilities);

(ii) The Corporation or its Affiliate materially reduces Participant's base compensation;

(iii) The Corporation or its Affiliate requires Participant to relocate his or her principal business office or principal place of residence outside the metropolitan area in which Participant worked or resided at the time the Restricted Stock Units were awarded (or outside the immediately preceding location of Participant's principal business office with the Corporation or its Affiliate), or assigns to Participant duties that would reasonably require such relocation;

(iv) The Corporation or its Affiliate materially breaches the terms of any agreement pursuant to which services are provided to the Corporation or its Affiliate by Participant; or

(v) The Corporation or its Affiliate terminates, reduces or limits Participant's participation in any bonus or incentive compensation arrangement relative to the level of participation of other employees of similar rank for a reason that is not reasonably related to Participant's level of job performance or local legal requirements and provided that such action results in a material reduction in the aggregate value of Participant's incentive compensation below the aggregate value as of the immediately preceding bonus or incentive compensation performance period and provided further that a mere change in the form of payment of the award (whether cash or shares of Stock) without a reduction in the aggregate grant value of the award shall not be considered a reduction of Participant's participation.

Participant's voluntary termination of Service shall not be considered a termination of Service for Good Reason unless Participant terminates his or her Service within 120 days after the initial existence of the condition constituting Good Reason; provided, Participant provides written notice to the Corporation or its Affiliate of Participant's intention to resign for Good Reason, which notice specifies in reasonable detail the breach or action giving rise thereto within 90 days of its initial existence, and the Corporation or its Affiliate does not cure such breach or action within 30 days after the date of Participant's notice.

(d) If Participant's Service is terminated for any reason before all of Participant's Restricted Stock Units have vested under this Agreement (including pursuant to an event described in Section 4(b) or 4(c) above), Participant's unvested Restricted Stock Units will be forfeited upon the effective date of such termination of Service. Notwithstanding anything herein to the contrary, any outstanding Restricted Stock Units not previously settled shall be cancelled and forfeited immediately if, in the sole opinion and discretion of the Committee or its delegate, Participant engages in any activity that constitutes Cause, whether or not Participant experiences a separation from Service, is no longer in Service, or remains in Service. Neither the Corporation nor any Affiliate will have any further obligations to Participant under this Agreement if Participant's Restricted Stock Units are forfeited pursuant to this Section 4(d).

5. Terms and Conditions of Distribution.

(a) Distribution of a share of Stock that corresponds to a vested Restricted Stock Unit shall be made to Participant as soon as practicable after the Restricted Stock Unit vests, but not later than two and a half (2½) months after the end of the calendar year in which the Restricted Stock Unit vests (except that, in the event of a Retirement, distribution shall be made not later than sixty (60) days after the applicable vesting date pursuant to Section 4(a) and Participant shall not be permitted, directly or indirectly, to designate the taxable year of the distribution).

(b) Subject to Section 5(c), distribution of a share of Stock that corresponds to a Restricted Stock Unit that vested due to death or Participant's becoming Disabled shall be made to Participant during the two and a half (2½) months period after the end of the calendar year in which or with which the Performance Period expired or, if earlier, as soon as practicable following the earlier to occur of the following dates: (i) the date on which such Restricted Stock Unit would otherwise have vested in accordance with Section 4(b), or (ii) Participant's "separation from service" as defined for purposes of Section 409A (or, if Participant is a "specified employee" as defined for purposes of Section 409A on the date of such separation from service, the date that is the first day of the seventh (7th) month following Participant's separation from service).

(c) If Participant dies before the date on which the Corporation would have distributed shares of Stock in satisfaction of vested Restricted Stock Units, the Corporation will distribute such shares of Stock to Participant's designated beneficiary(ies) or, if none are designated or surviving, to Participant's estate or personal representative. The Corporation is not required to issue or deliver any shares of Stock before completing the steps necessary to comply with applicable Federal and state securities laws (including any registration requirements) and applicable stock exchange rules and practices. The Corporation will use commercially reasonable efforts to cause compliance with those laws, rules and practices. The foregoing provisions are subject in all cases to the requirements of Section 409A.

6. Nontransferability. Unvested Restricted Stock Units may not be sold, transferred, exchanged, pledged, assigned, garnished, or otherwise alienated or hypothecated, other than by will or by the laws of descent and distribution. Any effort to assign or transfer the rights under this Agreement will be wholly ineffective, and will be grounds for termination by the Committee of all rights of Participant under this Agreement.

7. Administration. The Committee administers the Plan. Participant's rights under this Agreement are expressly subject to the terms and conditions of the Plan and to any guidelines the Committee adopts from time to time. The interpretation and construction by the Committee of the Plan and this Agreement, and such rules and regulations as may be adopted by the Committee for purposes of administering the Plan and this Agreement, will be final and binding upon Participant.

8. Securities Law Requirements. If at any time the Board or Committee determines that issuing Stock pursuant to this Agreement would violate applicable securities laws, the Corporation will not be required to issue such Stock. The Board or Committee may

declare any provision of this Agreement or action of its own null and void, if it determines the provision or action fails to comply with applicable securities laws. The Corporation may require Participant to make written representations it deems necessary or desirable to comply with applicable securities laws.

9. Payment of Withholding Taxes. Participant Participant acknowledges that, regardless of any action taken by the Corporation or, if different, the Affiliate of the Corporation that employs Participant (the "Employer"), the ultimate liability for all income tax, social contributions, payroll tax, fringe benefits tax, payment on account or other tax-related items related to Participant's participation in the Plan and legally applicable to Participant or deemed by the Corporation or the Employer in their discretion to be an appropriate charge to Participant even if legally applicable to the Corporation or the Employer ("Tax-Related Items"), is and remains Participant's responsibility and may exceed the amount actually withheld by the Corporation or the Employer, if any. Participant further acknowledges that the Corporation and/or the Employer (a) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the Restricted Stock Units, including, but not limited to, the grant, vesting or settlement of the Restricted Stock Units, the subsequent sale of shares of Stock acquired pursuant to such settlement; and (b) do not commit to and is under no obligation to structure the terms of the grant or any aspect of the Restricted Stock Units to reduce or eliminate Participant's liability for Tax-Related Items or achieve any particular tax result. Further, if Participant is subject to Tax-Related Items in more than one jurisdiction between the Award Date and the date of any relevant taxable or tax withholding event, as applicable, Participant acknowledges that the Corporation and/or the Employer (or former employer, as applicable) may be required to withhold or account for Tax-Related Items in more than one jurisdiction.

Prior to the relevant taxable or tax withholding event, as applicable, Participant agrees to make adequate arrangements satisfactory to the Corporation and/or the Employer to satisfy all Tax-Related Items. In this regard, Participant authorizes the Corporation, or its respective agents, at their discretion, to satisfy the obligations with regard to all Tax-Related Items by one or a combination of the following: (i) withholding from Participant's wages or other cash compensation paid to Participant by the Corporation and/or the Employer; (ii) withholding from the shares of Stock to be delivered upon settlement of the Restricted Stock Units or other awards granted to Participant or (iii) permitting Participant to tender to the Corporation or to the Employer cash or, if allowed by the Committee, shares of Stock to the Corporation.

Notwithstanding the foregoing, if Participant is subject to Section 16 of the Exchange Act of 1934, pursuant to Rule 16a-2 promulgated thereunder, any tax withholding obligations shall be satisfied by having the Corporation withhold from the shares of Stock to be delivered upon settlement of the Restricted Stock Units.

Depending on the withholding method, the Corporation may withhold or account for Tax-Related Items by considering applicable statutory withholding rates (as determined by the Corporation in good faith and in its sole discretion) or other applicable withholding rates, including maximum applicable rates, in which case Participant will receive a refund of any over-withheld amount in cash and will have no entitlement to the

share equivalent. If the obligation for Tax-Related Items is satisfied by withholding from the shares of Stock to be delivered upon settlement of the Restricted Stock Units, for tax purposes, Participant is deemed to have been issued the full number of shares of Stock subject to the Restricted Stock Units, notwithstanding that a number of shares of Stock are held back solely for the purpose of paying the Tax-Related Items. Participant will have no further rights with respect to any shares of Stock that are retained by the Corporation pursuant to this provision.

Participant agrees to pay to the Corporation or the Employer any amount of Tax-Related Items that the Corporation or the Employer may be required to withhold or account for as a result of Participant's participation in the Plan that cannot be satisfied by the means previously described. The Corporation may refuse to issue or deliver shares of Stock or proceeds from the sale of shares of Stock until arrangements satisfactory to the Corporation have been made in connection with the Tax-Related Items.

10. Restrictive Covenants. Participant understands the global nature of the Corporation's businesses and the effort the Corporation and its Affiliates (collectively referred to in this Section as "Cboe") undertake to develop and protect their business and their competitive advantage. Accordingly, Participant agrees that the scope and duration of the restrictions described in this Agreement are reasonable and necessary to protect the legitimate business interests of Cboe. Participant further agrees that during the period of Participant's Service and for a period of two (2) years following Participant's separation from Service, Participant shall not, without the express written approval of the Chief Executive Officer:

(a) singly, jointly, or in any other capacity, in a manner that contributes to any research, technology, development, account, trading, marketing, promotion, or sales and that relates to Participant's Service with Cboe, directly or beneficially, manage, join, participate in the management, operation or control of, or work for (as an employee, consultant or independent contractor), or permit the use of his or her name by, or provide financial or other assistance to, or be connected in any manner with (i) any exchange, facility, clearinghouse, electronic communications network ("ECN"), electronic foreign currency exchange market ("FX") matching platform, multilateral trading facility, or alternative trading system ("ATS"); (ii) the ECN, ATS or FX business lines of any full service broker dealer or any digital asset or data and access solutions business line of any company; or (iii) any business line of any company that is substantially similar to any additional business line developed or entered into by Cboe during Participant's Service, provided that, in the case of clauses (i), (ii) and (iii), such entity or business line that directly competes with Cboe;

(b) provide any service or assistance that (i) is of the general type of service or assistance provided by Participant to Cboe, (ii) relates to any technology, account, product, project or piece of work with which Participant was involved during his Service, and (iii) contributes to causing an entity to come within the definition described in Section 10(a) above;

(c) solicit or accept if offered to Participant, with or without solicitation, on his or her own behalf or on behalf of any other person, the services of any person who is

a then-current employee of Cboe (or was an employee of Cboe during the year preceding such solicitation), nor solicit any of Cboe's then-current employees (or an individual who was employed by or engaged by Cboe during the year preceding such solicitation) to terminate employment or an engagement with Cboe, nor agree to hire any then-current employee (or an individual who was an employee of Cboe during the year preceding such hire) of Cboe into employment with Participant or any company, individual or other entity; or

(d) directly or indirectly divert or attempt to divert from Cboe any business in which Cboe has been actively engaged during Participant's Service, nor interfere with the relationships of Cboe or with their sources of business.

11. Confidentiality. Participant acknowledges that the Corporation or an Affiliate may disclose secret or confidential information to Participant during the period of Participant's Service to enable Participant to perform his or her duties. Participant agrees that, subject to the following sentence, Participant shall not during his or her Service (except in connection with the proper performance of his or her duties) and thereafter, without the prior written consent of the Corporation, disclose to any person or entity any material or significant secret or confidential information concerning the business of the Corporation or an Affiliate that was obtained by Participant in the course of Participant's Service. This paragraph shall not be applicable if and to the extent Participant is required to testify in a legislative, judicial or regulatory proceeding pursuant to an order of Congress, any state or local legislature, a judge, or an administrative law judge, or if such secret or confidential information is required to be disclosed by Participant by any law, regulation or order of any court or regulatory commission, department or agency. Participant further agrees that if Participant's Service is terminated for any reason, Participant will not take, but will leave with the Corporation or an Affiliate, all records and papers and all matter of whatever nature that bears secret or confidential information of the Corporation or an Affiliate. For purposes of this Agreement, the term "secret or confidential information" shall include, but not be limited to, any and all records, notes, memoranda, data, writings, research, personnel information, customer information, clearing members' information, the Corporation's and any Affiliate's financial information and plans, processes, methods, techniques, systems, formulas, patents, models, devices, compilations or any other information of whatever nature in the possession or control of the Corporation or an Affiliate, that has not been published or disclosed to the general public, the options industry, the equities industry, the foreign currency exchange industry or the commodities futures industry, provided that such term shall not include knowledge, skills, and information that is common to the trade or profession of Participant.

Notwithstanding anything in this Agreement to the contrary, nothing in this Agreement prohibits Participant from confidentially or otherwise communicating or filing a charge or complaint with a governmental or regulatory entity, participating in a governmental or regulatory entity investigation, or giving truthful testimony or making other disclosures to a governmental or regulatory entity (in each case, without having to disclose any such conduct to the Corporation or an Affiliate), or from responding if properly subpoenaed or otherwise required to do so under applicable law. In addition, nothing in this Agreement

limits Participant's right to receive an award from a governmental or regulatory entity for information provided to such an entity (and not as compensation for actual or alleged personal injury or damages to Participant).

Pursuant to the Defend Trade Secrets Act of 2016 (18 U.S.C. 1833(b)), Participant shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that is made in confidence either directly or indirectly to a federal, state, or local government official, or to an attorney, solely for the purpose of reporting or investigating a violation of law. Participant shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret made in a complaint, or other document filed in a lawsuit or other proceeding, if such filing is made under seal. If Participant files a lawsuit or other action alleging retaliation by the Corporation or an Affiliate for reporting a suspected violation of law, Participant may disclose the trade secret to his or her attorney and use the trade secret in the court proceeding or other action, if Participant files any document containing the trade secret under seal and does not disclose the trade secret, except pursuant to court order. This paragraph will govern to the extent it may conflict with any other provision of this Agreement.

12. Judicial Modification. If the final judgment of a court of competent jurisdiction declares that any term or provision of Section 10 or 11 is invalid or unenforceable, the parties agree that (a) the court making the determination of invalidity or unenforceability shall have the power to reduce the scope, duration, or geographic area of the term or provision, to delete specific words or phrases, or to replace any invalid or unenforceable term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, (b) the parties shall request that the court exercise that power, and (c) this Agreement shall be enforceable as so modified after the expiration of the time within which the judgment or decision may be appealed.

13. Remedies. Participant agrees that in the event of a breach or threatened breach of any of the covenants contained in Sections 10 or 11 of this Agreement, in addition to any other penalties or restrictions that may apply under any employment agreement, state law, or otherwise, Participant shall forfeit, upon written notice to such effect from the Corporation, any and all Awards granted to him or her under the Plan and this Agreement, including vested Awards. The forfeiture provisions of this Section 13 shall continue to apply, in accordance with their terms, after the provisions of any employment or other agreement between the Corporation and Participant have lapsed. Participant consents and agrees that if Participant violates or threatens to violate any provisions of Sections 10 or 11 of this Agreement, the Corporation or its successors in interest shall be entitled, in addition to any other remedies that they may have, including money damages, to an injunction to be issued by a court of competent jurisdiction restraining Participant from committing or continuing any violation of Sections 10 or 11. In the event that Participant is found to have breached any provision set forth in Section 10 of this Agreement, the time period provided for in that provision shall be deemed tolled (*i.e.*, it will not begin to run) for as long as Participant was in violation of that provision. The provisions of Sections 10 and 11 of this Agreement shall continue to apply, in accordance

with their terms, after Participant's service has terminated and after provisions of any employment or other agreement between the Corporation and Participant have lapsed.

14. Representations and Warranties. Participant represents and warrants to the Corporation that Participant has received a copy of the Plan and this Agreement, has read and understands the terms of the Plan and this Agreement, and agrees to be bound by their terms and conditions in all respects.

15. No Limitation on the Corporation's Rights. The granting of Restricted Stock Units under this Agreement shall not and will not in any way affect the Corporation's right or power to make adjustments, reclassifications or changes in its capital or business structure or to merge, consolidate, reincorporate, dissolve, liquidate or sell or transfer all or any part of its business or assets.

16. Plan and Agreement Not a Contract of Employment or Service. Neither the Plan nor this Agreement is a contract of employment or Service, and no terms of Participant's employment or Service will be affected in any way by the Plan, this Agreement or related instruments, except to the extent specifically expressed therein. Neither the Plan nor this Agreement will be construed as conferring any legal rights on Participant to continue to be employed or remain in Service, nor will it interfere with the Corporation's or any Affiliate's right to discharge Participant or to deal with Participant regardless of the existence of the Plan or this Agreement.

17. Entire Agreement and Amendment. This Agreement and the Plan constitute the entire agreement between the parties hereto with respect to the Restricted Stock Units, and all prior oral and written representations are merged in this Agreement and the Plan. Notwithstanding the preceding sentence, this Agreement shall not in any way affect the terms and provisions of the Plan. This Agreement may be amended, modified, or terminated only in accordance with the Plan. The headings in this Agreement are inserted for convenience and identification only and are not intended to describe, interpret, define or limit the scope, extent, or intent of this Agreement or any provision hereof.

18. Notice. Any notice or other communication required or permitted under this Agreement must be in writing and must be delivered personally, sent by certified, registered or express mail, sent by overnight courier (at the sender's expense), or (if from the Corporation or the Corporation's stock plan administrator) by electronic mail. Notice will be deemed given (a) when delivered personally, (b) if mailed, three days after the date of deposit in the U.S. mail, (c) if sent by overnight courier, on the regular business day following the date sent, or (d) when electronically mailed. Notice to the Corporation should be sent to Cboe Global Markets, Inc., 433 West Van Buren Street, Chicago, Illinois 60607, Attention: General Counsel. Notice to Participant should be sent to the mailing address and/or electronic mailing address set forth on the Corporation's records. Either party may change the address to which the other party must give notice under this Section 18 by giving the other party written notice of such change, in accordance with the procedures described above or otherwise established by the Corporation or its stock plan administrator.

19. Successors and Assigns. The terms of this Agreement will be binding upon the Corporation and its successors and assigns.

20. Governing Law. To the extent not preempted by Federal law, the Plan, this Agreement, and documents evidencing rights relating to the Plan or this Agreement will be construed, administered and governed in all respects under and by the laws of the State of Delaware, without giving effect to its conflict of laws principles. If any provision of this Agreement will be held by a court of competent jurisdiction to be invalid or unenforceable, the remaining provisions hereof will continue to be fully effective. The jurisdiction and venue for any disputes arising under, or any action brought to enforce (or otherwise relating to), this Agreement will be exclusively in the courts in the State of Illinois, County of Cook, including the Federal Courts located therein (should Federal jurisdiction exist).

21. Plan Document Controls. The rights granted under this Agreement are in all respects subject to the provisions set forth in the Plan to the same extent and with the same effect as if set forth fully in this Agreement. If the terms of this Agreement conflict with the terms of the Plan document, the Plan document will control.

22. Counterparts. This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute but one and the same instrument.

23. Waiver; Cumulative Rights. The failure or delay of either party to require performance by the other party of any provision of this Agreement will not affect its right to require performance of such provision unless and until such performance has been waived in writing. Each right under this Agreement is cumulative and may be exercised in part or in whole from time to time.

24. Tax Consequences. Participant agrees to determine and be responsible for all tax consequences to Participant with respect to the Restricted Stock Units.

25. Section 409A. The Restricted Stock Units granted hereunder are intended to comply with, or otherwise be exempt from, Section 409A, including the exceptions and exemptions for short term deferrals, stock rights, and separation pay arrangements. This Agreement and all Restricted Stock Units shall be administered, interpreted, and construed in a manner consistent with Section 409A. Should any provision of this Agreement, or any other agreement or arrangement contemplated by this Agreement, be found not to comply with, or otherwise be exempt from, the provisions of Section 409A, such provision shall be modified and given effect (retroactively if necessary), in the sole discretion of the Corporation, and without the consent of Participant, in such manner as the Corporation determines to be necessary or appropriate to comply with, or to effectuate an exemption from, Section 409A. Notwithstanding the forgoing, no provision of this Agreement, or any other agreement or arrangement contemplated by this Agreement shall be construed as a guarantee by the Corporation of any particular tax effect to Participant. Each payment made under this Agreement shall be designated as a separate payment within the meaning of Section 409A. Any payment that is subject to Section 409A and payable upon Participant's termination of employment or other similar event shall not be made

unless Participant has experienced a "separation from service" as defined under Section 409A. Any payment subject to Section 409A that is to be made upon a "separation from service" to Participant on any date when he or she is a "specified employee" as defined under Section 409A shall not be paid before the date that is six (6) months following Participant's "separation from service" or, if earlier, Participant's death.

26. Compensation Recovery. Notwithstanding anything in this Agreement to the contrary, the Restricted Stock Units, Dividend Equivalent Rights and any shares of Stock issued pursuant to the Restricted Stock Units and any proceeds therefrom shall be subject to and remain subject to any compensation recovery policies of the Corporation (i) currently in effect, (ii) as may be adopted by the Corporation to comply with applicable laws and/or the rules and regulations of the securities exchange or inter-dealer quotation system on which the shares of Stock are listed or quoted, including, without limitation, pursuant to Section 10D of the Exchange Act and Rule 10D-1 thereunder, or (iii) as may be adopted by the Corporation to help facilitate the Corporation's objectives, including, without limitation, related to eliminating or reducing fraud, misconduct, wrongdoing, or violations of law by an employee or similar considerations and, in each case, as may be amended from time to time (the "Policies"), with the provisions contained in such Policies deemed incorporated into this Agreement without Participant's additional or separate consent. For purposes of the foregoing, Participant expressly and explicitly authorizes the Corporation to issue instructions, on Participant's behalf, to any brokerage firm and/or third-party administrator engaged by the Corporation to hold any shares of Stock and other amounts acquired pursuant to the Restricted Stock Units to re-convey, transfer or otherwise return such shares of Stock and/or other amounts to the Corporation upon the Corporation's enforcement of the Policies. No recovery of compensation as described herein will be an event giving rise to a right to resign for "Good Reason" or "constructive termination" (or similar term) under any plan of, or agreement with, the Corporation, the Employer and/or Participant.

27. Addendum to Agreement. Notwithstanding any provision of this Agreement to the contrary, if Participant resides or is employed outside the U.S. or transfers residence or employment outside the U.S., the Restricted Stock Units shall be subject to such special terms and conditions as are set forth in the addendum to this agreement (the "Addendum"). Further, if Participant transfers residency and/or employment to another country, any special terms and conditions for such country will apply to the Restricted Stock Units to the extent the Corporation determines, in its sole discretion, that the application of such terms and conditions is necessary or advisable in order to comply with local law or to facilitate the operation and administration of the Restricted Stock Units and the Plan (or the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer). In all circumstances, the Addendum shall constitute part of this Agreement.

IN WITNESS WHEREOF, the Corporation and Participant have duly executed this Agreement as of the date first written above.

Cboe Global Markets, Inc.

_____ By: _____
Participant's Name

_____ Its: _____
Participant's Signature

Exhibit A

Vesting of the Restricted Stock Units is contingent on achievement of a Performance Goal tied to Total Shareholder Return of the Corporation as compared to the Total Shareholder Return of the S&P 500 Index during the Performance Period. The number of Restricted Stock Units that may vest shall be determined as set forth below:

TSR Percentile Attained	**Percentage of Restricted Stock Units That Vest**
_____th percentile ("Maximum") or greater	_____%
_____th percentile ("Target")	_____%
_____th percentile ("Threshold")	_____%

For TSR Percentile performance levels that fall between the values shown above, the percentage of Restricted Stock Units that vest will be determined by straight line interpolation, provided that no Restricted Stock Units will vest if the Corporation's TSR Percentile does not equal or exceed the Threshold amount.

"Total Shareholder Return" means, with respect to any corporation, the increase in its stock price over the Performance Period plus reinvested dividends, divided by its stock price at the beginning of the Performance Period. For purposes of this definition, the beginning stock price will be the average closing price over the twenty (20) trading days up to and including _____, and the ending stock price will be the average closing price over the twenty (20) trading days up to and including _____.

"TSR Percentile" means the Corporation's Total Shareholder Return during the Performance Period relative to the Total Shareholder Returns for the S&P 500 Index during the Performance Period.

ADDENDUM

CBOE GLOBAL MARKETS, INC. LONG-TERM INCENTIVE PLAN
RESTRICTED STOCK UNIT AWARD AGREEMENT - PERFORMACE BASED

This Addendum to the Agreement includes additional terms and conditions that govern the Restricted Stock Units if Participant resides and/or is employed outside of the United States or transfers residence or employment outside the United States. Certain capitalized terms used but not defined in this Addendum have the meanings set forth in the Agreement or the Plan.

1. Nature of Grant. In accepting the Restricted Stock Units, Participant acknowledges that:

(a) the Plan is established voluntarily by the Corporation, is discretionary in nature and may be modified, amended, suspended or terminated by the Corporation at any time, to the extent permitted by the Plan;

(b) the award of the Restricted Stock Units is exceptional, discretionary, voluntary and occasional and does not create any contractual or other right to receive future grants of Restricted Stock Units, or benefits in lieu of Restricted Stock Units, even if Restricted Stock Units have been granted in the past;

(c) all decisions with respect to future Restricted Stock Unit awards, if any, will be at the sole discretion of the Corporation;

(d) Participant is voluntarily participating in the Plan;

(e) the Restricted Stock Units and any shares of Stock that may be received in settlement of the Restricted Stock Units, and the income and value of same, (i) are an extraordinary item that does not constitute compensation of any kind for services of any kind rendered to the Corporation or the Affiliate that employs Participant (the "Employer"), and which is outside the scope of Participant's employment contract, if any, (ii) are not intended to replace any pension rights or compensation, and (iii) are not part of normal or expected compensation or salary for any purpose, including, but not limited to, calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, holiday pay, bonuses, long-service awards, leave-related payments, pension or retirement or welfare benefits or similar payments;

(f) the Restricted Stock Unit award will not be interpreted to form an employment or non-employee director contract or relationship with the Corporation or any Affiliate, nor does it amend any legal relationship or legal entitlement between Participant and the Employer;

(g) this Agreement, the transactions contemplated hereunder and the vesting schedule set forth herein do not constitute an express or implied promise of Participant's further employment for the vesting period, for any period, or at all, and will not interfere with Participant's right or the right of the Corporation or the Employer to terminate Participant's employment relationship at any time with or without cause;

(h) unless otherwise agreed with the Corporation, the Restricted Stock Units and the shares of Stock underlying the Restricted Stock Units, and the income and value of same, are not granted as consideration for, or in connection with, the service Participant may provide as a director of an Affiliate;

(i) the future value of the underlying shares of Stock is unknown, indeterminable and cannot be predicted with certainty;

(j) neither the Corporation, the Employer nor any Affiliate shall be liable for any foreign exchange rate fluctuation between Participant's local currency and the United States Dollar that may affect the value of the Restricted Stock Units or of any amounts due to Participant pursuant to the settlement of the Restricted Stock Units or the sale of any shares of Stock Participant may acquire upon such settlement;

(k) in consideration of the grant of the Restricted Stock Units, no claim or entitlement to compensation or damages shall arise from termination of the Restricted Stock Units or diminution in value of the Restricted Stock Units or shares of Stock acquired upon vesting of the Restricted Stock Units resulting from Participant's termination of Service (for any reason whatsoever and whether or not in breach of local labor laws) and Participant irrevocably releases the Corporation and the Employer from any such claim that may arise; and

(l) the Restricted Stock Units and the benefits evidenced by this Agreement do not create any entitlement not otherwise specifically provided for in the Plan or provided by the Corporation in its discretion, to have the Restricted Stock Units or any such benefits transferred to, or assumed by, another company or to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Corporation.

2. Participants in the European Union. If Participant resides and/or is employed in a European Union ("EU") member state, the following provision shall replace Section 4(a) of the Agreement in its entirety and any other provisions regarding Retirement shall be disregarded and of no effect:

> (a) Subject to Sections 4(b), 4(c) and 4(d) below, Participant's Restricted Stock Units will vest upon the expiration of the Performance Period, subject to and contingent upon achievement of the Performance Goal described in Exhibit A hereto and Participant's continued Service through the last day of the Performance Period.

3. Payment of Withholding Taxes. Participant acknowledges and agrees that if Participant is subject to tax and/or social contributions in more than one jurisdiction, the Corporation or its Affiliate(s) may be required to withhold or account for taxes and/or social contributions in more than one jurisdiction, in accordance with the methods of withholding described in Section 9 of the Agreement.

4. Data Privacy.

(a) Data Collection and Usage. The Corporation and the Employer will collect, process and use certain personal information about Participant, specifically, Participant's name, home address, email address and telephone number, date of birth, social security or insurance number, passport number or other identification number, salary, nationality, job title, any shares of Stock or directorships held in the Corporation, details of all Restricted Stock Units or any other entitlement to shares of Stock awarded, canceled, exercised, vested, unvested or outstanding in Participant's favor ("Data"), for the exclusive purpose of implementing, administering and managing the Plan.

(b) Recipients of Data.

a. Stock Plan Administration Service Providers. The Corporation and the Employer transfer Data to Fidelity Stock Plan Services, LLC (and/or its affiliates, collectively "Fidelity"), the designated broker assisting in the implementation, administration and management of the Plan. In the future, the Corporation may select a different service provider and share Data with such other provider serving in a similar manner.

b. Other Service Provider Data Recipients. The Corporation also may transfer Data to other third party service providers, if necessary to ensure compliance with applicable tax, exchange control, securities and labor law. Such third party service providers may include the Corporation's legal counsel as well as its auditor, human resources consultant and payroll vendor. Wherever possible, the Corporation will anonymize data, but Participant understands that his or her Data may need to be transferred to such providers to ensure compliance with applicable law and/or tax requirements.

c. Securities or Other Regulatory Authorities. In addition to the recipients identified herein and where required under applicable law, Data also may be disclosed to certain securities or other regulatory authorities, including where the Corporation's securities are listed or traded or regulatory filings are made. The legal basis, where required, for such disclosure is compliance with applicable law.

(c) International Data Transfers. The Corporation, Fidelity and other service providers described above are located in the United States. The United States may have different data privacy laws and protections than Participant's country of residence (or country of employment, if different).

(d) Legal Basis for Collection, Processing and Transfer of Data.

a. Participants within the EU / European Economic Area ("EEA"), Switzerland and the United Kingdom

i. The collection, processing and transfer of Data is necessary for the legitimate purpose of the Corporation and Employer's administration of the Plan and Participant's participation in the Plan.

ii. When transferring Data to potential recipients outside the EU/EEA, Switzerland and/or the United Kingdom, the Corporation and the Employer strive to provide appropriate safeguards in accordance with Standard Contractual Clauses or other legally binding and permissible arrangements. For further information on the transfer of Participant's personal data outside of the EU/EEA, Switzerland and/or the United Kingdom, Participant may contact his or her human resources representative.

b. Participants outside the EU / EEA, Switzerland and the United Kingdom

i. Participant hereby explicitly and unambiguously consents to the collection, processing and use, in electronic or other form, of Participant's Data by the Corporation and the transfer of Data to the recipients mentioned above, including recipients located in countries which do not adduce an adequate level of protection from a non-U.S. data protection law perspective, for the purposes described above. Upon transfer of Participant's Data to Fidelity, Participant may be asked to agree to separate terms and data processing practices with Fidelity, with such agreement being a condition of the ability to participate in the Plan.

ii. Participation in the Plan is voluntary and Participant understands that Participant is providing the consent herein on a purely voluntary basis. If Participant does not consent, or later seeks to revoke his or her consent, Participant's employment status or Service and career with the Employer will not be adversely affected. The only consequence of refusing or withdrawing consent is that the Corporation would not be able to grant Restricted Stock Units or other equity awards to Participant or administer or maintain such awards. Therefore, Participant understands that refusing or withdrawing his or her consent may affect Participant's ability to participate in the Plan. For more information on the consequences of Participant's refusal to consent or withdrawal of consent, Participant understands that Participant may contact his or her human resources representative.

(e) Data Retention. Participant understands that Data will be held only as long as is necessary to implement, administer and manage his or her participation in the Plan or comply with applicable laws. When the Corporation no longer needs the Data, the Corporation will remove it from its systems.

(f) Data Subject Rights. Participant understands that Participant may have the right under applicable law to (i) access or copy Data that the Corporation possesses, (ii) rectify incorrect Data, (iii) delete Data, (iv) restrict processing of Data, (v) opt out of the Plan, or (vi) lodge complaints with the competent supervisory authorities in Participant's jurisdiction. To receive clarification regarding these rights or to exercise these rights, Participant understands that Participant can contact his or her local human resources representative.

5. No Advice Regarding Grant. The Corporation is not providing any tax, legal or financial advice, nor is the Corporation making any recommendations regarding Participant's participation in the Plan, or Participant's acquisition or sale of the underlying shares of Stock. Participant should consult with his or her own personal tax, legal and financial advisors regarding Participant's participation in the Plan before taking any action related to the Plan.

6. Imposition of Other Requirements. The Corporation reserves the right to impose other requirements on Participant's participation in the Plan, on the Restricted Stock Units and on any shares of Stock acquired under the Plan, to the extent the Corporation determines it is necessary or advisable for legal or administrative reasons. Such requirements may include (but are not limited to) requiring Participant to sign any agreements or undertakings that may be necessary to accomplish the foregoing.

7. Insider Trading/Market Abuse Laws. By participating in the Plan, Participant agrees to comply with the Corporation's policy on insider trading (to the extent that it is applicable to Participant). Participant further acknowledges that, depending on Participant's or the broker's country of residence or where the shares of Stock are listed, Participant may be subject to insider trading restrictions and/or market abuse laws, which may affect Participant's ability to accept, acquire, sell or otherwise dispose of shares of Stock, rights to shares of Stock (e.g., Restricted Stock Units) or rights linked to the value of shares of Stock, during such times Participant is considered to have "inside information" regarding the Corporation as defined by the laws or regulations in Participant's country. Local insider trading laws and regulations may prohibit the cancellation or amendment of orders Participant places before Participant possessed inside information. Furthermore, Participant could be prohibited from (i) disclosing the inside information to any third party (other than on a "need to know" basis) and (ii) "tipping" third parties or causing them otherwise to buy or sell securities. Participant understands that third parties include fellow employees. Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable Corporation insider trading policy. Participant acknowledges that it is Participant's responsibility to comply with any applicable restrictions, and that Participant should therefore consult Participant's personal advisor on this matter.

8. Foreign Asset/Account Reporting; Exchange Controls. Participant's country may have certain foreign asset and/or account reporting requirements and/or exchange controls which may affect Participant's ability to acquire or hold shares of Stock under the Plan or cash received from participating in the Plan (including from any dividends received or sale proceeds arising from the sale of shares of Stock) in a brokerage or bank account outside Participant's country. Participant may be required to report such accounts, assets or transactions to the tax or other authorities in his or her country. Participant also may be required to repatriate sale proceeds or other funds received as a result of Participant's participation in the Plan to his or her country through a designated bank or broker and/or within a certain time after receipt. Participant acknowledges that it is his or her responsibility to be compliant with such regulations, and Participant should consult his or her personal legal advisor for any details.

9. Language. If Participant is resident in a country where English is not an official language, Participant acknowledges that Participant is sufficiently proficient in English to understand the terms and conditions of the Agreement or has had the ability to consult with an advisor who is sufficiently proficient in the English language. Participant further acknowledges and agrees that it is Participant's express intent that the Agreement, the Addendum and the Plan and all other documents, notices and legal proceedings entered into, given or instituted pursuant to the Restricted Stock Units be drawn up in English. If Participant has received the Agreement, the Addendum or any other document related to the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

10. Annex to Addendum. Notwithstanding any provision of the Agreement or Addendum to the contrary, the Restricted Stock Units shall be subject to such special terms and conditions for Participant's country of residence (and country of employment, if different), as are set forth in the annex to this Addendum (the "Annex"). Further, if Participant transfers residency and/or employment to another country, the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer. In all circumstances, the Annex shall constitute part of this Addendum.

ANNEX

This Annex to the Addendum includes additional terms and conditions that govern the Restricted Stock Units if Participant resides and/or is employed in the country addressed herein or transfers residence or employment to the country addressed herein. If Participant transfers residence and/or employment to another country, the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer. Certain capitalized terms used but not defined in this Annex have the meanings set forth in the Agreement (including the Addendum) or the Plan.

Australia

1. Tax Notification. The Plan is a plan to which Subdivision 83A-C of the Income Tax Assessment Act 1997 (Cth) (the "Act") applies (subject to conditions in the Act).

2. Offer Document. The Corporation is pleased to provide this offer to participate in the Plan. This offer document sets out information regarding the award for Australian-resident Participants ("Australian Participants"). It is for informational purposes and is intended to comply with the provisions of the Australian Corporations Act 2001 (Cth) ("Corporations Act 2001") and Australian Securities and Investments Commission ("ASIC") Instrument 22-0283.

   Additional Documents

   In addition to the information set out in the Agreement (including the Addendum and this Annex), Participant is also being provided with copies of the following documents:

   1. the Plan; and
   2. the Plan Prospectus describing the terms of the Plan (the "Plan Prospectus"); and
   3. any supplemental documents to the Plan and Plan Prospectus, as necessary.

   These additional documents provide further information to help Participant make an informed investment decision about participating in the Plan. Neither the Plan nor the Plan Prospectus is a prospectus for the purposes of the Corporations Act 2001.

   Participant should not rely upon any oral statements made in relation to this offer. Participant should rely only upon the statements contained in the Agreement and the additional documents when considering participation in the Plan.

   General Information Only

   Any information given by the Corporation or any subsidiary or affiliate in relation to the Restricted Stock Units is general and does not take into account an Australian Participant's objectives, financial situation and needs. Australian Participants should consider obtaining their own financial product advice from an independent person who is licensed by ASIC to give such advice.

Acquisition Price

No acquisition price is payable by Participant for the Corporation to grant Participant the number of Restricted Stock Units set forth in the Agreement or for Participant to acquire shares of Stock upon settlement of the Restricted Stock Units.

Shares of Stock

A share of common stock of a U.S. corporation is analogous to an ordinary share of an Australian Corporation. Each holder of a share of common stock is entitled to one vote for every share held.

The shares of Stock are traded on Cboe BZX in the United States of America under the symbol "CBOE".

Shares of Stock are not liable to any further calls for payment of capital or for other assessment by the Corporation and have no sinking fund provisions, pre-emptive rights, conversion rights or redemption provisions.

Risks of Acquiring Shares of Stock

This paragraph provides Australian Participants with general information about the risks of acquiring and holding shares of Stock. Before accepting the grant of Restricted Stock Units, Australian Participants should satisfy themselves that they have a sufficient understanding of these matters and should consider whether shares of Stock are a suitable investment for them, having regard to their own investment objectives, financial circumstances and taxation position.

(a) *Price of shares of Stock may fluctuate:* The price at which a share of Stock is quoted on the Cboe BZX may increase or decrease due to a number of factors. Some of the factors that may affect the price of the shares of Stock include fluctuations in the domestic and international market for listed stocks, general economic conditions, including interest rates, inflation rates, changes to government fiscal, monetary or regulatory policies, legislation or regulation, the nature of the markets in which the Corporation operates and general operational and business risks.

More information about potential factors that could affect the Corporation's business and financial results is included in the Corporation's Quarterly Reports on Form 10-Q and Annual Reports on Form 10-K. Copies of these forms are available at http://www.sec.gov/ and upon request to the Corporation.

In addition, Participant should be aware that the value of the shares of Stock Participant may acquire will be affected by the U.S./Australian dollar exchange rate. Participation in the Plan involves certain risks related to fluctuations in this rate of exchange.

(b) *Trading in shares of Stock may not be liquid:* There can be no guarantee that an active market in shares of Stock will continue or that the price of shares of Stock will increase. The number of potential buyers or sellers of shares of Stock on the Cboe BZX

may vary at any time. This may increase the volatility of the market price of shares of Stock. It may also affect the prevailing market price at which shareholders are able to sell their shares of Stock. This may result in shareholders receiving a market price for their shares of Stock that is less than the price that shareholders paid.

(c) *Risk of dilution:* In the future, the Corporation may elect to issue stock (or securities convertible into stock) including in connection with fundraisings for acquisitions that the Corporation may decide to make. Shareholders may be diluted as a result of such issues of stock or securities or such issues may reduce the market price of shares of Stock.

(d) *Dividends on shares of Stock*: The Corporation may pay dividends on shares of Stock. Payment of future dividends, and the timing and amount of any dividends the Corporation determines to pay, are at the discretion of the Board.

Market Price of shares of Stock in Australian Dollars

An Australian Participant can, from time to time, ascertain the market price of the shares of Stock by obtaining that price from the Corporation website (http://ir.cboe.com) or The Wall Street Journal. The Australian dollar equivalent of that price can be obtained at the website of the Reserve Bank of Australia (http://www.rba.gov.au/statistics/frequency/exchange-rates.html).

This will not be a prediction of what the market price per share will be when the Restricted Stock Units vest and the shares of Stock are issued or of the applicable exchange rate on the actual vesting date or the date the shares of Stock are issued.

Canada

1. Settlement of Restricted Stock Units: Notwithstanding anything to the contrary in the Agreement or any related document, if Participant is resident or employed in Canada, the Corporation shall have absolute discretion to settle the Restricted Stock Units in shares of Stock or in the form of a cash payment or in any combination of the foregoing.

2. Securities Law Notification: Participant acknowledges and agrees that he or she is permitted to sell shares of Stock acquired under the Plan through the designated broker appointed under the Plan, provided the resale of shares of Stock takes place outside of Canada through facilities of a stock exchange on which the shares of Stock are listed. The shares of Stock currently are listed on Cboe BZX in the United States.

3. Termination of Employment: Except as may be determined by the Committee and except as otherwise provided in Section 4 of the Agreement, for purposes of Section 4(d) of the Agreement, Participant's Service will be considered terminated as of the date Participant ceases to be an employee of the Corporation (or, if different, the Affiliate to which Participant provides Service) for any reason, whether lawful or otherwise (including, without limitation, by reason of resignation, death, frustration of contract, termination for Cause, termination without Cause, or constructive dismissal), without regard to any pay in lieu of notice

(whether by way of lump sum or salary continuance), benefits continuance, or other termination related payments or benefits, whether pursuant to the common law or otherwise, to which Participant may then be entitled (the "Termination Date"). In the event that the Termination Date cannot reasonably be determined under the terms of the Plan and the Agreement, the Committee and its delegate shall have the exclusive discretion to determine when the Termination Date occurs for purposes of the Plan (including whether Participant may still be considered to be providing Service while on any leave of absence).

Unless otherwise extended by the Corporation, or as may be required to satisfy the minimum requirements of applicable employment or labour standards legislation, any portion of the award that is not vested on the Termination Date shall terminate immediately and be null and void, and Participant will have no entitlement to further vesting in the Restricted Stock Units or compensation in lieu thereof following the Termination Date, and Participant waives any claim to damages in respect thereof whether related or attributable to any contractual or common law termination entitlements or otherwise. For additional clarity, if applicable employment or labour standards legislation specifically requires continued entitlement to vesting during a statutory notice period, Participant's right to vest in the Restricted Stock Units, if any, will be allowed to continue for that minimum notice period but then immediately terminate effective as of the last day of Participant's minimum statutory notice period.

Hong Kong

1. Settlement in Shares of Stock. Notwithstanding anything to the contrary in the Agreement, the Addendum or the Plan, the Restricted Stock Units shall be settled only in shares of Stock (and may not be settled in cash).

2. Disposal of Shares of Stock. If, for any reason, shares of Stock are issued to Participant within six (6) months after the Award Date, Participant agrees that Participant will not sell or otherwise dispose of any such shares of Stock prior to the six (6) month anniversary of the Award Date.

3. IMPORTANT NOTICE/WARNING. *The contents of this document have not been reviewed by any regulatory authority in Hong Kong. Participant is advised to exercise caution in relation to the offer. If Participant is in any doubt about any of the contents of the documents, Participant should obtain independent professional advice. The Restricted Stock Units and shares of Stock issued in settlement of the Restricted Stock Units do not constitute a public offering of securities under Hong Kong law and are available only to employees of the Corporation or its Affiliates. The Agreement, the Plan and other incidental communication materials have not been prepared in accordance with and are not intended to constitute a "prospectus" for a public offering of securities under the applicable securities legislation in Hong Kong. The Restricted Stock Units are intended only for the personal use of each eligible employee of the Employer, the Corporation or an Affiliate and may not be distributed to any other person.*

4. Wages. The Restricted Stock Units and shares of Stock subject to the Restricted Stock Units do not form part of Participant's wages for purposes of calculating any statutory or contractual payments under Hong Kong law.

Japan

1. Vesting. If Participant resides and/or is employed in Japan, the following provision shall replace Section 4(a) of the Agreement in its entirety and any other provisions regarding Retirement shall be disregarded and of no effect:

(a) Subject to Sections 4(b), 4(c) and 4(d) below, Participant's Restricted Stock Units will vest upon the expiration of the Performance Period, subject to and contingent upon achievement of the Performance Goal described in Exhibit A hereto and Participant's continued Service through the last day of the Performance Period.

Netherlands

1. Exclusion of Claim: Participant acknowledges and agrees that Participant will have no entitlement to compensation or damages insofar as such entitlement arises or may arise from Participant ceasing to have rights under the Plan, whether or not as a result of termination of Participant's Service (whether such termination is in breach of contract or otherwise), or from the loss of diminution in value of the shares of Stock underlying the Restricted Stock Units. Upon the grant of the Restricted Stock Units, Participant shall be deemed to have waived irrevocably such entitlement.

Philippines

1. Settlement in Cash. Notwithstanding anything to the contrary in the Agreement, the Addendum or the Plan, the Restricted Stock Units shall be settled only in cash (and shall not be settled in shares of Stock), unless otherwise determined by the Corporation.

2. Vesting. If Participant resides and/or is employed in the Philippines, the following provision shall replace Section 4(a) of the Agreement in its entirety and any other provisions regarding Retirement shall be disregarded and of no effect:

(a) Subject to Sections 4(b), 4(c) and 4(d) below, Participant's Restricted Stock Units will vest upon the expiration of the Performance Period, subject to and contingent upon achievement of the Performance Goal described in Exhibit A hereto and Participant's continued Service through the last day of the Performance Period.

Singapore

1. Securities Law Information. The grant of the Restricted Stock Units under the Plan is being made pursuant to the "Qualifying Person" exemption under section 273(1)(f) of the Securities and Futures Act (Chapter 289, 2006 Ed.) ("SFA"). The Plan has not been and will not be lodged or registered as a prospectus with the Monetary Authority of Singapore

and is not regulated by any financial supervisory authority pursuant to any legislation in Singapore. Accordingly, statutory liability under the SFA in relation to the content of prospectuses would not apply. Participant should note that the Restricted Stock Units are subject to section 257 of the SFA and Participant will not be able to make any subsequent sale of shares of Stock in Singapore, or any offer of such subsequent sale of shares of Stock subject to the Restricted Stock Units in Singapore, unless such sale or offer is made (i) after six (6) months from the Award Date or (ii) pursuant to the exemptions under Part XIII Division (1) Subdivision (4) (other than section 280) of the SFA.

Switzerland

1. Securities Law Information. Neither the Agreement nor any other materials relating to the grant of Restricted Stock Units (a) constitutes a prospectus according to articles 35 et seq. of the Swiss Federal Act on Financial Services ("FinSA"), (b) may be publicly distributed or otherwise made publicly available in Switzerland to any person other than an employee of the Corporation or one of its Affiliates or (c) has been or will be filed with, approved or supervised by any Swiss reviewing body according to article 51 FinSA or any Swiss regulatory authority, including the Swiss Financial Market Supervisory Authority, FINMA.

United Kingdom (Including Northern Ireland)

1. Payment of Withholding Taxes. The following provision supplements the section of the Agreement titled "Payment of Withholding Taxes":

> Without limitation to the section of the Agreement titled 'Payment of Withholding Taxes', Participant agrees that Participant is liable for all income tax and employee national insurance contributions or other social contributions or withholding taxes ("Tax-Related Items") and hereby covenants to pay all such Tax-Related Items, as and when requested by the Corporation, the Employer or by HM's Revenue and Customs ("HMRC") (or any other tax authority or any other relevant authority). Participant also agrees to indemnify and keep indemnified the Corporation and the Employer against any Tax-Related Items that they are required to pay or withhold or have paid or will pay on Participant's behalf to HMRC (or any other tax authority or any other relevant authority).
>
> Notwithstanding the foregoing, if Participant is a director or executive officer (as within the meaning of Section 13(k) of the U.S. Securities Exchange Act of 1934, as amended), the terms of the immediately foregoing provision will not apply. In the event that Participant is a director or executive officer and income tax due is not collected from or paid by Participant within 90 days after the U.K. tax year in which an event giving rise to the indemnification described above occurs, the amount of any uncollected tax may constitute a benefit to Participant on which additional income tax and national insurance contributions may be payable. Participant acknowledges that Participant ultimately will be

responsible for reporting and paying any income tax due on this additional benefit directly to HMRC under the self-assessment regime and for reimbursing the Corporation or the Employer (as applicable) for the value of any employee national insurance contributions due on this additional benefit, which the Corporation and/or the Employer may recover from Participant at any time thereafter by any of the means referred to in section of the Agreement titled "Payment of Withholding Taxes".

2. Exclusion of Claim. Participant acknowledges and agrees that Participant will have no entitlement to compensation or damages insofar as such entitlement arises or may arise from Participant's ceasing to have rights under or to be entitled to the Restricted Stock Units, whether or not as a result of termination of Service (whether such termination is in breach of contract or otherwise), or from the loss or diminution in value of the Restricted Stock Units. Upon the award of the Restricted Stock Units, Participant shall be deemed irrevocably to have waived any such entitlement.

3. Section 2 of the Addendum. Section 2 of the Addendum (Participants in the European Union) shall not apply to the Restricted Stock Units.

Exhibit 10.91
For Employees – With Restrictive Covenants

CBOE GLOBAL MARKETS, INC. LONG-TERM INCENTIVE PLAN
RESTRICTED STOCK UNIT AWARD AGREEMENT – PERFORMANCE BASED

This RESTRICTED STOCK UNIT AWARD AGREEMENT (this "Agreement") is dated effective _____, (the "Award Date"), and is between Cboe Global Markets, Inc. (the "Corporation") and _____ ("Participant"). Any term capitalized but not defined in this Agreement will have the meaning set forth in the Second Amended and Restated Cboe Global Markets, Inc. (formerly CBOE Holdings, Inc.) Long-Term Incentive Plan (as may be amended from time to time, the "Plan").

1. Award. The Corporation hereby awards to Participant _____ Restricted Stock Units (the "Restricted Stock Units"). The Restricted Stock Units will be subject to the terms and conditions of the Plan and this Agreement. Each Restricted Stock Unit is a notional amount that represents one unvested share of Stock and entitles Participant, subject to the terms of this Agreement, to receive a share of Stock if and when the Restricted Stock Unit vests.

2. No Rights as Stockholder; Dividend Equivalents. Participant shall have no voting rights with respect to shares of Stock represented by Restricted Stock Units until the date of the issuance of the shares of Stock (as evidenced by the appropriate entry on the books of the Corporation or of a duly authorized transfer agent of the Corporation). Notwithstanding the foregoing, in the event that the Corporation declares a cash dividend on shares of Stock, on the payment date of the dividend, Participant will be credited with Dividend Equivalent Rights equal to the amount of the cash dividend per share multiplied by the number of Restricted Stock Units held by Participant on the dividend's record date. The Dividend Equivalent Rights credited to Participant under the preceding sentence will be deemed to be reinvested in additional Restricted Stock Units, which will be subject to the same terms regarding vesting, forfeiture, and distribution as Restricted Stock Units awarded to Participant under this Agreement.

3. Performance Period. The Performance Period for the Restricted Stock Units shall be the three (3) year period commencing on _____ and ending on _____.

4. Vesting; Effect of Termination of Service; Change in Control.

(a) Subject to Sections 4(b), 4(c) and 4(d) below, Participant's Restricted Stock Units will vest upon the expiration of the Performance Period, subject to and contingent upon achievement of the Performance Goal described in Exhibit A hereto and Participant's continued Service through the last day of the Performance Period. Notwithstanding the foregoing, in the event of Participant's Retirement (as defined below), and satisfaction of the terms thereof, prior to expiration of the Performance Period, the Restricted Stock Units shall remain outstanding upon Participant's Retirement and be distributed as if Participant remained in Service continuously through the vesting date in accordance with the preceding sentence and Participant shall be entitled to receive (i) the number of Restricted Stock Units that would have vested in accordance with the preceding sentence based on the level of achievement of the Performance Goal actually achieved if Participant had continued Service through the last day of the Performance Period, multiplied by (ii) a fraction, the numerator of which is the number of days during the Performance Period on

which Participant was providing Service, and the denominator of which is 1,095. For purposes of this Agreement, "Retirement" means a determination by the Corporation or its Affiliate in their sole discretion, that Participant: (i) has completed a minimum of ten (10) full years of continuous and unbroken Service as of their Retirement date, (ii) has attained the age of fifty-five (55) as of their Retirement date, (iii) has provided the Corporation's Board, CEO, President, and/or COO with at least six (6) months' advance written revocable notice of their Retirement date (unless the notice period is waived by the Corporation or its Affiliate in their sole discretion), (iv) has their Retirement date and transition plan approved and not revoked by the Corporation's Board, CEO, President, and/or COO through their Retirement date, (v) remains in Service continuously and in good standing until their Retirement date, (vi) has successfully transitioned responsibilities, as determined at the sole discretion of the Corporation's Board, CEO, President, and/or COO, and (vii) has a separation from Service.

(b) The Restricted Stock Units will vest at the Target level of achievement of the Performance Goal (as described in Exhibit A), upon the earlier to occur of (i) Participant's death or (ii) Participant's becoming Disabled, provided that such condition qualifies as "disability" as defined for purposes of Section 409A, in each case, if prior to any forfeiture event under Section 4(d) below.

(c) This subsection 4(c) shall apply to this Agreement, this Award and any Replacement Award provided to Participant to replace this Award in lieu of Section 8.2(b) of the Plan. Upon a termination of Participant's Service by the Corporation or its Affiliate without Cause or by Participant for "Good Reason" (as defined below), in each case, upon or within two years after a Change in Control and prior to any forfeiture event under Section 4(d) below, this Award or any Replacement Award held by Participant shall become fully vested and free of restrictions at the Target level of achievement of the Performance Goal (as described in Exhibit A, as amended by the Replacement Award, if any), except that vesting shall be, to the extent determinable, at the level of achievement of the Performance Goal actually achieved as of the date of termination of Service (with similar performance assumed to be achieved through the remainder of the Performance Period) if greater than the Target level of achievement, and shall be distributed upon or within 60 days of such termination of Service. Notwithstanding the foregoing, if this Award or the Replacement Award, as applicable, is considered deferred compensation subject to Section 409A, payment shall be made pursuant to the Award's original schedule if necessary to comply with Section 409A.

For purposes of this Award "Good Reason" shall be deemed to exist if, and only if, without Participant's express written consent:

(i) The Corporation or its Affiliate assigns to Participant authorities, duties or responsibilities (including titles) that are inconsistent in any material and adverse respect with Participant's immediately preceding authorities, duties or responsibilities with the Corporation or its Affiliate (including any material and adverse diminution of such immediately preceding authorities, duties or responsibilities);

(ii) The Corporation or its Affiliate materially reduces Participant's base compensation;

(iii) The Corporation or its Affiliate requires Participant to relocate his or her principal business office or principal place of residence outside the metropolitan area in which Participant worked or resided at the time the Restricted Stock Units were awarded (or outside the immediately preceding location of Participant's principal business office with the Corporation or its Affiliate), or assigns to Participant duties that would reasonably require such relocation;

(iv) The Corporation or its Affiliate materially breaches the terms of any agreement pursuant to which services are provided to the Corporation or its Affiliate by Participant; or

(v) The Corporation or its Affiliate terminates, reduces or limits Participant's participation in any bonus or incentive compensation arrangement relative to the level of participation of other employees of similar rank for a reason that is not reasonably related to Participant's level of job performance or local legal requirements and provided that such action results in a material reduction in the aggregate value of Participant's incentive compensation below the aggregate value as of the immediately preceding bonus or incentive compensation performance period and provided further that a mere change in the form of payment of the award (whether cash or shares of Stock) without a reduction in the aggregate grant value of the award shall not be considered a reduction of Participant's participation.

Participant's voluntary termination of Service shall not be considered a termination of Service for Good Reason unless Participant terminates his or her Service within 120 days after the initial existence of the condition constituting Good Reason; provided, Participant provides written notice to the Corporation or its Affiliate of Participant's intention to resign for Good Reason, which notice specifies in reasonable detail the breach or action giving rise thereto within 90 days of its initial existence, and the Corporation or its Affiliate does not cure such breach or action within 30 days after the date of Participant's notice.

(d) If Participant's Service is terminated for any reason before all of Participant's Restricted Stock Units have vested under this Agreement (including pursuant to an event described in Section 4(b) or 4(c) above), Participant's unvested Restricted Stock Units will be forfeited upon the effective date of such termination of Service. Notwithstanding anything herein to the contrary, any outstanding Restricted Stock Units not previously settled shall be cancelled and forfeited immediately if, in the sole opinion and discretion of the Committee or its delegate, Participant engages in any activity that constitutes Cause, whether or not Participant experiences a separation from Service, is no longer in Service, or remains in Service. Neither the Corporation nor any Affiliate will have any further obligations to Participant under this Agreement if Participant's Restricted Stock Units are forfeited pursuant to this Section 4(d).

5. Terms and Conditions of Distribution.

(a) Distribution of a share of Stock that corresponds to a vested Restricted Stock Unit shall be made to Participant as soon as practicable after the Restricted Stock Unit vests, but not later than two and a half (2½) months after the end of the calendar year

in which the Restricted Stock Unit vests (except that, in the event of a Retirement, distribution shall be made not later than sixty (60) days after the applicable vesting date pursuant to Section 4(a) and Participant shall not be permitted, directly or indirectly, to designate the taxable year of the distribution).

(b) Subject to Section 5(c), distribution of a share of Stock that corresponds to a Restricted Stock Unit that vested due to death or Participant's becoming Disabled shall be made to Participant during the two and a half (2½) months period after the end of the calendar year in which or with which the Performance Period expired or, if earlier, as soon as practicable following the earlier to occur of the following dates: (i) the date on which such Restricted Stock Unit would otherwise have vested in accordance with Section 4(b), or (ii) Participant's "separation from service" as defined for purposes of Section 409A (or, if Participant is a "specified employee" as defined for purposes of Section 409A on the date of such separation from service, the date that is the first day of the seventh (7th) month following Participant's separation from service).

(c) If Participant dies before the date on which the Corporation would have distributed shares of Stock in satisfaction of vested Restricted Stock Units, the Corporation will distribute such shares of Stock to Participant's designated beneficiary(ies) or, if none are designated or surviving, to Participant's estate or personal representative. The Corporation is not required to issue or deliver any shares of Stock before completing the steps necessary to comply with applicable Federal and state securities laws (including any registration requirements) and applicable stock exchange rules and practices. The Corporation will use commercially reasonable efforts to cause compliance with those laws, rules and practices. The foregoing provisions are subject in all cases to the requirements of Section 409A.

6. Nontransferability. Unvested Restricted Stock Units may not be sold, transferred, exchanged, pledged, assigned, garnished, or otherwise alienated or hypothecated, other than by will or by the laws of descent and distribution. Any effort to assign or transfer the rights under this Agreement will be wholly ineffective, and will be grounds for termination by the Committee of all rights of Participant under this Agreement.

7. Administration. The Committee administers the Plan. Participant's rights under this Agreement are expressly subject to the terms and conditions of the Plan and to any guidelines the Committee adopts from time to time. The interpretation and construction by the Committee of the Plan and this Agreement, and such rules and regulations as may be adopted by the Committee for purposes of administering the Plan and this Agreement, will be final and binding upon Participant.

8. Securities Law Requirements. If at any time the Board or Committee determines that issuing Stock pursuant to this Agreement would violate applicable securities laws, the Corporation will not be required to issue such Stock. The Board or Committee may declare any provision of this Agreement or action of its own null and void, if it determines the provision or action fails to comply with applicable securities laws. The Corporation may require Participant to make written representations it deems necessary or desirable to comply with applicable securities laws.

9. Payment of Withholding Taxes. Participant acknowledges that, regardless of any action taken by the Corporation or, if different, the Affiliate of the Corporation that employs Participant (the "Employer"), the ultimate liability for all income tax, social contributions, payroll tax, fringe benefits tax, payment on account or other tax-related items related to Participant's participation in the Plan and legally applicable to Participant or deemed by the Corporation or the Employer in their discretion to be an appropriate charge to Participant even if legally applicable to the Corporation or the Employer ("Tax-Related Items"), is and remains Participant's responsibility and may exceed the amount actually withheld by the Corporation or the Employer, if any. Participant further acknowledges that the Corporation and/or the Employer (a) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the Restricted Stock Units, including, but not limited to, the grant, vesting or settlement of the Restricted Stock Units, the subsequent sale of shares of Stock acquired pursuant to such settlement; and (b) do not commit to and is under no obligation to structure the terms of the grant or any aspect of the Restricted Stock Units to reduce or eliminate Participant's liability for Tax-Related Items or achieve any particular tax result. Further, if Participant is subject to Tax-Related Items in more than one jurisdiction between the Award Date and the date of any relevant taxable or tax withholding event, as applicable, Participant acknowledges that the Corporation and/or the Employer (or former employer, as applicable) may be required to withhold or account for Tax-Related Items in more than one jurisdiction.

Prior to the relevant taxable or tax withholding event, as applicable, Participant agrees to make adequate arrangements satisfactory to the Corporation and/or the Employer to satisfy all Tax-Related Items. In this regard, Participant authorizes the Corporation, or its respective agents, at their discretion, to satisfy the obligations with regard to all Tax-Related Items by one or a combination of the following: (i) withholding from Participant's wages or other cash compensation paid to Participant by the Corporation and/or the Employer; (ii) withholding from the shares of Stock to be delivered upon settlement of the Restricted Stock Units or other awards granted to Participant or (iii) permitting Participant to tender to the Corporation or to the Employer cash or, if allowed by the Committee, shares of Stock to the Corporation.

Notwithstanding the foregoing, if Participant is subject to Section 16 of the Exchange Act of 1934, pursuant to Rule 16a-2 promulgated thereunder, any tax withholding obligations shall be satisfied by having the Corporation withhold from the shares of Stock to be delivered upon settlement of the Restricted Stock Units.

Depending on the withholding method, the Corporation may withhold or account for Tax-Related Items by considering applicable statutory withholding rates (as determined by the Corporation in good faith and in its sole discretion) or other applicable withholding rates, including maximum applicable rates, in which case Participant will receive a refund of any over-withheld amount in cash and will have no entitlement to the share equivalent. If the obligation for Tax-Related Items is satisfied by withholding from the shares of Stock to be delivered upon settlement of the Restricted Stock Units, for tax purposes, Participant is deemed to have been issued the full number of shares of Stock subject to the Restricted Stock Units, notwithstanding that a number of shares of Stock are held back solely for the

purpose of paying the Tax-Related Items. Participant will have no further rights with respect to any shares of Stock that are retained by the Corporation pursuant to this provision.

Participant agrees to pay to the Corporation or the Employer any amount of Tax-Related Items that the Corporation or the Employer may be required to withhold or account for as a result of Participant's participation in the Plan that cannot be satisfied by the means previously described. The Corporation may refuse to issue or deliver shares of Stock or proceeds from the sale of shares of Stock until arrangements satisfactory to the Corporation have been made in connection with the Tax-Related Items.

10. Restrictive Covenants. Participant understands the global nature of the Corporation's businesses and the effort the Corporation and its Affiliates (collectively referred to in this Section as "Cboe") undertake to develop and protect their business and their competitive advantage. Accordingly, Participant agrees that the scope and duration of the restrictions described in this Agreement are reasonable and necessary to protect the legitimate business interests of Cboe. Participant further agrees that during the period of Participant's Service and for a period of two (2) years following Participant's separation from Service, Participant shall not, without the express written approval of the Chief Executive Officer:

(a) singly, jointly, or in any other capacity, in a manner that contributes to any research, technology, development, account, trading, marketing, promotion, or sales and that relates to Participant's Service with Cboe, directly or beneficially, manage, join, participate in the management, operation or control of, or work for (as an employee, consultant or independent contractor), or permit the use of his or her name by, or provide financial or other assistance to, or be connected in any manner with (i) any exchange, facility, clearinghouse, electronic communications network ("ECN"), electronic foreign currency exchange market ("FX") matching platform, multilateral trading facility, or alternative trading system ("ATS"); (ii) the ECN, ATS or FX business lines of any full service broker dealer or any digital asset or data and access solutions business line of any company; or (iii) any business line of any company that is substantially similar to any additional business line developed or entered into by Cboe during Participant's Service, provided that, in the case of clauses (i), (ii) and (iii), such entity or business line that directly competes with Cboe;

(b) provide any service or assistance that (i) is of the general type of service or assistance provided by Participant to Cboe, (ii) relates to any technology, account, product, project or piece of work with which Participant was involved during his Service, and (iii) contributes to causing an entity to come within the definition described in Section 10(a) above;

(c) solicit or accept if offered to Participant, with or without solicitation, on his or her own behalf or on behalf of any other person, the services of any person who is a then-current employee of Cboe (or was an employee of Cboe during the year preceding such solicitation), nor solicit any of Cboe's then-current employees (or an individual who was employed by or engaged by Cboe during the year preceding such solicitation) to terminate employment or an engagement with Cboe, nor agree to hire any then-current employee (or an individual who was an employee of Cboe during the year preceding such

hire) of Cboe into employment with Participant or any company, individual or other entity; or

(d) directly or indirectly divert or attempt to divert from Cboe any business in which Cboe has been actively engaged during Participant's Service, nor interfere with the relationships of Cboe or with their sources of business.

11. Confidentiality. Participant acknowledges that the Corporation or an Affiliate may disclose secret or confidential information to Participant during the period of Participant's Service to enable Participant to perform his or her duties. Participant agrees that, subject to the following sentence, Participant shall not during his or her Service (except in connection with the proper performance of his or her duties) and thereafter, without the prior written consent of the Corporation, disclose to any person or entity any material or significant secret or confidential information concerning the business of the Corporation or an Affiliate that was obtained by Participant in the course of Participant's Service. This paragraph shall not be applicable if and to the extent Participant is required to testify in a legislative, judicial or regulatory proceeding pursuant to an order of Congress, any state or local legislature, a judge, or an administrative law judge, or if such secret or confidential information is required to be disclosed by Participant by any law, regulation or order of any court or regulatory commission, department or agency. Participant further agrees that if Participant's Service is terminated for any reason, Participant will not take, but will leave with the Corporation or an Affiliate, all records and papers and all matter of whatever nature that bears secret or confidential information of the Corporation or an Affiliate. For purposes of this Agreement, the term "secret or confidential information" shall include, but not be limited to, any and all records, notes, memoranda, data, writings, research, personnel information, customer information, clearing members' information, the Corporation's and any Affiliate's financial information and plans, processes, methods, techniques, systems, formulas, patents, models, devices, compilations or any other information of whatever nature in the possession or control of the Corporation or an Affiliate, that has not been published or disclosed to the general public, the options industry, the equities industry, the foreign currency exchange industry or the commodities futures industry, provided that such term shall not include knowledge, skills, and information that is common to the trade or profession of Participant.

Notwithstanding anything in this Agreement to the contrary, nothing in this Agreement prohibits Participant from confidentially or otherwise communicating or filing a charge or complaint with a governmental or regulatory entity, participating in a governmental or regulatory entity investigation, or giving truthful testimony or making other disclosures to a governmental or regulatory entity (in each case, without having to disclose any such conduct to the Corporation or an Affiliate), or from responding if properly subpoenaed or otherwise required to do so under applicable law. In addition, nothing in this Agreement limits Participant's right to receive an award from a governmental or regulatory entity for information provided to such an entity (and not as compensation for actual or alleged personal injury or damages to Participant).

Pursuant to the Defend Trade Secrets Act of 2016 (18 U.S.C. 1833(b)), Participant shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that is made in confidence either directly or indirectly to a

federal, state, or local government official, or to an attorney, solely for the purpose of reporting or investigating a violation of law. Participant shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret made in a complaint, or other document filed in a lawsuit or other proceeding, if such filing is made under seal. If Participant files a lawsuit or other action alleging retaliation by the Corporation or an Affiliate for reporting a suspected violation of law, Participant may disclose the trade secret to his or her attorney and use the trade secret in the court proceeding or other action, if Participant files any document containing the trade secret under seal and does not disclose the trade secret, except pursuant to court order. This paragraph will govern to the extent it may conflict with any other provision of this Agreement.

12. Judicial Modification. If the final judgment of a court of competent jurisdiction declares that any term or provision of Section 10 or 11 is invalid or unenforceable, the parties agree that (a) the court making the determination of invalidity or unenforceability shall have the power to reduce the scope, duration, or geographic area of the term or provision, to delete specific words or phrases, or to replace any invalid or unenforceable term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, (b) the parties shall request that the court exercise that power, and (c) this Agreement shall be enforceable as so modified after the expiration of the time within which the judgment or decision may be appealed.

13. Remedies. Participant agrees that in the event of a breach or threatened breach of any of the covenants contained in Sections 10 or 11 of this Agreement, in addition to any other penalties or restrictions that may apply under any employment agreement, state law, or otherwise, Participant shall forfeit, upon written notice to such effect from the Corporation, any and all Awards granted to him or her under the Plan and this Agreement, including vested Awards. The forfeiture provisions of this Section 13 shall continue to apply, in accordance with their terms, after the provisions of any employment or other agreement between the Corporation and Participant have lapsed. Participant consents and agrees that if Participant violates or threatens to violate any provisions of Sections 10 or 11 of this Agreement, the Corporation or its successors in interest shall be entitled, in addition to any other remedies that they may have, including money damages, to an injunction to be issued by a court of competent jurisdiction restraining Participant from committing or continuing any violation of Sections 10 or 11. In the event that Participant is found to have breached any provision set forth in Section 10 of this Agreement, the time period provided for in that provision shall be deemed tolled (*i.e.*, it will not begin to run) for as long as Participant was in violation of that provision. The provisions of Sections 10 and 11 of this Agreement shall continue to apply, in accordance with their terms, after Participant's service has terminated and after provisions of any employment or other agreement between the Corporation and Participant have lapsed.

14. Representations and Warranties. Participant represents and warrants to the Corporation that Participant has received a copy of the Plan and this Agreement, has read and understands the terms of the Plan and this Agreement, and agrees to be bound by their terms and conditions in all respects.

15. No Limitation on the Corporation's Rights. The granting of Restricted Stock Units under this Agreement shall not and will not in any way affect the Corporation's right or power to make adjustments, reclassifications or changes in its capital or business structure or to merge, consolidate, reincorporate, dissolve, liquidate or sell or transfer all or any part of its business or assets.

16. Plan and Agreement Not a Contract of Employment or Service. Neither the Plan nor this Agreement is a contract of employment or Service, and no terms of Participant's employment or Service will be affected in any way by the Plan, this Agreement or related instruments, except to the extent specifically expressed therein. Neither the Plan nor this Agreement will be construed as conferring any legal rights on Participant to continue to be employed or remain in Service, nor will it interfere with the Corporation's or any Affiliate's right to discharge Participant or to deal with Participant regardless of the existence of the Plan or this Agreement.

17. Entire Agreement and Amendment. This Agreement and the Plan constitute the entire agreement between the parties hereto with respect to the Restricted Stock Units, and all prior oral and written representations are merged in this Agreement and the Plan. Notwithstanding the preceding sentence, this Agreement shall not in any way affect the terms and provisions of the Plan. This Agreement may be amended, modified, or terminated only in accordance with the Plan. The headings in this Agreement are inserted for convenience and identification only and are not intended to describe, interpret, define or limit the scope, extent, or intent of this Agreement or any provision hereof.

18. Notice. Any notice or other communication required or permitted under this Agreement must be in writing and must be delivered personally, sent by certified, registered or express mail, sent by overnight courier (at the sender's expense), or (if from the Corporation or the Corporation's stock plan administrator) by electronic mail. Notice will be deemed given (a) when delivered personally, (b) if mailed, three days after the date of deposit in the U.S. mail, (c) if sent by overnight courier, on the regular business day following the date sent, or (d) when electronically mailed. Notice to the Corporation should be sent to Cboe Global Markets, Inc., 433 West Van Buren Street, Chicago, Illinois 60607, Attention: General Counsel. Notice to Participant should be sent to the mailing address and/or electronic mailing address set forth on the Corporation's records. Either party may change the address to which the other party must give notice under this Section 18 by giving the other party written notice of such change, in accordance with the procedures described above or otherwise established by the Corporation or its stock plan administrator.

19. Successors and Assigns. The terms of this Agreement will be binding upon the Corporation and its successors and assigns.

20. Governing Law. To the extent not preempted by Federal law, the Plan, this Agreement, and documents evidencing rights relating to the Plan or this Agreement will be construed, administered and governed in all respects under and by the laws of the State of Delaware, without giving effect to its conflict of laws principles. If any provision of this Agreement will be held by a court of competent jurisdiction to be invalid or unenforceable, the remaining provisions hereof will continue to be fully effective. The jurisdiction and venue for any disputes arising under, or any action brought to enforce (or otherwise relating to),

this Agreement will be exclusively in the courts in the State of Illinois, County of Cook, including the Federal Courts located therein (should Federal jurisdiction exist).

21. Plan Document Controls. The rights granted under this Agreement are in all respects subject to the provisions set forth in the Plan to the same extent and with the same effect as if set forth fully in this Agreement. If the terms of this Agreement conflict with the terms of the Plan document, the Plan document will control.

22. Counterparts. This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute but one and the same instrument.

23. Waiver; Cumulative Rights. The failure or delay of either party to require performance by the other party of any provision of this Agreement will not affect its right to require performance of such provision unless and until such performance has been waived in writing. Each right under this Agreement is cumulative and may be exercised in part or in whole from time to time.

24. Tax Consequences. Participant agrees to determine and be responsible for all tax consequences to Participant with respect to the Restricted Stock Units.

25. Section 409A. The Restricted Stock Units granted hereunder are intended to comply with, or otherwise be exempt from, Section 409A, including the exceptions and exemptions for short term deferrals, stock rights, and separation pay arrangements. This Agreement and all Restricted Stock Units shall be administered, interpreted, and construed in a manner consistent with Section 409A. Should any provision of this Agreement, or any other agreement or arrangement contemplated by this Agreement, be found not to comply with, or otherwise be exempt from, the provisions of Section 409A, such provision shall be modified and given effect (retroactively if necessary), in the sole discretion of the Corporation, and without the consent of Participant, in such manner as the Corporation determines to be necessary or appropriate to comply with, or to effectuate an exemption from, Section 409A. Notwithstanding the forgoing, no provision of this Agreement, or any other agreement or arrangement contemplated by this Agreement shall be construed as a guarantee by the Corporation of any particular tax effect to Participant. Each payment made under this Agreement shall be designated as a separate payment within the meaning of Section 409A. Any payment that is subject to Section 409A and payable upon Participant's termination of employment or other similar event shall not be made unless Participant has experienced a "separation from service" as defined under Section 409A. Any payment subject to Section 409A that is to be made upon a "separation from service" to Participant on any date when he or she is a "specified employee" as defined under Section 409A shall not be paid before the date that is six (6) months following Participant's "separation from service" or, if earlier, Participant's death.

26. Compensation Recovery. Notwithstanding anything in this Agreement to the contrary, the Restricted Stock Units, Dividend Equivalent Rights and any shares of Stock issued pursuant to the Restricted Stock Units and any proceeds therefrom shall be subject to and remain subject to any compensation recovery policies of the Corporation (i) currently in effect, (ii) as may be adopted by the Corporation to comply with applicable laws and/or the

rules and regulations of the securities exchange or inter-dealer quotation system on which the shares of Stock are listed or quoted, including, without limitation, pursuant to Section 10D of the Exchange Act and Rule 10D-1 thereunder, or (iii) as may be adopted by the Corporation to help facilitate the Corporation's objectives, including, without limitation, related to eliminating or reducing fraud, misconduct, wrongdoing, or violations of law by an employee or similar considerations and, in each case, as may be amended from time to time (the "Policies"), with the provisions contained in such Policies deemed incorporated into this Agreement without Participant's additional or separate consent. For purposes of the foregoing, Participant expressly and explicitly authorizes the Corporation to issue instructions, on Participant's behalf, to any brokerage firm and/or third-party administrator engaged by the Corporation to hold any shares of Stock and other amounts acquired pursuant to the Restricted Stock Units to re-convey, transfer or otherwise return such shares of Stock and/or other amounts to the Corporation upon the Corporation's enforcement of the Policies. No recovery of compensation as described herein will be an event giving rise to a right to resign for "Good Reason" or "constructive termination" (or similar term) under any plan of, or agreement with, the Corporation, the Employer and/or Participant.

27. Addendum to Agreement. Notwithstanding any provision of this Agreement to the contrary, if Participant resides or is employed outside the U.S. or transfers residence or employment outside the U.S., the Restricted Stock Units shall be subject to such special terms and conditions as are set forth in the addendum to this agreement (the "Addendum"). Further, if Participant transfers residency and/or employment to another country, any special terms and conditions for such country will apply to the Restricted Stock Units to the extent the Corporation determines, in its sole discretion, that the application of such terms and conditions is necessary or advisable in order to comply with local law or to facilitate the operation and administration of the Restricted Stock Units and the Plan (or the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer). In all circumstances, the Addendum shall constitute part of this Agreement.

IN WITNESS WHEREOF, the Corporation and Participant have duly executed this Agreement as of the date first written above.

Cboe Global Markets, Inc.

_____ By: _____

Participant's Name

_____ Its: _____

Participant's Signature

Exhibit A

Vesting of the Restricted Stock Units is contingent upon achievement of a Performance Goal tied to Earnings Per Share for the Performance Period. The number of Restricted Stock Units that may vest shall be determined as set forth below:

Earnings Per Share Attained	**Percentage of Restricted Stock Units That Vest**
$_____ ("Maximum") or greater	_____%
$_____ ("Target")	_____%
$_____ ("Threshold")	_____%

For Earnings Per Share levels that fall between the values shown above, the percentage of Restricted Stock Units that vest will be determined by straight line interpolation, provided that no Restricted Stock Units will vest if the Corporation's Earnings Per Share does not equal or exceed the Threshold amount.

"Earnings Per Share" means earnings per share calculated in accordance with generally accepted accounting principles, except that certain adjustments shall be made to eliminate the impact of infrequent, unusual, and/or non-recurring items, such as restructuring charges, significant share repurchase activity, significant income tax credits or charges, acquisitions and divestitures of businesses, asset impairments, and significant litigation settlements.

ADDENDUM

CBOE GLOBAL MARKETS, INC. LONG-TERM INCENTIVE PLAN
RESTRICTED STOCK UNIT AWARD AGREEMENT - PERFORMACE BASED

This Addendum to the Agreement includes additional terms and conditions that govern the Restricted Stock Units if Participant resides and/or is employed outside of the United States or transfers residence or employment outside the United States. Certain capitalized terms used but not defined in this Addendum have the meanings set forth in the Agreement or the Plan.

1. Nature of Grant. In accepting the Restricted Stock Units, Participant acknowledges that:

(a) the Plan is established voluntarily by the Corporation, is discretionary in nature and may be modified, amended, suspended or terminated by the Corporation at any time, to the extent permitted by the Plan;

(b) the award of the Restricted Stock Units is exceptional, discretionary, voluntary and occasional and does not create any contractual or other right to receive future grants of Restricted Stock Units, or benefits in lieu of Restricted Stock Units, even if Restricted Stock Units have been granted in the past;

(c) all decisions with respect to future Restricted Stock Unit awards, if any, will be at the sole discretion of the Corporation;

(d) Participant is voluntarily participating in the Plan;

(e) the Restricted Stock Units and any shares of Stock that may be received in settlement of the Restricted Stock Units, and the income and value of same, (i) are an extraordinary item that does not constitute compensation of any kind for services of any kind rendered to the Corporation or the Affiliate that employs Participant (the "Employer"), and which is outside the scope of Participant's employment contract, if any, (ii) are not intended to replace any pension rights or compensation, and (iii) are not part of normal or expected compensation or salary for any purpose, including, but not limited to, calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, holiday pay, bonuses, long-service awards, leave-related payments, pension or retirement or welfare benefits or similar payments;

(f) the Restricted Stock Unit award will not be interpreted to form an employment or non-employee director contract or relationship with the Corporation or any Affiliate, nor does it amend any legal relationship or legal entitlement between Participant and the Employer;

(g) this Agreement, the transactions contemplated hereunder and the vesting schedule set forth herein do not constitute an express or implied promise of Participant's further employment for the vesting period, for any period, or at all, and will not interfere with Participant's right or the right of the Corporation or the Employer to terminate Participant's employment relationship at any time with or without cause;

(h) unless otherwise agreed with the Corporation, the Restricted Stock Units and the shares of Stock underlying the Restricted Stock Units, and the income and value of same, are not granted as consideration for, or in connection with, the service Participant may provide as a director of an Affiliate;

(i) the future value of the underlying shares of Stock is unknown, indeterminable and cannot be predicted with certainty;

(j) neither the Corporation, the Employer nor any Affiliate shall be liable for any foreign exchange rate fluctuation between Participant's local currency and the United States Dollar that may affect the value of the Restricted Stock Units or of any amounts due to Participant pursuant to the settlement of the Restricted Stock Units or the sale of any shares of Stock Participant may acquire upon such settlement;

(k) in consideration of the grant of the Restricted Stock Units, no claim or entitlement to compensation or damages shall arise from termination of the Restricted Stock Units or diminution in value of the Restricted Stock Units or shares of Stock acquired upon vesting of the Restricted Stock Units resulting from Participant's termination of Service (for any reason whatsoever and whether or not in breach of local labor laws) and Participant irrevocably releases the Corporation and the Employer from any such claim that may arise; and

(l) the Restricted Stock Units and the benefits evidenced by this Agreement do not create any entitlement not otherwise specifically provided for in the Plan or provided by the Corporation in its discretion, to have the Restricted Stock Units or any such benefits transferred to, or assumed by, another company or to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Corporation.

2. Participants in the European Union. If Participant resides and/or is employed in a European Union ("EU") member state, the following provision shall replace Section 4(a) of the Agreement in its entirety and any other provisions regarding Retirement shall be disregarded and of no effect:

> (a) Subject to Sections 4(b), 4(c) and 4(d) below, Participant's Restricted Stock Units will vest upon the expiration of the Performance Period, subject to and contingent upon achievement of the Performance Goal described in Exhibit A hereto and Participant's continued Service through the last day of the Performance Period.

3. Payment of Withholding Taxes. Participant acknowledges and agrees that if Participant is subject to tax and/or social contributions in more than one jurisdiction, the Corporation or its Affiliate(s) may be required to withhold or account for taxes and/or social contributions in more than one jurisdiction, in accordance with the methods of withholding described in Section 9 of the Agreement.

4. Data Privacy.

(a) Data Collection and Usage. The Corporation and the Employer will collect, process and use certain personal information about Participant, specifically, Participant's name, home address, email address and telephone number, date of birth, social security or insurance number, passport number or other identification number, salary, nationality, job title, any shares of Stock or directorships held in the Corporation, details of all Restricted Stock Units or any other entitlement to shares of Stock awarded, canceled, exercised, vested, unvested or outstanding in Participant's favor ("Data"), for the exclusive purpose of implementing, administering and managing the Plan.

(b) Recipients of Data.

a. Stock Plan Administration Service Providers. The Corporation and the Employer transfer Data to Fidelity Stock Plan Services, LLC (and/or its affiliates, collectively "Fidelity"), the designated broker assisting in the implementation, administration and management of the Plan. In the future, the Corporation may select a different service provider and share Data with such other provider serving in a similar manner.

b. Other Service Provider Data Recipients. The Corporation also may transfer Data to other third party service providers, if necessary to ensure compliance with applicable tax, exchange control, securities and labor law. Such third party service providers may include the Corporation's legal counsel as well as its auditor, human resources consultant and payroll vendor. Wherever possible, the Corporation will anonymize data, but Participant understands that his or her Data may need to be transferred to such providers to ensure compliance with applicable law and/or tax requirements.

c. Securities or Other Regulatory Authorities. In addition to the recipients identified herein and where required under applicable law, Data also may be disclosed to certain securities or other regulatory authorities, including where the Corporation's securities are listed or traded or regulatory filings are made. The legal basis, where required, for such disclosure is compliance with applicable law.

(c) International Data Transfers. The Corporation, Fidelity and other service providers described above are located in the United States. The United States may have different data privacy laws and protections than Participant's country of residence (or country of employment, if different).

(d) Legal Basis for Collection, Processing and Transfer of Data.

a. Participants within the EU / European Economic Area ("EEA"), Switzerland and the United Kingdom

i. The collection, processing and transfer of Data is necessary for the legitimate purpose of the Corporation and Employer's administration of the Plan and Participant's participation in the Plan.

ii. When transferring Data to potential recipients outside the EU/EEA, Switzerland and/or the United Kingdom, the Corporation and the Employer strive to provide appropriate safeguards in accordance

with Standard Contractual Clauses or other legally binding and permissible arrangements. For further information on the transfer of Participant's personal data outside of the EU/EEA, Switzerland and/or the United Kingdom, Participant may contact his or her human resources representative.

b. Participants outside the EU / EEA, Switzerland and the United Kingdom

i. Participant hereby explicitly and unambiguously consents to the collection, processing and use, in electronic or other form, of Participant's Data by the Corporation and the transfer of Data to the recipients mentioned above, including recipients located in countries which do not adduce an adequate level of protection from a non-U.S. data protection law perspective, for the purposes described above. Upon transfer of Participant's Data to Fidelity, Participant may be asked to agree to separate terms and data processing practices with Fidelity, with such agreement being a condition of the ability to participate in the Plan.

ii. Participation in the Plan is voluntary and Participant understands that Participant is providing the consent herein on a purely voluntary basis. If Participant does not consent, or later seeks to revoke his or her consent, Participant's employment status or Service and career with the Employer will not be adversely affected. The only consequence of refusing or withdrawing consent is that the Corporation would not be able to grant Restricted Stock Units or other equity awards to Participant or administer or maintain such awards. Therefore, Participant understands that refusing or withdrawing his or her consent may affect Participant's ability to participate in the Plan. For more information on the consequences of Participant's refusal to consent or withdrawal of consent, Participant understands that Participant may contact his or her human resources representative.

(e) Data Retention. Participant understands that Data will be held only as long as is necessary to implement, administer and manage his or her participation in the Plan or comply with applicable laws. When the Corporation no longer needs the Data, the Corporation will remove it from its systems.

(f) Data Subject Rights. Participant understands that Participant may have the right under applicable law to (i) access or copy Data that the Corporation possesses, (ii) rectify incorrect Data, (iii) delete Data, (iv) restrict processing of Data, (v) opt out of the Plan, or (vi) lodge complaints with the competent supervisory authorities in Participant's jurisdiction. To receive clarification regarding these rights or to exercise these rights, Participant understands that Participant can contact his or her local human resources representative.

5. No Advice Regarding Grant. The Corporation is not providing any tax, legal or financial advice, nor is the Corporation making any recommendations regarding Participant's

participation in the Plan, or Participant's acquisition or sale of the underlying shares of Stock. Participant should consult with his or her own personal tax, legal and financial advisors regarding Participant's participation in the Plan before taking any action related to the Plan.

6. Imposition of Other Requirements. The Corporation reserves the right to impose other requirements on Participant's participation in the Plan, on the Restricted Stock Units and on any shares of Stock acquired under the Plan, to the extent the Corporation determines it is necessary or advisable for legal or administrative reasons. Such requirements may include (but are not limited to) requiring Participant to sign any agreements or undertakings that may be necessary to accomplish the foregoing.

7. Insider Trading/Market Abuse Laws. By participating in the Plan, Participant agrees to comply with the Corporation's policy on insider trading (to the extent that it is applicable to Participant). Participant further acknowledges that, depending on Participant's or the broker's country of residence or where the shares of Stock are listed, Participant may be subject to insider trading restrictions and/or market abuse laws, which may affect Participant's ability to accept, acquire, sell or otherwise dispose of shares of Stock, rights to shares of Stock (e.g., Restricted Stock Units) or rights linked to the value of shares of Stock, during such times Participant is considered to have "inside information" regarding the Corporation as defined by the laws or regulations in Participant's country. Local insider trading laws and regulations may prohibit the cancellation or amendment of orders Participant places before Participant possessed inside information. Furthermore, Participant could be prohibited from (i) disclosing the inside information to any third party (other than on a "need to know" basis) and (ii) "tipping" third parties or causing them otherwise to buy or sell securities. Participant understands that third parties include fellow employees. Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable Corporation insider trading policy. Participant acknowledges that it is Participant's responsibility to comply with any applicable restrictions, and that Participant should therefore consult Participant's personal advisor on this matter.

8. Foreign Asset/Account Reporting; Exchange Controls. Participant's country may have certain foreign asset and/or account reporting requirements and/or exchange controls which may affect Participant's ability to acquire or hold shares of Stock under the Plan or cash received from participating in the Plan (including from any dividends received or sale proceeds arising from the sale of shares of Stock) in a brokerage or bank account outside Participant's country. Participant may be required to report such accounts, assets or transactions to the tax or other authorities in his or her country. Participant also may be required to repatriate sale proceeds or other funds received as a result of Participant's participation in the Plan to his or her country through a designated bank or broker and/or within a certain time after receipt. Participant acknowledges that it is his or her responsibility to be compliant with such regulations, and Participant should consult his or her personal legal advisor for any details.

9. Language. If Participant is resident in a country where English is not an official language, Participant acknowledges that Participant is sufficiently proficient in English to understand

the terms and conditions of the Agreement or has had the ability to consult with an advisor who is sufficiently proficient in the English language. Participant further acknowledges and agrees that it is Participant's express intent that the Agreement, the Addendum and the Plan and all other documents, notices and legal proceedings entered into, given or instituted pursuant to the Restricted Stock Units be drawn up in English. If Participant has received the Agreement, the Addendum or any other document related to the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

10. Annex to Addendum. Notwithstanding any provision of the Agreement or Addendum to the contrary, the Restricted Stock Units shall be subject to such special terms and conditions for Participant's country of residence (and country of employment, if different), as are set forth in the annex to this Addendum (the "Annex"). Further, if Participant transfers residency and/or employment to another country, the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer. In all circumstances, the Annex shall constitute part of this Addendum.

ANNEX

This Annex to the Addendum includes additional terms and conditions that govern the Restricted Stock Units if Participant resides and/or is employed in the country addressed herein or transfers residence or employment to the country addressed herein. If Participant transfers residence and/or employment to another country, the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer. Certain capitalized terms used but not defined in this Annex have the meanings set forth in the Agreement (including the Addendum) or the Plan.

Australia

1. Tax Notification. The Plan is a plan to which Subdivision 83A-C of the Income Tax Assessment Act 1997 (Cth) (the "Act") applies (subject to conditions in the Act).

2. Offer Document. The Corporation is pleased to provide this offer to participate in the Plan. This offer document sets out information regarding the award for Australian-resident Participants ("Australian Participants"). It is for informational purposes and is intended to comply with the provisions of the Australian Corporations Act 2001 (Cth) ("Corporations Act 2001") and Australian Securities and Investments Commission ("ASIC") Instrument 22-0283.

   Additional Documents

   In addition to the information set out in the Agreement (including the Addendum and this Annex), Participant is also being provided with copies of the following documents:

   1. the Plan; and
   2. the Plan Prospectus describing the terms of the Plan (the "Plan Prospectus"); and
   3. any supplemental documents to the Plan and Plan Prospectus, as necessary.

   These additional documents provide further information to help Participant make an informed investment decision about participating in the Plan. Neither the Plan nor the Plan Prospectus is a prospectus for the purposes of the Corporations Act 2001.

   Participant should not rely upon any oral statements made in relation to this offer. Participant should rely only upon the statements contained in the Agreement and the additional documents when considering participation in the Plan.

   General Information Only

   Any information given by the Corporation or any subsidiary or affiliate in relation to the Restricted Stock Units is general and does not take into account an Australian Participant's objectives, financial situation and needs. Australian Participants should consider obtaining their own financial product advice from an independent person who is licensed by ASIC to give such advice.

Acquisition Price

No acquisition price is payable by Participant for the Corporation to grant Participant the number of Restricted Stock Units set forth in the Agreement or for Participant to acquire shares of Stock upon settlement of the Restricted Stock Units.

Shares of Stock

A share of common stock of a U.S. corporation is analogous to an ordinary share of an Australian Corporation. Each holder of a share of common stock is entitled to one vote for every share held.

The shares of Stock are traded on Cboe BZX in the United States of America under the symbol "CBOE".

Shares of Stock are not liable to any further calls for payment of capital or for other assessment by the Corporation and have no sinking fund provisions, pre-emptive rights, conversion rights or redemption provisions.

Risks of Acquiring Shares of Stock

This paragraph provides Australian Participants with general information about the risks of acquiring and holding shares of Stock. Before accepting the grant of Restricted Stock Units, Australian Participants should satisfy themselves that they have a sufficient understanding of these matters and should consider whether shares of Stock are a suitable investment for them, having regard to their own investment objectives, financial circumstances and taxation position.

(a) *Price of shares of Stock may fluctuate:* The price at which a share of Stock is quoted on the Cboe BZX may increase or decrease due to a number of factors. Some of the factors that may affect the price of the shares of Stock include fluctuations in the domestic and international market for listed stocks, general economic conditions, including interest rates, inflation rates, changes to government fiscal, monetary or regulatory policies, legislation or regulation, the nature of the markets in which the Corporation operates and general operational and business risks.

More information about potential factors that could affect the Corporation's business and financial results is included in the Corporation's Quarterly Reports on Form 10-Q and Annual Reports on Form 10-K. Copies of these forms are available at http://www.sec.gov/ and upon request to the Corporation.

In addition, Participant should be aware that the value of the shares of Stock Participant may acquire will be affected by the U.S./Australian dollar exchange rate. Participation in the Plan involves certain risks related to fluctuations in this rate of exchange.

(b) *Trading in shares of Stock may not be liquid:* There can be no guarantee that an active market in shares of Stock will continue or that the price of shares of Stock will increase. The number of potential buyers or sellers of shares of Stock on the Cboe BZX

may vary at any time. This may increase the volatility of the market price of shares of Stock. It may also affect the prevailing market price at which shareholders are able to sell their shares of Stock. This may result in shareholders receiving a market price for their shares of Stock that is less than the price that shareholders paid.

(c) *Risk of dilution:* In the future, the Corporation may elect to issue stock (or securities convertible into stock) including in connection with fundraisings for acquisitions that the Corporation may decide to make. Shareholders may be diluted as a result of such issues of stock or securities or such issues may reduce the market price of shares of Stock.

(d) *Dividends on shares of Stock*: The Corporation may pay dividends on shares of Stock. Payment of future dividends, and the timing and amount of any dividends the Corporation determines to pay, are at the discretion of the Board.

Market Price of shares of Stock in Australian Dollars

An Australian Participant can, from time to time, ascertain the market price of the shares of Stock by obtaining that price from the Corporation website (http://ir.cboe.com) or The Wall Street Journal. The Australian dollar equivalent of that price can be obtained at the website of the Reserve Bank of Australia (http://www.rba.gov.au/statistics/frequency/exchange-rates.html).

This will not be a prediction of what the market price per share will be when the Restricted Stock Units vest and the shares of Stock are issued or of the applicable exchange rate on the actual vesting date or the date the shares of Stock are issued.

Canada

1. Settlement of Restricted Stock Units: Notwithstanding anything to the contrary in the Agreement or any related document, if Participant is resident or employed in Canada, the Corporation shall have absolute discretion to settle the Restricted Stock Units in shares of Stock or in the form of a cash payment or in any combination of the foregoing.

2. Securities Law Notification: Participant acknowledges and agrees that he or she is permitted to sell shares of Stock acquired under the Plan through the designated broker appointed under the Plan, provided the resale of shares of Stock takes place outside of Canada through facilities of a stock exchange on which the shares of Stock are listed. The shares of Stock currently are listed on Cboe BZX in the United States.

3. Termination of Employment: Except as may be determined by the Committee and except as otherwise provided in Section 4 of the Agreement, for purposes of Section 4(d) of the Agreement, Participant's Service will be considered terminated as of the date Participant ceases to be an employee of the Corporation (or, if different, the Affiliate to which Participant provides Service) for any reason, whether lawful or otherwise (including, without limitation, by reason of resignation, death, frustration of contract, termination for Cause, termination without Cause, or constructive dismissal), without regard to any pay in lieu of notice (whether by way of lump sum or salary continuance), benefits continuance, or other termination related payments or

benefits, whether pursuant to the common law or otherwise, to which Participant may then be entitled (the "Termination Date"). In the event that the Termination Date cannot reasonably be determined under the terms of the Plan and the Agreement, the Committee and its delegate shall have the exclusive discretion to determine when the Termination Date occurs for purposes of the Plan (including whether Participant may still be considered to be providing Service while on any leave of absence).

Unless otherwise extended by the Corporation, or as may be required to satisfy the minimum requirements of applicable employment or labour standards legislation, any portion of the award that is not vested on the Termination Date shall terminate immediately and be null and void, and Participant will have no entitlement to further vesting in the Restricted Stock Units or compensation in lieu thereof following the Termination Date, and Participant waives any claim to damages in respect thereof whether related or attributable to any contractual or common law termination entitlements or otherwise. For additional clarity, if applicable employment or labour standards legislation specifically requires continued entitlement to vesting during a statutory notice period, Participant's right to vest in the Restricted Stock Units, if any, will be allowed to continue for that minimum notice period but then immediately terminate effective as of the last day of Participant's minimum statutory notice period.

Hong Kong

1. Settlement in Shares of Stock. Notwithstanding anything to the contrary in the Agreement, the Addendum or the Plan, the Restricted Stock Units shall be settled only in shares of Stock (and may not be settled in cash).

2. Disposal of Shares of Stock. If, for any reason, shares of Stock are issued to Participant within six (6) months after the Award Date, Participant agrees that Participant will not sell or otherwise dispose of any such shares of Stock prior to the six (6) month anniversary of the Award Date.

3. IMPORTANT NOTICE/WARNING. *The contents of this document have not been reviewed by any regulatory authority in Hong Kong. Participant is advised to exercise caution in relation to the offer. If Participant is in any doubt about any of the contents of the documents, Participant should obtain independent professional advice. The Restricted Stock Units and shares of Stock issued in settlement of the Restricted Stock Units do not constitute a public offering of securities under Hong Kong law and are available only to employees of the Corporation or its Affiliates. The Agreement, the Plan and other incidental communication materials have not been prepared in accordance with and are not intended to constitute a "prospectus" for a public offering of securities under the applicable securities legislation in Hong Kong. The Restricted Stock Units are intended only for the personal use of each eligible employee of the Employer, the Corporation or an Affiliate and may not be distributed to any other person.*

4. Wages. The Restricted Stock Units and shares of Stock subject to the Restricted Stock Units do not form part of Participant's wages for purposes of calculating any statutory or contractual payments under Hong Kong law.

Japan

1. Vesting. If Participant resides and/or is employed in Japan, the following provision shall replace Section 4(a) of the Agreement in its entirety and any other provisions regarding Retirement shall be disregarded and of no effect:

(a) Subject to Sections 4(b), 4(c) and 4(d) below, Participant's Restricted Stock Units will vest upon the expiration of the Performance Period, subject to and contingent upon achievement of the Performance Goal described in Exhibit A hereto and Participant's continued Service through the last day of the Performance Period.

Netherlands

1. Exclusion of Claim: Participant acknowledges and agrees that Participant will have no entitlement to compensation or damages insofar as such entitlement arises or may arise from Participant ceasing to have rights under the Plan, whether or not as a result of termination of Participant's Service (whether such termination is in breach of contract or otherwise), or from the loss of diminution in value of the shares of Stock underlying the Restricted Stock Units. Upon the grant of the Restricted Stock Units, Participant shall be deemed to have waived irrevocably such entitlement.

Philippines

1. Settlement in Cash. Notwithstanding anything to the contrary in the Agreement, the Addendum or the Plan, the Restricted Stock Units shall be settled only in cash (and shall not be settled in shares of Stock), unless otherwise determined by the Corporation.

2. Vesting. If Participant resides and/or is employed in the Philippines, the following provision shall replace Section 4(a) of the Agreement in its entirety and any other provisions regarding Retirement shall be disregarded and of no effect:

(a) Subject to Sections 4(b), 4(c) and 4(d) below, Participant's Restricted Stock Units will vest upon the expiration of the Performance Period, subject to and contingent upon achievement of the Performance Goal described in Exhibit A hereto and Participant's continued Service through the last day of the Performance Period.

Singapore

1. Securities Law Information. The grant of the Restricted Stock Units under the Plan is being made pursuant to the "Qualifying Person" exemption under section 273(1)(f) of the Securities and Futures Act (Chapter 289, 2006 Ed.) ("SFA"). The Plan has not been and will not be lodged or registered as a prospectus with the Monetary Authority of Singapore and is not regulated by any financial supervisory authority pursuant to any legislation in Singapore. Accordingly, statutory liability under the SFA in relation to the content of prospectuses would not apply. Participant should note that the Restricted Stock Units are subject to section 257 of the SFA and Participant will not be able to make any subsequent

sale of shares of Stock in Singapore, or any offer of such subsequent sale of shares of Stock subject to the Restricted Stock Units in Singapore, unless such sale or offer is made (i) after six (6) months from the Award Date or (ii) pursuant to the exemptions under Part XIII Division (1) Subdivision (4) (other than section 280) of the SFA.

Switzerland

1. Securities Law Information. Neither the Agreement nor any other materials relating to the grant of Restricted Stock Units (a) constitutes a prospectus according to articles 35 et seq. of the Swiss Federal Act on Financial Services ("FinSA"), (b) may be publicly distributed or otherwise made publicly available in Switzerland to any person other than an employee of the Corporation or one of its Affiliates or (c) has been or will be filed with, approved or supervised by any Swiss reviewing body according to article 51 FinSA or any Swiss regulatory authority, including the Swiss Financial Market Supervisory Authority, FINMA.

United Kingdom (Including Northern Ireland)

1. Payment of Withholding Taxes. The following provision supplements the section of the Agreement titled "Payment of Withholding Taxes":

> Without limitation to the section of the Agreement titled 'Payment of Withholding Taxes', Participant agrees that Participant is liable for all income tax and employee national insurance contributions or other social contributions or withholding taxes ("Tax-Related Items") and hereby covenants to pay all such Tax-Related Items, as and when requested by the Corporation, the Employer or by HM's Revenue and Customs ("HMRC") (or any other tax authority or any other relevant authority). Participant also agrees to indemnify and keep indemnified the Corporation and the Employer against any Tax-Related Items that they are required to pay or withhold or have paid or will pay on Participant's behalf to HMRC (or any other tax authority or any other relevant authority).
>
> Notwithstanding the foregoing, if Participant is a director or executive officer (as within the meaning of Section 13(k) of the U.S. Securities Exchange Act of 1934, as amended), the terms of the immediately foregoing provision will not apply. In the event that Participant is a director or executive officer and income tax due is not collected from or paid by Participant within 90 days after the U.K. tax year in which an event giving rise to the indemnification described above occurs, the amount of any uncollected tax may constitute a benefit to Participant on which additional income tax and national insurance contributions may be payable. Participant acknowledges that Participant ultimately will be responsible for reporting and paying any income tax due on this additional benefit directly to HMRC under the self-assessment regime and for reimbursing the Corporation or the Employer (as applicable) for the value of any employee national insurance contributions due on this additional benefit, which the Corporation and/or the Employer may recover from Participant at any time

thereafter by any of the means referred to in section of the Agreement titled "Payment of Withholding Taxes".

2. Exclusion of Claim. Participant acknowledges and agrees that Participant will have no entitlement to compensation or damages insofar as such entitlement arises or may arise from Participant's ceasing to have rights under or to be entitled to the Restricted Stock Units, whether or not as a result of termination of Service (whether such termination is in breach of contract or otherwise), or from the loss or diminution in value of the Restricted Stock Units. Upon the award of the Restricted Stock Units, Participant shall be deemed irrevocably to have waived any such entitlement.

3. Section 2 of the Addendum. Section 2 of the Addendum (Participants in the European Union) shall not apply to the Restricted Stock Units.

Exhibit 10.92
For Employees – With Restrictive Covenants

CBOE GLOBAL MARKETS, INC. LONG-TERM INCENTIVE PLAN
RESTRICTED STOCK UNIT AWARD AGREEMENT – PERFORMANCE BASED

This RESTRICTED STOCK UNIT AWARD AGREEMENT (this "Agreement") is dated effective _____(the "Award Date"), and is between Cboe Global Markets, Inc. (the "Corporation") and _____ ("Participant"). Any term capitalized but not defined in this Agreement will have the meaning set forth in the Second Amended and Restated Cboe Global Markets, Inc. (formerly CBOE Holdings, Inc.) Long-Term Incentive Plan (as may be amended from time to time, the "Plan").

1. Award. The Corporation hereby awards to Participant _____ Restricted Stock Units (the "Restricted Stock Units"). The Restricted Stock Units will be subject to the terms and conditions of the Plan and this Agreement. Each Restricted Stock Unit is a notional amount that represents one unvested share of Stock and entitles Participant, subject to the terms of this Agreement, to receive a share of Stock if and when the Restricted Stock Unit vests.

2. No Rights as Stockholder; Dividend Equivalents. Participant shall have no voting rights with respect to shares of Stock represented by Restricted Stock Units until the date of the issuance of the shares of Stock (as evidenced by the appropriate entry on the books of the Corporation or of a duly authorized transfer agent of the Corporation). Notwithstanding the foregoing, in the event that the Corporation declares a cash dividend on shares of Stock, on the payment date of the dividend, Participant will be credited with Dividend Equivalent Rights equal to the amount of the cash dividend per share multiplied by the number of Restricted Stock Units held by Participant on the dividend's record date. The Dividend Equivalent Rights credited to Participant under the preceding sentence will be deemed to be reinvested in additional Restricted Stock Units, which will be subject to the same terms regarding vesting, forfeiture, and distribution as Restricted Stock Units awarded to Participant under this Agreement.

3. Performance Period. The Performance Period for the Restricted Stock Units shall be the three (3) year period commencing on _____ and ending on _____.

4. Vesting; Effect of Termination of Service; Change in Control.

(a) Subject to Sections 4(b), 4(c) and 4(d) below, Participant's Restricted Stock Units will vest upon the expiration of the Performance Period, subject to and contingent upon achievement of the Performance Goal described in Exhibit A hereto and Participant's continued Service through the last day of the Performance Period.

(b) The Restricted Stock Units will vest at the Target level of achievement of the Performance Goal (as described in Exhibit A), upon the earlier to occur of (i) Participant's death or (ii) Participant's becoming Disabled, provided that such condition qualifies as "disability" as defined for purposes of Section 409A, in each case, if prior to any forfeiture event under Section 4(d) below.

(c) This subsection 4(c) shall apply to this Agreement, this Award and any Replacement Award provided to Participant to replace this Award in lieu of Section

8.2(b) of the Plan. Upon a termination of Participant's Service by the Corporation or its Affiliate without Cause or by Participant for "Good Reason" (as defined below), in each case, upon or within two years after a Change in Control and prior to any forfeiture event under Section 4(d) below, this Award or any Replacement Award held by Participant shall become fully vested and free of restrictions at the Target level of achievement of the Performance Goal (as described in Exhibit A, as amended by the Replacement Award, if any), except that vesting shall be, to the extent determinable, at the level of achievement of the Performance Goal actually achieved as of the date of termination of Service (with similar performance assumed to be achieved through the remainder of the Performance Period) if greater than the Target level of achievement, and shall be distributed upon or within 60 days of such termination of Service. Notwithstanding the foregoing, if this Award or the Replacement Award, as applicable, is considered deferred compensation subject to Section 409A, payment shall be made pursuant to the Award's original schedule if necessary to comply with Section 409A.

For purposes of this Award "Good Reason" shall be deemed to exist if, and only if, without Participant's express written consent:

(i) The Corporation or its Affiliate assigns to Participant authorities, duties or responsibilities (including titles) that are inconsistent in any material and adverse respect with Participant's immediately preceding authorities, duties or responsibilities with the Corporation or its Affiliate (including any material and adverse diminution of such immediately preceding authorities, duties or responsibilities);

(ii) The Corporation or its Affiliate materially reduces Participant's base compensation;

(iii) The Corporation or its Affiliate requires Participant to relocate his or her principal business office or principal place of residence outside the metropolitan area in which Participant worked or resided at the time the Restricted Stock Units were awarded (or outside the immediately preceding location of Participant's principal business office with the Corporation or its Affiliate), or assigns to Participant duties that would reasonably require such relocation;

(iv) The Corporation or its Affiliate materially breaches the terms of any agreement pursuant to which services are provided to the Corporation or its Affiliate by Participant; or

(v) The Corporation or its Affiliate terminates, reduces or limits Participant's participation in any bonus or incentive compensation arrangement relative to the level of participation of other employees of similar rank for a reason that is not reasonably related to Participant's level of job performance or local legal requirements and provided that such action results in a material reduction in the aggregate value of Participant's incentive compensation below the aggregate value as of the immediately preceding bonus or incentive compensation performance period and provided further that a mere change in the form of payment of the award (whether cash or shares of Stock) without a reduction in the aggregate grant value of the award shall not be considered a reduction of Participant's participation.

Participant's voluntary termination of Service shall not be considered a termination of Service for Good Reason unless Participant terminates his or her Service within 120 days after the initial existence of the condition constituting Good Reason; provided, Participant provides written notice to the Corporation or its Affiliate of Participant's intention to resign for Good Reason, which notice specifies in reasonable detail the breach or action giving rise thereto within 90 days of its initial existence, and the Corporation or its Affiliate does not cure such breach or action within 30 days after the date of Participant's notice.

(d) If Participant's Service is terminated for any reason before all of Participant's Restricted Stock Units have vested under this Agreement (including pursuant to an event described in Section 4(b) or 4(c) above), Participant's unvested Restricted Stock Units will be forfeited upon the effective date of such termination of Service. Notwithstanding anything herein to the contrary, any outstanding Restricted Stock Units not previously settled shall be cancelled and forfeited immediately if, in the sole opinion and discretion of the Committee or its delegate, Participant engages in any activity that constitutes Cause, whether or not Participant experiences a separation from Service, is no longer in Service, or remains in Service. Neither the Corporation nor any Affiliate will have any further obligations to Participant under this Agreement if Participant's Restricted Stock Units are forfeited pursuant to this Section 4(d).

5. Terms and Conditions of Distribution.

(a) Distribution of a share of Stock that corresponds to a vested Restricted Stock Unit shall be made to Participant as soon as practicable after the Restricted Stock Unit vests, but not later than two and a half (2½) months after the end of the calendar year in which the Restricted Stock Unit vests.

(b) Reserved.

(c) If Participant dies before the date on which the Corporation would have distributed shares of Stock in satisfaction of vested Restricted Stock Units, the Corporation will distribute such shares of Stock to Participant's designated beneficiary(ies) or, if none are designated or surviving, to Participant's estate or personal representative. The Corporation is not required to issue or deliver any shares of Stock before completing the steps necessary to comply with applicable Federal and state securities laws (including any registration requirements) and applicable stock exchange rules and practices. The Corporation will use commercially reasonable efforts to cause compliance with those laws, rules and practices. The foregoing provisions are subject in all cases to the requirements of Section 409A.

6. Nontransferability. Unvested Restricted Stock Units may not be sold, transferred, exchanged, pledged, assigned, garnished, or otherwise alienated or hypothecated, other than by will or by the laws of descent and distribution. Any effort to assign or transfer the rights under this Agreement will be wholly ineffective, and will be grounds for termination by the Committee of all rights of Participant under this Agreement.

7. Administration. The Committee administers the Plan. Participant's rights under this Agreement are expressly subject to the terms and conditions of the Plan and to any guidelines the Committee adopts from time to time. The interpretation and construction by the Committee of the Plan and this Agreement, and such rules and regulations as may be adopted by the Committee for purposes of administering the Plan and this Agreement, will be final and binding upon Participant.

8. Securities Law Requirements. If at any time the Board or Committee determines that issuing Stock pursuant to this Agreement would violate applicable securities laws, the Corporation will not be required to issue such Stock. The Board or Committee may declare any provision of this Agreement or action of its own null and void, if it determines the provision or action fails to comply with applicable securities laws. The Corporation may require Participant to make written representations it deems necessary or desirable to comply with applicable securities laws.

9. Payment of Withholding Taxes. Participant acknowledges that, regardless of any action taken by the Corporation or, if different, the Affiliate of the Corporation that employs Participant (the "Employer"), the ultimate liability for all income tax, social contributions, payroll tax, fringe benefits tax, payment on account or other tax-related items related to Participant's participation in the Plan and legally applicable to Participant or deemed by the Corporation or the Employer in their discretion to be an appropriate charge to Participant even if legally applicable to the Corporation or the Employer ("Tax-Related Items"), is and remains Participant's responsibility and may exceed the amount actually withheld by the Corporation or the Employer, if any. Participant further acknowledges that the Corporation and/or the Employer (a) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the Restricted Stock Units, including, but not limited to, the grant, vesting or settlement of the Restricted Stock Units, the subsequent sale of shares of Stock acquired pursuant to such settlement; and (b) do not commit to and is under no obligation to structure the terms of the grant or any aspect of the Restricted Stock Units to reduce or eliminate Participant's liability for Tax-Related Items or achieve any particular tax result. Further, if Participant is subject to Tax-Related Items in more than one jurisdiction between the Award Date and the date of any relevant taxable or tax withholding event, as applicable, Participant acknowledges that the Corporation and/or the Employer (or former employer, as applicable) may be required to withhold or account for Tax-Related Items in more than one jurisdiction.

   Prior to the relevant taxable or tax withholding event, as applicable, Participant agrees to make adequate arrangements satisfactory to the Corporation and/or the Employer to satisfy all Tax-Related Items. In this regard, Participant authorizes the Corporation, or its respective agents, at their discretion, to satisfy the obligations with regard to all Tax-Related Items by one or a combination of the following: (i) withholding from Participant's wages or other cash compensation paid to Participant by the Corporation and/or the Employer; (ii) withholding from the shares of Stock to be delivered upon settlement of the Restricted Stock Units or other awards granted to Participant or (iii) permitting Participant to tender to the Corporation or to the Employer cash or, if allowed by the Committee, shares of Stock to the Corporation.

Notwithstanding the foregoing, if Participant is subject to Section 16 of the Exchange Act of 1934, pursuant to Rule 16a-2 promulgated thereunder, any tax withholding obligations shall be satisfied by having the Corporation withhold from the shares of Stock to be delivered upon settlement of the Restricted Stock Units.

Depending on the withholding method, the Corporation may withhold or account for Tax-Related Items by considering applicable statutory withholding rates (as determined by the Corporation in good faith and in its sole discretion) or other applicable withholding rates, including maximum applicable rates, in which case Participant will receive a refund of any over-withheld amount in cash and will have no entitlement to the share equivalent. If the obligation for Tax-Related Items is satisfied by withholding from the shares of Stock to be delivered upon settlement of the Restricted Stock Units, for tax purposes, Participant is deemed to have been issued the full number of shares of Stock subject to the Restricted Stock Units, notwithstanding that a number of shares of Stock are held back solely for the purpose of paying the Tax-Related Items. Participant will have no further rights with respect to any shares of Stock that are retained by the Corporation pursuant to this provision.

Participant agrees to pay to the Corporation or the Employer any amount of Tax-Related Items that the Corporation or the Employer may be required to withhold or account for as a result of Participant's participation in the Plan that cannot be satisfied by the means previously described. The Corporation may refuse to issue or deliver shares of Stock or proceeds from the sale of shares of Stock until arrangements satisfactory to the Corporation have been made in connection with the Tax-Related Items.

10. Restrictive Covenants. Participant understands the global nature of the Corporation's businesses and the effort the Corporation and its Affiliates (collectively referred to in this Section as "Cboe") undertake to develop and protect their business and their competitive advantage. Accordingly, Participant agrees that the scope and duration of the restrictions described in this Agreement are reasonable and necessary to protect the legitimate business interests of Cboe. Participant further agrees that during the period of Participant's Service and for a period of two (2) years following Participant's separation from Service, Participant shall not, without the express written approval of the Chief Executive Officer:

(a) singly, jointly, or in any other capacity, in a manner that contributes to any research, technology, development, account, trading, marketing, promotion, or sales and that relates to Participant's Service with Cboe, directly or beneficially, manage, join, participate in the management, operation or control of, or work for (as an employee, consultant or independent contractor), or permit the use of his or her name by, or provide financial or other assistance to, or be connected in any manner with (i) any exchange, facility, clearinghouse, electronic communications network ("ECN"), electronic foreign currency exchange market ("FX") matching platform, multilateral trading facility, or alternative trading system ("ATS"); (ii) the ECN, ATS or FX business lines of any full service broker dealer or any digital asset or data and access solutions business line of any company; or (iii) any business line of any company that is substantially similar to any additional business line developed or entered into by Cboe during Participant's Service,

provided that, in the case of clauses (i), (ii) and (iii), such entity or business line that directly competes with Cboe;

(b) provide any service or assistance that (i) is of the general type of service or assistance provided by Participant to Cboe, (ii) relates to any technology, account, product, project or piece of work with which Participant was involved during his Service, and (iii) contributes to causing an entity to come within the definition described in Section 10(a) above;

(c) solicit or accept if offered to Participant, with or without solicitation, on his or her own behalf or on behalf of any other person, the services of any person who is a then-current employee of Cboe (or was an employee of Cboe during the year preceding such solicitation), nor solicit any of Cboe's then-current employees (or an individual who was employed by or engaged by Cboe during the year preceding such solicitation) to terminate employment or an engagement with Cboe, nor agree to hire any then-current employee (or an individual who was an employee of Cboe during the year preceding such hire) of Cboe into employment with Participant or any company, individual or other entity; or

(d) directly or indirectly divert or attempt to divert from Cboe any business in which Cboe has been actively engaged during Participant's Service, nor interfere with the relationships of Cboe or with their sources of business.

11. Confidentiality. Participant acknowledges that the Corporation or an Affiliate may disclose secret or confidential information to Participant during the period of Participant's Service to enable Participant to perform his or her duties. Participant agrees that, subject to the following sentence, Participant shall not during his or her Service (except in connection with the proper performance of his or her duties) and thereafter, without the prior written consent of the Corporation, disclose to any person or entity any material or significant secret or confidential information concerning the business of the Corporation or an Affiliate that was obtained by Participant in the course of Participant's Service. This paragraph shall not be applicable if and to the extent Participant is required to testify in a legislative, judicial or regulatory proceeding pursuant to an order of Congress, any state or local legislature, a judge, or an administrative law judge, or if such secret or confidential information is required to be disclosed by Participant by any law, regulation or order of any court or regulatory commission, department or agency. Participant further agrees that if Participant's Service is terminated for any reason, Participant will not take, but will leave with the Corporation or an Affiliate, all records and papers and all matter of whatever nature that bears secret or confidential information of the Corporation or an Affiliate. For purposes of this Agreement, the term "secret or confidential information" shall include, but not be limited to, any and all records, notes, memoranda, data, writings, research, personnel information, customer information, clearing members' information, the Corporation's and any Affiliate's financial information and plans, processes, methods, techniques, systems, formulas, patents, models, devices, compilations or any other information of whatever nature in the possession or control of the Corporation or an Affiliate, that has not been published or disclosed to the general public, the options industry, the equities industry, the foreign currency exchange industry or the commodities futures industry, provided that such term

shall not include knowledge, skills, and information that is common to the trade or profession of Participant.

Notwithstanding anything in this Agreement to the contrary, nothing in this Agreement prohibits Participant from confidentially or otherwise communicating or filing a charge or complaint with a governmental or regulatory entity, participating in a governmental or regulatory entity investigation, or giving truthful testimony or making other disclosures to a governmental or regulatory entity (in each case, without having to disclose any such conduct to the Corporation or an Affiliate), or from responding if properly subpoenaed or otherwise required to do so under applicable law. In addition, nothing in this Agreement limits Participant's right to receive an award from a governmental or regulatory entity for information provided to such an entity (and not as compensation for actual or alleged personal injury or damages to Participant).

Pursuant to the Defend Trade Secrets Act of 2016 (18 U.S.C. 1833(b)), Participant shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that is made in confidence either directly or indirectly to a federal, state, or local government official, or to an attorney, solely for the purpose of reporting or investigating a violation of law. Participant shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret made in a complaint, or other document filed in a lawsuit or other proceeding, if such filing is made under seal. If Participant files a lawsuit or other action alleging retaliation by the Corporation or an Affiliate for reporting a suspected violation of law, Participant may disclose the trade secret to his or her attorney and use the trade secret in the court proceeding or other action, if Participant files any document containing the trade secret under seal and does not disclose the trade secret, except pursuant to court order. This paragraph will govern to the extent it may conflict with any other provision of this Agreement.

12. Judicial Modification. If the final judgment of a court of competent jurisdiction declares that any term or provision of Section 10 or 11 is invalid or unenforceable, the parties agree that (a) the court making the determination of invalidity or unenforceability shall have the power to reduce the scope, duration, or geographic area of the term or provision, to delete specific words or phrases, or to replace any invalid or unenforceable term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, (b) the parties shall request that the court exercise that power, and (c) this Agreement shall be enforceable as so modified after the expiration of the time within which the judgment or decision may be appealed.

13. Remedies. Participant agrees that in the event of a breach or threatened breach of any of the covenants contained in Sections 10 or 11 of this Agreement, in addition to any other penalties or restrictions that may apply under any employment agreement, state law, or otherwise, Participant shall forfeit, upon written notice to such effect from the Corporation, any and all Awards granted to him or her under the Plan and this Agreement, including vested Awards. The forfeiture provisions of this Section 13 shall continue to apply, in accordance with their terms, after the provisions of any employment or other agreement between the Corporation and Participant have lapsed. Participant

consents and agrees that if Participant violates or threatens to violate any provisions of Sections 10 or 11 of this Agreement, the Corporation or its successors in interest shall be entitled, in addition to any other remedies that they may have, including money damages, to an injunction to be issued by a court of competent jurisdiction restraining Participant from committing or continuing any violation of Sections 10 or 11. In the event that Participant is found to have breached any provision set forth in Section 10 of this Agreement, the time period provided for in that provision shall be deemed tolled (*i.e.*, it will not begin to run) for as long as Participant was in violation of that provision. The provisions of Sections 10 and 11 of this Agreement shall continue to apply, in accordance with their terms, after Participant's service has terminated and after provisions of any employment or other agreement between the Corporation and Participant have lapsed.

14. Representations and Warranties. Participant represents and warrants to the Corporation that Participant has received a copy of the Plan and this Agreement, has read and understands the terms of the Plan and this Agreement, and agrees to be bound by their terms and conditions in all respects.

15. No Limitation on the Corporation's Rights. The granting of Restricted Stock Units under this Agreement shall not and will not in any way affect the Corporation's right or power to make adjustments, reclassifications or changes in its capital or business structure or to merge, consolidate, reincorporate, dissolve, liquidate or sell or transfer all or any part of its business or assets.

16. Plan and Agreement Not a Contract of Employment or Service. Neither the Plan nor this Agreement is a contract of employment or Service, and no terms of Participant's employment or Service will be affected in any way by the Plan, this Agreement or related instruments, except to the extent specifically expressed therein. Neither the Plan nor this Agreement will be construed as conferring any legal rights on Participant to continue to be employed or remain in Service, nor will it interfere with the Corporation's or any Affiliate's right to discharge Participant or to deal with Participant regardless of the existence of the Plan or this Agreement.

17. Entire Agreement and Amendment. This Agreement and the Plan constitute the entire agreement between the parties hereto with respect to the Restricted Stock Units, and all prior oral and written representations are merged in this Agreement and the Plan. Notwithstanding the preceding sentence, this Agreement shall not in any way affect the terms and provisions of the Plan. This Agreement may be amended, modified, or terminated only in accordance with the Plan. The headings in this Agreement are inserted for convenience and identification only and are not intended to describe, interpret, define or limit the scope, extent, or intent of this Agreement or any provision hereof.

18. Notice. Any notice or other communication required or permitted under this Agreement must be in writing and must be delivered personally, sent by certified, registered or express mail, sent by overnight courier (at the sender's expense), or (if from the Corporation or the Corporation's stock plan administrator) by electronic mail. Notice will be deemed given (a) when delivered personally, (b) if mailed, three days after the date of deposit in the U.S. mail, (c) if sent by overnight courier, on the regular business

day following the date sent, or (d) when electronically mailed. Notice to the Corporation should be sent to Cboe Global Markets, Inc., 433 West Van Buren Street, Chicago, Illinois 60607, Attention: General Counsel. Notice to Participant should be sent to the mailing address and/or electronic mailing address set forth on the Corporation's records. Either party may change the address to which the other party must give notice under this Section 18 by giving the other party written notice of such change, in accordance with the procedures described above or otherwise established by the Corporation or its stock plan administrator.

19. Successors and Assigns. The terms of this Agreement will be binding upon the Corporation and its successors and assigns.

20. Governing Law. To the extent not preempted by Federal law, the Plan, this Agreement, and documents evidencing rights relating to the Plan or this Agreement will be construed, administered and governed in all respects under and by the laws of the State of Delaware, without giving effect to its conflict of laws principles. If any provision of this Agreement will be held by a court of competent jurisdiction to be invalid or unenforceable, the remaining provisions hereof will continue to be fully effective. The jurisdiction and venue for any disputes arising under, or any action brought to enforce (or otherwise relating to), this Agreement will be exclusively in the courts in the State of Illinois, County of Cook, including the Federal Courts located therein (should Federal jurisdiction exist).

21. Plan Document Controls. The rights granted under this Agreement are in all respects subject to the provisions set forth in the Plan to the same extent and with the same effect as if set forth fully in this Agreement. If the terms of this Agreement conflict with the terms of the Plan document, the Plan document will control.

22. Counterparts. This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute but one and the same instrument.

23. Waiver; Cumulative Rights. The failure or delay of either party to require performance by the other party of any provision of this Agreement will not affect its right to require performance of such provision unless and until such performance has been waived in writing. Each right under this Agreement is cumulative and may be exercised in part or in whole from time to time.

24. Tax Consequences. Participant agrees to determine and be responsible for all tax consequences to Participant with respect to the Restricted Stock Units.

25. Section 409A. The Restricted Stock Units granted hereunder are intended to comply with, or otherwise be exempt from, Section 409A, including the exceptions and exemptions for short term deferrals, stock rights, and separation pay arrangements. This Agreement and all Restricted Stock Units shall be administered, interpreted, and construed in a manner consistent with Section 409A. Should any provision of this Agreement, or any other agreement or arrangement contemplated by this Agreement, be found not to comply with, or otherwise be exempt from, the provisions of Section 409A, such provision shall be

modified and given effect (retroactively if necessary), in the sole discretion of the Corporation, and without the consent of Participant, in such manner as the Corporation determines to be necessary or appropriate to comply with, or to effectuate an exemption from, Section 409A. Notwithstanding the forgoing, no provision of this Agreement, or any other agreement or arrangement contemplated by this Agreement shall be construed as a guarantee by the Corporation of any particular tax effect to Participant. Each payment made under this Agreement shall be designated as a separate payment within the meaning of Section 409A. Any payment that is subject to Section 409A and payable upon Participant's termination of employment or other similar event shall not be made unless Participant has experienced a "separation from service" as defined under Section 409A. Any payment subject to Section 409A that is to be made upon a "separation from service" to Participant on any date when he or she is a "specified employee" as defined under Section 409A shall not be paid before the date that is six (6) months following Participant's "separation from service" or, if earlier, Participant's death.

26. Compensation Recovery. Notwithstanding anything in this Agreement to the contrary, the Restricted Stock Units, Dividend Equivalent Rights and any shares of Stock issued pursuant to the Restricted Stock Units and any proceeds therefrom shall be subject to and remain subject to any compensation recovery policies of the Corporation (i) currently in effect, (ii) as may be adopted by the Corporation to comply with applicable laws and/or the rules and regulations of the securities exchange or inter-dealer quotation system on which the shares of Stock are listed or quoted, including, without limitation, pursuant to Section 10D of the Exchange Act and Rule 10D-1 thereunder, or (iii) as may be adopted by the Corporation to help facilitate the Corporation's objectives, including, without limitation, related to eliminating or reducing fraud, misconduct, wrongdoing, or violations of law by an employee or similar considerations and, in each case, as may be amended from time to time (the "Policies"), with the provisions contained in such Policies deemed incorporated into this Agreement without Participant's additional or separate consent. For purposes of the foregoing, Participant expressly and explicitly authorizes the Corporation to issue instructions, on Participant's behalf, to any brokerage firm and/or third-party administrator engaged by the Corporation to hold any shares of Stock and other amounts acquired pursuant to the Restricted Stock Units to re-convey, transfer or otherwise return such shares of Stock and/or other amounts to the Corporation upon the Corporation's enforcement of the Policies. No recovery of compensation as described herein will be an event giving rise to a right to resign for "Good Reason" or "constructive termination" (or similar term) under any plan of, or agreement with, the Corporation, the Employer and/or Participant.

27. Addendum to Agreement. Notwithstanding any provision of this Agreement to the contrary, if Participant resides or is employed outside the U.S. or transfers residence or employment outside the U.S., the Restricted Stock Units shall be subject to such special terms and conditions as are set forth in the addendum to this agreement (the "Addendum"). Further, if Participant transfers residency and/or employment to another country, any special terms and conditions for such country will apply to the Restricted Stock Units to the extent the Corporation determines, in its sole discretion, that the application of such terms and conditions is necessary or advisable in order to comply with local law or to facilitate the operation and administration of the Restricted Stock

Units and the Plan (or the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer). In all circumstances, the Addendum shall constitute part of this Agreement.

IN WITNESS WHEREOF, the Corporation and Participant have duly executed this Agreement as of the date first written above.

Cboe Global Markets, Inc.

_____ By: _____

Participant's Name

_____ Its: _____

Participant's Signature

Exhibit A

Vesting of the Restricted Stock Units is contingent on achievement of a Performance Goal tied to Total Shareholder Return of the Corporation as compared to the Total Shareholder Return of the S&P 500 Index during the Performance Period. The number of Restricted Stock Units that may vest shall be determined as set forth below:

TSR Percentile Attained	**Percentage of Restricted Stock Units That Vest**
_____th percentile ("Maximum") or greater	_____%
_____th percentile ("Target")	_____%
_____th percentile ("Threshold")	_____%

For TSR Percentile performance levels that fall between the values shown above, the percentage of Restricted Stock Units that vest will be determined by straight line interpolation, provided that no Restricted Stock Units will vest if the Corporation's TSR Percentile does not equal or exceed the Threshold amount.

"Total Shareholder Return" means, with respect to any corporation, the increase in its stock price over the Performance Period plus reinvested dividends, divided by its stock price at the beginning of the Performance Period. For purposes of this definition, the beginning stock price will be the average closing price over the twenty (20) trading days up to and including _____, and the ending stock price will be the average closing price over the twenty (20) trading days up to and including _____.

"TSR Percentile" means the Corporation's Total Shareholder Return during the Performance Period relative to the Total Shareholder Returns for the S&P 500 Index during the Performance Period.

ADDENDUM

CBOE GLOBAL MARKETS, INC. LONG-TERM INCENTIVE PLAN
RESTRICTED STOCK UNIT AWARD AGREEMENT - PERFORMACE BASED

This Addendum to the Agreement includes additional terms and conditions that govern the Restricted Stock Units if Participant resides and/or is employed outside of the United States or transfers residence or employment outside the United States. Certain capitalized terms used but not defined in this Addendum have the meanings set forth in the Agreement or the Plan.

1. Nature of Grant. In accepting the Restricted Stock Units, Participant acknowledges that:

(a) the Plan is established voluntarily by the Corporation, is discretionary in nature and may be modified, amended, suspended or terminated by the Corporation at any time, to the extent permitted by the Plan;

(b) the award of the Restricted Stock Units is exceptional, discretionary, voluntary and occasional and does not create any contractual or other right to receive future grants of Restricted Stock Units, or benefits in lieu of Restricted Stock Units, even if Restricted Stock Units have been granted in the past;

(c) all decisions with respect to future Restricted Stock Unit awards, if any, will be at the sole discretion of the Corporation;

(d) Participant is voluntarily participating in the Plan;

(e) the Restricted Stock Units and any shares of Stock that may be received in settlement of the Restricted Stock Units, and the income and value of same, (i) are an extraordinary item that does not constitute compensation of any kind for services of any kind rendered to the Corporation or the Affiliate that employs Participant (the "Employer"), and which is outside the scope of Participant's employment contract, if any, (ii) are not intended to replace any pension rights or compensation, and (iii) are not part of normal or expected compensation or salary for any purpose, including, but not limited to, calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, holiday pay, bonuses, long-service awards, leave-related payments, pension or retirement or welfare benefits or similar payments;

(f) the Restricted Stock Unit award will not be interpreted to form an employment or non-employee director contract or relationship with the Corporation or any Affiliate, nor does it amend any legal relationship or legal entitlement between Participant and the Employer;

(g) this Agreement, the transactions contemplated hereunder and the vesting schedule set forth herein do not constitute an express or implied promise of Participant's further employment for the vesting period, for any period, or at all, and will not interfere with Participant's right or the right of the Corporation or the Employer to terminate Participant's employment relationship at any time with or without cause;

(h) unless otherwise agreed with the Corporation, the Restricted Stock Units and the shares of Stock underlying the Restricted Stock Units, and the income and value of same, are not granted as consideration for, or in connection with, the service Participant may provide as a director of an Affiliate;

(i) the future value of the underlying shares of Stock is unknown, indeterminable and cannot be predicted with certainty;

(j) neither the Corporation, the Employer nor any Affiliate shall be liable for any foreign exchange rate fluctuation between Participant's local currency and the United States Dollar that may affect the value of the Restricted Stock Units or of any amounts due to Participant pursuant to the settlement of the Restricted Stock Units or the sale of any shares of Stock Participant may acquire upon such settlement;

(k) in consideration of the grant of the Restricted Stock Units, no claim or entitlement to compensation or damages shall arise from termination of the Restricted Stock Units or diminution in value of the Restricted Stock Units or shares of Stock acquired upon vesting of the Restricted Stock Units resulting from Participant's termination of Service (for any reason whatsoever and whether or not in breach of local labor laws) and Participant irrevocably releases the Corporation and the Employer from any such claim that may arise; and

(l) the Restricted Stock Units and the benefits evidenced by this Agreement do not create any entitlement not otherwise specifically provided for in the Plan or provided by the Corporation in its discretion, to have the Restricted Stock Units or any such benefits transferred to, or assumed by, another company or to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Corporation.

2. Reserved.

3. Payment of Withholding Taxes. Participant acknowledges and agrees that if Participant is subject to tax and/or social contributions in more than one jurisdiction, the Corporation or its Affiliate(s) may be required to withhold or account for taxes and/or social contributions in more than one jurisdiction, in accordance with the methods of withholding described in Section 9 of the Agreement.

4. Data Privacy.

(a) Data Collection and Usage. The Corporation and the Employer will collect, process and use certain personal information about Participant, specifically, Participant's name, home address, email address and telephone number, date of birth, social security or insurance number, passport number or other identification number, salary, nationality, job title, any shares of Stock or directorships held in the Corporation, details of all Restricted Stock Units or any other entitlement to shares of Stock awarded, canceled, exercised, vested, unvested or outstanding in Participant's favor ("Data"), for the exclusive purpose of implementing, administering and managing the Plan.

(b) Recipients of Data.

a. Stock Plan Administration Service Providers. The Corporation and the Employer transfer Data to Fidelity Stock Plan Services, LLC (and/or its affiliates, collectively "Fidelity"), the designated broker assisting in the implementation, administration and management of the Plan. In the future, the Corporation may select a different service provider and share Data with such other provider serving in a similar manner.

b. Other Service Provider Data Recipients. The Corporation also may transfer Data to other third party service providers, if necessary to ensure compliance with applicable tax, exchange control, securities and labor law. Such third party service providers may include the Corporation's legal counsel as well as its auditor, human resources consultant and payroll vendor. Wherever possible, the Corporation will anonymize data, but Participant understands that his or her Data may need to be transferred to such providers to ensure compliance with applicable law and/or tax requirements.

c. Securities or Other Regulatory Authorities. In addition to the recipients identified herein and where required under applicable law, Data also may be disclosed to certain securities or other regulatory authorities, including where the Corporation's securities are listed or traded or regulatory filings are made. The legal basis, where required, for such disclosure is compliance with applicable law.

(c) International Data Transfers. The Corporation, Fidelity and other service providers described above are located in the United States. The United States may have different data privacy laws and protections than Participant's country of residence (or country of employment, if different).

(d) Legal Basis for Collection, Processing and Transfer of Data.

a. Participants within the EU / European Economic Area ("EEA"), Switzerland and the United Kingdom

i. The collection, processing and transfer of Data is necessary for the legitimate purpose of the Corporation and Employer's administration of the Plan and Participant's participation in the Plan.

ii. When transferring Data to potential recipients outside the EU/EEA, Switzerland and/or the United Kingdom, the Corporation and the Employer strive to provide appropriate safeguards in accordance with Standard Contractual Clauses or other legally binding and permissible arrangements. For further information on the transfer of Participant's personal data outside of the EU/EEA, Switzerland and/or the United Kingdom, Participant may contact his or her human resources representative.

b. Participants outside the EU / EEA, Switzerland and the United Kingdom

i. Participant hereby explicitly and unambiguously consents to the collection, processing and use, in electronic or other form, of Participant's Data by the Corporation and the transfer of Data to the recipients mentioned above, including recipients located in countries which do not adduce an adequate level of protection from a non-U.S. data protection law perspective, for the purposes described above. Upon transfer of Participant's Data to Fidelity, Participant may be asked to agree to separate terms and data processing practices with Fidelity, with such agreement being a condition of the ability to participate in the Plan.

ii. Participation in the Plan is voluntary and Participant understands that Participant is providing the consent herein on a purely voluntary basis. If Participant does not consent, or later seeks to revoke his or her consent, Participant's employment status or Service and career with the Employer will not be adversely affected. The only consequence of refusing or withdrawing consent is that the Corporation would not be able to grant Restricted Stock Units or other equity awards to Participant or administer or maintain such awards. Therefore, Participant understands that refusing or withdrawing his or her consent may affect Participant's ability to participate in the Plan. For more information on the consequences of Participant's refusal to consent or withdrawal of consent, Participant understands that Participant may contact his or her human resources representative.

(e) Data Retention. Participant understands that Data will be held only as long as is necessary to implement, administer and manage his or her participation in the Plan or comply with applicable laws. When the Corporation no longer needs the Data, the Corporation will remove it from its systems.

(f) Data Subject Rights. Participant understands that Participant may have the right under applicable law to (i) access or copy Data that the Corporation possesses, (ii) rectify incorrect Data, (iii) delete Data, (iv) restrict processing of Data, (v) opt out of the Plan, or (vi) lodge complaints with the competent supervisory authorities in Participant's jurisdiction. To receive clarification regarding these rights or to exercise these rights, Participant understands that Participant can contact his or her local human resources representative.

5. No Advice Regarding Grant. The Corporation is not providing any tax, legal or financial advice, nor is the Corporation making any recommendations regarding Participant's participation in the Plan, or Participant's acquisition or sale of the underlying shares of Stock. Participant should consult with his or her own personal tax, legal and financial advisors regarding Participant's participation in the Plan before taking any action related to the Plan.

6. Imposition of Other Requirements. The Corporation reserves the right to impose other requirements on Participant's participation in the Plan, on the Restricted Stock Units and

on any shares of Stock acquired under the Plan, to the extent the Corporation determines it is necessary or advisable for legal or administrative reasons. Such requirements may include (but are not limited to) requiring Participant to sign any agreements or undertakings that may be necessary to accomplish the foregoing.

7. Insider Trading/Market Abuse Laws. By participating in the Plan, Participant agrees to comply with the Corporation's policy on insider trading (to the extent that it is applicable to Participant). Participant further acknowledges that, depending on Participant's or the broker's country of residence or where the shares of Stock are listed, Participant may be subject to insider trading restrictions and/or market abuse laws, which may affect Participant's ability to accept, acquire, sell or otherwise dispose of shares of Stock, rights to shares of Stock (e.g., Restricted Stock Units) or rights linked to the value of shares of Stock, during such times Participant is considered to have "inside information" regarding the Corporation as defined by the laws or regulations in Participant's country. Local insider trading laws and regulations may prohibit the cancellation or amendment of orders Participant places before Participant possessed inside information. Furthermore, Participant could be prohibited from (i) disclosing the inside information to any third party (other than on a "need to know" basis) and (ii) "tipping" third parties or causing them otherwise to buy or sell securities. Participant understands that third parties include fellow employees. Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable Corporation insider trading policy. Participant acknowledges that it is Participant's responsibility to comply with any applicable restrictions, and that Participant should therefore consult Participant's personal advisor on this matter.

8. Foreign Asset/Account Reporting; Exchange Controls. Participant's country may have certain foreign asset and/or account reporting requirements and/or exchange controls which may affect Participant's ability to acquire or hold shares of Stock under the Plan or cash received from participating in the Plan (including from any dividends received or sale proceeds arising from the sale of shares of Stock) in a brokerage or bank account outside Participant's country. Participant may be required to report such accounts, assets or transactions to the tax or other authorities in his or her country. Participant also may be required to repatriate sale proceeds or other funds received as a result of Participant's participation in the Plan to his or her country through a designated bank or broker and/or within a certain time after receipt. Participant acknowledges that it is his or her responsibility to be compliant with such regulations, and Participant should consult his or her personal legal advisor for any details.

9. Language. If Participant is resident in a country where English is not an official language, Participant acknowledges that Participant is sufficiently proficient in English to understand the terms and conditions of the Agreement or has had the ability to consult with an advisor who is sufficiently proficient in the English language. Participant further acknowledges and agrees that it is Participant's express intent that the Agreement, the Addendum and the Plan and all other documents, notices and legal proceedings entered into, given or instituted pursuant to the Restricted Stock Units be drawn up in English. If Participant has received the Agreement, the Addendum or any other document related to

the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

10. Annex to Addendum. Notwithstanding any provision of the Agreement or Addendum to the contrary, the Restricted Stock Units shall be subject to such special terms and conditions for Participant's country of residence (and country of employment, if different), as are set forth in the annex to this Addendum (the "Annex"). Further, if Participant transfers residency and/or employment to another country, the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer. In all circumstances, the Annex shall constitute part of this Addendum.

ANNEX

This Annex to the Addendum includes additional terms and conditions that govern the Restricted Stock Units if Participant resides and/or is employed in the country addressed herein or transfers residence or employment to the country addressed herein. If Participant transfers residence and/or employment to another country, the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer. Certain capitalized terms used but not defined in this Annex have the meanings set forth in the Agreement (including the Addendum) or the Plan.

Australia

1. Tax Notification. The Plan is a plan to which Subdivision 83A-C of the Income Tax Assessment Act 1997 (Cth) (the "Act") applies (subject to conditions in the Act).

2. Offer Document. The Corporation is pleased to provide this offer to participate in the Plan. This offer document sets out information regarding the award for Australian-resident Participants ("Australian Participants"). It is for informational purposes and is intended to comply with the provisions of the Australian Corporations Act 2001 (Cth) ("Corporations Act 2001") and Australian Securities and Investments Commission ("ASIC") Instrument 22-0283.

   Additional Documents

   In addition to the information set out in the Agreement (including the Addendum and this Annex), Participant is also being provided with copies of the following documents:

   1. the Plan; and
   2. the Plan Prospectus describing the terms of the Plan (the "Plan Prospectus"); and
   3. any supplemental documents to the Plan and Plan Prospectus, as necessary.

   These additional documents provide further information to help Participant make an informed investment decision about participating in the Plan. Neither the Plan nor the Plan Prospectus is a prospectus for the purposes of the Corporations Act 2001.

   Participant should not rely upon any oral statements made in relation to this offer. Participant should rely only upon the statements contained in the Agreement and the additional documents when considering participation in the Plan.

   General Information Only

   Any information given by the Corporation or any subsidiary or affiliate in relation to the Restricted Stock Units is general and does not take into account an Australian Participant's objectives, financial situation and needs. Australian Participants should consider obtaining their own financial product advice from an independent person who is licensed by ASIC to give such advice.

Acquisition Price

No acquisition price is payable by Participant for the Corporation to grant Participant the number of Restricted Stock Units set forth in the Agreement or for Participant to acquire shares of Stock upon settlement of the Restricted Stock Units.

Shares of Stock

A share of common stock of a U.S. corporation is analogous to an ordinary share of an Australian Corporation. Each holder of a share of common stock is entitled to one vote for every share held.

The shares of Stock are traded on Cboe BZX in the United States of America under the symbol "CBOE".

Shares of Stock are not liable to any further calls for payment of capital or for other assessment by the Corporation and have no sinking fund provisions, pre-emptive rights, conversion rights or redemption provisions.

Risks of Acquiring Shares of Stock

This paragraph provides Australian Participants with general information about the risks of acquiring and holding shares of Stock. Before accepting the grant of Restricted Stock Units, Australian Participants should satisfy themselves that they have a sufficient understanding of these matters and should consider whether shares of Stock are a suitable investment for them, having regard to their own investment objectives, financial circumstances and taxation position.

(a) *Price of shares of Stock may fluctuate:* The price at which a share of Stock is quoted on the Cboe BZX may increase or decrease due to a number of factors. Some of the factors that may affect the price of the shares of Stock include fluctuations in the domestic and international market for listed stocks, general economic conditions, including interest rates, inflation rates, changes to government fiscal, monetary or regulatory policies, legislation or regulation, the nature of the markets in which the Corporation operates and general operational and business risks.

More information about potential factors that could affect the Corporation's business and financial results is included in the Corporation's Quarterly Reports on Form 10-Q and Annual Reports on Form 10-K. Copies of these forms are available at http://www.sec.gov/ and upon request to the Corporation.

In addition, Participant should be aware that the value of the shares of Stock Participant may acquire will be affected by the U.S./Australian dollar exchange rate. Participation in the Plan involves certain risks related to fluctuations in this rate of exchange.

(b) *Trading in shares of Stock may not be liquid:* There can be no guarantee that an active market in shares of Stock will continue or that the price of shares of Stock will increase. The number of potential buyers or sellers of shares of Stock on the Cboe BZX

may vary at any time. This may increase the volatility of the market price of shares of Stock. It may also affect the prevailing market price at which shareholders are able to sell their shares of Stock. This may result in shareholders receiving a market price for their shares of Stock that is less than the price that shareholders paid.

(c) *Risk of dilution:* In the future, the Corporation may elect to issue stock (or securities convertible into stock) including in connection with fundraisings for acquisitions that the Corporation may decide to make. Shareholders may be diluted as a result of such issues of stock or securities or such issues may reduce the market price of shares of Stock.

(d) *Dividends on shares of Stock*: The Corporation may pay dividends on shares of Stock. Payment of future dividends, and the timing and amount of any dividends the Corporation determines to pay, are at the discretion of the Board.

Market Price of shares of Stock in Australian Dollars

An Australian Participant can, from time to time, ascertain the market price of the shares of Stock by obtaining that price from the Corporation website (http://ir.cboe.com) or The Wall Street Journal. The Australian dollar equivalent of that price can be obtained at the website of the Reserve Bank of Australia (http://www.rba.gov.au/statistics/frequency/exchange-rates.html).

This will not be a prediction of what the market price per share will be when the Restricted Stock Units vest and the shares of Stock are issued or of the applicable exchange rate on the actual vesting date or the date the shares of Stock are issued.

Canada

1. Settlement of Restricted Stock Units: Notwithstanding anything to the contrary in the Agreement or any related document, if Participant is resident or employed in Canada, the Corporation shall have absolute discretion to settle the Restricted Stock Units in shares of Stock or in the form of a cash payment or in any combination of the foregoing.

2. Securities Law Notification: Participant acknowledges and agrees that he or she is permitted to sell shares of Stock acquired under the Plan through the designated broker appointed under the Plan, provided the resale of shares of Stock takes place outside of Canada through facilities of a stock exchange on which the shares of Stock are listed. The shares of Stock currently are listed on Cboe BZX in the United States.

3. Termination of Employment: Except as may be determined by the Committee and except as otherwise provided in Section 4 of the Agreement, for purposes of Section 4(d) of the Agreement, Participant's Service will be considered terminated as of the date Participant ceases to be an employee of the Corporation (or, if different, the Affiliate to which Participant provides Service) for any reason, whether lawful or otherwise (including, without limitation, by reason of resignation, death, frustration of contract, termination for Cause, termination without Cause, or constructive dismissal), without regard to any pay in lieu of notice

(whether by way of lump sum or salary continuance), benefits continuance, or other termination related payments or benefits, whether pursuant to the common law or otherwise, to which Participant may then be entitled (the "Termination Date"). In the event that the Termination Date cannot reasonably be determined under the terms of the Plan and the Agreement, the Committee and its delegate shall have the exclusive discretion to determine when the Termination Date occurs for purposes of the Plan (including whether Participant may still be considered to be providing Service while on any leave of absence).

Unless otherwise extended by the Corporation, or as may be required to satisfy the minimum requirements of applicable employment or labour standards legislation, any portion of the award that is not vested on the Termination Date shall terminate immediately and be null and void, and Participant will have no entitlement to further vesting in the Restricted Stock Units or compensation in lieu thereof following the Termination Date, and Participant waives any claim to damages in respect thereof whether related or attributable to any contractual or common law termination entitlements or otherwise. For additional clarity, if applicable employment or labour standards legislation specifically requires continued entitlement to vesting during a statutory notice period, Participant's right to vest in the Restricted Stock Units, if any, will be allowed to continue for that minimum notice period but then immediately terminate effective as of the last day of Participant's minimum statutory notice period.

Hong Kong

1. Settlement in Shares of Stock. Notwithstanding anything to the contrary in the Agreement, the Addendum or the Plan, the Restricted Stock Units shall be settled only in shares of Stock (and may not be settled in cash).

2. Disposal of Shares of Stock. If, for any reason, shares of Stock are issued to Participant within six (6) months after the Award Date, Participant agrees that Participant will not sell or otherwise dispose of any such shares of Stock prior to the six (6) month anniversary of the Award Date.

3. IMPORTANT NOTICE/WARNING. *The contents of this document have not been reviewed by any regulatory authority in Hong Kong. Participant is advised to exercise caution in relation to the offer. If Participant is in any doubt about any of the contents of the documents, Participant should obtain independent professional advice. The Restricted Stock Units and shares of Stock issued in settlement of the Restricted Stock Units do not constitute a public offering of securities under Hong Kong law and are available only to employees of the Corporation or its Affiliates. The Agreement, the Plan and other incidental communication materials have not been prepared in accordance with and are not intended to constitute a "prospectus" for a public offering of securities under the applicable securities legislation in Hong Kong. The Restricted Stock Units are intended only for the personal use of each eligible employee of the Employer, the Corporation or an Affiliate and may not be distributed to any other person.*

4. Wages. The Restricted Stock Units and shares of Stock subject to the Restricted Stock Units do not form part of Participant's wages for purposes of calculating any statutory or contractual payments under Hong Kong law.

Netherlands

1. Exclusion of Claim: Participant acknowledges and agrees that Participant will have no entitlement to compensation or damages insofar as such entitlement arises or may arise from Participant ceasing to have rights under the Plan, whether or not as a result of termination of Participant's Service (whether such termination is in breach of contract or otherwise), or from the loss of diminution in value of the shares of Stock underlying the Restricted Stock Units. Upon the grant of the Restricted Stock Units, Participant shall be deemed to have waived irrevocably such entitlement.

Philippines

1. Settlement in Cash. Notwithstanding anything to the contrary in the Agreement, the Addendum or the Plan, the Restricted Stock Units shall be settled only in cash (and shall not be settled in shares of Stock), unless otherwise determined by the Corporation.

Singapore

1. Securities Law Information. The grant of the Restricted Stock Units under the Plan is being made pursuant to the "Qualifying Person" exemption under section 273(1)(f) of the Securities and Futures Act (Chapter 289, 2006 Ed.) ("SFA"). The Plan has not been and will not be lodged or registered as a prospectus with the Monetary Authority of Singapore and is not regulated by any financial supervisory authority pursuant to any legislation in Singapore. Accordingly, statutory liability under the SFA in relation to the content of prospectuses would not apply. Participant should note that the Restricted Stock Units are subject to section 257 of the SFA and Participant will not be able to make any subsequent sale of shares of Stock in Singapore, or any offer of such subsequent sale of shares of Stock subject to the Restricted Stock Units in Singapore, unless such sale or offer is made (i) after six (6) months from the Award Date or (ii) pursuant to the exemptions under Part XIII Division (1) Subdivision (4) (other than section 280) of the SFA.

Switzerland

1. Securities Law Information. Neither the Agreement nor any other materials relating to the grant of Restricted Stock Units (a) constitutes a prospectus according to articles 35 et seq. of the Swiss Federal Act on Financial Services ("FinSA"), (b) may be publicly distributed or otherwise made publicly available in Switzerland to any person other than an employee of the Corporation or one of its Affiliates or (c) has been or will be filed with, approved or supervised by any Swiss reviewing body according to article 51 FinSA or any Swiss regulatory authority, including the Swiss Financial Market Supervisory Authority, FINMA.

United Kingdom (Including Northern Ireland)

1. Payment of Withholding Taxes. The following provision supplements the section of the Agreement titled "Payment of Withholding Taxes":

> Without limitation to the section of the Agreement titled 'Payment of Withholding Taxes', Participant agrees that Participant is liable for all income tax and employee national insurance contributions or other social contributions or withholding taxes ("Tax-Related Items") and hereby covenants to pay all such Tax-Related Items, as and when requested by the Corporation, the Employer or by HM's Revenue and Customs ("HMRC") (or any other tax authority or any other relevant authority). Participant also agrees to indemnify and keep indemnified the Corporation and the Employer against any Tax-Related Items that they are required to pay or withhold or have paid or will pay on Participant's behalf to HMRC (or any other tax authority or any other relevant authority).
>
> Notwithstanding the foregoing, if Participant is a director or executive officer (as within the meaning of Section 13(k) of the U.S. Securities Exchange Act of 1934, as amended), the terms of the immediately foregoing provision will not apply. In the event that Participant is a director or executive officer and income tax due is not collected from or paid by Participant within 90 days after the U.K. tax year in which an event giving rise to the indemnification described above occurs, the amount of any uncollected tax may constitute a benefit to Participant on which additional income tax and national insurance contributions may be payable. Participant acknowledges that Participant ultimately will be responsible for reporting and paying any income tax due on this additional benefit directly to HMRC under the self-assessment regime and for reimbursing the Corporation or the Employer (as applicable) for the value of any employee national insurance contributions due on this additional benefit, which the Corporation and/or the Employer may recover from Participant at any time thereafter by any of the means referred to in section of the Agreement titled "Payment of Withholding Taxes".

2. Exclusion of Claim. Participant acknowledges and agrees that Participant will have no entitlement to compensation or damages insofar as such entitlement arises or may arise from Participant's ceasing to have rights under or to be entitled to the Restricted Stock Units, whether or not as a result of termination of Service (whether such termination is in breach of contract or otherwise), or from the loss or diminution in value of the Restricted Stock Units. Upon the award of the Restricted Stock Units, Participant shall be deemed irrevocably to have waived any such entitlement.

3. Section 2 of the Addendum. Section 2 of the Addendum (Participants in the European Union) shall not apply to the Restricted Stock Units.

Exhibit 10.93
For Employees – With Restrictive Covenants

CBOE GLOBAL MARKETS, INC. LONG-TERM INCENTIVE PLAN

RESTRICTED STOCK UNIT AWARD AGREEMENT – PERFORMANCE BASED

This RESTRICTED STOCK UNIT AWARD AGREEMENT (this "Agreement") is dated effective _____, (the "Award Date"), and is between Cboe Global Markets, Inc. (the "Corporation") and _____ ("Participant"). Any term capitalized but not defined in this Agreement will have the meaning set forth in the Second Amended and Restated Cboe Global Markets, Inc. (formerly CBOE Holdings, Inc.) Long-Term Incentive Plan (as may be amended from time to time, the "Plan").

1. Award. The Corporation hereby awards to Participant _____ Restricted Stock Units (the "Restricted Stock Units"). The Restricted Stock Units will be subject to the terms and conditions of the Plan and this Agreement. Each Restricted Stock Unit is a notional amount that represents one unvested share of Stock and entitles Participant, subject to the terms of this Agreement, to receive a share of Stock if and when the Restricted Stock Unit vests.

2. No Rights as Stockholder; Dividend Equivalents. Participant shall have no voting rights with respect to shares of Stock represented by Restricted Stock Units until the date of the issuance of the shares of Stock (as evidenced by the appropriate entry on the books of the Corporation or of a duly authorized transfer agent of the Corporation). Notwithstanding the foregoing, in the event that the Corporation declares a cash dividend on shares of Stock, on the payment date of the dividend, Participant will be credited with Dividend Equivalent Rights equal to the amount of the cash dividend per share multiplied by the number of Restricted Stock Units held by Participant on the dividend's record date. The Dividend Equivalent Rights credited to Participant under the preceding sentence will be deemed to be reinvested in additional Restricted Stock Units, which will be subject to the same terms regarding vesting, forfeiture, and distribution as Restricted Stock Units awarded to Participant under this Agreement.

3. Performance Period. The Performance Period for the Restricted Stock Units shall be the three (3) year period commencing on _____ and ending on _____.

4. Vesting; Effect of Termination of Service; Change in Control.

   (a) Subject to Sections 4(b), 4(c) and 4(d) below, Participant's Restricted Stock Units will vest upon the expiration of the Performance Period, subject to and contingent upon achievement of the Performance Goal described in Exhibit A hereto and Participant's continued Service through the last day of the Performance Period.

   (b) The Restricted Stock Units will vest at the Target level of achievement of the Performance Goal (as described in Exhibit A), upon the earlier to occur of (i) Participant's death or (ii) Participant's becoming Disabled, provided that such condition qualifies as "disability" as defined for purposes of Section 409A, in each case, if prior to any forfeiture event under Section 4(d) below.

   (c) This subsection 4(c) shall apply to this Agreement, this Award and any Replacement Award provided to Participant to replace this Award in lieu of Section

8.2(b) of the Plan. Upon a termination of Participant's Service by the Corporation or its Affiliate without Cause or by Participant for "Good Reason" (as defined below), in each case, upon or within two years after a Change in Control and prior to any forfeiture event under Section 4(d) below, this Award or any Replacement Award held by Participant shall become fully vested and free of restrictions at the Target level of achievement of the Performance Goal (as described in Exhibit A, as amended by the Replacement Award, if any), except that vesting shall be, to the extent determinable, at the level of achievement of the Performance Goal actually achieved as of the date of termination of Service (with similar performance assumed to be achieved through the remainder of the Performance Period) if greater than the Target level of achievement, and shall be distributed upon or within 60 days of such termination of Service. Notwithstanding the foregoing, if this Award or the Replacement Award, as applicable, is considered deferred compensation subject to Section 409A, payment shall be made pursuant to the Award's original schedule if necessary to comply with Section 409A.

For purposes of this Award "Good Reason" shall be deemed to exist if, and only if, without Participant's express written consent:

(i) The Corporation or its Affiliate assigns to Participant authorities, duties or responsibilities (including titles) that are inconsistent in any material and adverse respect with Participant's immediately preceding authorities, duties or responsibilities with the Corporation or its Affiliate (including any material and adverse diminution of such immediately preceding authorities, duties or responsibilities);

(ii) The Corporation or its Affiliate materially reduces Participant's base compensation;

(iii) The Corporation or its Affiliate requires Participant to relocate his or her principal business office or principal place of residence outside the metropolitan area in which Participant worked or resided at the time the Restricted Stock Units were awarded (or outside the immediately preceding location of Participant's principal business office with the Corporation or its Affiliate), or assigns to Participant duties that would reasonably require such relocation;

(iv) The Corporation or its Affiliate materially breaches the terms of any agreement pursuant to which services are provided to the Corporation or its Affiliate by Participant; or

(v) The Corporation or its Affiliate terminates, reduces or limits Participant's participation in any bonus or incentive compensation arrangement relative to the level of participation of other employees of similar rank for a reason that is not reasonably related to Participant's level of job performance or local legal requirements and provided that such action results in a material reduction in the aggregate value of Participant's incentive compensation below the aggregate value as of the immediately preceding bonus or incentive compensation performance period and provided further that a mere change in the form of payment of the award (whether cash or shares of Stock) without a reduction in the aggregate grant value of the award shall not be considered a reduction of Participant's participation.

Participant's voluntary termination of Service shall not be considered a termination of Service for Good Reason unless Participant terminates his or her Service within 120 days after the initial existence of the condition constituting Good Reason; provided, Participant provides written notice to the Corporation or its Affiliate of Participant's intention to resign for Good Reason, which notice specifies in reasonable detail the breach or action giving rise thereto within 90 days of its initial existence, and the Corporation or its Affiliate does not cure such breach or action within 30 days after the date of Participant's notice.

(d) If Participant's Service is terminated for any reason before all of Participant's Restricted Stock Units have vested under this Agreement (including pursuant to an event described in Section 4(b) or 4(c) above), Participant's unvested Restricted Stock Units will be forfeited upon the effective date of such termination of Service. Notwithstanding anything herein to the contrary, any outstanding Restricted Stock Units not previously settled shall be cancelled and forfeited immediately if, in the sole opinion and discretion of the Committee or its delegate, Participant engages in any activity that constitutes Cause, whether or not Participant experiences a separation from Service, is no longer in Service, or remains in Service. Neither the Corporation nor any Affiliate will have any further obligations to Participant under this Agreement if Participant's Restricted Stock Units are forfeited pursuant to this Section 4(d).

5. Terms and Conditions of Distribution.

(a) Distribution of a share of Stock that corresponds to a vested Restricted Stock Unit shall be made to Participant as soon as practicable after the Restricted Stock Unit vests, but not later than two and a half (2½) months after the end of the calendar year in which the Restricted Stock Unit vests.

(b) Reserved.

(c) If Participant dies before the date on which the Corporation would have distributed shares of Stock in satisfaction of vested Restricted Stock Units, the Corporation will distribute such shares of Stock to Participant's designated beneficiary(ies) or, if none are designated or surviving, to Participant's estate or personal representative. The Corporation is not required to issue or deliver any shares of Stock before completing the steps necessary to comply with applicable Federal and state securities laws (including any registration requirements) and applicable stock exchange rules and practices. The Corporation will use commercially reasonable efforts to cause compliance with those laws, rules and practices. The foregoing provisions are subject in all cases to the requirements of Section 409A.

6. Nontransferability. Unvested Restricted Stock Units may not be sold, transferred, exchanged, pledged, assigned, garnished, or otherwise alienated or hypothecated, other than by will or by the laws of descent and distribution. Any effort to assign or transfer the rights under this Agreement will be wholly ineffective, and will be grounds for termination by the Committee of all rights of Participant under this Agreement.

7. Administration. The Committee administers the Plan. Participant's rights under this Agreement are expressly subject to the terms and conditions of the Plan and to any guidelines the Committee adopts from time to time. The interpretation and construction by the Committee of the Plan and this Agreement, and such rules and regulations as may be adopted by the Committee for purposes of administering the Plan and this Agreement, will be final and binding upon Participant.

8. Securities Law Requirements. If at any time the Board or Committee determines that issuing Stock pursuant to this Agreement would violate applicable securities laws, the Corporation will not be required to issue such Stock. The Board or Committee may declare any provision of this Agreement or action of its own null and void, if it determines the provision or action fails to comply with applicable securities laws. The Corporation may require Participant to make written representations it deems necessary or desirable to comply with applicable securities laws.

9. Payment of Withholding Taxes. Participant acknowledges that, regardless of any action taken by the Corporation or, if different, the Affiliate of the Corporation that employs Participant (the "Employer"), the ultimate liability for all income tax, social contributions, payroll tax, fringe benefits tax, payment on account or other tax-related items related to Participant's participation in the Plan and legally applicable to Participant or deemed by the Corporation or the Employer in their discretion to be an appropriate charge to Participant even if legally applicable to the Corporation or the Employer ("Tax-Related Items"), is and remains Participant's responsibility and may exceed the amount actually withheld by the Corporation or the Employer, if any. Participant further acknowledges that the Corporation and/or the Employer (a) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the Restricted Stock Units, including, but not limited to, the grant, vesting or settlement of the Restricted Stock Units, the subsequent sale of shares of Stock acquired pursuant to such settlement; and (b) do not commit to and is under no obligation to structure the terms of the grant or any aspect of the Restricted Stock Units to reduce or eliminate Participant's liability for Tax-Related Items or achieve any particular tax result. Further, if Participant is subject to Tax-Related Items in more than one jurisdiction between the Award Date and the date of any relevant taxable or tax withholding event, as applicable, Participant acknowledges that the Corporation and/or the Employer (or former employer, as applicable) may be required to withhold or account for Tax-Related Items in more than one jurisdiction.

   Prior to the relevant taxable or tax withholding event, as applicable, Participant agrees to make adequate arrangements satisfactory to the Corporation and/or the Employer to satisfy all Tax-Related Items. In this regard, Participant authorizes the Corporation, or its respective agents, at their discretion, to satisfy the obligations with regard to all Tax-Related Items by one or a combination of the following: (i) withholding from Participant's wages or other cash compensation paid to Participant by the Corporation and/or the Employer; (ii) withholding from the shares of Stock to be delivered upon settlement of the Restricted Stock Units or other awards granted to Participant or (iii) permitting Participant to tender to the Corporation or to the Employer cash or, if allowed by the Committee, shares of Stock to the Corporation.

Notwithstanding the foregoing, if Participant is subject to Section 16 of the Exchange Act of 1934, pursuant to Rule 16a-2 promulgated thereunder, any tax withholding obligations shall be satisfied by having the Corporation withhold from the shares of Stock to be delivered upon settlement of the Restricted Stock Units.

Depending on the withholding method, the Corporation may withhold or account for Tax-Related Items by considering applicable statutory withholding rates (as determined by the Corporation in good faith and in its sole discretion) or other applicable withholding rates, including maximum applicable rates, in which case Participant will receive a refund of any over-withheld amount in cash and will have no entitlement to the share equivalent. If the obligation for Tax-Related Items is satisfied by withholding from the shares of Stock to be delivered upon settlement of the Restricted Stock Units, for tax purposes, Participant is deemed to have been issued the full number of shares of Stock subject to the Restricted Stock Units, notwithstanding that a number of shares of Stock are held back solely for the purpose of paying the Tax-Related Items. Participant will have no further rights with respect to any shares of Stock that are retained by the Corporation pursuant to this provision.

Participant agrees to pay to the Corporation or the Employer any amount of Tax-Related Items that the Corporation or the Employer may be required to withhold or account for as a result of Participant's participation in the Plan that cannot be satisfied by the means previously described. The Corporation may refuse to issue or deliver shares of Stock or proceeds from the sale of shares of Stock until arrangements satisfactory to the Corporation have been made in connection with the Tax-Related Items.

10. Restrictive Covenants. Participant understands the global nature of the Corporation's businesses and the effort the Corporation and its Affiliates (collectively referred to in this Section as "Cboe") undertake to develop and protect their business and their competitive advantage. Accordingly, Participant agrees that the scope and duration of the restrictions described in this Agreement are reasonable and necessary to protect the legitimate business interests of Cboe. Participant further agrees that during the period of Participant's Service and for a period of two (2) years following Participant's separation from Service, Participant shall not, without the express written approval of the Chief Executive Officer:

(a) singly, jointly, or in any other capacity, in a manner that contributes to any research, technology, development, account, trading, marketing, promotion, or sales and that relates to Participant's Service with Cboe, directly or beneficially, manage, join, participate in the management, operation or control of, or work for (as an employee, consultant or independent contractor), or permit the use of his or her name by, or provide financial or other assistance to, or be connected in any manner with (i) any exchange, facility, clearinghouse, electronic communications network ("ECN"), electronic foreign currency exchange market ("FX") matching platform, multilateral trading facility, or alternative trading system ("ATS"); (ii) the ECN, ATS or FX business lines of any full service broker dealer or any digital asset or data and access solutions business line of any company; or (iii) any business line of any company that is substantially similar to any additional business line developed or entered into by Cboe during Participant's Service,

provided that, in the case of clauses (i), (ii) and (iii), such entity or business line that directly competes with Cboe;

(b) provide any service or assistance that (i) is of the general type of service or assistance provided by Participant to Cboe, (ii) relates to any technology, account, product, project or piece of work with which Participant was involved during his Service, and (iii) contributes to causing an entity to come within the definition described in Section 10(a) above;

(c) solicit or accept if offered to Participant, with or without solicitation, on his or her own behalf or on behalf of any other person, the services of any person who is a then-current employee of Cboe (or was an employee of Cboe during the year preceding such solicitation), nor solicit any of Cboe's then-current employees (or an individual who was employed by or engaged by Cboe during the year preceding such solicitation) to terminate employment or an engagement with Cboe, nor agree to hire any then-current employee (or an individual who was an employee of Cboe during the year preceding such hire) of Cboe into employment with Participant or any company, individual or other entity; or

(d) directly or indirectly divert or attempt to divert from Cboe any business in which Cboe has been actively engaged during Participant's Service, nor interfere with the relationships of Cboe or with their sources of business.

11. Confidentiality. Participant acknowledges that the Corporation or an Affiliate may disclose secret or confidential information to Participant during the period of Participant's Service to enable Participant to perform his or her duties. Participant agrees that, subject to the following sentence, Participant shall not during his or her Service (except in connection with the proper performance of his or her duties) and thereafter, without the prior written consent of the Corporation, disclose to any person or entity any material or significant secret or confidential information concerning the business of the Corporation or an Affiliate that was obtained by Participant in the course of Participant's Service. This paragraph shall not be applicable if and to the extent Participant is required to testify in a legislative, judicial or regulatory proceeding pursuant to an order of Congress, any state or local legislature, a judge, or an administrative law judge, or if such secret or confidential information is required to be disclosed by Participant by any law, regulation or order of any court or regulatory commission, department or agency. Participant further agrees that if Participant's Service is terminated for any reason, Participant will not take, but will leave with the Corporation or an Affiliate, all records and papers and all matter of whatever nature that bears secret or confidential information of the Corporation or an Affiliate. For purposes of this Agreement, the term "secret or confidential information" shall include, but not be limited to, any and all records, notes, memoranda, data, writings, research, personnel information, customer information, clearing members' information, the Corporation's and any Affiliate's financial information and plans, processes, methods, techniques, systems, formulas, patents, models, devices, compilations or any other information of whatever nature in the possession or control of the Corporation or an Affiliate, that has not been published or disclosed to the general public, the options industry, the equities industry, the foreign currency exchange industry or the commodities futures industry, provided that such term

shall not include knowledge, skills, and information that is common to the trade or profession of Participant.

Notwithstanding anything in this Agreement to the contrary, nothing in this Agreement prohibits Participant from confidentially or otherwise communicating or filing a charge or complaint with a governmental or regulatory entity, participating in a governmental or regulatory entity investigation, or giving truthful testimony or making other disclosures to a governmental or regulatory entity (in each case, without having to disclose any such conduct to the Corporation or an Affiliate), or from responding if properly subpoenaed or otherwise required to do so under applicable law. In addition, nothing in this Agreement limits Participant's right to receive an award from a governmental or regulatory entity for information provided to such an entity (and not as compensation for actual or alleged personal injury or damages to Participant).

Pursuant to the Defend Trade Secrets Act of 2016 (18 U.S.C. 1833(b)), Participant shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that is made in confidence either directly or indirectly to a federal, state, or local government official, or to an attorney, solely for the purpose of reporting or investigating a violation of law. Participant shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret made in a complaint, or other document filed in a lawsuit or other proceeding, if such filing is made under seal. If Participant files a lawsuit or other action alleging retaliation by the Corporation or an Affiliate for reporting a suspected violation of law, Participant may disclose the trade secret to his or her attorney and use the trade secret in the court proceeding or other action, if Participant files any document containing the trade secret under seal and does not disclose the trade secret, except pursuant to court order. This paragraph will govern to the extent it may conflict with any other provision of this Agreement.

12. Judicial Modification. If the final judgment of a court of competent jurisdiction declares that any term or provision of Section 10 or 11 is invalid or unenforceable, the parties agree that (a) the court making the determination of invalidity or unenforceability shall have the power to reduce the scope, duration, or geographic area of the term or provision, to delete specific words or phrases, or to replace any invalid or unenforceable term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, (b) the parties shall request that the court exercise that power, and (c) this Agreement shall be enforceable as so modified after the expiration of the time within which the judgment or decision may be appealed.

13. Remedies. Participant agrees that in the event of a breach or threatened breach of any of the covenants contained in Sections 10 or 11 of this Agreement, in addition to any other penalties or restrictions that may apply under any employment agreement, state law, or otherwise, Participant shall forfeit, upon written notice to such effect from the Corporation, any and all Awards granted to him or her under the Plan and this Agreement, including vested Awards. The forfeiture provisions of this Section 13 shall continue to apply, in accordance with their terms, after the provisions of any employment or other agreement between the Corporation and Participant have lapsed. Participant

consents and agrees that if Participant violates or threatens to violate any provisions of Sections 10 or 11 of this Agreement, the Corporation or its successors in interest shall be entitled, in addition to any other remedies that they may have, including money damages, to an injunction to be issued by a court of competent jurisdiction restraining Participant from committing or continuing any violation of Sections 10 or 11. In the event that Participant is found to have breached any provision set forth in Section 10 of this Agreement, the time period provided for in that provision shall be deemed tolled (*i.e.*, it will not begin to run) for as long as Participant was in violation of that provision. The provisions of Sections 10 and 11 of this Agreement shall continue to apply, in accordance with their terms, after Participant's service has terminated and after provisions of any employment or other agreement between the Corporation and Participant have lapsed.

14. Representations and Warranties. Participant represents and warrants to the Corporation that Participant has received a copy of the Plan and this Agreement, has read and understands the terms of the Plan and this Agreement, and agrees to be bound by their terms and conditions in all respects.

15. No Limitation on the Corporation's Rights. The granting of Restricted Stock Units under this Agreement shall not and will not in any way affect the Corporation's right or power to make adjustments, reclassifications or changes in its capital or business structure or to merge, consolidate, reincorporate, dissolve, liquidate or sell or transfer all or any part of its business or assets.

16. Plan and Agreement Not a Contract of Employment or Service. Neither the Plan nor this Agreement is a contract of employment or Service, and no terms of Participant's employment or Service will be affected in any way by the Plan, this Agreement or related instruments, except to the extent specifically expressed therein. Neither the Plan nor this Agreement will be construed as conferring any legal rights on Participant to continue to be employed or remain in Service, nor will it interfere with the Corporation's or any Affiliate's right to discharge Participant or to deal with Participant regardless of the existence of the Plan or this Agreement.

17. Entire Agreement and Amendment. This Agreement and the Plan constitute the entire agreement between the parties hereto with respect to the Restricted Stock Units, and all prior oral and written representations are merged in this Agreement and the Plan. Notwithstanding the preceding sentence, this Agreement shall not in any way affect the terms and provisions of the Plan. This Agreement may be amended, modified, or terminated only in accordance with the Plan. The headings in this Agreement are inserted for convenience and identification only and are not intended to describe, interpret, define or limit the scope, extent, or intent of this Agreement or any provision hereof.

18. Notice. Any notice or other communication required or permitted under this Agreement must be in writing and must be delivered personally, sent by certified, registered or express mail, sent by overnight courier (at the sender's expense), or (if from the Corporation or the Corporation's stock plan administrator) by electronic mail. Notice will be deemed given (a) when delivered personally, (b) if mailed, three days after the date of deposit in the U.S. mail, (c) if sent by overnight courier, on the regular business

day following the date sent, or (d) when electronically mailed. Notice to the Corporation should be sent to Cboe Global Markets, Inc., 433 West Van Buren Street, Chicago, Illinois 60607, Attention: General Counsel. Notice to Participant should be sent to the mailing address and/or electronic mailing address set forth on the Corporation's records. Either party may change the address to which the other party must give notice under this Section 18 by giving the other party written notice of such change, in accordance with the procedures described above or otherwise established by the Corporation or its stock plan administrator.

19. Successors and Assigns. The terms of this Agreement will be binding upon the Corporation and its successors and assigns.

20. Governing Law. To the extent not preempted by Federal law, the Plan, this Agreement, and documents evidencing rights relating to the Plan or this Agreement will be construed, administered and governed in all respects under and by the laws of the State of Delaware, without giving effect to its conflict of laws principles. If any provision of this Agreement will be held by a court of competent jurisdiction to be invalid or unenforceable, the remaining provisions hereof will continue to be fully effective. The jurisdiction and venue for any disputes arising under, or any action brought to enforce (or otherwise relating to), this Agreement will be exclusively in the courts in the State of Illinois, County of Cook, including the Federal Courts located therein (should Federal jurisdiction exist).

21. Plan Document Controls. The rights granted under this Agreement are in all respects subject to the provisions set forth in the Plan to the same extent and with the same effect as if set forth fully in this Agreement. If the terms of this Agreement conflict with the terms of the Plan document, the Plan document will control.

22. Counterparts. This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute but one and the same instrument.

23. Waiver; Cumulative Rights. The failure or delay of either party to require performance by the other party of any provision of this Agreement will not affect its right to require performance of such provision unless and until such performance has been waived in writing. Each right under this Agreement is cumulative and may be exercised in part or in whole from time to time.

24. Tax Consequences. Participant agrees to determine and be responsible for all tax consequences to Participant with respect to the Restricted Stock Units.

25. Section 409A. The Restricted Stock Units granted hereunder are intended to comply with, or otherwise be exempt from, Section 409A, including the exceptions and exemptions for short term deferrals, stock rights, and separation pay arrangements. This Agreement and all Restricted Stock Units shall be administered, interpreted, and construed in a manner consistent with Section 409A. Should any provision of this Agreement, or any other agreement or arrangement contemplated by this Agreement, be found not to comply with, or otherwise be exempt from, the provisions of Section 409A, such provision shall be

modified and given effect (retroactively if necessary), in the sole discretion of the Corporation, and without the consent of Participant, in such manner as the Corporation determines to be necessary or appropriate to comply with, or to effectuate an exemption from, Section 409A. Notwithstanding the forgoing, no provision of this Agreement, or any other agreement or arrangement contemplated by this Agreement shall be construed as a guarantee by the Corporation of any particular tax effect to Participant. Each payment made under this Agreement shall be designated as a separate payment within the meaning of Section 409A. Any payment that is subject to Section 409A and payable upon Participant's termination of employment or other similar event shall not be made unless Participant has experienced a "separation from service" as defined under Section 409A. Any payment subject to Section 409A that is to be made upon a "separation from service" to Participant on any date when he or she is a "specified employee" as defined under Section 409A shall not be paid before the date that is six (6) months following Participant's "separation from service" or, if earlier, Participant's death.

26. Compensation Recovery. Notwithstanding anything in this Agreement to the contrary, the Restricted Stock Units, Dividend Equivalent Rights and any shares of Stock issued pursuant to the Restricted Stock Units and any proceeds therefrom shall be subject to and remain subject to any compensation recovery policies of the Corporation (i) currently in effect, (ii) as may be adopted by the Corporation to comply with applicable laws and/or the rules and regulations of the securities exchange or inter-dealer quotation system on which the shares of Stock are listed or quoted, including, without limitation, pursuant to Section 10D of the Exchange Act and Rule 10D-1 thereunder, or (iii) as may be adopted by the Corporation to help facilitate the Corporation's objectives, including, without limitation, related to eliminating or reducing fraud, misconduct, wrongdoing, or violations of law by an employee or similar considerations and, in each case, as may be amended from time to time (the "Policies"), with the provisions contained in such Policies deemed incorporated into this Agreement without Participant's additional or separate consent. For purposes of the foregoing, Participant expressly and explicitly authorizes the Corporation to issue instructions, on Participant's behalf, to any brokerage firm and/or third-party administrator engaged by the Corporation to hold any shares of Stock and other amounts acquired pursuant to the Restricted Stock Units to re-convey, transfer or otherwise return such shares of Stock and/or other amounts to the Corporation upon the Corporation's enforcement of the Policies. No recovery of compensation as described herein will be an event giving rise to a right to resign for "Good Reason" or "constructive termination" (or similar term) under any plan of, or agreement with, the Corporation, the Employer and/or Participant.

27. Addendum to Agreement. Notwithstanding any provision of this Agreement to the contrary, if Participant resides or is employed outside the U.S. or transfers residence or employment outside the U.S., the Restricted Stock Units shall be subject to such special terms and conditions as are set forth in the addendum to this agreement (the "Addendum"). Further, if Participant transfers residency and/or employment to another country, any special terms and conditions for such country will apply to the Restricted Stock Units to the extent the Corporation determines, in its sole discretion, that the application of such terms and conditions is necessary or advisable in order to comply with local law or to facilitate the operation and administration of the Restricted Stock

Units and the Plan (or the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer). In all circumstances, the Addendum shall constitute part of this Agreement.

IN WITNESS WHEREOF, the Corporation and Participant have duly executed this Agreement as of the date first written above.

Cboe Global Markets, Inc.

_____ By: _____
Participant's Name

_____ Its: _____
Participant's Signature

Exhibit A

Vesting of the Restricted Stock Units is contingent upon achievement of a Performance Goal tied to Earnings Per Share for the Performance Period. The number of Restricted Stock Units that may vest shall be determined as set forth below:

Earnings Per Share Attained	**Percentage of Restricted Stock Units That Vest**
$ _____ ("Maximum") or greater	_____%
$ _____ ("Target")	_____%
$ _____ ("Threshold")	_____%

For Earnings Per Share levels that fall between the values shown above, the percentage of Restricted Stock Units that vest will be determined by straight line interpolation, provided that no Restricted Stock Units will vest if the Corporation's Earnings Per Share does not equal or exceed the Threshold amount.

"Earnings Per Share" means earnings per share calculated in accordance with generally accepted accounting principles, except that certain adjustments shall be made to eliminate the impact of infrequent, unusual, and/or non-recurring items, such as restructuring charges, significant share repurchase activity, significant income tax credits or charges, acquisitions and divestitures of businesses, asset impairments, and significant litigation settlements.

ADDENDUM

CBOE GLOBAL MARKETS, INC. LONG-TERM INCENTIVE PLAN
RESTRICTED STOCK UNIT AWARD AGREEMENT - PERFORMACE BASED

This Addendum to the Agreement includes additional terms and conditions that govern the Restricted Stock Units if Participant resides and/or is employed outside of the United States or transfers residence or employment outside the United States. Certain capitalized terms used but not defined in this Addendum have the meanings set forth in the Agreement or the Plan.

1. Nature of Grant. In accepting the Restricted Stock Units, Participant acknowledges that:

(a) the Plan is established voluntarily by the Corporation, is discretionary in nature and may be modified, amended, suspended or terminated by the Corporation at any time, to the extent permitted by the Plan;

(b) the award of the Restricted Stock Units is exceptional, discretionary, voluntary and occasional and does not create any contractual or other right to receive future grants of Restricted Stock Units, or benefits in lieu of Restricted Stock Units, even if Restricted Stock Units have been granted in the past;

(c) all decisions with respect to future Restricted Stock Unit awards, if any, will be at the sole discretion of the Corporation;

(d) Participant is voluntarily participating in the Plan;

(e) the Restricted Stock Units and any shares of Stock that may be received in settlement of the Restricted Stock Units, and the income and value of same, (i) are an extraordinary item that does not constitute compensation of any kind for services of any kind rendered to the Corporation or the Affiliate that employs Participant (the "Employer"), and which is outside the scope of Participant's employment contract, if any, (ii) are not intended to replace any pension rights or compensation, and (iii) are not part of normal or expected compensation or salary for any purpose, including, but not limited to, calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, holiday pay, bonuses, long-service awards, leave-related payments, pension or retirement or welfare benefits or similar payments;

(f) the Restricted Stock Unit award will not be interpreted to form an employment or non-employee director contract or relationship with the Corporation or any Affiliate, nor does it amend any legal relationship or legal entitlement between Participant and the Employer;

(g) this Agreement, the transactions contemplated hereunder and the vesting schedule set forth herein do not constitute an express or implied promise of Participant's further employment for the vesting period, for any period, or at all, and will not interfere with Participant's right or the right of the Corporation or the Employer to terminate Participant's employment relationship at any time with or without cause;

(h) unless otherwise agreed with the Corporation, the Restricted Stock Units and the shares of Stock underlying the Restricted Stock Units, and the income and value of same, are not granted as consideration for, or in connection with, the service Participant may provide as a director of an Affiliate;

(i) the future value of the underlying shares of Stock is unknown, indeterminable and cannot be predicted with certainty;

(j) neither the Corporation, the Employer nor any Affiliate shall be liable for any foreign exchange rate fluctuation between Participant's local currency and the United States Dollar that may affect the value of the Restricted Stock Units or of any amounts due to Participant pursuant to the settlement of the Restricted Stock Units or the sale of any shares of Stock Participant may acquire upon such settlement;

(k) in consideration of the grant of the Restricted Stock Units, no claim or entitlement to compensation or damages shall arise from termination of the Restricted Stock Units or diminution in value of the Restricted Stock Units or shares of Stock acquired upon vesting of the Restricted Stock Units resulting from Participant's termination of Service (for any reason whatsoever and whether or not in breach of local labor laws) and Participant irrevocably releases the Corporation and the Employer from any such claim that may arise; and

(l) the Restricted Stock Units and the benefits evidenced by this Agreement do not create any entitlement not otherwise specifically provided for in the Plan or provided by the Corporation in its discretion, to have the Restricted Stock Units or any such benefits transferred to, or assumed by, another company or to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Corporation.

2. Reserved.

3. Payment of Withholding Taxes. Participant acknowledges and agrees that if Participant is subject to tax and/or social contributions in more than one jurisdiction, the Corporation or its Affiliate(s) may be required to withhold or account for taxes and/or social contributions in more than one jurisdiction, in accordance with the methods of withholding described in Section 9 of the Agreement.

4. Data Privacy.

(a) Data Collection and Usage. The Corporation and the Employer will collect, process and use certain personal information about Participant, specifically, Participant's name, home address, email address and telephone number, date of birth, social security or insurance number, passport number or other identification number, salary, nationality, job title, any shares of Stock or directorships held in the Corporation, details of all Restricted Stock Units or any other entitlement to shares of Stock awarded, canceled, exercised, vested, unvested or outstanding in Participant's favor ("Data"), for the exclusive purpose of implementing, administering and managing the Plan.

(b) Recipients of Data.

a. Stock Plan Administration Service Providers. The Corporation and the Employer transfer Data to Fidelity Stock Plan Services, LLC (and/or its affiliates, collectively "Fidelity"), the designated broker assisting in the implementation, administration and management of the Plan. In the future, the Corporation may select a different service provider and share Data with such other provider serving in a similar manner.

b. Other Service Provider Data Recipients. The Corporation also may transfer Data to other third party service providers, if necessary to ensure compliance with applicable tax, exchange control, securities and labor law. Such third party service providers may include the Corporation's legal counsel as well as its auditor, human resources consultant and payroll vendor. Wherever possible, the Corporation will anonymize data, but Participant understands that his or her Data may need to be transferred to such providers to ensure compliance with applicable law and/or tax requirements.

c. Securities or Other Regulatory Authorities. In addition to the recipients identified herein and where required under applicable law, Data also may be disclosed to certain securities or other regulatory authorities, including where the Corporation's securities are listed or traded or regulatory filings are made. The legal basis, where required, for such disclosure is compliance with applicable law.

(c) International Data Transfers. The Corporation, Fidelity and other service providers described above are located in the United States. The United States may have different data privacy laws and protections than Participant's country of residence (or country of employment, if different).

(d) Legal Basis for Collection, Processing and Transfer of Data.

a. Participants within the EU / European Economic Area ("EEA"), Switzerland and the United Kingdom

i. The collection, processing and transfer of Data is necessary for the legitimate purpose of the Corporation and Employer's administration of the Plan and Participant's participation in the Plan.

ii. When transferring Data to potential recipients outside the EU/EEA, Switzerland and/or the United Kingdom, the Corporation and the Employer strive to provide appropriate safeguards in accordance with Standard Contractual Clauses or other legally binding and permissible arrangements. For further information on the transfer of Participant's personal data outside of the EU/EEA, Switzerland and/or the United Kingdom, Participant may contact his or her human resources representative.

b. Participants outside the EU / EEA, Switzerland and the United Kingdom

i. Participant hereby explicitly and unambiguously consents to the collection, processing and use, in electronic or other form, of Participant's Data by the Corporation and the transfer of Data to the recipients mentioned above, including recipients located in countries which do not adduce an adequate level of protection from a non-U.S. data protection law perspective, for the purposes described above. Upon transfer of Participant's Data to Fidelity, Participant may be asked to agree to separate terms and data processing practices with Fidelity, with such agreement being a condition of the ability to participate in the Plan.

ii. Participation in the Plan is voluntary and Participant understands that Participant is providing the consent herein on a purely voluntary basis. If Participant does not consent, or later seeks to revoke his or her consent, Participant's employment status or Service and career with the Employer will not be adversely affected. The only consequence of refusing or withdrawing consent is that the Corporation would not be able to grant Restricted Stock Units or other equity awards to Participant or administer or maintain such awards. Therefore, Participant understands that refusing or withdrawing his or her consent may affect Participant's ability to participate in the Plan. For more information on the consequences of Participant's refusal to consent or withdrawal of consent, Participant understands that Participant may contact his or her human resources representative.

(e) Data Retention. Participant understands that Data will be held only as long as is necessary to implement, administer and manage his or her participation in the Plan or comply with applicable laws. When the Corporation no longer needs the Data, the Corporation will remove it from its systems.

(f) Data Subject Rights. Participant understands that Participant may have the right under applicable law to (i) access or copy Data that the Corporation possesses, (ii) rectify incorrect Data, (iii) delete Data, (iv) restrict processing of Data, (v) opt out of the Plan, or (vi) lodge complaints with the competent supervisory authorities in Participant's jurisdiction. To receive clarification regarding these rights or to exercise these rights, Participant understands that Participant can contact his or her local human resources representative.

5. No Advice Regarding Grant. The Corporation is not providing any tax, legal or financial advice, nor is the Corporation making any recommendations regarding Participant's participation in the Plan, or Participant's acquisition or sale of the underlying shares of Stock. Participant should consult with his or her own personal tax, legal and financial advisors regarding Participant's participation in the Plan before taking any action related to the Plan.

6. Imposition of Other Requirements. The Corporation reserves the right to impose other requirements on Participant's participation in the Plan, on the Restricted Stock Units and

on any shares of Stock acquired under the Plan, to the extent the Corporation determines it is necessary or advisable for legal or administrative reasons. Such requirements may include (but are not limited to) requiring Participant to sign any agreements or undertakings that may be necessary to accomplish the foregoing.

7. Insider Trading/Market Abuse Laws. By participating in the Plan, Participant agrees to comply with the Corporation's policy on insider trading (to the extent that it is applicable to Participant). Participant further acknowledges that, depending on Participant's or the broker's country of residence or where the shares of Stock are listed, Participant may be subject to insider trading restrictions and/or market abuse laws, which may affect Participant's ability to accept, acquire, sell or otherwise dispose of shares of Stock, rights to shares of Stock (e.g., Restricted Stock Units) or rights linked to the value of shares of Stock, during such times Participant is considered to have "inside information" regarding the Corporation as defined by the laws or regulations in Participant's country. Local insider trading laws and regulations may prohibit the cancellation or amendment of orders Participant places before Participant possessed inside information. Furthermore, Participant could be prohibited from (i) disclosing the inside information to any third party (other than on a "need to know" basis) and (ii) "tipping" third parties or causing them otherwise to buy or sell securities. Participant understands that third parties include fellow employees. Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable Corporation insider trading policy. Participant acknowledges that it is Participant's responsibility to comply with any applicable restrictions, and that Participant should therefore consult Participant's personal advisor on this matter.

8. Foreign Asset/Account Reporting; Exchange Controls. Participant's country may have certain foreign asset and/or account reporting requirements and/or exchange controls which may affect Participant's ability to acquire or hold shares of Stock under the Plan or cash received from participating in the Plan (including from any dividends received or sale proceeds arising from the sale of shares of Stock) in a brokerage or bank account outside Participant's country. Participant may be required to report such accounts, assets or transactions to the tax or other authorities in his or her country. Participant also may be required to repatriate sale proceeds or other funds received as a result of Participant's participation in the Plan to his or her country through a designated bank or broker and/or within a certain time after receipt. Participant acknowledges that it is his or her responsibility to be compliant with such regulations, and Participant should consult his or her personal legal advisor for any details.

9. Language. If Participant is resident in a country where English is not an official language, Participant acknowledges that Participant is sufficiently proficient in English to understand the terms and conditions of the Agreement or has had the ability to consult with an advisor who is sufficiently proficient in the English language. Participant further acknowledges and agrees that it is Participant's express intent that the Agreement, the Addendum and the Plan and all other documents, notices and legal proceedings entered into, given or instituted pursuant to the Restricted Stock Units be drawn up in English. If Participant has received the Agreement, the Addendum or any other document related to

the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

10. Annex to Addendum. Notwithstanding any provision of the Agreement or Addendum to the contrary, the Restricted Stock Units shall be subject to such special terms and conditions for Participant's country of residence (and country of employment, if different), as are set forth in the annex to this Addendum (the "Annex"). Further, if Participant transfers residency and/or employment to another country, the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer. In all circumstances, the Annex shall constitute part of this Addendum.

ANNEX

This Annex to the Addendum includes additional terms and conditions that govern the Restricted Stock Units if Participant resides and/or is employed in the country addressed herein or transfers residence or employment to the country addressed herein. If Participant transfers residence and/or employment to another country, the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer. Certain capitalized terms used but not defined in this Annex have the meanings set forth in the Agreement (including the Addendum) or the Plan.

Australia

1. Tax Notification. The Plan is a plan to which Subdivision 83A-C of the Income Tax Assessment Act 1997 (Cth) (the "Act") applies (subject to conditions in the Act).

2. Offer Document. The Corporation is pleased to provide this offer to participate in the Plan. This offer document sets out information regarding the award for Australian-resident Participants ("Australian Participants"). It is for informational purposes and is intended to comply with the provisions of the Australian Corporations Act 2001 (Cth) ("Corporations Act 2001") and Australian Securities and Investments Commission ("ASIC") Instrument 22-0283.

   Additional Documents

   In addition to the information set out in the Agreement (including the Addendum and this Annex), Participant is also being provided with copies of the following documents:

   1. the Plan; and
   2. the Plan Prospectus describing the terms of the Plan (the "Plan Prospectus"); and
   3. any supplemental documents to the Plan and Plan Prospectus, as necessary.

   These additional documents provide further information to help Participant make an informed investment decision about participating in the Plan. Neither the Plan nor the Plan Prospectus is a prospectus for the purposes of the Corporations Act 2001.

   Participant should not rely upon any oral statements made in relation to this offer. Participant should rely only upon the statements contained in the Agreement and the additional documents when considering participation in the Plan.

   General Information Only

   Any information given by the Corporation or any subsidiary or affiliate in relation to the Restricted Stock Units is general and does not take into account an Australian Participant's objectives, financial situation and needs. Australian Participants should consider obtaining their own financial product advice from an independent person who is licensed by ASIC to give such advice.

Acquisition Price

No acquisition price is payable by Participant for the Corporation to grant Participant the number of Restricted Stock Units set forth in the Agreement or for Participant to acquire shares of Stock upon settlement of the Restricted Stock Units.

Shares of Stock

A share of common stock of a U.S. corporation is analogous to an ordinary share of an Australian Corporation. Each holder of a share of common stock is entitled to one vote for every share held.

The shares of Stock are traded on Cboe BZX in the United States of America under the symbol "CBOE".

Shares of Stock are not liable to any further calls for payment of capital or for other assessment by the Corporation and have no sinking fund provisions, pre-emptive rights, conversion rights or redemption provisions.

Risks of Acquiring Shares of Stock

This paragraph provides Australian Participants with general information about the risks of acquiring and holding shares of Stock. Before accepting the grant of Restricted Stock Units, Australian Participants should satisfy themselves that they have a sufficient understanding of these matters and should consider whether shares of Stock are a suitable investment for them, having regard to their own investment objectives, financial circumstances and taxation position.

(a) *Price of shares of Stock may fluctuate:* The price at which a share of Stock is quoted on the Cboe BZX may increase or decrease due to a number of factors. Some of the factors that may affect the price of the shares of Stock include fluctuations in the domestic and international market for listed stocks, general economic conditions, including interest rates, inflation rates, changes to government fiscal, monetary or regulatory policies, legislation or regulation, the nature of the markets in which the Corporation operates and general operational and business risks.

More information about potential factors that could affect the Corporation's business and financial results is included in the Corporation's Quarterly Reports on Form 10-Q and Annual Reports on Form 10-K. Copies of these forms are available at http://www.sec.gov/ and upon request to the Corporation.

In addition, Participant should be aware that the value of the shares of Stock Participant may acquire will be affected by the U.S./Australian dollar exchange rate. Participation in the Plan involves certain risks related to fluctuations in this rate of exchange.

(b) *Trading in shares of Stock may not be liquid:* There can be no guarantee that an active market in shares of Stock will continue or that the price of shares of Stock will increase. The number of potential buyers or sellers of shares of Stock on the Cboe BZX

may vary at any time. This may increase the volatility of the market price of shares of Stock. It may also affect the prevailing market price at which shareholders are able to sell their shares of Stock. This may result in shareholders receiving a market price for their shares of Stock that is less than the price that shareholders paid.

(c) *Risk of dilution:* In the future, the Corporation may elect to issue stock (or securities convertible into stock) including in connection with fundraisings for acquisitions that the Corporation may decide to make. Shareholders may be diluted as a result of such issues of stock or securities or such issues may reduce the market price of shares of Stock.

(d) *Dividends on shares of Stock*: The Corporation may pay dividends on shares of Stock. Payment of future dividends, and the timing and amount of any dividends the Corporation determines to pay, are at the discretion of the Board.

Market Price of shares of Stock in Australian Dollars

An Australian Participant can, from time to time, ascertain the market price of the shares of Stock by obtaining that price from the Corporation website (http://ir.cboe.com) or The Wall Street Journal. The Australian dollar equivalent of that price can be obtained at the website of the Reserve Bank of Australia (http://www.rba.gov.au/statistics/frequency/exchange-rates.html).

This will not be a prediction of what the market price per share will be when the Restricted Stock Units vest and the shares of Stock are issued or of the applicable exchange rate on the actual vesting date or the date the shares of Stock are issued.

Canada

1. Settlement of Restricted Stock Units: Notwithstanding anything to the contrary in the Agreement or any related document, if Participant is resident or employed in Canada, the Corporation shall have absolute discretion to settle the Restricted Stock Units in shares of Stock or in the form of a cash payment or in any combination of the foregoing.

2. Securities Law Notification: Participant acknowledges and agrees that he or she is permitted to sell shares of Stock acquired under the Plan through the designated broker appointed under the Plan, provided the resale of shares of Stock takes place outside of Canada through facilities of a stock exchange on which the shares of Stock are listed. The shares of Stock currently are listed on Cboe BZX in the United States.

3. Termination of Employment: Except as may be determined by the Committee and except as otherwise provided in Section 4 of the Agreement, for purposes of Section 4(d) of the Agreement, Participant's Service will be considered terminated as of the date Participant ceases to be an employee of the Corporation (or, if different, the Affiliate to which Participant provides Service) for any reason, whether lawful or otherwise (including, without limitation, by reason of resignation, death, frustration of contract, termination for Cause, termination without Cause, or constructive dismissal), without regard to any pay in lieu of notice

(whether by way of lump sum or salary continuance), benefits continuance, or other termination related payments or benefits, whether pursuant to the common law or otherwise, to which Participant may then be entitled (the "Termination Date"). In the event that the Termination Date cannot reasonably be determined under the terms of the Plan and the Agreement, the Committee and its delegate shall have the exclusive discretion to determine when the Termination Date occurs for purposes of the Plan (including whether Participant may still be considered to be providing Service while on any leave of absence).

Unless otherwise extended by the Corporation, or as may be required to satisfy the minimum requirements of applicable employment or labour standards legislation, any portion of the award that is not vested on the Termination Date shall terminate immediately and be null and void, and Participant will have no entitlement to further vesting in the Restricted Stock Units or compensation in lieu thereof following the Termination Date, and Participant waives any claim to damages in respect thereof whether related or attributable to any contractual or common law termination entitlements or otherwise. For additional clarity, if applicable employment or labour standards legislation specifically requires continued entitlement to vesting during a statutory notice period, Participant's right to vest in the Restricted Stock Units, if any, will be allowed to continue for that minimum notice period but then immediately terminate effective as of the last day of Participant's minimum statutory notice period.

Hong Kong

1. Settlement in Shares of Stock. Notwithstanding anything to the contrary in the Agreement, the Addendum or the Plan, the Restricted Stock Units shall be settled only in shares of Stock (and may not be settled in cash).

2. Disposal of Shares of Stock. If, for any reason, shares of Stock are issued to Participant within six (6) months after the Award Date, Participant agrees that Participant will not sell or otherwise dispose of any such shares of Stock prior to the six (6) month anniversary of the Award Date.

3. IMPORTANT NOTICE/WARNING. *The contents of this document have not been reviewed by any regulatory authority in Hong Kong. Participant is advised to exercise caution in relation to the offer. If Participant is in any doubt about any of the contents of the documents, Participant should obtain independent professional advice. The Restricted Stock Units and shares of Stock issued in settlement of the Restricted Stock Units do not constitute a public offering of securities under Hong Kong law and are available only to employees of the Corporation or its Affiliates. The Agreement, the Plan and other incidental communication materials have not been prepared in accordance with and are not intended to constitute a "prospectus" for a public offering of securities under the applicable securities legislation in Hong Kong. The Restricted Stock Units are intended only for the personal use of each eligible employee of the Employer, the Corporation or an Affiliate and may not be distributed to any other person.*

4. Wages. The Restricted Stock Units and shares of Stock subject to the Restricted Stock Units do not form part of Participant's wages for purposes of calculating any statutory or contractual payments under Hong Kong law.

Netherlands

1. Exclusion of Claim: Participant acknowledges and agrees that Participant will have no entitlement to compensation or damages insofar as such entitlement arises or may arise from Participant ceasing to have rights under the Plan, whether or not as a result of termination of Participant's Service (whether such termination is in breach of contract or otherwise), or from the loss of diminution in value of the shares of Stock underlying the Restricted Stock Units. Upon the grant of the Restricted Stock Units, Participant shall be deemed to have waived irrevocably such entitlement.

Philippines

1. Settlement in Cash. Notwithstanding anything to the contrary in the Agreement, the Addendum or the Plan, the Restricted Stock Units shall be settled only in cash (and shall not be settled in shares of Stock), unless otherwise determined by the Corporation.

Singapore

1. Securities Law Information. The grant of the Restricted Stock Units under the Plan is being made pursuant to the "Qualifying Person" exemption under section 273(1)(f) of the Securities and Futures Act (Chapter 289, 2006 Ed.) ("SFA"). The Plan has not been and will not be lodged or registered as a prospectus with the Monetary Authority of Singapore and is not regulated by any financial supervisory authority pursuant to any legislation in Singapore. Accordingly, statutory liability under the SFA in relation to the content of prospectuses would not apply. Participant should note that the Restricted Stock Units are subject to section 257 of the SFA and Participant will not be able to make any subsequent sale of shares of Stock in Singapore, or any offer of such subsequent sale of shares of Stock subject to the Restricted Stock Units in Singapore, unless such sale or offer is made (i) after six (6) months from the Award Date or (ii) pursuant to the exemptions under Part XIII Division (1) Subdivision (4) (other than section 280) of the SFA.

Switzerland

1. Securities Law Information. Neither the Agreement nor any other materials relating to the grant of Restricted Stock Units (a) constitutes a prospectus according to articles 35 et seq. of the Swiss Federal Act on Financial Services ("FinSA"), (b) may be publicly distributed or otherwise made publicly available in Switzerland to any person other than an employee of the Corporation or one of its Affiliates or (c) has been or will be filed with, approved or supervised by any Swiss reviewing body according to article 51 FinSA or any Swiss regulatory authority, including the Swiss Financial Market Supervisory Authority, FINMA.

United Kingdom (Including Northern Ireland)

1. Payment of Withholding Taxes. The following provision supplements the section of the Agreement titled "Payment of Withholding Taxes":

> Without limitation to the section of the Agreement titled 'Payment of Withholding Taxes', Participant agrees that Participant is liable for all income tax and employee national insurance contributions or other social contributions or withholding taxes ("Tax-Related Items") and hereby covenants to pay all such Tax-Related Items, as and when requested by the Corporation, the Employer or by HM's Revenue and Customs ("HMRC") (or any other tax authority or any other relevant authority). Participant also agrees to indemnify and keep indemnified the Corporation and the Employer against any Tax-Related Items that they are required to pay or withhold or have paid or will pay on Participant's behalf to HMRC (or any other tax authority or any other relevant authority).
>
> Notwithstanding the foregoing, if Participant is a director or executive officer (as within the meaning of Section 13(k) of the U.S. Securities Exchange Act of 1934, as amended), the terms of the immediately foregoing provision will not apply. In the event that Participant is a director or executive officer and income tax due is not collected from or paid by Participant within 90 days after the U.K. tax year in which an event giving rise to the indemnification described above occurs, the amount of any uncollected tax may constitute a benefit to Participant on which additional income tax and national insurance contributions may be payable. Participant acknowledges that Participant ultimately will be responsible for reporting and paying any income tax due on this additional benefit directly to HMRC under the self-assessment regime and for reimbursing the Corporation or the Employer (as applicable) for the value of any employee national insurance contributions due on this additional benefit, which the Corporation and/or the Employer may recover from Participant at any time thereafter by any of the means referred to in section of the Agreement titled "Payment of Withholding Taxes".

2. Exclusion of Claim. Participant acknowledges and agrees that Participant will have no entitlement to compensation or damages insofar as such entitlement arises or may arise from Participant's ceasing to have rights under or to be entitled to the Restricted Stock Units, whether or not as a result of termination of Service (whether such termination is in breach of contract or otherwise), or from the loss or diminution in value of the Restricted Stock Units. Upon the award of the Restricted Stock Units, Participant shall be deemed irrevocably to have waived any such entitlement.

3. Section 2 of the Addendum. Section 2 of the Addendum (Participants in the European Union) shall not apply to the Restricted Stock Units.

Exhibit 10.94

For Employees– 3 Year Cliff With Restrictive Covenants Without Retirement Vesting

CBOE GLOBAL MARKETS, INC. LONG-TERM INCENTIVE PLAN

RESTRICTED STOCK UNIT AWARD AGREEMENT

This RESTRICTED STOCK UNIT AWARD AGREEMENT (this "Agreement") is dated effective _____ (the "Award Date"), and is between Cboe Global Markets, Inc. (the "Corporation") and _____ ("Participant"). Any term capitalized but not defined in this Agreement will have the meaning set forth in the Second Amended and Restated Cboe Global Markets, Inc. (formerly CBOE Holdings, Inc.) Long-Term Incentive Plan (as may be amended from time to time, the "Plan").

1. Award. The Corporation hereby awards to Participant _____ Restricted Stock Units (the "Restricted Stock Units"). The Restricted Stock Units will be subject to the terms and conditions of the Plan and this Agreement. Each Restricted Stock Unit is a notional amount that represents one unvested share of Stock and entitles Participant, subject to the terms of this Agreement, to receive a share of Stock if and when the Restricted Stock Unit vests.

2. No Rights as Stockholder; Dividend Equivalents. Participant shall have no voting rights with respect to shares of Stock represented by Restricted Stock Units until the date of the issuance of the shares of Stock (as evidenced by the appropriate entry on the books of the Corporation or of a duly authorized transfer agent of the Corporation). Notwithstanding the foregoing, in the event that the Corporation declares a cash dividend on shares of Stock, on the payment date of the dividend, Participant will be credited with Dividend Equivalent Rights equal to the amount of the cash dividend per share multiplied by the number of Restricted Stock Units held by Participant on the dividend's record date. The Dividend Equivalent Rights credited to Participant under the preceding sentence will be distributed to Participant at the same time as the underlying cash dividend is distributed to shareholders of the Corporation.

3. Vesting; Effect of Termination of Service; Change in Control.

(a) Subject to Sections 3(b), 3(c) and 3(d) below, Participant's Restricted Stock Units will vest in full on the three-year anniversary of the Award Date, provided that Participant has remained in Service continuously through such date.

(b) The Restricted Stock Units will vest in full upon the earlier to occur of (i) Participant's death or (ii) Participant's becoming Disabled, provided that such condition qualifies as "disability" for purposes of Section 409A, in each case, if prior to any forfeiture event under Section 3(d) below.

(c) This subsection 3(c) shall apply to this Agreement, this Award and any Replacement Award provided to Participant to replace this Award in lieu of Section 8.2(b) of the Plan. Upon a termination of Participant's Service by the Corporation or its Affiliate without Cause or by Participant for "Good Reason" (as defined below), in each case, upon or within two years after a Change in Control and prior to any forfeiture event under Section 3(d) below, this Award or any Replacement Award held by Participant shall become fully vested and free of restrictions and shall be distributed upon or within 60 days of such termination of Service. Notwithstanding the foregoing, if

this Award or the Replacement Award, as applicable, is considered deferred compensation subject to Section 409A, payment shall be made pursuant to the Award's original schedule if necessary to comply with Section 409A.

For purposes of this Award "Good Reason" shall be deemed to exist if, and only if, without Participant's express written consent:

(i) The Corporation or its Affiliate assigns to Participant authorities, duties or responsibilities (including titles) that are inconsistent in any material and adverse respect with Participant's immediately preceding authorities, duties or responsibilities with the Corporation or its Affiliate (including any material and adverse diminution of such immediately preceding authorities, duties or responsibilities);

(ii) The Corporation or its Affiliate materially reduces Participant's base compensation;

(iii) The Corporation or its Affiliate requires Participant to relocate his or her principal business office or principal place of residence outside the metropolitan area in which Participant worked or resided at the time the Restricted Stock Units were awarded (or outside the immediately preceding location of Participant's principal business office with the Corporation or its Affiliate), or assigns to Participant duties that would reasonably require such relocation;

(iv) The Corporation or its Affiliate materially breaches the terms of any agreement pursuant to which services are provided to the Corporation or its Affiliate by Participant; or

(v) The Corporation or its Affiliate terminates, reduces or limits Participant's participation in any bonus or incentive compensation arrangement relative to the level of participation of other employees of similar rank for a reason that is not reasonably related to Participant's level of job performance or local requirements and provided that such action results in a material reduction in the aggregate value of Participant's incentive compensation below the aggregate value as of the immediately preceding bonus or incentive compensation performance period and provided further that a mere change in the form of payment of the award (whether cash or shares of Stock) without a reduction in the aggregate grant value of the award shall not be considered a reduction of Participant's participation.

Participant's voluntary termination of Service shall not be considered a termination of Service for Good Reason unless Participant terminates his or her Service within 120 days after the initial existence of the condition constituting Good Reason; provided, Participant provides written notice to the Corporation or its Affiliate of Participant's intention to resign for Good Reason, which notice specifies in reasonable detail the breach or action giving rise thereto within 90 days of its initial existence, and the Corporation or its Affiliate does not cure such breach or action within 30 days after the date of Participant's notice.

(d) If Participant's Service is terminated for any reason before all of Participant's Restricted Stock Units have vested under this Agreement (including

pursuant to an event described in Section 3(b) or 3(c) above), Participant's unvested Restricted Stock Units will be forfeited upon the effective date of such termination of Service. Notwithstanding anything herein to the contrary, any outstanding Restricted Stock Units not previously settled shall be cancelled and forfeited immediately if, in the sole opinion and discretion of the Committee or its delegate, Participant engages in any activity that constitutes Cause, whether or not Participant experiences a separation from Service, is no longer in Service, or remains in Service. Neither the Corporation nor any Affiliate will have any further obligations to Participant under this Agreement if Participant's Restricted Stock Units are forfeited pursuant to this Section 3(d).

4. Terms and Conditions of Distribution.

(a) Distribution of a share of Stock that corresponds to a vested Restricted Stock Unit shall be made to Participant as soon as practicable after the Restricted Stock Unit vests, but not later than two and a half (2½) months after the end of the calendar year in which such vesting occurs.

(b) Reserved.

(c) If Participant dies before the date on which the Corporation would have distributed shares of Stock in satisfaction of vested Restricted Stock Units, the Corporation will distribute such shares of Stock to Participant's designated beneficiary(ies) or, if none are designated or surviving, to Participant's estate or personal representative. The Corporation is not required to issue or deliver any shares of Stock before completing the steps necessary to comply with applicable Federal and state securities laws (including any registration requirements) and applicable stock exchange rules and practices. The Corporation will use commercially reasonable efforts to cause compliance with those laws, rules and practices. The foregoing provisions are subject in all cases to the requirements of Section 409A.

5. Nontransferability. Unvested Restricted Stock Units may not be sold, transferred, exchanged, pledged, assigned, garnished, or otherwise alienated or hypothecated, other than by will or by the laws of descent and distribution. Any effort to assign or transfer the rights under this Agreement will be wholly ineffective, and will be grounds for termination by the Committee of all rights of Participant under this Agreement.

6. Administration. The Committee administers the Plan. Participant's rights under this Agreement are expressly subject to the terms and conditions of the Plan and to any guidelines the Committee adopts from time to time. The interpretation and construction by the Committee of the Plan and this Agreement, and such rules and regulations as may be adopted by the Committee for purposes of administering the Plan and this Agreement, will be final and binding upon Participant.

7. Securities Law Requirements. If at any time the Board or Committee determines that issuing Stock pursuant to this Agreement would violate applicable securities laws, the Corporation will not be required to issue such Stock. The Board or Committee may declare any provision of this Agreement or action of its own null and void, if it determines the provision or action fails to comply with applicable securities laws. The

Corporation may require Participant to make written representations it deems necessary or desirable to comply with applicable securities laws.

8. Payment of Withholding Taxes. Participant acknowledges that, regardless of any action taken by the Corporation or, if different, the Affiliate of the Corporation that employs Participant (the "Employer"), the ultimate liability for all income tax, social contributions, payroll tax, fringe benefits tax, payment on account or other tax-related items related to Participant's participation in the Plan and legally applicable to Participant or deemed by the Corporation or the Employer in their sole discretion to be an appropriate charge to Participant even if legally applicable to the Corporation or the Employer ("Tax-Related Items"), is and remains Participant's responsibility and may exceed the amount actually withheld by the Corporation or the Employer, if any. Participant further acknowledges that the Corporation and/or the Employer (a) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the Restricted Stock Units, including, but not limited to, the grant, vesting or settlement of the Restricted Stock Units, the subsequent sale of shares of Stock acquired pursuant to such settlement; and (b) do not commit to and is under no obligation to structure the terms of the grant or any aspect of the Restricted Stock Units to reduce or eliminate Participant's liability for Tax-Related Items or achieve any particular tax result. Further, if Participant is subject to Tax-Related Items in more than one jurisdiction between the Award Date and the date of any relevant taxable or tax withholding event, as applicable, Participant acknowledges that the Corporation and/or the Employer (or former employer, as applicable) may be required to withhold or account for Tax-Related Items in more than one jurisdiction.

Prior to the relevant taxable or tax withholding event, as applicable, Participant agrees to make adequate arrangements satisfactory to the Corporation and/or the Employer to satisfy all Tax-Related Items. In this regard, Participant authorizes the Corporation, or its respective agents, at their discretion, to satisfy the obligations with regard to all Tax-Related Items by one or a combination of the following: (i) withholding from Participant's wages or other cash compensation paid to Participant by the Corporation and/or the Employer; (ii) withholding from the shares of Stock to be delivered upon settlement of the Restricted Stock Units or other awards granted to Participant or (iii) permitting Participant to tender to the Corporation or the Employer cash or, if allowed by the Committee, shares of Stock to the Corporation.

Notwithstanding the foregoing, if Participant is subject to Section 16 of the Exchange Act, pursuant to Rule 16a-2 promulgated thereunder, any tax withholding obligations shall be satisfied by having the Corporation withhold from the shares of Stock to be delivered upon settlement of the Restricted Stock Units.

Depending on the withholding method, the Corporation may withhold or account for Tax-Related Items by considering applicable statutory withholding rates (as determined by the Corporation in good faith and in its sole discretion) or other applicable withholding rates, including maximum applicable rates, in which case Participant will receive a refund of any over-withheld amount in cash and will have no entitlement to the share equivalent. If the obligation for Tax-Related Items is satisfied by withholding from

the shares of Stock to be delivered upon settlement of the Restricted Stock Units, for tax purposes, Participant is deemed to have been issued the full number of shares of Stock subject to the Restricted Stock Units, notwithstanding that a number of shares of Stock are held back solely for the purpose of paying the Tax-Related Items. Participant will have no further rights with respect to any shares of Stock that are retained by the Corporation pursuant to this provision.

Participant agrees to pay to the Corporation or the Employer any amount of Tax-Related Items that the Corporation or the Employer may be required to withhold or account for as a result of Participant's participation in the Plan that cannot be satisfied by the means previously described. The Corporation may refuse to issue or deliver shares of Stock or proceeds from the sale of shares of Stock until arrangements satisfactory to the Corporation have been made in connection with the Tax-Related Items.

9. Restrictive Covenants. Participant understands the global nature of the Corporation's businesses and the effort the Corporation and its Affiliates (collectively referred to in this Section as "Cboe") undertake to develop and protect their business and their competitive advantage. Accordingly, Participant agrees that the scope and duration of the restrictions described in this Agreement are reasonable and necessary to protect the legitimate business interests of Cboe. Participant further agrees that during the period of Participant's Service and for a period of two (2) years following Participant's separation from Service, Participant shall not, without the express written approval of the Chief Executive Officer:

(a) singly, jointly, or in any other capacity, in a manner that contributes to any research, technology, development, account, trading, marketing, promotion, or sales and that relates to Participant's Service with Cboe, directly or beneficially, manage, join, participate in the management, operation or control of, or work for (as an employee, consultant or independent contractor), or permit the use of his or her name by, or provide financial or other assistance to, or be connected in any manner with (i) any exchange, facility, clearinghouse, electronic communications network ("ECN"), electronic foreign currency exchange market ("FX") matching platform, multilateral trading facility, or alternative trading system ("ATS"); (ii) the ECN, ATS or FX business lines of any full service broker dealer or any digital asset or data and access solutions business line of any company; or (iii) any business line of any company that is substantially similar to any additional business line developed or entered into by Cboe during Participant's Service, provided that, in the case of clauses (i), (ii) and (iii), such entity or business line that directly competes with Cboe;

(b) provide any service or assistance that (i) is of the general type of service or assistance provided by Participant to Cboe, (ii) relates to any technology, account, product, project or piece of work with which Participant was involved during his Service, and (iii) contributes to causing an entity to come within the definition described in Section 9(a) above;

(c) solicit or accept if offered to Participant, with or without solicitation, on his or her own behalf or on behalf of any other person, the services of any person who is

a then-current employee of Cboe (or was an employee of Cboe during the year preceding such solicitation), nor solicit any of Cboe's then-current employees (or an individual who was employed by or engaged by Cboe during the year preceding such solicitation) to terminate employment or an engagement with Cboe, nor agree to hire any then-current employee (or an individual who was an employee of Cboe during the year preceding such hire) of Cboe into employment with Participant or any company, individual or other entity; or

(d) directly or indirectly divert or attempt to divert from Cboe any business in which Cboe has been actively engaged during Participant's Service, nor interfere with the relationships of Cboe or with their sources of business.

10. Confidentiality. Participant acknowledges that the Corporation or an Affiliate may disclose secret or confidential information to Participant during the period of Participant's Service to enable Participant to perform his or her duties. Participant agrees that, subject to the following sentence, Participant shall not during his or her Service (except in connection with the proper performance of his or her duties) and thereafter, without the prior written consent of the Corporation, disclose to any person or entity any material or significant secret or confidential information concerning the business of the Corporation or an Affiliate that was obtained by Participant in the course of Participant's Service. This paragraph shall not be applicable if and to the extent Participant is required to testify in a legislative, judicial or regulatory proceeding pursuant to an order of Congress, any state or local legislature, a judge, or an administrative law judge, or if such secret or confidential information is required to be disclosed by Participant by any law, regulation or order of any court or regulatory commission, department or agency. Participant further agrees that if Participant's Service is terminated for any reason, Participant will not take, but will leave with the Corporation or an Affiliate, all records and papers and all matter of whatever nature that bears secret or confidential information of the Corporation or an Affiliate. For purposes of this Agreement, the term "secret or confidential information" shall include, but not be limited to, any and all records, notes, memoranda, data, writings, research, personnel information, customer information, clearing members' information, the Corporation's and any Affiliate's financial information and plans, processes, methods, techniques, systems, formulas, patents, models, devices, compilations or any other information of whatever nature in the possession or control of the Corporation or an Affiliate, that has not been published or disclosed to the general public, the options industry, the equities industry, the foreign currency exchange industry or the commodities futures industry, provided that such term shall not include knowledge, skills, and information that is common to the trade or profession of Participant.

Notwithstanding anything in this Agreement to the contrary, nothing in this Agreement prohibits Participant from confidentially or otherwise communicating or filing a charge or complaint with a governmental or regulatory entity, participating in a governmental or regulatory entity investigation, or giving truthful testimony or making other disclosures to a governmental or regulatory entity (in each case, without having to disclose any such conduct to the Corporation or an Affiliate), or from responding if properly subpoenaed or otherwise required to do so under applicable law. In addition, nothing in this Agreement

limits Participant's right to receive an award from a governmental or regulatory entity for information provided to such an entity (and not as compensation for actual or alleged personal injury or damages to Participant).

Pursuant to the Defend Trade Secrets Act of 2016 (18 U.S.C. 1833(b)), Participant shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret that is made in confidence either directly or indirectly to a federal, state, or local government official, or to an attorney, solely for the purpose of reporting or investigating a violation of law. Participant shall not be held criminally or civilly liable under any federal or state trade secret law for the disclosure of a trade secret made in a complaint, or other document filed in a lawsuit or other proceeding, if such filing is made under seal. If Participant files a lawsuit or other action alleging retaliation by the Corporation or an Affiliate for reporting a suspected violation of law, Participant may disclose the trade secret to his or her attorney and use the trade secret in the court proceeding or other action, if Participant files any document containing the trade secret under seal and does not disclose the trade secret, except pursuant to court order. This paragraph will govern to the extent it may conflict with any other provision of this Agreement.

11. Judicial Modification. If the final judgment of a court of competent jurisdiction declares that any term or provision of Section 9 or 10 is invalid or unenforceable, the parties agree that (a) the court making the determination of invalidity or unenforceability shall have the power to reduce the scope, duration, or geographic area of the term or provision, to delete specific words or phrases, or to replace any invalid or unenforceable term or provision with a term or provision that is valid and enforceable and that comes closest to expressing the intention of the invalid or unenforceable term or provision, (b) the parties shall request that the court exercise that power, and (c) this Agreement shall be enforceable as so modified after the expiration of the time within which the judgment or decision may be appealed.

Remedies. Participant agrees that in the event of a breach or threatened breach of any of the covenants contained in Sections 9 or 10 of this Agreement, in addition to any other penalties or restrictions that may apply under any employment agreement, state law, or otherwise, Participant shall forfeit, upon written notice to such effect from the Corporation, any and all Awards granted to him or her under the Plan and this Agreement, including vested Awards. The forfeiture provisions of this Section 12 shall continue to apply, in accordance with their terms, after the provisions of any employment or other agreement between the Corporation and Participant have lapsed. Participant consents and agrees that if Participant violates or threatens to violate any provisions of Sections 9 or 10 of this Agreement, the Corporation or its successors in interest shall be entitled, in addition to any other remedies that they may have, including money damages, to an injunction to be issued by a court of competent jurisdiction restraining Participant from committing or continuing any violation of Sections 9 or 10. In the event that Participant is found to have breached any provision set forth in Section 9 of this Agreement, the time period provided for in that provision shall be deemed tolled (*i.e.*, it will not begin to run) for as long as Participant was in violation of that provision. The provisions of Sections 9 and 10 of this Agreement shall continue to apply, in accordance

with their terms, after the Participant's service has terminated and after provisions of any employment or other agreement between the Corporation and the Participant have lapsed.

12. Representations and Warranties. Participant represents and warrants to the Corporation that Participant has received a copy of the Plan and this Agreement, has read and understands the terms of the Plan and this Agreement, and agrees to be bound by their terms and conditions in all respects.

13. No Limitation on the Corporation's Rights. The granting of Restricted Stock Units under this Agreement shall not and will not in any way affect the Corporation's right or power to make adjustments, reclassifications or changes in its capital or business structure or to merge, consolidate, reincorporate, dissolve, liquidate or sell or transfer all or any part of its business or assets.

14. Plan and Agreement Not a Contract of Employment or Service. Neither the Plan nor this Agreement is a contract of employment or Service, and no terms of Participant's employment or Service will be affected in any way by the Plan, this Agreement or related instruments, except to the extent specifically expressed therein. Neither the Plan nor this Agreement will be construed as conferring any legal rights on Participant to continue to be employed or remain in Service, nor will it interfere with the Corporation's or any Affiliate's right to discharge Participant or to deal with Participant regardless of the existence of the Plan or this Agreement.

15. Entire Agreement and Amendment. This Agreement and the Plan constitute the entire agreement between the parties hereto with respect to the Restricted Stock Units, and all prior oral and written representations are merged in this Agreement and the Plan. Notwithstanding the preceding sentence, this Agreement shall not in any way affect the terms and provisions of the Plan. This Agreement may be amended, modified, or terminated only in accordance with the Plan. The headings in this Agreement are inserted for convenience and identification only and are not intended to describe, interpret, define or limit the scope, extent, or intent of this Agreement or any provision hereof.

16. Notice. Any notice or other communication required or permitted under this Agreement must be in writing and must be delivered personally, sent by certified, registered or express mail, sent by overnight courier (at the sender's expense), or (if from the Corporation or the Corporation's stock plan administrator) by electronic mail. Notice will be deemed given (a) when delivered personally, (b) if mailed, three days after the date of deposit in the U.S. mail, (c) if sent by overnight courier, on the regular business day following the date sent, or (d) when electronically mailed. Notice to the Corporation should be sent to Cboe Global Markets, Inc., 433 West Van Buren Street, Chicago, Illinois 60607, Attention: General Counsel. Notice to Participant should be sent to the mailing address and/or electronic mailing address set forth on the Corporation's records. Either party may change the address to which the other party must give notice under this Section 17 by giving the other party written notice of such change, in accordance with the procedures described above or otherwise established by the Corporation or its stock plan administrator.

17. Successors and Assigns. The terms of this Agreement will be binding upon the Corporation and its successors and assigns.

18. Governing Law. To the extent not preempted by Federal law, the Plan, this Agreement, and documents evidencing rights relating to the Plan or this Agreement will be construed, administered and governed in all respects under and by the laws of the State of Delaware, without giving effect to its conflict of laws principles. If any provision of this Agreement will be held by a court of competent jurisdiction to be invalid or unenforceable, the remaining provisions hereof will continue to be fully effective. The jurisdiction and venue for any disputes arising under, or any action brought to enforce (or otherwise relating to), this Agreement will be exclusively in the courts in the State of Illinois, County of Cook, including the Federal Courts located therein (should Federal jurisdiction exist).

19. Plan Document Controls. The rights granted under this Agreement are in all respects subject to the provisions set forth in the Plan to the same extent and with the same effect as if set forth fully in this Agreement. If the terms of this Agreement conflict with the terms of the Plan document, the Plan document will control.

20. Counterparts. This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed an original and all of which together shall constitute but one and the same instrument.

21. Waiver; Cumulative Rights. The failure or delay of either party to require performance by the other party of any provision of this Agreement will not affect its right to require performance of such provision unless and until such performance has been waived in writing. Each right under this Agreement is cumulative and may be exercised in part or in whole from time to time.

22. Tax Consequences. Participant agrees to determine and be responsible for all tax consequences to Participant with respect to the Restricted Stock Units.

23. Section 409A. The Restricted Stock Units granted hereunder are intended to comply with, or otherwise be exempt from, Section 409A, including the exceptions and exemptions for short term deferrals, stock rights, and separation pay arrangements. This Agreement and all Restricted Stock Units shall be administered, interpreted, and construed in a manner consistent with Section 409A. Should any provision of this Agreement, or any other agreement or arrangement contemplated by this Agreement, be found not to comply with, or otherwise be exempt from, the provisions of Section 409A, such provision shall be modified and given effect (retroactively if necessary), in the sole discretion of the Corporation, and without the consent of Participant, in such manner as the Corporation determines to be necessary or appropriate to comply with, or to effectuate an exemption from, Section 409A. Notwithstanding the forgoing, no provision of this Agreement, or any other agreement or arrangement contemplated by this Agreement shall be construed as a guarantee by the Corporation of any particular tax effect to Participant. Each payment made under this Agreement shall be designated as a separate payment within the meaning of Section 409A. Any payment that is subject to Section 409A and payable upon Participant's termination of employment or other similar event shall not be made

unless Participant has experienced a "separation from service" as defined under Section 409A. Any payment subject to Section 409A that is to be made upon a "separation from service" to Participant on any date when he or she is a "specified employee" as defined under Section 409A shall not be paid before the date that is six (6) months following Participant's "separation from service" or, if earlier, Participant's death.

24. Compensation Recovery. Notwithstanding anything in this Agreement to the contrary, the Restricted Stock Units, Dividend Equivalent Rights and any shares of Stock issued pursuant to the Restricted Stock Units and any proceeds therefrom shall be subject to and remain subject to any compensation recovery policies of the Corporation (i) currently in effect, (ii) as may be adopted by the Corporation to comply with applicable laws and/or the rules and regulations of the securities exchange or inter-dealer quotation system on which the shares of Stock are listed or quoted, including, without limitation, pursuant to Section 10D of the Exchange Act and Rule 10D-1 thereunder, or (iii) as may be adopted by the Corporation to help facilitate the Corporation's objectives, including, without limitation, related to eliminating or reducing fraud, misconduct, wrongdoing, or violations of law by an employee or similar considerations and, in each case, as may be amended from time to time (the "Policies"), with the provisions contained in such Policies deemed incorporated into this Agreement without Participant's additional or separate consent. For purposes of the foregoing, Participant expressly and explicitly authorizes the Corporation to issue instructions, on Participant's behalf, to any brokerage firm and/or third-party administrator engaged by the Corporation to hold any shares of Stock and other amounts acquired pursuant to the Restricted Stock Units to re-convey, transfer or otherwise return such shares of Stock and/or other amounts to the Corporation upon the Corporation's enforcement of the Policies. No recovery of compensation as described herein will be an event giving rise to a right to resign for "Good Reason" or "constructive termination" (or similar term) under any plan of, or agreement with, the Corporation, the Employer and/or Participant.

25. Addendum to Agreement. Notwithstanding any provision of this Agreement to the contrary, if Participant resides or is employed outside the U.S. or transfers residence or employment outside the U.S., the Restricted Stock Units shall be subject to such special terms and conditions as are set forth in the addendum to this agreement (the "Addendum"). Further, if Participant transfers residency and/or employment to another country, any special terms and conditions for such country will apply to the Restricted Stock Units to the extent the Corporation determines, in its sole discretion, that the application of such terms and conditions is necessary or advisable in order to comply with local law or to facilitate the operation and administration of the Restricted Stock Units and the Plan (or the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer). In all circumstances, the Addendum shall constitute part of this Agreement.

IN WITNESS WHEREOF, the Corporation and Participant have duly executed this Agreement as of the date first written above.

Cboe Global Markets, Inc.

_____ By: _____

Participant's Name

_____ Its: _____

Participant's Signature

ADDENDUM

CBOE GLOBAL MARKETS, INC. LONG-TERM INCENTIVE PLAN
RESTRICTED STOCK UNIT AWARD AGREEMENT

This Addendum to the Agreement includes additional terms and conditions that govern the Restricted Stock Units if Participant resides and/or is employed outside of the United States or transfers residence or employment outside the United States. Certain capitalized terms used but not defined in this Addendum have the meanings set forth in the Agreement or the Plan.

1. Nature of Grant. In accepting the Restricted Stock Units, Participant acknowledges that:

(a) the Plan is established voluntarily by the Corporation, is discretionary in nature and may be modified, amended, suspended or terminated by the Corporation at any time, to the extent permitted by the Plan;

(b) the award of the Restricted Stock Units is exceptional, discretionary, voluntary and occasional and does not create any contractual or other right to receive future grants of Restricted Stock Units, or benefits in lieu of Restricted Stock Units, even if Restricted Stock Units have been granted in the past;

(c) all decisions with respect to future Restricted Stock Unit awards, if any, will be at the sole discretion of the Corporation;

(d) Participant is voluntarily participating in the Plan;

(e) the Restricted Stock Units and any shares of Stock that may be received in settlement of the Restricted Stock Units, and the income and value of same, (i) are an extraordinary item that does not constitute compensation of any kind for services of any kind rendered to the Corporation or the Affiliate that employs Participant (the "Employer"), and which is outside the scope of Participant's employment contract, if any, (ii) are not intended to replace any pension rights or compensation, and (iii) are not part of normal or expected compensation or salary for any purpose, including, but not limited to, calculating any severance, resignation, termination, redundancy, dismissal, end-of-service payments, holiday pay, bonuses, long-service awards, leave-related payments, pension or retirement or welfare benefits or similar payments;

(f) the Restricted Stock Unit award will not be interpreted to form an employment nor non-employee director contract or relationship with the Corporation or any Affiliate, nor does it amend any legal relationship or legal entitlement between Participant and the Employer;

(g) this Agreement, the transactions contemplated hereunder and the vesting schedule set forth herein do not constitute an express or implied promise of Participant's further employment for the vesting period, for any period, or at all, and will not interfere with Participant's right or the right of the Corporation or the Employer to terminate Participant's employment relationship at any time with or without cause;

(h) unless otherwise agreed with the Corporation, the Restricted Stock Units and the shares of Stock underlying the Restricted Stock Units, and the income and value of same, are not granted as consideration for, or in connection with, the service Participant may provide as a director of an Affiliate;

(i) the future value of the underlying shares of Stock is unknown, indeterminable and cannot be predicted with certainty;

(j) neither the Corporation, the Employer nor any Affiliate shall be liable for any foreign exchange rate fluctuation between Participant's local currency and the United States Dollar that may affect the value of the Restricted Stock Units or of any amounts due to Participant pursuant to the settlement of the Restricted Stock Units or the sale of any shares of Stock Participant may acquire upon such settlement;

(k) in consideration of the grant of the Restricted Stock Units, no claim or entitlement to compensation or damages shall arise from termination of the Restricted Stock Units or diminution in value of the Restricted Stock Units or shares of Stock acquired upon vesting of the Restricted Stock Units resulting from Participant's termination of Service (for any reason whatsoever and whether or not in breach of local labor laws) and Participant irrevocably releases the Corporation and the Employer from any such claim that may arise; and

(l) the Restricted Stock Units and the benefits evidenced by this Agreement do not create any entitlement not otherwise specifically provided for in the Plan or provided by the Corporation in its discretion, to have the Restricted Stock Units or any such benefits transferred to, or assumed by, another company or to be exchanged, cashed out or substituted for, in connection with any corporate transaction affecting the shares of the Corporation.

2. Reserved.

3. Payment of Withholding Taxes. Participant acknowledges and agrees that if Participant is subject to tax and/or social contributions in more than one jurisdiction, the Corporation or its Affiliate(s) may be required to withhold or account for taxes and/or social contributions in more than one jurisdiction, in accordance with the methods of withholding described in Section 8 of the Agreement.

4. Data Privacy.

(a) Data Collection and Usage. The Corporation and the Employer will collect, process and use certain personal information about Participant, specifically, Participant's name, home address, email address and telephone number, date of birth, social security or insurance number, passport number or other identification number, salary, nationality, job title, any shares of Stock or directorships held in the Corporation, details of all Restricted Stock Units or any other entitlement to shares of Stock awarded, canceled, exercised, vested, unvested or outstanding in Participant's favor ("Data"), for the exclusive purpose of implementing, administering and managing the Plan.

(b) Recipients of Data.

a. Stock Plan Administration Service Providers. The Corporation and the Employer transfer Data to Fidelity Stock Plan Services, LLC (and/or its affiliates, collectively "Fidelity"), the designated broker assisting in the implementation, administration and management of the Plan. In the future, the Corporation may select a different service provider and share Data with such other provider serving in a similar manner.

b. Other Service Provider Data Recipients. The Corporation also may transfer Data to other third party service providers, if necessary to ensure compliance with applicable tax, exchange control, securities and labor law. Such third party service providers may include the Corporation's legal counsel as well as its auditor, human resources consultant and payroll vendor. Wherever possible, the Corporation will anonymize data, but Participant understands that his or her Data may need to be transferred to such providers to ensure compliance with applicable law and/or tax requirements.

c. Securities or Other Regulatory Authorities. In addition to the recipients identified herein and where required under applicable law, Data also may be disclosed to certain securities or other regulatory authorities, including where the Corporation's securities are listed or traded or regulatory filings are made. The legal basis, where required, for such disclosure is compliance with applicable law.

(c) International Data Transfers. The Corporation, Fidelity and other service providers described above are located in the United States. The United States may have different data privacy laws and protections than Participant's country of residence (or country of employment, if different).

(d) Legal Basis for Collection, Processing and Transfer of Data.

a. Participants within the EU / European Economic Area ("EEA"), Switzerland and the United Kingdom

i. The collection, processing and transfer of Data is necessary for the legitimate purpose of the Corporation and Employer's administration of the Plan and Participant's participation in the Plan.

ii. When transferring Data to potential recipients outside the EU/EEA, Switzerland and/or the United Kingdom, the Corporation and the Employer strive to provide appropriate safeguards in accordance with Standard Contractual Clauses or other legally binding and permissible arrangements. For further information on the transfer of Participant's personal data outside of the EU/EEA, Switzerland and/or the United Kingdom, Participant may contact his or her human resources representative.

b. Participants outside the EU / EEA, Switzerland and the United Kingdom

i. Participant hereby explicitly and unambiguously consents to the collection, processing and use, in electronic or other form, of Participant's Data by the Corporation and the transfer of Data to the recipients mentioned above, including recipients located in countries which do not adduce an adequate level of protection from a non-U.S. data protection law perspective, for the purposes described above. Upon transfer of Participant's Data to Fidelity, Participant may be asked to agree to separate terms and data processing practices with Fidelity, with such agreement being a condition of the ability to participate in the Plan.

ii. Participation in the Plan is voluntary and Participant understands that Participant is providing the consent herein on a purely voluntary basis. If Participant does not consent, or later seeks to revoke his or her consent, Participant's employment status or Service and career with the Employer will not be adversely affected. The only consequence of refusing or withdrawing consent is that the Corporation would not be able to grant Restricted Stock Units or other equity awards to Participant or administer or maintain such awards. Therefore, Participant understands that refusing or withdrawing his or her consent may affect Participant's ability to participate in the Plan. For more information on the consequences of Participant's refusal to consent or withdrawal of consent, Participant understands that Participant may contact his or her human resources representative.

(e) Data Retention. Participant understands that Data will be held only as long as is necessary to implement, administer and manage his or her participation in the Plan or comply with applicable laws. When the Corporation no longer needs the Data, the Corporation will remove it from its systems.

(f) Data Subject Rights. Participant understands that Participant may have the right under applicable law to (i) access or copy Data that the Corporation possesses, (ii) rectify incorrect Data, (iii) delete Data, (iv) restrict processing of Data, (v) opt out of the Plan, or (vi) lodge complaints with the competent supervisory authorities in Participant's jurisdiction. To receive clarification regarding these rights or to exercise these rights, Participant understands that Participant can contact his or her local human resources representative.

5. No Advice Regarding Grant. The Corporation is not providing any tax, legal or financial advice, nor is the Corporation making any recommendations regarding Participant's participation in the Plan, or Participant's acquisition or sale of the underlying shares of Stock. Participant should consult with his or her own personal tax, legal and financial advisors regarding Participant's participation in the Plan before taking any action related to the Plan.

6. Imposition of Other Requirements. The Corporation reserves the right to impose other requirements on Participant's participation in the Plan, on the Restricted Stock Units and

on any shares of Stock acquired under the Plan, to the extent the Corporation determines it is necessary or advisable for legal or administrative reasons. Such requirements may include (but are not limited to) requiring Participant to sign any agreements or undertakings that may be necessary to accomplish the foregoing.

7. Insider Trading/Market Abuse Laws. By participating in the Plan, Participant agrees to comply with the Corporation's policy on insider trading (to the extent that it is applicable to Participant). Participant further acknowledges that, depending on Participant's or the broker's country of residence or where the shares of Stock are listed, Participant may be subject to insider trading restrictions and/or market abuse laws, which may affect Participant's ability to accept, acquire, sell or otherwise dispose of shares of Stock, rights to shares of Stock (e.g., Restricted Stock Units) or rights linked to the value of shares of Stock, during such times Participant is considered to have "inside information" regarding the Corporation as defined by the laws or regulations in Participant's country. Local insider trading laws and regulations may prohibit the cancellation or amendment of orders Participant places before Participant possessed inside information. Furthermore, Participant could be prohibited from (i) disclosing the inside information to any third party (other than on a "need to know" basis) and (ii) "tipping" third parties or causing them otherwise to buy or sell securities. Participant understands that third parties include fellow employees. Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable Corporation insider trading policy. Participant acknowledges that it is Participant's responsibility to comply with any applicable restrictions, and that Participant should therefore consult Participant's personal advisor on this matter.

8. Foreign Asset/Account Reporting; Exchange Controls. Participant's country may have certain foreign asset and/or account reporting requirements and/or exchange controls which may affect Participant's ability to acquire or hold shares of Stock under the Plan or cash received from participating in the Plan (including from any dividends received or sale proceeds arising from the sale of shares of Stock) in a brokerage or bank account outside Participant's country. Participant may be required to report such accounts, assets or transactions to the tax or other authorities in his or her country. Participant also may be required to repatriate sale proceeds or other funds received as a result of Participant's participation in the Plan to his or her country through a designated bank or broker and/or within a certain time after receipt. Participant acknowledges that it is his or her responsibility to be compliant with such regulations, and Participant should consult his or her personal legal advisor for any details.

9. Language. If Participant is resident in a country where English is not an official language, Participant acknowledges that Participant is sufficiently proficient in English to understand the terms and conditions of the Agreement or has had the ability to consult with an advisor who is sufficiently proficient in the English language. Participant further acknowledges and agrees that it is Participant's express intent that the Agreement, the Addendum and the Plan and all other documents, notices and legal proceedings entered into, given or instituted pursuant to the Restricted Stock Units be drawn up in English. If Participant has received the Agreement, the Addendum or any other document related to

the Plan translated into a language other than English and if the meaning of the translated version is different than the English version, the English version will control.

10. Annex to Addendum. Notwithstanding any provision of the Agreement or Addendum to the contrary, the Restricted Stock Units shall be subject to such special terms and conditions for Participant's country of residence (and country of employment, if different), as are set forth in the annex to this Addendum (the "Annex"). Further, if Participant transfers residency and/or employment to another country, the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer. In all circumstances, the Annex shall constitute part of this Addendum.

ANNEX

This Annex to the Addendum includes additional terms and conditions that govern the Restricted Stock Units if Participant resides and/or is employed in the country addressed herein or transfers residence or employment to the country addressed herein. If Participant transfers residence and/or employment to another country, the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate Participant's transfer. Certain capitalized terms used but not defined in this Annex have the meanings set forth in the Agreement (including the Addendum) or the Plan.

Australia

1. Tax Notification. The Plan is a plan to which Subdivision 83A-C of the Income Tax Assessment Act 1997 (Cth) (the "Act") applies (subject to conditions in the Act).

2. Offer Document. The Corporation is pleased to provide this offer to participate in the Plan. This offer document sets out information regarding the award for Australian-resident Participants ("Australian Participants"). It is for informational purposes and is intended to comply with the provisions of the Australian Corporations Act 2001 (Cth) ("Corporations Act 2001") and Australian Securities and Investments Commission ("ASIC") Instrument 22-0283.

   Additional Documents

   In addition to the information set out in the Agreement (including the Addendum and this Annex), Participant is also being provided with copies of the following documents:

   1. the Plan; and
   2. the Plan Prospectus describing the terms of the Plan (the "Plan Prospectus"); and
   3. any supplemental documents to the Plan and Plan Prospectus, as necessary.

   These additional documents provide further information to help Participant make an informed investment decision about participating in the Plan. Neither the Plan nor the Plan Prospectus is a prospectus for the purposes of the Corporations Act 2001.

   Participant should not rely upon any oral statements made in relation to this offer. Participant should rely only upon the statements contained in the Agreement and the additional documents when considering participation in the Plan.

   General Information Only

   Any information given by the Corporation or any subsidiary or affiliate in relation to the Restricted Stock Units is general and does not take into account an Australian Participant's objectives, financial situation and needs. Australian Participants should consider obtaining their own financial product advice from an independent person who is licensed by ASIC to give such advice.

Acquisition Price

No acquisition price is payable by Participant for the Corporation to grant Participant the number of Restricted Stock Units set forth in the Agreement or for Participant to acquire shares of Stock upon settlement of the Restricted Stock Units.

Shares of Stock

A share of common stock of a U.S. corporation is analogous to an ordinary share of an Australian Corporation. Each holder of a share of common stock is entitled to one vote for every share held.

The shares of Stock are traded on Cboe BZX in the United States of America under the symbol "CBOE".

Shares of Stock are not liable to any further calls for payment of capital or for other assessment by the Corporation and have no sinking fund provisions, pre-emptive rights, conversion rights or redemption provisions.

Risks of Acquiring Shares of Stock

This paragraph provides Australian Participants with general information about the risks of acquiring and holding shares of Stock. Before accepting the grant of Restricted Stock Units, Australian Participants should satisfy themselves that they have a sufficient understanding of these matters and should consider whether shares of Stock are a suitable investment for them, having regard to their own investment objectives, financial circumstances and taxation position.

(a) *Price of shares of Stock may fluctuate:* The price at which a share of Stock is quoted on the Cboe BZX may increase or decrease due to a number of factors. Some of the factors that may affect the price of the shares of Stock include fluctuations in the domestic and international market for listed stocks, general economic conditions, including interest rates, inflation rates, changes to government fiscal, monetary or regulatory policies, legislation or regulation, the nature of the markets in which the Corporation operates and general operational and business risks.

More information about potential factors that could affect the Corporation's business and financial results is included in the Corporation's Quarterly Reports on Form 10-Q and Annual Reports on Form 10-K. Copies of these forms are available at http://www.sec.gov/ and upon request to the Corporation.

In addition, Participant should be aware that the value of the shares of Stock Participant may acquire will be affected by the U.S./Australian dollar exchange rate. Participation in the Plan involves certain risks related to fluctuations in this rate of exchange.

(b) *Trading in shares of Stock may not be liquid:* There can be no guarantee that an active market in shares of Stock will continue or that the price of shares of Stock will increase. The number of potential buyers or sellers of shares of Stock on the Cboe BZX

may vary at any time. This may increase the volatility of the market price of shares of Stock. It may also affect the prevailing market price at which shareholders are able to sell their shares of Stock. This may result in shareholders receiving a market price for their shares of Stock that is less than the price that shareholders paid.

(c) *Risk of dilution:* In the future, the Corporation may elect to issue stock (or securities convertible into stock) including in connection with fundraisings for acquisitions that the Corporation may decide to make. Shareholders may be diluted as a result of such issues of stock or securities or such issues may reduce the market price of shares of Stock.

(d) *Dividends on shares of Stock*: The Corporation may pay dividends on shares of Stock. Payment of future dividends, and the timing and amount of any dividends the Corporation determines to pay, are at the discretion of the Board.

Market Price of shares of Stock in Australian Dollars

An Australian Participant can, from time to time, ascertain the market price of the shares of Stock by obtaining that price from the Corporation website (http://ir.cboe.com/) or The Wall Street Journal. The Australian dollar equivalent of that price can be obtained at the website of the Reserve Bank of Australia (http://www.rba.gov.au/statistics/frequency/exchange-rates.html).

This will not be a prediction of what the market price per share will be when the Restricted Stock Units vest and the shares of Stock are issued or of the applicable exchange rate on the actual vesting date or the date the shares of Stock are issued.

Canada

1. Settlement of Restricted Stock Units: Notwithstanding anything to the contrary in the Agreement or any related document, if Participant is resident or employed in Canada, the Corporation shall have absolute discretion to settle the Restricted Stock Units in shares of Stock or in the form of a cash payment or in any combination of the foregoing.

2. Securities Law Notification: Participant acknowledges and agrees that he or she is permitted to sell shares of Stock acquired under the Plan through the designated broker appointed under the Plan, provided the resale of shares of Stock takes place outside of Canada through facilities of a stock exchange on which the shares of Stock are listed. The shares of Stock currently are listed on Cboe BZX in the United States.

3. Termination of Employment: Except as may be determined by the Committee and except as otherwise provided in Section 3 of the Agreement, for purposes of Section 3(d) of the Agreement, Participant's Service will be considered terminated as of the date Participant ceases to be an employee of the Corporation (or, if different, the Affiliate to which Participant provides Service) for any reason, whether lawful or otherwise (including, without limitation, by reason of resignation, death, frustration of contract, termination for Cause, termination without Cause, or constructive dismissal), without regard to any pay in lieu of notice

(whether by way of lump sum or salary continuance), benefits continuance, or other termination related payments or benefits, whether pursuant to the common law or otherwise, to which Participant may then be entitled (the "Termination Date"). In the event that the Termination Date cannot reasonably be determined under the terms of the Plan and the Agreement, the Committee and its delegate shall have the exclusive discretion to determine when the Termination Date occurs for purposes of the Plan (including whether Participant may still be considered to be providing Service while on any leave of absence).

Unless otherwise extended by the Corporation, or as may be required to satisfy the minimum requirements of applicable employment or labour standards legislation, any portion of the award that is not vested on the Termination Date shall terminate immediately and be null and void, and Participant will have no entitlement to further vesting in the Restricted Stock Units or compensation in lieu thereof following the Termination Date, and Participant waives any claim to damages in respect thereof whether related or attributable to any contractual or common law termination entitlements or otherwise. For additional clarity, if applicable employment or labour standards legislation specifically requires continued entitlement to vesting during a statutory notice period, Participant's right to vest in the Restricted Stock Units, if any, will be allowed to continue for that minimum notice period but then immediately terminate effective as of the last day of Participant's minimum statutory notice period.

Hong Kong

1. Settlement in Shares of Stock. Notwithstanding anything to the contrary in the Agreement, the Addendum or the Plan, the Restricted Stock Units shall be settled only in shares of Stock (and may not be settled in cash).

2. Disposal of Shares of Stock. If, for any reason, shares of Stock are issued to Participant within six (6) months after the Award Date, Participant agrees that Participant will not sell or otherwise dispose of any such shares of Stock prior to the six (6) month anniversary of the Award Date.

3. IMPORTANT NOTICE/WARNING. *The contents of this document have not been reviewed by any regulatory authority in Hong Kong. Participant is advised to exercise caution in relation to the offer. If Participant is in any doubt about any of the contents of the documents, Participant should obtain independent professional advice. The Restricted Stock Units and shares of Stock issued in settlement of the Restricted Stock Units do not constitute a public offering of securities under Hong Kong law and are available only to employees of the Corporation or its Affiliates. The Agreement, the Plan and other incidental communication materials have not been prepared in accordance with and are not intended to constitute a "prospectus" for a public offering of securities under the applicable securities legislation in Hong Kong. The Restricted Stock Units are intended only for the personal use of each eligible employee of the Employer, the Corporation or an Affiliate and may not be distributed to any other person.*

4. Wages. The Restricted Stock Units and shares of Stock subject to the Restricted Stock Units do not form part of Participant's wages for purposes of calculating any statutory or contractual payments under Hong Kong law.

Netherlands

1. Exclusion of Claim: Participant acknowledges and agrees that Participant will have no entitlement to compensation or damages insofar as such entitlement arises or may arise from Participant ceasing to have rights under the Plan, whether or not as a result of termination of Participant's Service (whether such termination is in breach of contract or otherwise), or from the loss of diminution in value of the shares of Stock underlying the Restricted Stock Units. Upon the grant of the Restricted Stock Units, Participant shall be deemed to have waived irrevocably such entitlement.

Philippines

1. Settlement in Cash. Notwithstanding anything to the contrary in the Agreement, the Addendum or the Plan, the Restricted Stock Units shall be settled only in cash (and shall not be settled in shares of Stock), unless otherwise determined by the Corporation.

Singapore

1. Securities Law Information. The grant of the Restricted Stock Units under the Plan is being made pursuant to the "Qualifying Person" exemption under section 273(1)(f) of the Securities and Futures Act (Chapter 289, 2006 Ed.) ("SFA"). The Plan has not been and will not be lodged or registered as a prospectus with the Monetary Authority of Singapore and is not regulated by any financial supervisory authority pursuant to any legislation in Singapore. Accordingly, statutory liability under the SFA in relation to the content of prospectuses would not apply. Participant should note that the Restricted Stock Units are subject to section 257 of the SFA and Participant will not be able to make any subsequent sale of shares of Stock in Singapore, or any offer of such subsequent sale of shares of Stock subject to the Restricted Stock Units in Singapore, unless such sale or offer is made (i) after six (6) months from the Award Date or (ii) pursuant to the exemptions under Part XIII Division (1) Subdivision (4) (other than section 280) of the SFA.

Switzerland

1. Securities Law Information. Neither the Agreement nor any other materials relating to the grant of Restricted Stock Units (a) constitutes a prospectus according to articles 35 et seq. of the Swiss Federal Act on Financial Services ("FinSA"), (b) may be publicly distributed or otherwise made publicly available in Switzerland to any person other than an employee of the Corporation or one of its Affiliates or (c) has been or will be filed with, approved or supervised by any Swiss reviewing body according to article 51 FinSA or any Swiss regulatory authority, including the Swiss Financial Market Supervisory Authority, FINMA.

United Kingdom (Including Northern Ireland)

1. Payment of Withholding Taxes. The following provision supplements the section of the Agreement titled "Payment of Withholding Taxes":

> Without limitation to the section of the Agreement titled 'Payment of Withholding Taxes', Participant agrees that Participant is liable for all income tax and employee national insurance contributions or other social contributions or withholding taxes ("Tax-Related Items") and hereby covenants to pay all such Tax-Related Items, as and when requested by the Corporation, the Employer or by HM's Revenue and Customs ("HMRC") (or any other tax authority or any other relevant authority). Participant also agrees to indemnify and keep indemnified the Corporation and the Employer against any Tax-Related Items that they are required to pay or withhold or have paid or will pay on Participant's behalf to HMRC (or any other tax authority or any other relevant authority).
>
> Notwithstanding the foregoing, if Participant is a director or executive officer (as within the meaning of Section 13(k) of the U.S. Securities Exchange Act of 1934, as amended), the terms of the immediately foregoing provision will not apply. In the event that Participant is a director or executive officer and income tax due is not collected from or paid by Participant within 90 days after the U.K. tax year in which an event giving rise to the indemnification described above occurs, the amount of any uncollected tax may constitute a benefit to Participant on which additional income tax and national insurance contributions may be payable. Participant acknowledges that Participant ultimately will be responsible for reporting and paying any income tax due on this additional benefit directly to HMRC under the self-assessment regime and for reimbursing the Corporation or the Employer (as applicable) for the value of any employee national insurance contributions due on this additional benefit, which the Corporation and/or the Employer may recover from Participant at any time thereafter by any of the means referred to in section of the Agreement titled "Payment of Withholding Taxes".

2. Exclusion of Claim. Participant acknowledges and agrees that Participant will have no entitlement to compensation or damages insofar as such entitlement arises or may arise from Participant's ceasing to have rights under or to be entitled to the Restricted Stock Units, whether or not as a result of termination of Service (whether such termination is in breach of contract or otherwise), or from the loss or diminution in value of the Restricted Stock Units. Upon the award of the Restricted Stock Units, Participant shall be deemed irrevocably to have waived any such entitlement.

3. Section 2 of the Addendum. Section 2 of the Addendum (Participants in the European Union) shall not apply to the Restricted Stock Units.

Exhibit 21.1

SUBSIDIARIES OF CBOE GLOBAL MARKETS, INC.
AS OF DECEMBER 31, 2023

Name of Subsidiary	Jurisdiction of Organization
Cboe Bats, LLC	Delaware
Cboe Clear Europe N.V.	Netherlands
Cboe Exchange, Inc.	Delaware
Cboe Services Company	Delaware
Cboe Worldwide Holdings Limited	United Kingdom
Omicron Acquisition Corp.	Delaware

The above is a list of Cboe Global Markets, Inc.'s subsidiaries as of December 31, 2023, and the states or jurisdictions in which they are organized. Pursuant to Item 601(b)(21)(ii) of Regulation S-K, excluded from the list are subsidiaries that, if considered in the aggregate, would not constitute a "significant subsidiary" as defined by Rule 1-02(w) of Regulation S-X under the Securities Exchange Act of 1934.

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the registration statements (Nos. 333-167506, 333-174344, 333-216375, and 333-225039 on Form S-8, Nos. 333-215401, 333-235649, and 333-269860 on Form S-3, and Post-Effective Amendment No. 1 to No. 333-214488 on Form S-8 to Form S-4) of our reports dated February 16, 2024, with respect to the consolidated financial statements of Cboe Global Markets, Inc. and the effectiveness of internal control over financial reporting.

/s/ KPMG LLP

Kansas City, Missouri
February 16, 2024

Exhibit 31.1

Certification Pursuant To

Rule 13a-14(a) of the Securities Exchange Act of 1934

I, Fredric J. Tomczyk, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2023 of Cboe Global Markets, Inc. (the "registrant");

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 16, 2024

/s/ Fredric J. Tomczyk

Name: Fredric J. Tomczyk
Title: *Chief Executive Officer*

Exhibit 31.2

Certification Pursuant To

Rule 13a-14(a) of the Securities Exchange Act of 1934

I, Jill M. Griebenow, certify that:

1. I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2023 of Cboe Global Markets, Inc. (the "registrant");

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 16, 2024

/s/ Jill M. Griebenow

Name: Jill M. Griebenow

Title: *Chief Financial Officer*

Exhibit 32.1

Written Statement of the Chief Executive Officer
Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002

Solely for the purposes of complying with 18 U.S.C. Section 1350, I, the undersigned Chief Executive Officer of Cboe Global Markets, Inc. (the "Company"), hereby certify, based on my knowledge, that the Annual Report on Form 10-K of the Company for the fiscal year ended December 31, 2023 (the "Report") fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934 and that information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Fredric J. Tomczyk
Fredric J. Tomczyk
February 16, 2024

Exhibit 32.2

Written Statement of the Executive Vice President and Chief Financial Officer
Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002

Solely for the purposes of complying with 18 U.S.C. Section 1350, I, the undersigned Executive Vice President and Chief Financial Officer of Cboe Global Markets, Inc. (the "Company"), hereby certify, based on my knowledge, that the Annual Report on Form 10-K of the Company for the fiscal year ended December 31, 2023 (the "Report") fully complies with the requirements of Section 13(a) of the Securities Exchange Act of 1934 and that information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Jill M. Griebenow

Jill M. Griebenow
February 16, 2024

Exhibit 97.1

Cboe Global Markets, Inc. Executive Officer Incentive Compensation Clawback Policy

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Purpose

The Board of Directors (the "Board") of Cboe Global Markets, Inc. ("CGM" or the "Company), has adopted this policy (this "Policy") which requires the recovery of certain executive incentive compensation in the event that the Company is required to prepare an Accounting Restatement (as defined below). This Policy is designed to comply with Section 10D of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), Rule 10D-1 thereunder, and Rule 14.10 of the Cboe BZX Exchange, Inc. ("BZX") Listing Rules ("Rule 14.10") and will be interpreted and applied accordingly. This Policy supersedes in its entirety the previous Cboe Global Markets, Inc. Officer Compenstaion Clawback Policy (the "Prior Policy") and any other policies of the Company covering the same subject matter, except as otherwise expressly set forth herein.

Administration/Applicability/Scope

This Policy will be administered by the Compensation Committee of the Board (the "Committee"). The Committee is authorized to interpret and construe this Policy and to make all determinations necessary, appropriate, or advisable for the administration of this Policy. Any determinations made by the Committee will be final and binding on all affected individuals. This Policy may also be administered by the Board or any other appropriate committee or committees of the Board, as may be designated by the Board from time to time.

The Committee (and each member thereof) shall be entitled to, in good faith, rely or act upon any report or other information furnished to them by any officer or employee of the Company, legal counsel, independent auditors, consultants or any other agents assisting in the administration of the Policy. Subject to applicable law, the Committee, in its sole discretion, may delegate any or all of its powers and duties under the Policy, to specified officers of the Company, subject to such limitations on such delegated powers and duties as the Committee may impose, if any.

This Policy applies to the Company's current and former Executive Officers (as defined below).

Definitions

- "Accounting Restatement" means a requirement that the Company prepare an accounting restatement due to the material noncompliance of the Company with any financial reporting requirement under the U.S. federal securities laws, including any required accounting restatement (i) to correct an error in previously issued financial statement that is material to the previously issued financial statements ("Big 'R' Restatement") or (ii) to correct an error that is not material to previously issued financial statements, but would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period ("Little 'r' Restatement"), as determined by the Audit Committee of the Board, the Board, or any other committee or officer authorized to make such a determination. Changes to the Company's financial statements that do not represent error corrections are not an Accounting Restatement, including: (A) retrospective application of a change in accounting principle; (B) retrospective revision to reportable segment information due to a change in the structure of the Company's internal organization; (C) retrospective reclassification due to a discontinued operation; (D) retrospective application of a change in reporting entity, such as from a reorganization of entities under common control; and (E) retrospective revision for stock splits, reverse stock splits, stock dividends or other changes in capital structure; and (F) other substantially similar changes.
- "Executive Officer" means any current or former executive officer, as determined pursuant to Rule 16a-1(f) promulgated under the Exchange Act, and including executive officers identified under Item 401(b) of Regulation S-K.
- "Financial Reporting Measure" includes (i) any measure that is determined and presented in accordance with the accounting principles used in preparing the Company's financial statements and any measure that is derived wholly or in part from any such measure, (ii) the Company's stock price, or (iii) the total stockholder return of the Company. A measure, however, need not be presented within the financial statements or included in a filing with the U.S. Securities and Exchange Commission ("SEC") to constitute a Financial Reporting Measure.

- "Incentive-based Compensation" means any compensation that is granted, earned, or vested based wholly or in part upon the attainment of a Financial Reporting Measure. Incentive-based Compensation is deemed "Received" in the Company's fiscal period during which the Financial Reporting Measure specified in such Incentive Compensation is attained.
- "Covered Incentive-based Compensation" means Incentive-based Compensation Received on or after October 2, 2023 by a person: (i) after beginning service as an Executive Officer, (ii) who has served as an Executive Officer at any time during the performance period for that Incentive-based Compensation, and (iii) while the Company has a class of securities listed on a national securities exchange or national securities association. Compensation received by executive officers prior to October 2, 2023 shall continue to be subject to potential recovery under the Prior Policy.
- "Recovery Period" means the three (3) completed fiscal years immediately preceding the Restatement Date and any transition period resulting from a change in the Company's fiscal year within or immediately following the three completed fiscal years.
- "Restatement Date" means the date that is the earlier to occur of (i) the date that the Board, a committee thereof, or authorized officers concluded, or reasonably should have concluded that an accounting restatement is necessary or (ii) the date that the Company is directed to prepare an accounting restatement by a court, regulator, or other legally authorized body.

Recoupment Upon an Accounting Restatement

If the Company is required to prepare an Accounting Restatement, the Committee will reasonably promptly recover the amount of the Covered Incentive-based Compensation that was Received by each Executive Officer during the Recovery Period in excess of the amount that would have been Received had such Covered Incentive-based Compensation been determined based on the restated Financial Reporting Measure, computed without regard to taxes paid (such amount, the "Erroneously Awarded Compensation"), subject to impracticability discussed below.

If the amount of Covered Incentive-based Compensation Received by an Executive Officer was based on the Company's stock price or total stockholder return and is not subject to mathematical recalculation directly from the Accounting Restatement, the amount to be recovered as Erroneously Awarded Compensation will be based on a reasonable estimate of the effect of the Accounting Restatement on the Company's stock price or total stockholder return upon which the Covered Incentive-based Compensation was Received. The Company Secretary shall, on behalf of the Committee, obtain and maintain all documentation of the determination of any such reasonable estimate and provide such documentation to BZX when required.

Recoupment of Erroneously Awarded Compensation pursuant to this Policy is made on a "no fault" basis, without regard to whether any misconduct occurred or whether any Executive Officer has responsibility for the noncompliance that resulted in the Accounting Restatement.

Method Of Recoupment

The Committee will determine, in its sole discretion, the method(s) for recouping Erroneously Awarded Compensation hereunder, which may include, without limitation, deduction from salary; requiring reimbursement; offsetting from other compensation; forfeiture, cancellation or reduction of equity awards or deferred compensation; surrendering to the Company shares held by the Executive Officer.

The Committee will consider Section 409A of the U.S. Internal Revenue Code of 1986, as amended, prior to offsetting recouped amounts against future payments of deferred compensation. In addition, the Committee may, in its sole discretion, determine whether and to what extent additional action is appropriate to address any failure of an Executive Officer to comply with the recoupment obligations of this Policy.

Notice

To the extent the Company determines that recovery is required pursuant to this Policy, it shall provide the Executive Officer written notice prior to seeking recoupment.

Impracticability

The Committee will recover any Erroneously Awarded Compensation in accordance with this Policy unless the Committee determines that such recovery would be impracticable because (i) the direct expense paid to a third party to assist in enforcing the Policy would exceed the amount to be recovered, (ii) recovery would violate an applicable home country law adopted prior to November 28, 2022, or (iii) recovery would likely cause an otherwise tax-qualified, broad-based retirement plan of the Company to fail to meet the requirements of 26 U.S.C. 401(a)(13) or 26 U.S.C. 411(a) and regulations thereunder. Before concluding that it would be impracticable to recover any Erroneously Awarded Compensation based on the expense of enforcement, the Company shall make a reasonable attempt to recover such Erroneously Awarded Compensation, and the Company Secretary, on behalf of the Committee, shall document such reasonable attempt(s) to recover and provide that documentation to the BZX when required. Before concluding that it would be impracticable to recover any amount of Erroneously Awarded Compensation based on violation of law, the Committee shall engage legal counsel experienced and qualified to practice law in the applicable jurisdiction (if such counsel is acceptable to the BZX) to render an opinion that recovery would result in a violation of law and shall provide such opinion to the BZX. The Company shall provide funding for the fees and expenses of such legal counsel as approved by the Committee.

No Indemnification or Insurance

To the extent the Company determines that recovery is required pursuant to this Policy, neither the Company nor any of its subsidiaries or affiliates shall (i) indemnify any Executive Officer against the loss of any Erroneously Awarded Compensation or (ii) pay or reimburse any Executive Officer for any insurance policy entered into by an Executive Officer or the Company that provides for full or partial coverage of any recoupment obligation under this Policy.

Modification

The Board or the Committee may amend this Policy from time to time in its discretion in any manner consistent with applicable law and regulation. The Board or Committee may terminate this Policy at any time when the Company does not have a class of securities listed on a national securities exchange or a national securities association. The validity, construction, and effect of the Policy and any determinations relating to this Policy shall be construed in accordance with the laws of the State of Delaware without regard to its conflicts of laws principles.

Other Recoupment Rights

The Board intends that this Policy will be applied to the fullest extent of the law. Any right of recoupment under this Policy is in addition to, and not in lieu of, any other remedies or rights of recoupment that may be available to the Company pursuant to the terms of any recoupment provision in any employment agreement, severance plan, equity award agreement, bonus plan, or similar agreement or plan and any other legal remedies available to the Company. Further, the provisions of this Policy are in addition to (and not in lieu of) any rights to repayment the Company may have under Section 304 of the Sarbanes-Oxley Act of 2002 and other applicable laws.

Successors

This Policy shall be binding and enforceable against all Executive Officers and their beneficiaries, heirs, executors, administrators, or other legal representatives.

Disclosure

The circumstances of any recoupment pursuant to this Policy and any recovery foregone due to impracticability will be publicly disclosed where required by Rule 10D-1, Item 402 of Regulation S-K, and Rule 14.10. In accordance with Rule 10D-1, the Policy shall be filed with the SEC as an exhibit to the Company's Form 10-K, as provided in Item 601(b) of Regulation S-K.

Change of Listing

In the event that the Company lists its securities on any national securities exchange or national securities association other than BZX, all references to "BZX" in this Policy shall mean each national securities exchange or national securities association upon which the Company has a class of securities then listed.

Document Information <DO NOT EDIT>

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