Cboe

Cboe 2024

ANNUAL REPORT

Dear Shareholders,

As Chair of Cboe's Board of Directors, I am committed to helping to ensure that the Board is acting in your best interest to help drive continued success for Cboe. The company has evolved greatly since I joined the Board in 2016 but each year, I gain a new reminder of the value of this business and the talent of the team running it.

2024 was a strong year for Cboe. As you will read in CEO Fred Tomczyk's letter, the Cboe team spent most of 2024 sharpening its strategy and creating alignment across the company. That work paid off and Cboe achieved record net revenue and earnings in 2024. Cboe is well-positioned to have another great year in 2025.

The Board of Directors and Cboe management team are fully aligned on the strategy of the business, and I have the utmost confidence in the Cboe team's ability to execute on this strategy and vision. Cboe will further strengthen its global presence by embracing secular trends, enhancing market accessibility and continuing to operate trusted, reliable exchanges. In a time of increased uncertainty, Cboe provides essential resources for investors worldwide. Cboe's exchanges offer people a neutral place to trade their views and manage their risk exposure with the products and services needed to do so effectively—all built on leading edge, reliable technology.

As you are aware, our Board has begun a search for Fred Tomczyk's successor and on executing an orderly succession. The Board is focused on appointing the best candidate for the role, someone who will lead Cboe into its next chapter.

I want to thank Fred for his leadership as CEO over the last year and a half. Fred tenaciously led the company through a challenging time and set a strategy for long-term growth. I would also like to thank the Cboe management team, who delivered another record year and are instrumental to Cboe's continued success. From the perspective of Cboe's Board, the company is well-positioned to execute on its strategy in 2025 and continue serving as an integral part of the global financial services industry.

William M. Farrow III Chairman of the Board

Fellow Shareholders,

2024 was another remarkable year of growth for Cboe and we are confident that we are strategically positioned to capitalize on the key global secular trends shaping the future of the markets. These include the increasing popularity and adoption of options trading, the growing influence of retail investors, the ongoing globalization of markets, and the rapid advancements in technology and data management. The combination of these trends means that we are well-positioned as we enter 2025.

At the start of 2025, after 15 months as CEO of Cboe, we announced that in the latter part of last year a search for my successor began. Though my tenure has been brief, it has been highly productive and I am proud of where Cboe stands today. From day one, my priorities were to stabilize the company, sharpen the strategic focus and further develop the leadership team. Together with the Board and Executive Management team, we conducted a strategic review and refined our strategy to align with key trends impacting our business.

Today, Cboe is laser-focused on this strategy, finding opportunities to capitalize on trends and leverage our core capabilities and strengths. We have a strong management team in place, prepared to lead our company into its next chapter. Our balance sheet is in a great position, with low leverage and robust, free cash flow. Coming off the heels of a remarkable year of growth, I am energized as we enter 2025. We plan to continue to capitalize on the momentum of the last several years and execute our strategy for sustainable, long-term success. In fact, our 2024 results show the value of these efforts and the strength of our strategy and provide a window into how the strategy will serve Cboe for the long-term.

The Foundation We Laid in 2024

We achieved record net revenue in 2024 as we embraced the trends shaping our industry. While the robust options volumes were a standout for 2024, the results were notable in that each category—Derivatives Markets, Data Vantage, and Cash and Spot Markets—contributed to our record growth. Recordsetting trends drove broad-based growth across business lines as every major segment and category produced year-over-year net revenue growth.

Total U.S. options volume was a record 12.3 billion in 2024. Of that, a record 3.8 billion contracts traded across Cboe's four U.S. options exchanges. The fifth consecutive record-breaking year, 2024 reconfirmed that interest in options trading is here to stay. As the leading U.S. options exchange operator, and the inventor of listed options, Cboe is uniquely prepared to support this continued growth as we continue to invest in our Derivatives business.

Cboe's suite of index option products are a great example of how we leverage secular trends to help market participants achieve their goals. A strong indicator of the U.S. economy and overall market performance, investors want to have access to the U.S. capital markets, and our index options suite does just that. The product suite includes multiple options products for distinct audiences, creating opportunities for investors of all kinds to trade and reposition their strategies through any market. Short-dated options trading was a prominent driver of SPX options volume in 2024, as more traders incorporated the strategy into their portfolios. Meanwhile, other investors flocked to mini-SPX options (XSP) to access the U.S. market at a lower cost.

As more people enter the U.S. markets, and more seek access to our markets, we are intent on helping to ensure those markets are fair and orderly; that people have access to the tools they need to navigate markets effectively and make informed decisions. Cboe's ultimate role in the financial services industry is to be a good steward of the markets. We will continue to put that responsibility at the forefront of everything we do while embracing trends to deliver solutions that drive our business forward.

The Year Ahead

In 2025, we will continue to leverage our globally consistent, locally optimized technology platform to help more people worldwide access our markets, both domestic and foreign. With our diverse suite of products, we are well situated to help market participants navigate the elevated uncertainty we're witnessing across the market.

The enthusiasm for options trading presents significant opportunity for Cboe and we plan to lean in further this year with continued product innovation, approachable education, enhanced technology and data, strong advocacy and industry partnerships. We will continue to innovate as the market evolves, providing people with the tools they need to effectively manage risk, generate income and speculate.

Options trading is strong in the U.S. and growing around the world. Accessibility is at the root of who Cboe is, from bringing listed options to the marketplace over 50 years ago to welcoming the influx of retail traders today. We are excited about the retail community's continued interest in options and growing sophistication and want to ensure they have access to the right tools and education to participate effectively. We will continue to provide education through The Options Institute—which celebrates 40 years this year—offering more courses globally, especially in Europe to support the growth of our European derivatives market. We will also continue to partner with broker-dealers that deliver education on their platforms.

Cboe further established itself in Asia Pacific last year, emphasizing our commitment to this growing region. Market participants in Asia Pacific are eager to access U.S. markets and we are working diligently to make that more seamless and accessible. Our equities exchanges in Australia and Japan continue to attract customers and serve as an entry point to Cboe's other global markets. Leveraging Cboe Data Vantage products will be key to helping our Asia Pacific customers gain the access they need to U.S. markets.

Our robust access and market data offerings are another essential piece of Cboe's long-term success. Insightful market data and analytics—encompassed in Cboe Data Vantage—are key to successful participation for all market participants. We are continuously enhancing and expanding our datasets, offering real-time data for our global cash and spot markets, and continuously growing the options data available.

We continue to hear from global investors seeking access to the U.S. markets, especially in Asia Pacific. We support the recent industry push for 24/5 equities markets and will support progress on the initiative to help make it a reality. While the industry works toward developing a 24/5 trading environment, Cboe Data Vantage's robust U.S. equities and equity options market data offerings enable participants around the world to gain insight into the current market environment. We see this as a valuable opportunity to help investors outside of the U.S. become familiar with a new-to-them market while we continue developing innovative ways to help them access it.

Of course, everything we do is underpinned by our leading-edge technology, Cboe Titanium. With our final technology major migration complete, we now have all Cboe's exchange operations, data and analytics together on one best-in-class platform. This milestone enhances the customer experience by helping to enable efficient price discovery, robust liquidity and opportunities for diverse trading strategies.

With 2025 off to a strong start, I am excited about how Cboe is positioned. Our strategic framework is well-aligned to the secular trends we see in the capital markets we compete in and leverages our strengths; our balance sheet is in a strong position and enables us to follow a disciplined and long-term approach to capital allocation and, we are well suited to invest in strategic organic growth opportunities that drive growth not just in 2025 but beyond.

Our Team

None of the success we achieved in 2024 would be possible without our associates, and we could not get where we want to go without them. Our people are our biggest asset, and it is essential to our business that we continue to foster a workplace where they can thrive.

In 2025, we will continue to invest in our associates to help them succeed, both at work and in their personal lives. We remain committed to our core values: working hard, embracing a competitive team spirit and treating people with kindness and respect. This year we are excited to create more opportunities for collaboration through in-person connection, forging stronger relationships that will no doubt benefit our business.

We have an impressive team of associates here, with a breadth of unique skills and experiences that give us an edge. I am proud of everything the team accomplished in 2024 but not surprised. I believe in our ability to deliver our objectives in 2025 and look forward to working with our associates to accomplish our goals.

Cboe is well-positioned for its next CEO to take the reins. The business is on a solid trajectory for growth and with the right people in place to help make our vision a reality, along with and a strong balance sheet and financial outlook, we are well positioned to invest in continued growth and take advantage of strategic opportunities as they arise.

Thank you for your continued support of Cboe,

Fred Tomczyk CEO

Cautionary Statements Regarding Forward-Looking Information

Certain information contained in this letter may constitute forward-looking statements. We caution readers not to place undue reliance on any forward-looking statements, which speak only as of the date made and are subject to a number of risks and uncertainties. More detailed information about risks and uncertainties may be found in the Choe Global Markets, Inc. Annual Report on Form 10-K for the year ended December 31, 2024.

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

■ ANNUAL REPORT PURSUANT TO SECTION 1	3 OR 15(d) OF THE SECU	IRITIES EXCHANGE	ACT OF 19	34	
For the	e fiscal year ended Decer or	nber 31, 2024			
☐ TRANSITION REPORT PURSUANT TO SECTION 13 C		S EXCHANGE ACT OF	1934		
	on period from ommission file number: 0	to 01-34774	_		
(Exact Na	Cboe Global Markets me of Registrant as Specif	•			
Delaware			0-5446972		
(State or other jurisdiction of incorporation or organization) (I.R.S. Employer Identification Number)				r)	
433 West Van Buren Street					
Chicago, Illinois			60607		
(Address of principal executive offices)			(Zip Code)		
Registrar	nt's telephone number, incl (312) 786-5600	uding area code			
Securities re	egistered pursuant to Secti	on 12(b) of the Act:			
Title of Each Class	Trading Symbol (s)	Name		on Which Registered	
Common Stock, par value \$0.01 per share	CBOE		Cboe	eBZX	
	registered pursuant to Section None	,			
Indicate by check mark if the registrant is a well-kn	own seasoned issuer, as de	fined in Rule 405 of the	ne Securities A	Act. Yes 坚 No □	
Indicate by check mark if the registrant is not requi	red to file reports pursuant t	o Section 13 or Section	on 15(d) of the	Act. Yes □ No 🗷	
Indicate by check mark whether the registrant (1) had Act of 1934 during the preceding 12 months and (2) has		•	. ,		nge
Indicate by check mark whether the registrant has Rule 405 of Regulation S-T (§232.405 of this chapter) d to submit such files). Yes \blacksquare No \square					
Indicate by check mark whether the registrant is a company or an emerging growth company. See the defi "emerging growth company" in Rule 12b-2 of the Excha	nitions of "large accelerated				
Large accelerated filer ■ Accelerated filer	□ Non-accelerated filer	☐ Smaller repo company	-	Emerging growth company	
If an emerging growth company, indicate by check with any new or revised financial accounting standards	· ·			ition period for comply	ring
Indicate by check mark whether the registrant has internal control over financial reporting under Section 40 firm that prepared or issued its audit report.					
If securities are registered pursuant to Section 12(included in the filing reflect the correction of an error to p			financial state	ments of the registran	t
Indicate by check mark whether any of those error compensation received by any of the registrant's execut		•			
Indicate by check mark whether the registrant is a	shell company (as defined i	n Rule 12b-2 of the Ad	ct). Yes 🗆 No 🛭	K	
As of June 30, 2024, the aggregate market value of approximately \$17.8 billion based on the closing price of			uity held by no	n-affiliates was	
The number of outstanding shares of the registran	t's common stock as of Feb	uary 14, 2025 was 10	4,701,695 sha	ares of common stock	
DOCUM	IENTS INCORPORATED B	Y REFERENCE			
Portions of Choe Global Market's Definitive Proxy	Statement for the 2025 Anni	ual Meeting of Stockho	olders which	will be filed no later th	an

120 days after December 31, 2024, are incorporated by reference in Part III.

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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. As of January 1, 2024, the
 Cboe Canada and MATCHNow entities have been amalgamated into Cboe Canada 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 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 Clear U.S." refers to Cboe Clear U.S., LLC (formerly known as Cboe Clear Digital, LLC, formerly defined as "Cboe Clear Digital"), a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "Cboe Data Vantage" refers to the Company's Cboe Data Vantage business (formerly known as Data and Access Solutions, and subsequently referred to as Data Vantage throughout the remainder of this document).
- "Cboe Digital" refers to Cboe Digital Intermediate Holdings, LLC (formerly known as Eris Digital Holdings, LLC) and its subsidiaries.
- "Cboe Digital Exchange" refers to Cboe Digital Exchange, LLC, a wholly-owned subsidiary of Cboe Global Markets, Inc.
- "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. As of January 1, 2024, the Cboe Canada and MATCHNow entities have been amalgamated into Cboe Canada Inc.
- "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.
- "PTS" refers to a proprietary trading system.
- "SEC" refers to the U.S. Securities and Exchange Commission.
- "SFT" refers to Securities Financing Transaction(s).
- "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," or "Options on VIX futures" refers, as applicable, to our Cboe Volatility Index exchange-traded options and futures products.

TRADEMARK AND OTHER INFORMATION

Cboe®, Cboe Global Markets®, Cboe Volatility Index®, Cboe Clear®, Cboe Datashop®, Cboe Futures Exchange®, Cboe Digital®, Cboe Hanweck®, Cboe LIS®, Bats®, BIDS Trading®, BYX®, BZX®, CFE®, EDGA®, EDGX®, Hybrid®, LiveVol®, MATCHNow®, NANO®, Options Institute®, Silexx®, The Exchange for the World Stage®, VIX®, VIX1D®, and XSP® are registered trademarks, and Cboe BIDS EuropesM, Cboe Data VantagesM, Cboe TitaniumsM, Cboe TisM, f(t)optionsM, Trade AlertsM, and VIXEQSM 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 DSPXSM 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;
- · factors that impact the quality and integrity of our and other applicable indices;
- our ability to manage our global operations, 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 our clearinghouses;
- 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 our business interests and our regulatory responsibilities;
- the loss of key customers or a significant reduction in trading or clearing volumes by key customers;
- 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 accuracy of our estimates and expectations; and
- · litigation risks and other liabilities.

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.

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, 2024. 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, and FX, 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 equities exchange operator in the U.S. In addition, the Company operates Cboe Europe, one of the largest equities 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 Clear U.S., 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:

C boo	ory >	1973 Cboe is founded, becomes first marketplace for trading listed options	1983 Cboe creates options based on the S&P 100 (OEX) and S&P 500 (SPX) Indices	1985 Cboe Options Institute established	1993 Cboe creates the Cboe Volatility Index (VIX) C'boe VIX	2004 Cboe Futures Exchange (CFE) and VIX futures launch
	2005 Bats Trading Inc. is founded	2008 Bats Europe and BZX Equities exchanges launch	2010 Cboe demutualizes and completes IPO	2015 Bats Global Markets acquires Hotspot FX, later becoming Cboe's FX business Cboe acquires LiveVol	2016 Bats Global Markets completes IPO, lists on BZX Exchange	2017 Cboe acquires Bats Global Markets, making Cboe Global Markets Cboe acquires Silexx
2018 Cboe transfers the primary listings of its common stock to Cboe BZX Exchange	2019 Cboe migrates its U.S. options, equities and futures markets to one technology platform	2020 Cboe acquires Euro CCP, later rebranding to Cboe Clear Europe in 2022 Cboe acquires Hanweck, FT Options, Trade Alert, MATCHNow and BIDS Trading	2021 Cboe creates Data and Access Solutions division, renamed Data Vantage in 2024 Cboe acquires Chi-X Asia Pacific, expanding into Australia and Japan markets Launches Cboe Europe Derivatives (CEDX)	2022 Cboe BIDS Canada launches Cboe acquires NEO, expanding its North America footprint	2023 Cboe completes technology migrations in Australia and Japan, integrating Chi-X customers to the Cboe platform, and launches Cboe BIDS Australia & Cboe BIDS Japan	2024 Cboe expands its volatility suite with Cboe S&P 500 Variance Futures and Options on VIX Futures

Our Business

Choe 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 corporate listing services on Cboe Canada Inc., ETP listings on BZX, the Cboe Global Markets, Inc. common stock listing, and 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, including exchange traded funds, exchange traded notes, and 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, a closing cross book, and two BIDS orderbooks; a Large-in-Scale ("LIS") trading negotiation facility and - predominantly for UK and Swiss symbols - a volume-weighted average price ("VWAP") trajectory crossing facility. Cooe NL, based in Amsterdam, operates similar business functionality to that offered by Cboe Europe (with exception of Trajectory Crossing), and provides for trading only in European Economic Area ("EEA") symbols. Cboe Europe Derivatives, a pan-European derivatives platform, offers futures and options based on Cboe Europe equity indices, and single stock options. Cboe Clear Europe offers the clearing of equity and equity-like instruments for Cboe-operated and other regulated trading venues, the clearing of derivative transactions executed on CEDX, and has recently introduced a service to clear Securities Financing Transactions. 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. On April 25, 2024, the Company announced plans to transition the cash-settled margin Bitcoin and Ether futures contracts, currently available for trading on the Cboe Digital Exchange, to CFE in the first half of 2025, pending regulatory review.
- 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 regulated futures exchange (Cboe Digital Exchange) and a regulated clearinghouse (Cboe Clear U.S.), as well as revenue generated from the licensing of proprietary market data and from access and capacity services. Prior to May 31, 2024, the Digital segment also included a U.S.-based spot digital asset trading market ("Cboe Digital spot market"). As of May 31, 2024, the Cboe Digital spot market is closed for all participant and trading purposes. In addition, the Company plans to transition the cash-settled margin Bitcoin and Ether futures contracts, currently available for trading on the Cboe Digital Exchange, to CFE in the first half of 2025, pending regulatory review. The Company expects that Digital will cease to be a distinct reportable business segment in the first quarter of 2025.

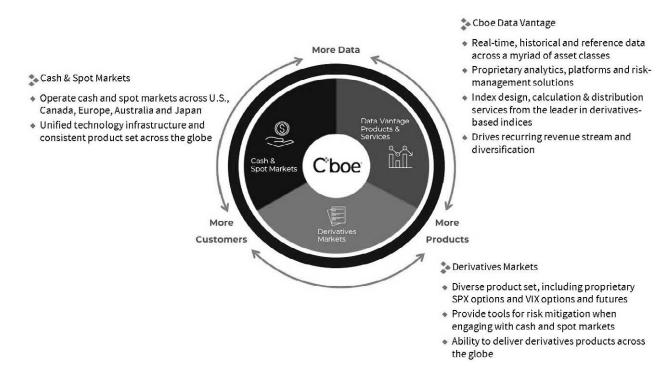
Cboe also presents three financial statement revenue captions that reflect the Company's diversified products, expansive geographical reach, and overall business strategy. Below is a summary of Cboe's financial statement revenue caption businesses:

- Cash and spot markets. This includes associated transaction and clearing fees on our equities and FX markets and clearing business, 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. The key sources of these revenues are our equities and FX markets, the U.S. tape plans, and our clearing and listings businesses, which are described in more detail below.
- Cboe Data Vantage (f/k/a Data and Access Solutions, subsequently referred to as Data Vantage). The Cboe
 Data Vantage business includes access and capacity fees to our markets, proprietary market data fees from
 various licensing agreements and proprietary indices, and associated other revenue across Cboe's six segments.
 The key sources of these revenues are our markets, the proprietary products underlying the market data, the
 licensing agreements, proprietary indices, and other data and access products and services, which are described in
 more detail below.
- Derivatives markets. This 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 key sources of these revenues
 are proprietary products, including our flagship products SPX options and VIX options and futures, our derivatives
 markets, and U.S. tape plans, which are described in more detail below.

See "Management's Discussion and Analysis of Financial Condition and Results of Operations", Note 4 ("Revenue Recognition"), 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."

Competitive Strengths

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



Strategic Focus

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

- Investing in the continued growth of our core business in Global Derivatives;
- Enhancing recurring revenue opportunities through Cboe Data Vantage (f/k/a Data and Access Solutions);
- · Harnessing our global network to expand product reach & access;
- Capitalizing on the demand for access to the U.S. capital markets;
- Leveraging our superior technology to drive innovations; and
- Allocating capital and resources to areas where we expect to see the strongest long-term returns for shareholders.

Key Business Highlights

The following is a brief summary of our key 2024 business highlights:

- Launched new products and indices such as cash-settled margin Bitcoin and Ether Futures, Options on VIX
 Futures, Cboe S&P 500 Variance Futures, Cboe Bitcoin U.S. ETF Index and options thereon, and U.S. Treasury
 Market Volatility Index.
- Enhanced existing collaborations with S&P Dow Jones Indices with plans to launch the Cboe S&P 500 Constituent Volatility Index.
- Drove FTSE Russell innovation in digital asset derivatives and with MSCI to offer new index options and volatility indices.
- Worked to expand retail access to index options.
- Introduced dedicated cores in our equities markets.
- Built out our technology offerings in each of the U.S. and our international markets.
- Introduced a central counterparty clearing service for European SFT.

- Continued to expand our geographic footprint with a minority stake in Japannext Co., Ltd.
- Reallocated technology resources from integration efforts to organic revenue opportunities.
- Realigned the digital asset business to leverage our core strengths in derivatives, technology and product innovation.

Derivatives Markets

We are one of the largest U.S. derivatives market operators, operating four options markets, Cboe Options, BZX Options, EDGX Options and C2 Options, operating a futures market, CFE, as well as operating a pan-European derivatives market, Cboe Europe Derivatives ("CEDX"). The key products traded on our derivatives markets are proprietary products, including our flagship products SPX options and VIX options and futures, and multi-listed products.

Our U.S. derivatives options market, Cboe Options, is a hybrid market combining open outcry floor trading with electronic trading. For multi-listed products, depending on the product, we utilize public customer priority, market turner, participation rights and pro-rata allocation market models, as well as the "classic" pricing model (known as payment for order flow). For proprietary products, we use price-time or pro-rata allocation, alongside public customer priority in certain instances, and market turner, combined with a pricing model where all market participants generally pay fees. Our other three options markets, BZX, EDGX and C2, are fully electronic and utilize a mix of price-time, customer priority, participation rights, pro-rata allocation, maker-taker and classic pricing market models.

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

CEDX, which is fully electronic, utilizes a pro-rata allocation market model.

Proprietary Products

We are a leader in the volatility space with the volatility-based proprietary products we offer for trading. These volatility-based 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. We offer proprietary products on our proprietary indices and indices owned by other index providers. 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 fee revenues. 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, Long Term Equity AnticiPation Securities (LEAPs), Miniand 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.

To help investors better manage market volatility, we also offer the 1-Day Volatility Index (VIX1D), the U.S. Treasury Market Volatility Index (VIXTLT), VIX Weeklys options and futures, mini VIX futures, nearly 24x5 trading in VIX options and futures, Cboe S&P 500 Variance Futures, and Options on VIX futures.

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 through our in-house Cboe Labs research and development and Cboe Data Vantage business teams, often in connection with 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,
- · indices based on Bitcoin 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.

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 has agreements in place to work jointly with key providers to develop new indices and 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 Dow Jones Indices ("S&P"). We have the following licensing arrangements with S&P:
 - S&P 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. 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.
 - Markit Indices. We have a worldwide license through August 22, 2025 to offer futures, options, and options on 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. Pursuant to our license, we offer futures and options on futures on high yield and investment grade corporate bond indices.
 - Dow Jones Indices. 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 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 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") in which we have the right to offer U.S.-listed options on several of MSCI's indices including the MSCI EAFE, MSCI Emerging Markets, MSCI World, MSCI ACWI, and MSCI USA indices. The agreement term extends until December 31, 2031, but our license to list options on the MSCI indices contained in the agreement could expire on September 30, 2026 if either party elects not to extend. 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.

Cboe Data Vantage

The Cboe Data Vantage 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 Cboe Data Vantage 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. Our market data offerings include proprietary data derived from our derivatives and cash and spot markets
 as well as data relating to Cboe's proprietary products, such as VIX futures. 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, permits for the opportunity to trade, and telecommunications services.
- Cboe Global Indices. Services include index creation, calculation, licensing, and data dissemination. In addition to index data dissemination through the Cboe Global Indices Feed ("CGIF") 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.

Cash and Spot Markets

We are one of the largest equities market operators, operating four U.S. equities exchanges, international exchanges in Europe, Canada, Japan and Australia, as well as a number of alternative trading systems and an FX platform.

Our four U.S. equities exchanges, BZX, EDGX, BYX and EDGA, which are fully electronic, operate various market and pricing models including price-time, and price-time with retail priority, as well as various pricing models, including maker-taker and taker-maker fee structures. 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.

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. Cboe and BIDS Trading collaborate in operating similar venues with our cash and spot markets in Australia, Canada, Europe, and Japan.

Our fully electronic Canadian securities exchange, Cboe Canada Inc., offers four order books, NEO-L, NEO-N, NEO-D and MATCHNow, which operate various market models including maker-taker, taker-maker, large order priority, and frequent call matches with continuous execution opportunities, among others.

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 two BIDS Europe orderbooks.

Cboe Australia is a regulated stock exchange that is fully electronic. Cboe Australia utilizes a model that charges a different ad valorem fee rate depending on whether a participant is making or taking liquidity.

Cboe Japan offers two fully electronic displayed markets, Cboe-Alpha and Cboe-Select. Cboe Japan also offers two fully electronic non-displayed markets, Cboe-Match, which matches VWAP orders during pre-market hours and Cboe BIDS Japan, which utilizes a price-time market model aiming for primary market mid-point trades.

The Cboe FX platform provides institutional FX trading services and utilizes a price-firmness-time priority market model. For our FX NDF markets, Cboe SEF utilizes a price-firmness-time priority market model.

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 European Union ("EU") they support ETPs only. In Australia, both ETPs and warrants are supported. Over the course of 2024, Cboe added approximately 730 listings across the globe and had approximately 2,460 listings as of December 31, 2024. Cboe also offers intralisting on its different equities markets through Cboe Global Listings, the first-of-its-kind, global listing network facilitating worldwide access to capital and secondary liquidity for companies and ETFs.

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. Cboe Clear Europe clears equities and equity like instruments traded on 47 European trading segments. Cboe Clear Europe also clears equity derivative instruments traded on Cboe NL. In 2024, Cboe Clear Europe provided CCP protection for an average of €49 billion of cleared value on a daily basis. Through the process of netting, in 2024, Cboe Clear Europe eliminated 70%, or €34 billion of the average daily cleared value, leaving an average daily settlement value of €15 billion. 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. As of November 25, 2024, Cboe Clear Europe also launched a first-of-its-kind service for SFT in cash equities and ETFs, which includes central clearing, settlement and post-trade lifecycle management.

Cboe Clear U.S. is a CFTC-registered derivatives clearing organization ("DCO") that provides clearing and settlement of cash-settled margin Bitcoin and Ether futures contracts for its affiliate, Cboe Digital Exchange.

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 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. Choe 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. 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. For information regarding risks related to our customers see "Risk Factors."

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, depth of book, liquidity, range and functionality of our products and services;
- integrity of our marketplaces;
- · technological innovation and adoption;
- · 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 listed options industry is extremely competitive. As of December 31, 2024, our four options exchanges compete with 14 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, 2024, 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 crossing systems. In Japan, our equities exchanges and PTSs, compete with several Japanese exchanges and other PTSs.

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, levels of electronification of the FX market have remained relatively static. The electronic spot FX market is also intensely competitive, with over 10 other venues competing for market share as of December 31, 2024. Cboe measures and reports on market share against a narrower set of competitors, included in those venues.

In addition, Cboe Data Vantage faces 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

Choe's Trading Technology

The trading platform for our equities, options, and futures markets is built upon our Cboe Titanium technology platform. It is developed, owned, and operated in-house and is designed to optimize reliability, speed, scalability, and versatility. Using common protocols and features, Cboe's unified Cboe Titanium technology platform is designed to offer customers an efficient, consistent experience regardless of where they are in the world. 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 Exchange, Cboe Clear U.S., Cboe Clear Europe, and Cboe FX.

Our trading platforms have generally experienced very low operational downtime and low latency. We have undertaken significant efforts to upgrade our Cboe Titanium technology platform to help meet increased performance and capacity requirements and help ensure competitiveness, support growth and advance a consistent world class platform globally. 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, in certain instances, the disaster recovery facilities can be up and running in a short period of time and in certain instances we may also 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. Cboe Canada Inc., as required by local regulations, conducts internal testing of its disaster recovery data processing capabilities at least annually, and 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 ("Al"), machine learning, blockchain, distributed ledger technology, quantum computing, 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. Choe Europe Equities relies on LCH Limited and LCH SA ("LCH"), Choe 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. 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. For SFT in cash equities and ETFs, Cboe Clear Europe provides central clearing, settlement and post-trade lifecycle management. Cboe Clear U.S. is the sole provider of clearing and settlement of all digital asset transactions occurring on Cboe Digital Exchange in cash-settled margin futures on Bitcoin and Ether.

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 CFTC-regulated futures exchange (Cboe Digital Exchange) and a CFTC-regulated clearinghouse (Cboe Clear U.S.). Prior to May 31, 2024, Cboe Digital Exchange and Cboe Clear U.S. also operated a U.S.-based spot digital asset trading market ("Cboe Digital spot market"), but as of May 31, 2024, the Cboe Digital spot market is closed for all participant and trading purposes. Cboe Digital does not engage in proprietary trading activities and does not maintain a trading entity. Cboe Digital does not maintain any digital assets, 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 U.S. maintains its own operating funds in separate bank accounts from its customer funds.

Regulatory Environment and Compliance

Various aspects of our business are subject to regulation by the SEC, CFTC, FINRA, 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.

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. In particular, both the SEC and CFTC will be under new leadership as part of the transition to President Trump's administration which adds additional uncertainty to the regulatory environment. 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 ("Tick Size/Access Fee Cap"); (3) Regulation Best Execution; and (4) Proposed Rule to Enhance Order Competition. Each of these proposals have been noticed for public comment, and in 2024, Rule 605 and the Tick Size/Access Fee Cap proposals were approved by the SEC and await implementation. Rule 605 may result in increased technology and compliance costs to Cboe. The Tick Size/Access Fee Cap rule is also likely to result in increased technology and compliance costs to Cboe, as well as potential adverse impact to Cboe's trading volume and transaction fee revenue. The SEC has yet to take any additional action on Regulation Best Execution and Order Competition, but if adopted as-is, these proposals 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 could have a negative impact on our operations. In addition, bills are sometimes introduced in the U.S. Congress that also could 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 as-is, 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, and likely inhibit Cboe's ability to attract liquidity and offer competitive pricing to differentiate Cboe from our competitor exchanges. Although the proposed new rules do not appear likely to have a potential near term material impact, the new rules, if adopted as-is, 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.

Europe

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. The final text on EMIR 3.0 entered into force on December 24, 2024. Further supporting regulatory technical standards are expected to be published over the course of 2025.

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 MiFIR and Directive 2014/65/EU on markets in financial instruments ("MiFID II"). The legislative phase of the review is now complete and revised MiFIR rules came into effect on March 28, 2024. The deadline for transposing MiFID II amendments is September 29, 2025. The final text includes, among other provisions, provision for a consolidated tape for the EU, a ban on payment for order flow, replacement of the double volume cap with a single volume cap for trades executed under certain trade waivers and changes to the transparency regime for equities. These provisions are expected to be implemented in the second half of 2025 through a number of level 2 measures. 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, and 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 CFTC-registered designated contract market, and Cboe Clear U.S. is a CFTC-registered 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 U.S. as a derivatives clearing organization. Each of Cboe Digital Exchange and Cboe Clear U.S. has surveillance and regulatory operations and procedures to monitor and enforce compliance by trading privilege holders with Cboe Digital Exchange rules, and by clearing members with Cboe Clear U.S. rules. If Cboe Digital Exchange or Cboe Clear U.S. 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 U.S.'s designation as a derivatives clearing organization.

Cboe Clear U.S. has surrendered or is in the process of surrendering its money transmitter licenses in the states where such licenses or equivalent were required to conduct business in connection with the Cboe Digital spot market, which closed on May 31, 2024. In addition, Cboe Clear U.S. has surrendered its BitLicense from the New York Department of Financial Services ("NYDFS").

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. Cboe NL is also subject to regulation by ESMA.

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 utilize the same state-of-the-art, real-time surveillance system that is used in 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, and re-affirmed in 2021, 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 continue to take a closer 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.

Choe 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. 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, Cboe SEF, 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., regulatory services agreements). 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, the 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. 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. In November of 2024, the SEC approved a new Consolidated Tape Plan that, when fully operational, will replace the existing CTA/CQ and UTP Plans. The Securities Information Automation Corporation acts as the "processor" for OPRA and the CTA/CQ Plans. Nasdaq Stock Market, LLC acts as the processor for the Nasdaq Unlisted Trading Privileges Plan. 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, 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") functions as the limited liability company agreement of Consolidated Audit Trail, LLC ("CATLLC"), the limited liability company formed under Delaware state law through which the SROs (the "Plan Participants") conduct the activities of the Consolidated Audit Trail ("CAT"). The CAT Plan also serves as the national market system plan pertaining to the creation, implementation, and maintenance of a CAT 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/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"), was completed on May 31, 2024.

On May 15, 2020, the SEC adopted amendments to the CAT Plan 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 loans previously advanced to CATLLC to fund CAT 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 amounts loaned to CATLLC to fund CAT costs associated with this final sub-phase, which the amount of unrecoverable costs may increase for additional delays.

On September 6, 2023, the SEC issued an order approving an amendment to the CAT Plan to implement a revised funding model ("CAT Funding Model") for 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 funded by monies loaned 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.

Prior to the effectiveness of the CAT Funding Model, the funding of the CAT was solely provided by the SROs/Plan Participants in exchange for promissory notes. Pursuant to the CAT Funding Model, the Plan Participants submitted fee filings during the third week of August 2024 to assess fees as of October 1, 2024 by CATLLC to CAT Executing Brokers for Buyers and Sellers that will be collected by CATLLC and remitted to the Plan Participants as repayment of or a portion of the promissory notes issued by the Plan Participants to fund the CAT prior to January 1, 2022 (the "CAT Historical Assessment #1 Fee"). Additional CAT fees that will be collected by CATLLC to recover a portion of other historical CAT costs incurred between January 1, 2022 and July 15, 2024 are planned to be introduced at a later time through separate fee filings submitted by the Plan Participants. CATLLC started remitting funds collected through the CAT Historical Assessment #1 to Plan Participants in December 2024 (for transactions occurring in October 2024) and will continue to do so until the balance due to be collected is paid in full, which is estimated to occur over approximately 24 months from the fee's implementation.

Additionally, pursuant to the CAT Funding Model, the Plan Participants submitted fee filings during the second week of August 2024 to implement the applicable initial transaction-based fee rates that are to be assessed by CATLLC to CAT Executing Brokers to cover a portion of prospective CAT costs, effective as of September 3, 2024. Pursuant to fee filings submitted by Plan Participants on behalf of CATLLC, as of September 3, 2024, CATLLC began assessing transaction-based fees to CAT Executing Brokers for Buyers and Sellers to cover a portion of prospective CAT costs. At the same time, CATLLC also began assessing a transaction-based fee to the respective Plan Participants for the same amount. To continue to fund CATLLC as it transitioned to collecting fees from Industry Members and Plan Participants to cover ongoing CAT costs in accordance with the CAT Funding Model, Plan Participants temporarily issued short-term notes to CATLLC to cover CAT costs that were payable to CATLLC until CATLLC collected sufficient proceeds from the fees to cover those costs. As of

January 2025, CATLLC has fully repaid these short-term notes through funds collected from the fees assessed to CAT Executing Brokers and Plan Participants. CATLLC has also used the funds collected to pay CATLLC expenses and has retained excess funds as a reserve as per the CAT Funding Model and budget. Moving forward, CATLLC plans for the Plan Participants to submit prospective fee filings on CATLLC's behalf every six months to update the transaction fee rates as necessary to cover prospective CAT costs. The last such filings were submitted in December 2024 and effected a rate change beginning January 2, 2025. The Company expects Plan Participants will no longer issue additional short-term notes to CATLLC to fund CAT given that CATLLC has begun imposing and collecting fees to cover CAT costs.

On October 17, 2023, the American Securities Association ("ASA") 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 U.S. national securities exchanges, the NYSE U.S. national securities exchanges, the Nasdaq U.S. national securities exchanges and CATLLC ("Intervenors") 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 and merits briefing concluded in the second quarter of 2024.

On September 13, 2024, Citadel filed a motion to stay the CAT Funding Model Order and to enjoin the collection of certain CAT fees during the pendency of this litigation, which the 11th Circuit denied on November 27, 2024. Oral argument on the merits was held on February 3, 2025. This challenge or any other challenge to the CAT Funding Model Order and/or Plan Participant(s) fee filings on behalf of CATLLC may significantly delay efforts by CATLLC to continue collecting the CAT fees. 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 challenge is without merit and intends to vigorously litigate the matter.

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 performance and career development, talent management, health and well-being, inclusivity, culture, comprehensive benefits, training, talent acquisition, and succession planning.

Equal Opportunity and Inclusion

Cboe believes in an inclusive culture 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 an 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 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.

At Cboe, we also have associate resource groups that are open to all employees, regardless of identity. We believe that community can be built based on shared identity and by learning about our differences.

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.

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.

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.

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

In 2024, Cboe conducted our seventh 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 strategic framework review, 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 hybrid work to childcare and elder care, that our employees faced throughout 2024.

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. Employees are encouraged to participate in the 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 our employees 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 our "Strive for Growth" programs 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. 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.

Choe has held multiple 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. One of our CEO's top areas of focus is to develop talent and spend time on succession planning, particularly in light of the executive transitions we experienced in 2023.

Employees

As of December 31, 2024, we employed 1,685 individuals in the following locations:

Location	Number of Employees
United States	1,113
United Kingdom	197
Netherlands	137
Australia	86
Canada	79
Philippines	29
Japan	28
Singapore	9
Hong Kong	6
Switzerland	1

Of these employees, 605 were involved in technology operations and 195 were involved in direct support of trading operations. The remaining 885 employees provide business development, financial, regulatory, human resources, compliance, legal, planning and research, administrative, and managerial support.

Information about our Executive Officers

Set forth below is information regarding our executive officers:

Age	Position
69	Chief Executive Officer
57	Executive Vice President, Global Head of Derivatives
43	Executive Vice President, Chief Human Resources Officer
45	Executive Vice President, Chief Financial Officer
48	Executive Vice President, Global President
48	Executive Vice President, Global Head of Cboe Data Vantage
46	Executive Vice President, Chief Operating Officer
60	Executive Vice President, General Counsel and Corporate Secretary
37	Senior Vice President, Chief Accounting Officer
	69 57 43 45 48 48 46 60

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 Cooe Data Vantage (f/k/a Data and Access Solutions), from March 2021 to October 2023, Senior Vice President, Global Head of Information Solutions of the Company's subsidiary Cooe 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 the 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 Cooe 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, Cooe SEF, and Cooe Canada Inc. and previously served as the Chairman of the Boards of Directors of Cooe Japan, Cooe Australia, and Cooe Clear Europe. 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 Cboe Data Vantage (f/k/a 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 Exchange and Cboe Clear U.S. 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.

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;
- factors that impact the quality and integrity of our and other applicable indices;
- our ability to manage our global operations, 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 our clearinghouses;
- 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 our business interests and our regulatory responsibilities;
- the loss of key customers or a significant reduction in trading or clearing volumes by key customers;
- 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; and
- · litigation risks and other liabilities.

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 2024, approximately 67% of our total revenues less cost of revenues were generated by the options and futures segments, the majority of which was 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 or change in the commercial terms 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, competitors could create substantially similar volatility indices and products or list products based on Cboe volatility indices, which could have a material adverse effect on us.

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) currently 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 potential 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 new options products on indices or 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, but not limited to, tariffs, changes in government fiscal and monetary policy, or 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 indices, such as the S&P 500 index, or alternative investment opportunities;
- 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 multilisted 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 non-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 equity market structure proposals and the Volume Based Proposal, if adopted as-is, could also adversely impact, as applicable, our ability to adjust our equities transaction fee schedules to respond to actions by new or existing competitors, our ability to incentivize on-exchange liquidity provision, as well as 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. See "Legal Proceedings" for more information.

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 businesses. 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 2024, approximately 73% of our revenues less cost of revenues were generated by our transaction and clearing-based business and is heavily oriented towards U.S. index and equity options. 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 U.S. 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 or margin requirements;
- transaction, sales, or other 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, or actions by other third parties that may cause market participants to be subject to increased capital or margin requirements and additional compliance burdens. These actions, including MiFID II, MiFIR, a recent OCC margin requirement proposal, and the equity market structure rules and 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 our equities trading volume decreases, including as a result of the Volume Based Proposal's proposed prohibition on volume-based agency tiers in the equities markets, or options trading volume 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 products and fees. As discussed above, the implementation of MDIR or the equity market structure rules and 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. Further, we have asked a court to review the SEC's disapproval of our 2024 proposed rule change to adopt a rule providing that our order and execution management systems ("OEMSs") that operate independently from our registered national securities exchanges are not "facilities" of those exchanges. This disapproval required our OEMSs to continue to follow exchange regulations, such as rule filing requirements. Being required to continue to follow exchange regulations could reduce our OEMSs' competitiveness, could result in a reduction of the value of OEMSs to us, and is likely to increase our compliance and challenge costs. See "Legal Proceedings" for more information.

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. If implemented as-is, the Consolidated Data Plan will reduce Cboe's voting share in the Operating Committee for the Securities Information Processors, which in turn, may impact Cboe's ability to influence votes on market data revenue matters.

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, and service provider, market participant or

third-party disruptions or security breaches. 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 ("Al") and quantum computing. Our hybrid work environment, usage of mobile, Al 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, including events impacting personally identifiable information, 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. We have previously faced and may in the future face increased challenges in retaining and attracting qualified employees, including as we implement a return to office plan. Further, potential negative perceptions of our human capital management related programs, including whether due to perceived over- or under-pursuit of such programs, may result in increased challenges in retaining or attracting qualified employees, as well as potential litigation or other adverse impacts. 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 important to our long-term success. Failure to ensure effective transfer of knowledge and smooth transitions involving our management team and key employees, including the 2023 leadership transitions and the potential transition of our Chief Executive Officer, 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 and markets 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-thecounter 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 U.S., 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 U.S., JSCC, ASX Clear Pty Ltd, and SIX x-clear were unable to allow or perform clearing services for existing or new products, change the terms of their clearing services, their clearing members were unable or unwilling to clear through them, or OCC's technology migration is not successful, fewer transactions could occur on our markets or transactions could likely not occur on our markets or there may be delays, including until clearing is moved to another clearing agency. In 2024, approximately 69% of our net transaction and clearing fees were generated by options and futures that were cleared through OCC. See other Risk Factors for additional information regarding OCC's recent margin requirement proposal.
- 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, failure to successfully
 complete technological migrations, 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 third-party cloud service providers 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, if CATLLC is no longer able to collect fees from Industry Members as a result of litigation or regulatory developments, the SROs may not be able to collect on the promissory notes related to the funding of the implementation and operation of the CAT. See Note 8 ("Credit Losses"), Note 9 ("Other Assets, Net"), and Note 23 ("Commitments, Contingencies, and Guarantees Legal Proceedings") 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.

OCC has proposed to establish a margin add-on charge ("Intraday Risk Charge") for all clearing member accounts to help mitigate the risks arising from intraday and overnight trading activity. If the Intraday Risk Charge is applied as currently proposed by OCC, clearing members' costs associated with clearing our products, including SPX options, through OCC may increase, which may result in lower trading volumes on our exchanges and could have a material adverse impact on our business, financial condition, and operating results.

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 for customers, 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 properly maintain the indices. Maintenance includes ongoing index calculation and index rebalancing, and depends on data providers for a number of things, including the timely provision of accurate input 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 derivative 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 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 SFT, 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 consequences; 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 European clearinghouse, Cboe Clear Europe, and Cboe Clear U.S., the clearinghouse through which we facilitate the clearing of cash-settled margin Bitcoin and Ether futures, 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.

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 and in the case of certain clearing participants with SFT without margin or default fund obligations, to grant Cboe Clear Europe title to or security over certain assets covering their obligations. 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 or other assets 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, in particular in the case of other assets for SFT, 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 preapproved 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 €1.20 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 27, 2025 and we may not be able to enter into a replacement facility on commercially favorable 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, nor can we guarantee that clearing organizations will allow clearing services for existing or new products following a systems failure or cyber-security breach. Moreover, with extended trading hours, we must 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, reengineer 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 businesses 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 SFT 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 corporate equities or 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.

A limited number of customers comprise a material portion of our revenues, and the loss of key customers or a significant reduction in trading or clearing volumes by key customers could adversely affect our operating results.

We generate a substantial portion of our revenues from a limited number of customers, which tend to be market makers, liquidity providers, proprietary traders, and global banks. For example, in 2024, our top ten customers accounted for approximately 50% of our revenues. This revenue was spread across various global regions and business segments and our customers are not subject to agreements that prohibit them from reducing or ceasing their transactions with us with little or no warning and without penalty. In addition, from time to time, certain customers may represent a significant portion of the open interest in various of our individual products or business segments, and a substantial decrease in their trading activity could have a negative impact on the liquidity of the particular product or business segment. The loss of, or a significant reduction in trading or clearing volumes by, one or more of our key customers could result in a decrease in our transaction and clearing fees, reduce the revenue we generate from sales of market data and negatively impact the liquidity of certain of our products, which could result in a material impact on our business, financial condition, and operating results.

With respect to options, all contracts traded on our exchanges must be cleared through clearing members of OCC. As of December 31, 2024, there were 115 TPHs that are clearing members of OCC. Three clearing members accounted for approximately 79% of transaction and other fees collected through OCC in 2024. 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, which could result in lower volumes on our exchanges and thereby have a material impact 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 the trade has been submitted to and validated by NSCC, after which time NSCC provides a guarantee until the trade settles (T+1). Thus, Cboe Trading is potentially exposed to credit risk to the counterparty to an equity trade routed to another market center until the trade has been processed and validated by NSCC on 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 trade has been processed and validated by the NSCC on the trade date. 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, Choe 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 asset futures occurring on Cboe Digital Exchange, we deliver matched trades of our customers to Cboe Clear U.S., 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 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 trade has been processed and validated by the NSCC on 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.

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. For example, in

May 2024, we halted trading on the Cboe Digital spot market, our spot digital asset trading platform, in-line with our plans to wind down the spot digital asset trading market and refocus the digital asset business to leverage Cboe's core strengths in derivatives, technology and product innovation.

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.

Our decision to wind down the Cboe Digital spot crypto market may negatively impact our digital asset business.

In April 2024, we announced plans to wind down the spot crypto market offered by Cboe Digital and transition the cash-settled margin Bitcoin and Ether futures contracts currently listed on Cboe Digital Exchange to CFE, pending regulatory review. On May 31, 2024, we halted all trading on the Cboe Digital spot market. The Cboe Digital spot market is closed for all participant and trading purposes. The Company expects to maintain the derivatives clearing services currently operated by Cboe Clear U.S., integrating these functions and teams into the existing organizational structure. The Company has brought Cboe Clear U.S. under unified leadership with the Global Head of Clearing. In connection with shutting down the spot crypto exchange, the Company also determined to unwind the minority ownership structure in Cboe Digital. Our decision to wind down the Cboe Digital spot crypto market may adversely impact our ability to develop new products based on digital assets, including the development and distribution of digital asset indices for potential use in exchange traded products and other derivative product opportunities. The wind down could impact our reputation within the digital asset industry and negatively impact the demand for our Bitcoin and Ether futures contracts. We expect competition to increase as existing and new competitors introduce new products or enhance existing products and the wind down of the spot crypto market may impact how market participants perceive us. In addition, we may not be able to successfully transition Cboe Digital Exchange's cash-settled margin Bitcoin and Ether futures contracts to CFE and integrate the clearing services currently operated by Cboe Clear U.S. into the existing organizational structure.

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 U.S., which is a derivatives clearing organization ("DCO") registered with the CFTC. Risks associated with the operation of Cboe Clear U.S. include failing to meet strict business continuity and financial resources requirements and regulatory oversight, risks of default by clearing members and counterparties due to bankruptcy, lack of liquidity, operational failure or other reasons. 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.

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 regulatory 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 President 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 (Cboe Digital Exchange) and clearinghouse (Cboe Clear U.S.) are regulated by

the CFTC and subject to comprehensive regulation by the CFTC. Cooe Clear U.S. has surrendered or is in the process of surrendering its money transmitter licenses in the states where such licenses or equivalent were required to conduct business in connection with the Cooe Digital spot market, which closed on May 31, 2024. In addition, Cooe Clear U.S. has surrendered its BitLicense from the NYDFS.

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.

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 regulatory services agreements, the ability of FINRA and OCC to transition to us any other potential responsibilities under their respective regulatory services agreements, 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, DCOs, 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, Cboe Clear U.S. 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, 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 continue to experience due to changes in administrations in the jurisdictions that we operate and expansion into other asset classes, such as SFT, 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. Each of these proposals have been noticed for public comment, and in 2024, Rule 605 and the Tick Size/Access Fee Cap proposals were approved by the SEC and await implementation. Rule 605 and Tick Size/Access Fee Cap rule may result in increased technology and compliance costs to Cboe. This rule is also likely to result in increased technology and compliance or challenge costs to Cboe, as well as potential adverse impact to Cboe's trading volume and transaction fee revenue. The SEC has yet to take any additional action on Regulation Best Execution and Order Competition, but if adopted as-is, these proposals could result in market technology changes and additional compliance costs to Cboe, and have a material impact on our business, financial condition, and operating results. Further, on October 18, 2023, the SEC released the Volume Based Proposal and, although the proposed new rules do not appear likely to have a potential near term material impact, the new rules, if adopted as-is, 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 Note 23 ("Commitments, Contingencies, and Guarantees — Legal Proceedings") for more information.

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 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 re-affirmed in 2021, 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. Cooe 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 and other markets. 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 markets may discourage trading on our Exchanges, our other markets, or of our products, which could reduce revenues.

Managing our business interests and our regulatory responsibilities may adversely affect our business.

As a competitive 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 competing interests 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. Further, as a result of ongoing risk management and related market surveillance review activities, we have identified, addressed, and continue to address potential market surveillance enhancement opportunities. 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 clearinghouses, 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 clearinghouses.

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 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 by required regulatory review processes, 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 Clear U.S., Cboe Digital Exchange, 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 offerings and our market participants could have a material adverse effect on our business.

Legislation may be enacted or interpretative guidance issued, both domestically and internationally, that could result in transaction, sales, or value added taxes on our offerings 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 to date such proposals have not resulted in legislation in our principal markets. 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. Further, tax authorities have issued interpretive guidance in the U.S. that, if prevailing, could expand the scope of our offerings that are subject to sales tax. 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 have implemented Pillar 2 laws to effectuate a 15% minimum tax. Changes in tax 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 and tax disputes that could result in the payment of fines, interest, 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, Note 21 ("Income Taxes"), and Note 23 ("Commitments, Contingencies, and Guarantees") to the consolidated financial statements and related notes, which are included elsewhere in this Annual Report, for a summary of specific legal and tax 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, 2024, we had \$648.6 million of senior unsecured notes due 2027, \$495.5 million of senior unsecured notes due 2030, \$296.9 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, issue dividends, 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 favorable 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 favorable 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, 2024 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 2024, 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;
- requiring that stockholders collectively hold at least 25% of the outstanding shares of our capital stock before they
 may request a special meeting.

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.

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, Computer Security Incident Response Team, Cyber Crisis Management Team, 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 a dozen years of experience leading information security programs including, experience in cybersecurity consulting, leading strategy and the implementation of cyber defenses for several of the top online retailers in the United States, as well as serving as Chief Information Security Officer for Cboe Digital Exchange and Cboe Clear U.S. 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 24 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. Additionally, in 2024, the Board, along with senior management and third-party advisors, participated in a cybersecurity ransomware tabletop exercise.

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, 2024 are listed in the table below:

Location	Classification	Owned/Leased	Lease Expiration	Approximate Size
433 West Van Buren Street, Chicago, Illinois	Global headquarters and office space	Leased	August 2035	185,000 sq. ft.
8050 Marshall Drive, Lenexa, Kansas	Office space	Leased	September 2025	62,000 sq. ft.
6800 West 115th Street, Overland Park, Kansas	Office space	Leased	May 2035	60,000 sq. ft.
141 West Jackson Boulevard, Chicago, Illinois	Trading floor and office space	Leased	October 2032	52,000 sq. ft.
Gustav Mahlerplein 73-83, Amsterdam, Netherlands	Office space	Leased	January 2032	29,500 sq. ft.
1 Farrer Place, Sydney 2000 Australia	Office space	Leased	December 2026 and September 2031	29,000 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.
Rockwell Business Center Sheridan, Sheridan Street Corner United Street, Highway Hills Mandaluyong City 1550 Philippines	Office space	Leased	November 2028	16,000 sq. ft.
65 Queen Street West Toronto, Ontario, Canada	Office space	Leased	April and June 2028	11,000 sq. ft.
One Liberty Plaza, New York, New York	Office space	Leased	May 2027	8,500 sq. ft.

The sale of the Company's former headquarters, including the associated land, building, and certain furniture and equipment of the former headquarters location, was completed on June 28, 2024. See Note 7 ("Property and Equipment, Net") of the consolidated financial statements included herein for further information. In May 2024, the Company entered into an agreement to amend its lease agreement for its Lenexa, Kansas office space. Additionally, in September 2024, the Company signed a new lease to secure approximately 60,000 square feet of office space in Overland Park, Kansas. See Note 24 ("Leases") 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.

Equity Access Fees Cap Challenge

In December 2022, the SEC released four equity market structure proposals, including one concerning Regulation NMS Amendments: Tick Size, Access Fees, and Transparency. On October 8, 2024, the SEC promulgated Final Rules concerning Reg NMS to amend the minimum pricing increments for the quoting of certain NMS stocks, reduced the access fee caps and enhance the transparency of better priced orders ("Final Rules"). Among other things, the Final Rules reduce the access fee cap from \$0.30 per 100 shares to \$0.10 per 100 shares.

On October 30, 2024, the Company and the Company's equities exchanges, BZX, BYX, EDGX, and EDGA (collectively, the "Cboe equity exchanges") and Nasdaq, Inc. filed a Petition for Review ("PFR") in the Court of Appeals for the D.C. Circuit (the "D.C. Circuit") appealing the Final Rules. On December 3, 2024, the Cboe equity exchanges and Nasdaq, Inc. filed a request with the SEC for a stay to delay the initial implementation date of the Final Rules, which was scheduled to occur in November 2025. On December 12, 2024, the SEC granted a stay of the challenged provision of the Final Rules until the litigation is resolved. Merits briefing will conclude at the beginning of the second quarter of 2025.

The Final Rules, amongst other things, are expected to reduce access fee caps to a level that may inhibit our ability to incentivize liquidity on our U.S. equities exchanges, thereby resulting in a reduction in transaction fee revenue, as well as limit our ability to differentiate our fee schedule and compete with other national securities exchanges and off-exchange venues, which may have a material impact on our business, financial condition, and operating results. The Company and the Cboe equity exchanges intend to litigate the matter vigorously.

OEMS Disapproval Order Challenge

On February 13, 2024, Cboe Exchange, Inc. ("Cboe") filed a proposal to adopt a new rule regarding order and execution management systems ("OEMS"). The proposed new rule provided that an exchange-affiliated OEMS that satisfies criteria (designed to ensure the OEMS is acting independently from the exchange) is not a facility of the exchange, and therefore not subject to the rule filing requirements of Section 19(b) of the Securities Exchange Act of 1934. The objective of the proposed rule was to improve competition within the OEMS market and ultimately benefit investors.

On October 31, 2024, the SEC issued an order disapproving Cboe's proposal. On December 26, 2024, Cboe filed a Petition for Review ("PFR") of the SEC's disapproval order in the Court of Appeals for the Seventh Circuit (the "7th Circuit"). The Company and Cboe intend to litigate the matter vigorously.

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, 2025, there were approximately 108 holders of record of our common stock.

Dividends

Each share of common stock, including 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 issue or 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 \$2.3 billion as of December 31, 2024. 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, 2024, the Company repurchased 1,148,295 shares of common stock at an average cost per share of \$177.86, totaling \$204.3 million. Since inception of the program through December 31, 2024, the Company has repurchased 20,758,383 shares of common stock at an average cost per share of \$78.05, totaling \$1.6 billion. As of December 31, 2024, the Company had \$679.8 million of availability remaining under its existing share repurchase authorizations.

The Company did not repurchase shares under the Company's share repurchase program during the three months ended December 31, 2024.

Purchase of common stock from employees

During the fiscal quarter ended December 31, 2024, we purchased shares from employees in connection with the settlement of employee tax withholding obligations arising from the vesting of restricted stock units. 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, 2024:

Period	Total number of shares purchased	age price paid per share
October 1 to October 31, 2024	6,392	\$ 206.00
November 1 to November 30, 2024	226	204.98
December 1 to December 31, 2024	277	211.18
Total	6,895	\$ 206.17

Stockholder Return Performance Graph

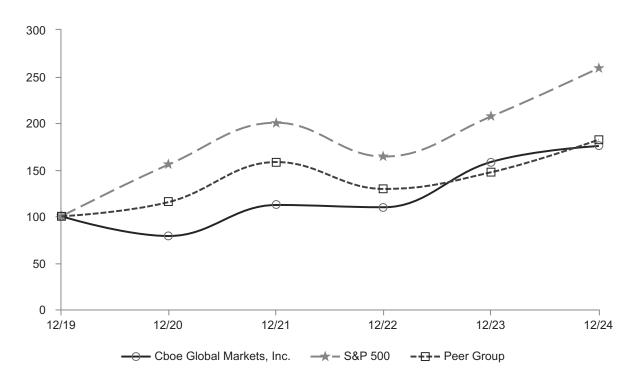
The following graph compares the cumulative total return provided to stockholders on our common stock since December 31, 2019 against the return of the S&P 500 Index and a customized peer group that includes CME Group Inc., Intercontinental Exchange Inc., and Nasdaq, Inc.

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, 2019, and its performance is tracked on an annual basis through December 31, 2024.

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 12/31/19 in stock or index, including reinvestment of dividends. Fiscal year ending December 31.

Date Source: Yahoo Finance, Closing Price(s)

	12/19	12/20	12/21	12/22	12/23	12/24
Cboe Global Markets, Inc.	100.00	78.83	112.12	109.69	158.37	175.40
S&P 500	100.00	155.68	200.37	164.08	207.21	259.05
Peer Group	100.00	115.32	158.19	129.34	147.30	182.20

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 2023 operating results to its 2022 operating results can be found in the Management's Discussion and Analysis of Financial Condition and Results of Operations section in the Company's 2023 Annual Report on Form 10-K filed February 16, 2024 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 2024 and 2023 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, and FX, 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 equities exchange operator in the U.S. In addition, the Company operates Cboe Europe, one of the largest equities 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 Clear U.S., 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.

On April 25, 2024, the Company announced plans to refocus the digital asset business to leverage its core strengths in derivatives, technology, and product innovation. On May 31, 2024, the Company halted trading on the Cboe Digital spot market ("Cboe Digital spot market"). The Cboe Digital spot market is closed for all participant and trading purposes. In addition, the Company plans to transition the cash-settled margin Bitcoin and Ether futures contracts, currently available for trading on Cboe Digital Exchange, LLC's Digital Exchange ("Cboe Digital Exchange"), to CFE in the first half of 2025, pending regulatory review. The Company has brought Cboe Clear U.S. (formerly, Cboe Clear Digital) under unified leadership with the Global Head of Clearing, and expects to continue to facilitate the clearing of cash-settled margin Bitcoin and Ether futures contracts.

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.

Recent Developments

Pyth Tokens Unlocking

In October 2022, the Company, through its wholly-owned subsidiary, Cboe Netherlands Services Company B.V., entered into a Data Provider Agreement with Pyth Data Association ("Pyth") to create a data feed and begin publishing limited derived equities market data for certain symbols from one of its four U.S. equities exchanges on the Pyth Network, a decentralized financial market data distribution platform for aggregated data. In exchange, Pyth granted Cboe Netherlands Services Company B.V. 16,666,666 restricted PYTH tokens which unlock annually over a four-year period in equal tranches; the first 25% tranche of PYTH tokens unlocked in May 2024. The PYTH tokens, which are included within intangible assets, net in the consolidated balance sheets, are carried at their historical value of \$0.06 per token and are reviewed each reporting period for potential impairment. In May 2024, the Company recorded \$1.0 million in market data fees revenue on the consolidated statements of income, which represents the historical value of the grant of 16,666,666 restricted PYTH tokens earned for satisfying the performance obligations outlined in the Data Provider Agreement. The Company has earned additional PYTH tokens by continuing to provide data to the Pyth Network through various Pyth Reward Programs. Through December 31, 2024, the Company earned an additional 725,000 PYTH tokens via the Pyth Reward Programs. The Company recorded additional intangible assets and revenue based on the token fair value when earned.

Securities Financing Transactions

On November 25, 2024, Cboe Clear Europe announced that it received regulatory approval to clear European SFT. The service supports key regulatory initiatives such as the European Market Infrastructure Regulation, Central Securities Depository Regulation, and the Securities Financing Transactions Regulation, thereby promoting transparency, market integrity, and competition in European capital markets. As of December 31, 2024, no SFT trades had occurred on the Cboe Clear Europe platform.

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 ("CODM") reviews and operates the business, as discussed in Note 1 ("Nature of Operations"). The primary measure of segment performance used by the CODM in assessing segment-level performance and the allocation of resources is operating income (loss). The Company's CODM does not assess assets or income and expenses below operating income (loss) at the segment-level as key performance metrics. 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 corporate listing services on Cboe Canada Inc., ETP listings on BZX, the Cboe Global Markets, Inc. common stock listing, and 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, including exchange traded funds, exchange traded notes, and 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, a closing cross book, and two BIDS orderbooks; a Large-in-Scale ("LIS") trading negotiation facility and - predominantly for UK and Swiss symbols - a volume-weighted average price ("VWAP") trajectory crossing facility. Cboe NL, based in Amsterdam,

operates similar business functionality to that offered by Cboe Europe (with exception of Trajectory Crossing), and provides for trading only in European Economic Area ("EEA") symbols. Cboe Europe Derivatives, a pan-European derivatives platform, offers futures and options based on Cboe Europe equity indices, and single stock options. Cboe Clear Europe offers the clearing of equity and equity-like instruments for Cboe-operated and other regulated trading venues, the clearing of derivative transactions executed on CEDX, and has recently introduced a service to clear Securities Financing Transactions. 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. On April 25, 2024, the Company announced plans to transition the cash-settled margin Bitcoin and Ether futures contracts, currently available for trading on the Cboe Digital Exchange, to CFE in the first half of 2025, pending regulatory review.

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 regulated futures exchange (Cboe Digital Exchange) and a regulated clearinghouse (Cboe Clear U.S.), as well as revenue generated from the licensing of proprietary market data and from access and capacity services. Prior to May 31, 2024, the Digital segment also included a U.S.-based spot digital asset trading market ("Cboe Digital spot market"). As of May 31, 2024, the Cboe Digital spot market is closed for all participant and trading purposes. In addition, the Company plans to transition the cash-settled margin Bitcoin and Ether futures contracts, currently available for trading on the Cboe Digital Exchange, to CFE in the first half of 2025, pending regulatory review. The Company expects that Digital will cease to be a distinct reportable business segment in the first quarter of 2025.

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, options, futures, and ETPs in Europe and volumes in institutional FX trading;
- the demand for and pricing structure of the U.S. tape plan market data distributed by the Securities Information Processors ("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, increased capital or margin 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, monetary, and global conflicts continue to confront the global economy, and instability could continue, resulting in an increased or subdued level of: inflation, market volatility, potential recession, supply chain constraints and costs, trading volumes, uncertainty, expenses, 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

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 Vantage

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

Derivatives Markets

Revenue aggregated into 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, Cboe Europe Equities and Derivatives, CFE, and Cboe Digital, as cost of revenue. BYX offers an inverted 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. Effective November 1, 2024, EDGA transitioned from an inverted fee model to a maker-taker fee model.

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 ("OMS") and Execution Management System ("EMS") 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 U.S.

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, Cboe FX, Cboe Australia, Cboe Japan, Cboe Digital, and Cboe Canada Inc. 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 grant date 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.

Impairment of Goodwill

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

Impairment of Intangible Assets

Impairment of intangible assets consists of charges to impair intangible assets if the carrying value exceeds the 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, 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 (expenses) income. These activities primarily include interest earned on the investing of excess cash, commitment fees and 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 related to lease modifications, realized gains 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 gains and losses relating to the dissolution of the Coop Digital syndication.

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.

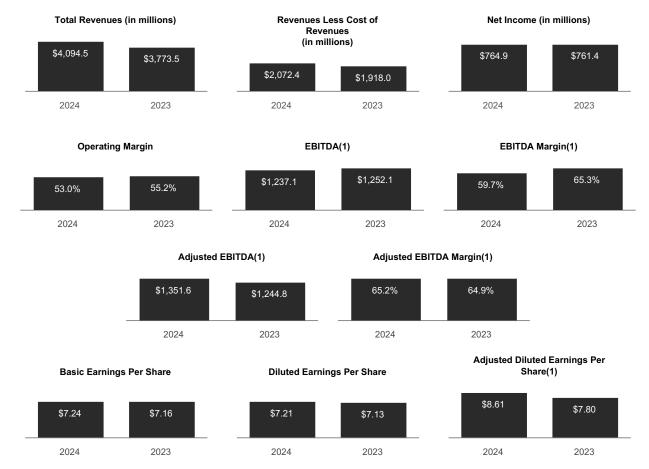
We believe our presentation of these measures provides investors with greater transparency into financial measures used by management and is useful to investors for period-to-period comparisons of our ongoing operating performance.

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, 2024 and 2023

Overview

The following summarizes changes in financial performance for the year ended December 31, 2024, compared to the year ended December 31, 2023:



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

					Percent	
		2024		2023	(Decrease)	Change
Total revenues	\$	4,094.5	\$	3,773.5	\$ 321.0	9 %
Total cost of revenues		2,022.1		1,855.5	166.6	9 %
Revenues less cost of revenues		2,072.4		1,918.0	154.4	8 %
Total operating expenses		974.0		860.1	113.9	13 %
Operating income		1,098.4		1,057.9	40.5	4 %
Operating margin		53.0 %		55.2 %	(2.2)%	*
Income before income tax provision		1,083.8		1,047.6	36.2	3 %
Income tax provision		318.9		286.2	32.7	11 %
Net income	\$	764.9	\$	761.4	\$ 3.5	0 %
Basic earnings per share	\$	7.24	\$	7.16	\$ 0.08	1 %
Diluted earnings per share		7.21		7.13	0.08	1 %
EBITDA (1)	\$	1,237.1	\$	1,252.1	\$ (15.0)	(1)%
EBITDA margin (2)		59.7 %		65.3 %	(5.6)%	*
Adjusted EBITDA (1)	\$	1,351.6	\$	1,244.8	\$ 106.8	9 %
Adjusted EBITDA margin (3)		65.2 %		64.9 %	0.3 %	*
Adjusted earnings (4)	\$	908.0	\$	828.1	\$ 79.9	10 %
Diluted weighted average shares outstanding		105.5		106.2	(0.7)	(1)%
Adjusted Diluted earnings per share (5)	\$	8.61	\$	7.80	\$ 0.81	10 %

^{*} Not meaningful

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- (1) EBITDA is defined as income before interest, income taxes, depreciation and amortization. Adjusted EBITDA is defined as EBITDA before acquisition-related costs, change in contingent consideration, loss on minority investments, gain on sale of property held for sale, contra-revenue associated with the Cboe Digital syndication wind down, gain on Cboe Digital non-recourse notes and warrants wind down, impairment of intangible assets, costs related to the Cboe Digital wind down, and income from minority investment. 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.
- (2) EBITDA margin represents EBITDA divided by revenues less cost of revenues.
- (3) Adjusted EBITDA margin represents adjusted EBITDA divided by revenues less cost of revenues.
- (4) Adjusted earnings is defined as net income adjusted for acquisition-related costs, amortization of acquired intangible assets, gain on Cboe Digital non-recourse notes and warrants wind down, contra-revenue associated with the Cboe Digital syndication wind down, change in contingent consideration, impairment of intangible assets, income from minority investment, loss on minority investments, costs related to the Cboe Digital wind down, gain on sale of property held for sale, certain tax reserve changes, 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 or loss, 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.
- (5) Adjusted diluted earnings per share represents adjusted earnings divided by diluted weighted average shares outstanding.

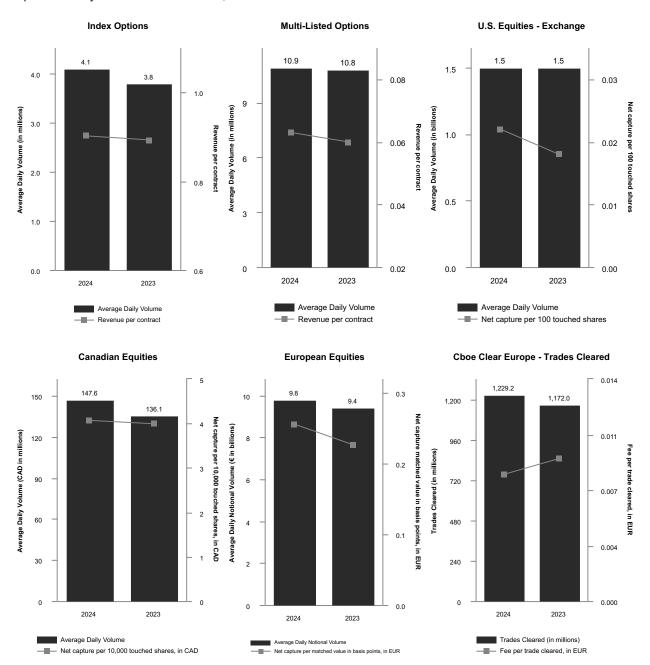
The following is a reconciliation of net income (loss) allocated to common stockholders to EBITDA and adjusted EBITDA (in millions) for the year ended December 31, 2024 and 2023, respectively:

	Year Ended December 31,							
	2024							
	Options	North American Equities	Europe and Asia Pacific	Futures	Global FX	Digital	Corporate	Total
Net income (loss) allocated to common stockholders	\$ 577.5	\$ 147.9	\$ 24.4	\$ 70.2	\$ 33.2	\$ (78.2)	\$ (14.0)	\$ 761.0
Interest expense (income), net	(0.6)	(2.4)	3.7	_	(0.1)	(3.7)	27.3	24.2
Income tax provision (benefit)	299.1	23.1	13.3	28.4	0.1	(28.6)	(16.5)	318.9
Depreciation and amortization	27.0	58.2	29.3	2.3	13.5	2.8	(0.1)	133.0
EBITDA	903.0	226.8	70.7	100.9	46.7	(107.7)	(3.3)	1,237.1
Acquisition-related costs	_	0.4	0.3	_	_	0.1	0.5	1.3
Change in contingent consideration	_	(1.0)	_	_	_	_	3.1	2.1
Loss on investments	_	_	_	_	_	_	31.4	31.4
Gain on sale of property held for sale	(1.0)	_	_	_	_	_	_	(1.0)
Cboe Digital syndication wind down	_	_	_	_	_	(1.0)	_	(1.0)
Gain on Cboe Digital non-recourse notes and warrants wind down	_	_	_	_	_	(1.4)	_	(1.4)
Impairment of intangible assets	_	_	_	_	_	81.0	_	81.0
Costs related to Cboe Digital wind down						2.1		2.1
Adjusted EBITDA	\$ 902.0	\$ 226.2	\$ 71.0	\$ 100.9	\$ 46.7	\$ (26.9)	\$ 31.7	\$1,351.6
				Year Ended	December 31	,		
				20	023			
	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
Loss on investments	_	_	_	_	_	_	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

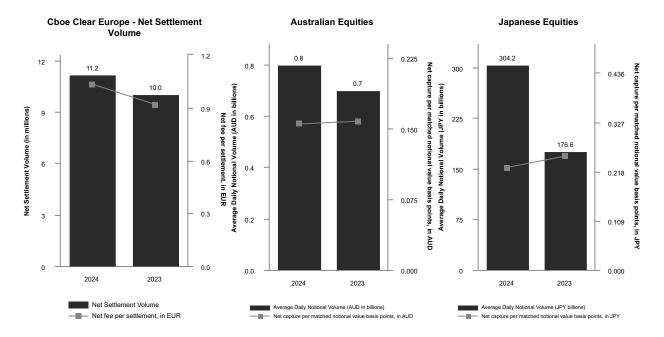
The following is a reconciliation of net income allocated to common stockholders to adjusted earnings (in millions):

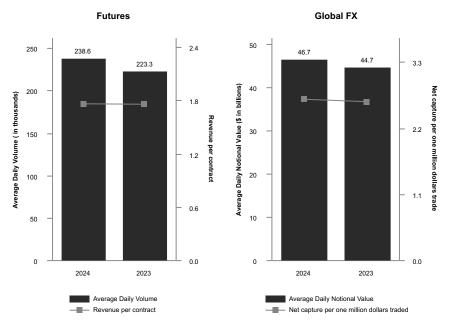
	 Year Ended December 31,		
	 2024	2023	
Net income allocated to common stockholders	\$ 761.0	\$ 757.5	
Acquisition-related costs	1.3	7.4	
Amortization of acquired intangible assets	88.7	116.6	
Gain on Cboe Digital non-recourse notes and warrants wind down	(1.4)	_	
Cboe Digital syndication wind down	(1.0)	_	
Change in contingent consideration	2.1	(14.4)	
Impairment of intangible assets	81.0	_	
Income from investment	_	(2.1)	
Loss on investments	31.4	1.8	
Costs related to Cboe Digital wind down	2.1	_	
Gain on sale of property held for sale	(1.0)	_	
Tax effect of adjustments	(52.2)	(30.7)	
Release of tax reserves	(8.1)	(6.0)	
Valuation allowances	5.0	(2.7)	
Deferred tax re-measurements	_	1.1	
Net income allocated to participating securities	 (0.9)	(0.4)	
Adjusted earnings	\$ 908.0	\$ 828.1	

The following summarizes changes in certain operational and financial metrics for the year ended December 31, 2024 compared to the year ended December 31, 2023:



The following summarizes changes in certain operational and financial metrics for the year ended December 31, 2024 compared to the year ended December 31, 2023 (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 following summarizes changes in certain operational and financial metrics for the year ended December 31, 2024 compared to the year ended December 31, 2023:

	Year Ended December 31, 2024 2023		Increase/ (Decrease)	Percent Change		
			nillions, ex		trading days, and as noted belo	
Options:		,		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	3 . ,	,
Average daily volume (ADV) (in millions of contracts):						
Market ADV		48.5		44.2	4.3	1
Total touched contracts (1)		14.9		14.6	0.3	
Multi-listed contract ADV		10.9		10.8	0.1	
Index contract ADV		4.1		3.8	0.3	
Number of trading days		252		250	2	
Total Options revenue per contract (RPC) (2)	\$	0.293	\$	0.276	\$ 0.017	
Multi-listed options RPC (2)		0.063		0.060	0.003	
Index options RPC (2)		0.902		0.893	0.009	
Total Options market share		30.8 %		33.1 %	(2.3)%	
Multi-listed options market share		24.5 %		26.8 %	(2.3)%	
North American Equities:		21.0 %		20.0 /0	(2.0)70	
U.S. Equities:						
U.S. Equities - Exchange:						
ADV:						
		4.5		4.5		,
Total touched shares (in billions) (1)		1.5		1.5	4.0	
Market ADV (in billions)		12.2		11.0	1.2	1
Market share	•	11.4 %	•	12.8 %	(1.4)%	
U.S. Equities - Exchange (net capture per one hundred touched shares) (3)	\$	0.022	\$	0.018	\$ 0.004	•
U.S. ETPs: launches (number of launches)		235		124	111	9
U.S. ETPs: listings (number of listings)		871		666	205	;
U.S. Equities - Off-Exchange:						
ADV:						
Total touched shares (in millions) (1)		79.0		79.5	(0.5)	
U.S. Equities - Off-Exchange (net capture per one hundred touched shares) (4)	\$	0.132	\$	0.124	\$ 0.008	
Trading days		252		250	2	
Canadian Equities:						
ADV (matched shares, in millions) (5)		147.6		136.1	11.5	
Trading days		252		250	2	
Net capture (per 10,000 touched shares, in Canadian dollars) (6)		4.069		3.994	0.075	
Europe and Asia Pacific:		1.000		0.001	0.070	
European Equities:						
ADNV:						
	€	0.0	_	0.4	6 04	
Matched ADNV (Euros - in billions) (7)	€	9.8	€	9.4	€ 0.4	
Market ADNV (in billions)		41.4		39.1	2.3	
Trading days		257		256	1	
Market share		23.6 %		24.0 %	(0.4)%	
Net capture (per matched notional value (bps), in Euros) (8)		0.255		0.226	0.029	1
Cboe Clear Europe:						
Trades cleared (9)		1,229.2		1,172.0	57.2	
Fee per trade cleared (10)	€	0.008	€	0.009	€ (0.001)	
European equities market share cleared (11)		37.4 %		34.9 %	2.5 %	
Net settlement volume (12)		11.2		10.0	1.2	1
Net fee per settlement (13)	€	1.033	€	0.917	€ 0.116	1
Australian Equities:						
ADNV (AUD - in billions)	\$	0.8	\$	0.7	\$ 0.1	
Trading days		254		252	2	
Market share - Continuous		20.7 %		18.7 %	2.0 %	
Net capture (per matched notional value (bps), in Australian Dollars) (14)		0.155		0.158	(0.003)	
Japanese Equities:		0.100		0.100	(0.000)	
	V	204.2	V	17C C	V 197.6	
ADNV (JPY - in billions)	+	304.2	+	176.6	¥ 127.6	ī
Trading days		245		246	(1)	
Market share - Lit Continuous		5.2 %		4.0 %	1.2 %	
Net capture (per matched notional value (bps), in Yen) (15)		0.227		0.252	(0.025)	(1
utures:						
ADV (in thousands)		238.6		223.3	15.3	
Trading days		252		250	2	
Revenue per contract	\$	1.760	\$	1.755	\$ 0.005	
Global FX:						
ADNV (\$ - in billions)	\$	46.7	\$	44.7	\$ 2.0	
Market share		19.6 %		20.0 %	(0.4)%	
Trading days		260		259	1	
Net capture (per one million dollars traded) (16)		2.68		2.64	0.04	
(Por one million dentite didded) (10)		2.00		2.07	0.04	
Average British pound/U.S. dollar exchange rate	\$	1.278	\$	1.243	\$ 0.035	
Average Canadian dollar/U.S. dollar exchange rate	\$	0.730	\$	0.741	\$ (0.011)	
Average Euro/U.S. dollar exchange rate	\$	1.082	\$	1.081	\$ 0.001	
Average Euro/British pound exchange rate	£	0.847	£	0.870	£ (0.023)	
Average Australian dollar/U.S. dollar exchange rate	\$	0.660	\$	0.664	\$ (0.004)	
	\$	0.007	\$	0.007	\$ —	

^{*} Not meaningful
Note, the percent change listed represents the change in the unrounded metrics figures.
Note, the Digital segment is not included as results were not material for the year ended December 31, 2024 and 2023.
Note, as of January 2025, European equities market share cleared excludes market volume not cleared within the Cboe Clear Europe pan-European equities market space. Prior periods have been restated in accordance with this methodology.

- (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 MATCHNow and Cboe Canada and the number of trading days. As of January 1, 2024, the Cboe Canada and MATCHNow entities have been amalgamated into Cboe Canada Inc.
- (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, 2024 increased \$321.0 million, or 9%, compared to the year ended December 31, 2023 primarily due to increases across all revenue captions, driven by an increase in the Section 31 fee rate following a rate change in May 2024, an increase in transaction and clearing fees as a result of increased volumes on the Cboe U.S. equities, Cboe options, Cboe European equities, and Cboe futures exchanges, an increase in other revenue attributable to Cboe Clear Europe, and increases in access and capacity fees across segments.

The following summarizes changes in revenues for the year ended December 31, 2024 compared to the year ended December 31, 2023 (in millions, except percentages):

		Year I Decem	Increase/		Percent		
	2024		2023		(Decrease)	Change	
Cash and spot markets	\$	1,670.0	\$ 1,445.1	\$	224.9	16 %	
Data Vantage		576.6	539.2		37.4	7 %	
Derivatives markets		1,847.9	 1,789.2		58.7	3 %	
Total revenues	\$	4,094.5	\$ 3,773.5	\$	321.0	9 %	

Cash and Spot Markets

Cash and spot markets revenue increased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to increases in regulatory fees, transaction and clearing fees, and other revenue. Regulatory fees increased primarily due to a 94% increase in the Section 31 fee rate, from an average of \$10.35 per million dollars of covered sales for the year ended December 31, 2023 to an average rate of \$20.08 per million dollars of covered sales for the year ended December 31, 2024. Transaction and clearing fees increased primarily due to pricing changes and shifts in volumes on the Cboe U.S. equities exchanges, a 4% increase in Cboe European equities' matched ADNV, a 72% increase in Cboe Japanese equities' ADNV, and an 11% increase in Cboe Clear Europe's net settlement volume. Other revenue increased primarily due to an increase in interest income attributable to Cboe Clear Europe as a result of the changing interest rate environment, coupled with additional interest earned in accordance with the change in its investment policy. See Note 14 ("Clearing Operations") for additional information on Cboe Clear Europe's investment policy.

Data Vantage

Data Vantage revenue increased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to increases in access and capacity fees and proprietary market data fees. Access and capacity fees increased primarily due to increased logical and physical port fees in the North American Equities, Options, and Europe and Asia Pacific segments driven by increased customer demand. Proprietary market data fees increased primarily due to increases in in the Options, North American Equities, and Europe and Asia Pacific segments.

Derivatives Markets

Derivatives markets revenue increased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to an increase in regulatory fees, coupled with an increase in transaction and clearing fees. Regulatory fees increased primarily due to a 94% increase in the Section 31 fee rate, from an average of \$10.35 per million dollars of covered sales for the year ended December 31, 2023 to an average rate of \$20.08 per million dollars of covered sales for the year ended December 31, 2024. Transaction and clearing fees increased primarily due to an 8% increase in index options ADV and a 7% increase in Futures ADV, partially offset by a 2% decrease in multi-listed options market share.

Cost of Revenues

The following tables reconcile the disaggregated cost of revenues captions presented on the consolidated statements of income to the revenue captions presented on the consolidated statements of income for the year ended December 31, 2024 and 2023, respectively (in millions):

Year Ended Dece	ember 31	,
2024		

		h and Spot Markets		Data Vantage	!	Derivatives Markets		Total
Liquidity payments	\$	843.5	\$	_	\$	485.6	\$	1,329.1
Routing and clearing fees		51.2		_		17.1		68.3
Section 31 fees		318.3		_		73.1		391.4
Royalty fees and other cost of revenues		53.8		10.9		168.6		233.3
Total cost of revenues	\$	1,266.8	\$	10.9	\$	744.4	\$	2,022.1

Year Ended December 31,

	Cash and Spot Markets			Data Vantage		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	

Total cost of revenues increased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to increased cash and spot markets cost of revenues as a result of an increase in the Section 31 fee rate, coupled with an increase in other cost of revenues as a result of an increase in interest expense related to Cboe Clear Europe and an increase in royalty fees for licensed products, partially offset by a decrease in liquidity payments on the Cboe options exchanges, driven by a decline in multi-listed options market share.

The following summarizes the changes in the disaggregated cost of revenues for the year ended December 31, 2024 compared to the year ended December 31, 2023 (in millions, except percentages):

	Year Decem	 	Increase/		Percent
	 2024	2023		(Decrease)	Change
Liquidity payments	\$ 1,329.1	\$ 1,385.8	\$	(56.7)	(4)%
Routing and clearing	68.3	79.1		(10.8)	(14)%
Section 31 fees	391.4	185.7		205.7	111 %
Royalty fees and other cost of revenues	233.3	204.9		28.4	14 %
Total cost of revenues	\$ 2,022.1	\$ 1,855.5	\$	166.6	9 %

Liquidity Payments

Liquidity payments decreased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to a decline in liquidity payments on the Cboe options exchanges, as a result of a 2% decline in multi-listed options market share, partially offset by an increase in liquidity payments on the Cboe U.S. equities exchanges as a result of a shift in volumes of certain market participants.

Routing and Clearing

Routing and clearing fees decreased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to a decrease in routed shares on the Cboe options exchanges.

Section 31 Fees

Section 31 fees increased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to a 94% increase in the Section 31 fee rate, from an average rate of \$10.35 per million dollars of covered sales for the year ended December 31, 2023 to an average rate of \$20.08 per million dollars of covered sales for the year ended December 31, 2024.

Royalty Fees and Other Cost of Revenues

Royalty fees and other cost of revenues increased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to an increase in interest expense attributable to Cboe Clear Europe as a result of the changing interest rate environment and a change in its investment policy, coupled with an increase in trading volumes of licensed products in the Options segment. See Note 14 ("Clearing Operations") for additional information on Cboe Clear Europe's investment policy.

Revenues Less Cost of Revenues

Revenues less cost of revenues increased \$154.4 million, or 8%, for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to an increase in derivatives markets revenues less cost of revenues, driven by an increase in volumes on the Cboe options and futures exchanges, an increase in cash and spot markets revenues less cost of revenues driven by an increase in net capture on the Cboe U.S. equities exchanges and Cboe European equities exchanges, and an increase in access and capacity fees and proprietary market data across segments.

The following summarizes the components of revenues less cost of revenues for the year ended December 31, 2024, presented as a percentage of revenues less cost of revenues and compared to the year ended December 31, 2023 (in millions, except percentages):

Percentage of

	 Year Decem	Ended	="	Percent	Revenues Less Cost of Revenues Year Ended December 31,		
	2024		2023	Change	2024	2023	
Cash and spot markets	\$ 403.2	\$	366.5	10 %	20 %	19 %	
Data Vantage	565.7		530.1	7 %	27 %	28 %	
Derivatives markets	1,103.5		1,021.4	8 %	53 %	53 %	
Total revenues less cost of revenues	\$ 2,072.4	\$	1,918.0	8 %	100 %	100 %	

Cash and Spot Markets

Cash and spot markets revenues less cost of revenues increased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to increases 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 and an increase in net other revenue, partially offset by a decrease in industry market data fees. Net transaction and clearing fees increased primarily due to a 17% increase in Cboe U.S. equities exchanges' net capture, a 12% increase in Cboe European equities' net capture, a 4% increase in Cboe European equities' matched ADNV, a 72% increase in Cboe Japanese equities' ADNV, and a 13% increase in Cboe Clear Europe's net fee per settlement, coupled with an 11% increase in Cboe Clear Europe's net settlement volume. Net other revenue increased primarily due to an increase in interest income attributable to Cboe Clear Europe as a result of the changing interest rate environment and additional interest income due to a change in its investment policy. See Note 14 ("Clearing Operations") for additional information on Cboe Clear Europe's investment policy. Industry market data fees decreased primarily due to a decrease in U.S. tape plan revenue as a result of a 1% decline in market share on the Cboe U.S. equities exchanges.

Data Vantage

Data Vantage revenues less cost of revenues increased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to increases in access and capacity fees and proprietary market data fees. Access and capacity fees increased primarily due to increased logical and physical port fees in the North American Equities, Options, and Europe and Asia Pacific segments driven by increased customer demand. Proprietary market data fees increased primarily due to increases in the Options, North American Equities, and Europe and Asia Pacific segments.

Derivatives Markets

Derivatives markets revenues less cost of revenues increased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to an increase in net transaction and clearing fees, driven by an 8% increase in index options ADV, a 6% increase in multi-listed options RPC, and a 7% increase in Futures ADV, partially offset by an increase in royalty fees due to an increase in trading volumes of licensed products in the Options segment.

Operating Expenses

For the year ended December 31, 2024 compared to the year ended December 31, 2023 total operating expenses increased primarily due to the impairment of intangible assets related to the Digital segment recorded in 2024 and increases in compensation and benefits and other expenses, partially offset by a decrease in depreciation and amortization compared to the prior period.

The following summarizes changes in operating expenses for the year ended December 31, 2024 compared to the year ended December 31, 2023 (in millions, except percentages):

	Year Decem	Ended iber 3		Increase/		Percent
	 2024		2023		(Decrease)	Change
Compensation and benefits	\$ 462.4	\$	425.8	\$	36.6	9 %
Depreciation and amortization	133.0		158.0		(25.0)	(16)%
Technology support services	102.8		99.7		3.1	3 %
Professional fees and outside services	94.8		92.0		2.8	3 %
Travel and promotional expenses	45.8		37.6		8.2	22 %
Facilities costs	24.6		25.7		(1.1)	(4)%
Acquisition-related costs	1.3		7.4		(6.1)	(82)%
Impairment of intangible assets	81.0		_		81.0	100 %
Other expenses	28.3		13.9		14.4	104 %
Total operating expenses	\$ 974.0	\$	860.1	\$	113.9	13 %

Compensation and Benefits

Compensation and benefits increased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to a \$14.8 million increase in salaries and wages primarily due to merit and headcount increases, a \$10.4 million increase in bonuses primarily due to stronger relative Company performance, a \$6.8 million increase in equity compensation as a result of expense reversals related to executive departures in 2023 that did not recur in 2024, and a \$6.5 million increase in benefits related to increases in payroll taxes, payroll benefits, and employer retirement contributions, partially offset by a decline in equity compensation expense as a result of a change in the retirement vesting terms for new equity awards.

Depreciation and Amortization

Depreciation and amortization decreased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to decline in amortization under the discounted cash flow method for the intangibles acquired in the Merger as well as a decrease in amortization as a result of the Cboe Digital impairment in the second quarter of 2024.

Technology Support Services

Technology support services costs increased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to increases in software maintenance, cloud services, market data technology support services, primary data center hosting expenses, and software licenses and subscriptions, partially offset by decreases in purchased hardware and hardware maintenance.

Professional Fees and Outside Services

Professional and outside services fees increased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to increases in contract services, legal fees, and regulatory costs, partially offset by a decrease in consulting fees.

Travel and Promotional Expenses

Travel and promotional expenses increased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to increases in marketing expenses driven by the Company's advertising campaigns and sponsorships as well as an increase in travel expenses.

Facilities Costs

Facilities costs decreased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to a decrease in real estate taxes and utilities, partially offset by an increase in office rent, service costs, and repairs and maintenance.

Acquisition-Related Costs

Acquisition-related costs decreased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to a decrease in general and administrative costs and retention-related compensation costs associated with prior acquisitions.

Impairment of Intangible Assets

Impairment of intangible assets increased for the year ended December 31, 2024 compared to the year ended December 31, 2023 due to the impairment of intangible assets recognized in the Digital segment in the second quarter of 2024.

Other Expenses

Other expenses increased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to an increase in the change in contingent consideration related to prior acquisitions, partially offset by a decrease in bad debt expense provisions.

Operating Income

As a result of the items above, operating income for the year ended December 31, 2024 was \$1,098.4 million, compared to operating income of \$1,057.9 million for the year ended December 31, 2023, an increase of \$40.5 million.

Interest Expense

Interest expense decreased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to repayments on the Term Loan in 2023, which was paid off in the fourth quarter of 2023.

Interest Income

Interest income increased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to a one-time true-up of interest earned on available-for-sale securities recorded in 2024, coupled with higher interest rates and cash balances in 2024.

Earnings on Investments

Earnings on investments decreased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to a decrease of \$10.3 million in the equity earnings on the Company's investment in 7Ridge Investments 3 LP ("7Ridge Fund") (which owns Trading Technologies International Inc. ("Trading Technologies")) recorded in 2024 compared to 2023.

Other (Expense) Income, Net

Other (expense) income, net decreased for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to a \$16.0 million impairment charge on the Company's minority investment in Globacap Technology Limited recorded in the second quarter of 2024, coupled with a \$10.5 million impairment charge on the Company's minority investment in Eris Innovations Holdings, LLC recorded in the fourth quarter of 2024, partially offset by a \$5.3 million increase in dividend income related to the Company's minority investment in Vest Group Inc. ("Vest") in 2024.

Income Before Income Tax Provision

As a result of the above, income before income tax provision for the year ended December 31, 2024 was \$1,083.8 million compared to income before income tax provision of \$1,047.6 million for the year ended December 31, 2023, an increase of \$36.2 million.

Income Tax Provision

For the year ended December 31, 2024, the income tax provision was \$318.9 million compared to \$286.2 million for the year ended December 31, 2023, an increase of \$32.7 million, primarily due to an increase in income before income tax provision and Section 199 releases in 2023. The effective tax rate for the year ended December 31, 2024 was 29.4%, compared to a rate of 27.3% for the year ended December 31, 2023. The higher effective tax rate in the year ended December 31, 2024 compared to the year ended December 31, 2023 is primarily due to Section 199 releases in 2023.

Net Income

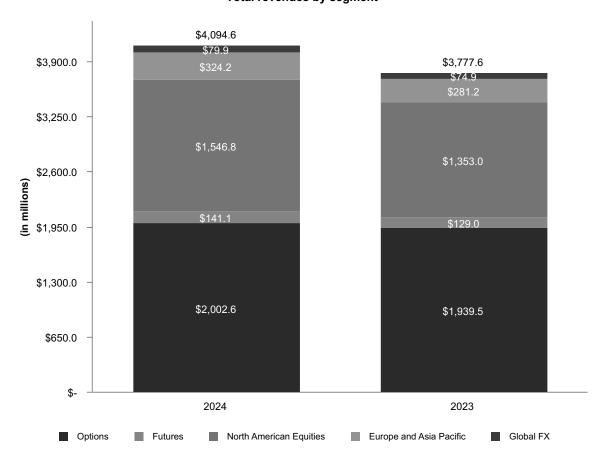
As a result of the items above, net income for the year ended December 31, 2024 was \$764.9 million, or 37% of revenues less cost of revenues, compared to \$761.4 million, or 40% of revenues less cost of revenues, for the year ended December 31, 2023, an increase of \$3.5 million.

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, 2024 compared to the year ended December 31, 2023 primarily due to changes in the allocation of shared-service expenses.

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

Total revenues by segment



Note, the chart excludes Digital revenues of \$(0.1) million and \$(4.1) million for the years ended December 31, 2024 and 2023, respectively.

Percentage of

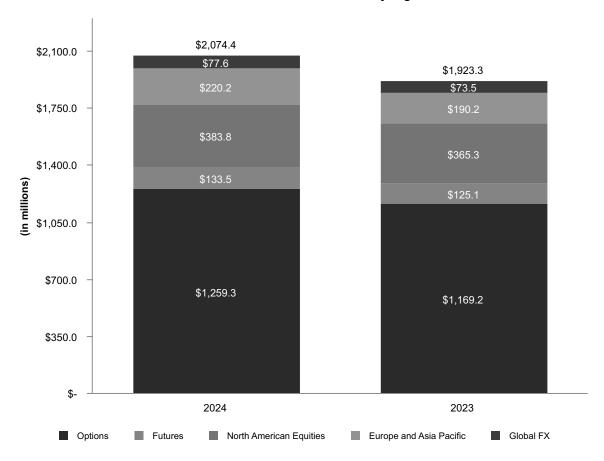
				To Reve		
	Year Decem	 -	Percent	Year Ended December 31,		
	2024	2023	Change	2024	2023	
Options	\$ 2,002.6	\$ 1,939.5	3 %	49 %	51 %	
North American Equities	1,546.8	1,353.0	14 %	38 %	36 %	
Europe and Asia Pacific	324.2	281.2	15 %	8 %	8 %	
Futures	141.1	129.0	9 %	3 %	3 %	
Global FX	79.9	74.9	7 %	2 %	2 %	
Digital	(0.1)	(4.1)	98 %	*%	*%	
Total revenues	\$ 4,094.5	\$ 3,773.5	9 %	100 %	100 %	

^{*} Not meaningful

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

Total revenues less cost of revenues by segment



Note, the chart excludes Digital revenues less cost of revenues of \$(2.0) million and \$(5.3) million for the years ended December 31, 2024 and 2023, respectively.

Percentage of

					Total Revenues less Cost of Revenues			
	 Year Ended December 31,			Percent	Year Ended December 31,			
	2024		2023	Change	2024	2023		
Options	\$ 1,259.3	\$	1,169.2	8 %	61 %	61 %		
North American Equities	383.8		365.3	5 %	19 %	19 %		
Europe and Asia Pacific	220.2		190.2	16 %	10 %	10 %		
Futures	133.5		125.1	7 %	6 %	6 %		
Global FX	77.6		73.5	6 %	4 %	4 %		
Digital	(2.0)		(5.3)	62 %	*%	*%		
Total revenues less cost of revenues	\$ 2,072.4	\$	1,918.0	8 %	100 %	100 %		

^{*} Not meaningful

Options

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

	Year I Decem	 -	Percent	Percentage of Total Revenues Year Ended December 31,		
	2024	2023	Change	2024	2023	
Revenues less cost of revenues	\$ 1,259.3	\$ 1,169.2	8 %	63 %	60 %	
Operating expenses	380.9	317.9	20 %	19 %	16 %	
Operating income	\$ 878.4	\$ 851.3	3 %	44 %	44 %	
Operating margin	69.8 %	72.8 %	*	*	*	
EBITDA (1)	\$ 903.0	\$ 878.3	3 %	45 %	45 %	
EBITDA margin (2)	71.7 %	75.1 %	*	*	*	

^{*} Not meaningful

Revenues less cost of revenues increased \$90.1 million for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to an increase in net transaction and clearing fees, driven by an 8% increase in index options ADV, a 6% increase in multi-listed options RPC, and a 1% increase in index options RPC, coupled with an increase in logical and physical port fees, partially offset by an increase in royalty fees due to an increase in the trading volumes of licensed products. For the year ended December 31, 2024, operating income for the Options segment increased \$27.1 million compared to the year ended December 31, 2023 primarily due to an increase in revenues less cost of revenues, partially offset by an increase in operating expenses. Operating expenses increased \$63.0 million for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to increases in compensation and benefits, driven by changes in the allocation of shared-service expenses, and travel and promotional expenses.

North American Equities

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

						Percent of To Reven	tal	
	Year Ended December 31,				Percent _	Year Ended December 31,		
		2024		2023	Change	2024	2023	
Revenues less cost of revenues	\$	383.8	\$	365.3	5 %	25 %	27 %	
Operating expenses		215.2		247.3	(13)%	14 %	18 %	
Operating income	\$	168.6	\$	118.0	43 %	11 %	9 %	
Operating margin		43.9 %		32.3 %	*	*	*	
EBITDA (1)	\$	226.8	\$	186.9	21 %	15 %	14 %	
EBITDA margin (2)		59.1 %		51.2 %	*	*	*	

^{*} Not meaningful

Revenues less cost of revenues increased \$18.5 million for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to an increase in net transaction and clearing fees, driven by a 17% increase in Cboe U.S. equities exchanges' net capture, an increase in logical and physical port fees, and an increase in proprietary market data revenue, partially offset by a decrease in industry market data fees, driven by a decrease in U.S. tape plan revenue as a result of a 1% decline in market share on the Cboe U.S. equities exchanges. For the year ended December 31, 2024, operating income for the North American Equities segment increased \$50.6 million compared to the year ended December 31, 2023 primarily due to a decrease in operating expenses, coupled with an increase in revenues less cost of

⁽¹⁾ See footnote (1) 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.

⁽¹⁾ See footnote (1) 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. Operating expenses decreased \$32.1 million for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to decreases in compensation and benefits, driven by changes in the allocation of shared-service expenses, depreciation and amortization, technology support services, and professional fees and outside services, partially offset by an increase in other expenses, driven by the gain on change in contingent consideration related to Cboe Canada Inc. in 2023, which did not recur in 2024.

Europe and Asia Pacific

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

					_	Percei of To Revei	otal	
	Year Ended December 31,				Percent _	Year Ended December 31,		
		2024		2023	Change	2024	2023	
Revenues less cost of revenues	\$	220.2	\$	190.2	16 %	68 %	68 %	
Operating expenses		178.5		157.5	13 %	55 %	56 %	
Operating income	\$	41.7	\$	32.7	28 %	13 %	12 %	
Operating margin		18.9 %		17.2 %	*	*	*	
EBITDA (1)	\$	70.7	\$	62.7	13 %	22 %	22 %	
EBITDA margin (2)		32.1 %		33.0 %	*	*	*	

^{*} Not meaningful

Revenues less cost of revenues increased \$30.0 million for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to an increase in net transaction and clearing fees, driven by a 12% increase in Cboe European equities' net capture, a 4% increase in Cboe European equities' matched ADNV, a 72% increase in Cboe Japanese Equities ADNV, a 13% increase in Cboe Clear Europe's net fee per settlement, coupled with an 11% increase in Cboe Clear Europe's net settlement volume, and an increase in interest income attributable to Cboe Clear Europe. For the year ended December 31, 2024, operating income for the Europe and Asia Pacific segment increased \$9.0 million compared to the year ended December 31, 2023 primarily due to an increase in revenues less cost of revenues, partially offset by an increase in operating expenses. Operating expenses increased \$21.0 million for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to an increase in compensation and benefits, other expenses, technology support services, and professional fees and outside services.

Futures

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

	Year I Decem	 =	Percent —	Percent of Tot Revent Year En Decembe	tal ues uded
	2024	2023	Change	2024	2023
Revenues less cost of revenues	\$ 133.5	\$ 125.1	7 %	95 %	97 %
Operating expenses	34.6	39.0	(11)%	25 %	30 %
Operating income	\$ 98.9	\$ 86.1	15 %	70 %	67 %
Operating margin	74.1 %	68.8 %	*	*	*
EBITDA (1)	\$ 100.9	\$ 87.8	15 %	72 %	68 %
EBITDA margin (2)	75.6 %	70.2 %	*	*	*

^{*} Not meaningful

⁽¹⁾ See footnote (1) 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.

⁽¹⁾ See footnote (1) 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 \$8.4 million for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to an increase in net transaction and clearing fees as a result of a 7% increase in ADV. For the year ended December 31, 2024, operating income for the Futures segment increased \$12.8 million compared to the year ended December 31, 2023 primarily due to an increase in revenues less cost of revenues, coupled with a decrease in operating expenses. Operating expenses decreased \$4.4 million for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to decreases in compensation and benefits, driven by changes in the allocation of shared service expenses, professional fees and outside services, and technology support services.

Global FX

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

	Year I Decem	 =		of Tota Revenue Year End December	es ed
	 2024	 2023	Percent Change	2024	2023
Revenues less cost of revenues	\$ 77.6	\$ 73.5	6 %	97 %	98 %
Operating expenses	44.4	48.8	(9)%	56 %	65 %
Operating income	\$ 33.2	\$ 24.7	34 %	42 %	33 %
Operating margin	42.8 %	33.6 %	*	*	*
EBITDA (1)	\$ 46.7	\$ 42.8	9 %	58 %	57 %
EBITDA margin (2)	60.2 %	58.2 %	*	*	*

^{*} Not meaningful

- (1) See footnote (1) 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 \$4.1 million for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to an increase in net transaction and clearing fees, driven by a 5% increase in ADNV. For the year ended December 31, 2024, operating income for the Global FX segment increased \$8.5 million compared to the year ended December 31, 2023 primarily due to a decrease in operating expenses, coupled with an increase in revenues less cost of revenues. Operating expenses decreased \$4.4 million for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to a decrease in depreciation and amortization.

Digital

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

				Percei of To Revei	otal
	Year I Decem		Percent	Year E Decemi	
	2024	2023	Change	2024	2023
Revenues less cost of revenues	\$ (2.0)	\$ (5.3)	62 %	*%	*%
Operating expenses	110.4	41.4	167 %	*%	*%
Operating loss	\$ (112.4)	\$ (46.7)	(141)%	*%	*%
Operating margin	*%	*%	*	*	*
EBITDA (1)	\$ (107.7)	\$ (39.1)	(175)%	*%	*%
EBITDA margin (2)	*%	*%	*	*	*

^{*} Not meaningful

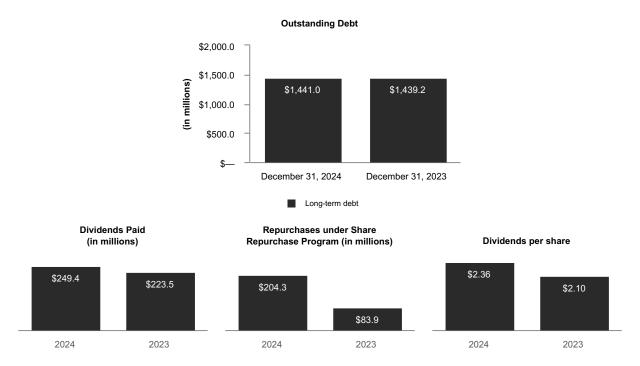
⁽¹⁾ See footnote (1) to the table under "Overview" above for a reconciliation of net income to EBITDA, and management's reasons for using such non-GAAP measures.

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

Revenues less cost of revenues increased \$3.3 million for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to an increase in net transaction and clearing fees driven by the reversal of contrarevenue following the dissolution of the Cboe Digital syndication in the second quarter of 2024. For the year ended December 31, 2024, the operating loss for the Digital segment increased \$65.7 million compared to the year ended December 31, 2023 primarily due to an increase in operating expenses, partially offset by an increase in revenues less cost of revenues. Operating expenses increased \$69.0 million for the year ended December 31, 2024 compared to the year ended December 31, 2023 primarily due to the impairment of intangible assets, partially offset by decreases in depreciation and amortization and compensation and benefits.

LIQUIDITY AND CAPITAL RESOURCES

Below are charts that reflect elements of our capital allocation:



We expect our cash on hand at December 31, 2024 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, any dividends, potential strategic acquisitions, and opportunities for common stock repurchases under the previously announced program. See Note 12 ("Debt") and Note 25 ("Subsequent Events") to the consolidated financial statements for further information.

Cboe Clear Europe also has a €1.20 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 27, 2024, which extended the term of the facility through June 28, 2025. Please refer to Note 12 ("Debt") for further information.

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, 2024 increased \$377.1 million from December 31, 2023 primarily due to the results of operations and proceeds from maturities of available-for-sale financial investments, partially offset by outflows from cash dividends, repurchases of our common stock, purchases of available-for-sale financial investments, purchases of property and equipment, and contributions to investments. See "Cash Flow" below for further discussion.

Our cash and cash equivalents held outside of the United States in various foreign subsidiaries totaled \$301.3 million and \$244.3 million as of December 31, 2024 and 2023, respectively. The remaining balance was held in the United States and totaled \$619.0 million and \$298.9 million as of December 31, 2024 and 2023, 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, 2024, 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, 2024, 2023, and 2022 (in millions):

		 r the Year Ended December 31,	
	 2024	2023	2022
Net cash provided by operating activities	\$ 1,100.6	\$ 1,075.6	\$ 651.1
Net cash used in investing activities	(141.8)	(55.1)	(835.1)
Net cash (used in) provided by financing activities	(495.0)	(656.1)	81.7
Effect of foreign currency exchange rate changes on cash, cash equivalents, and restricted cash and cash equivalents	(95.1)	52.8	(10.0)
Increase (decrease) in cash, cash equivalents, and restricted cash and cash equivalents	\$ 368.7	\$ 417.2	\$ (112.3)

	As of December 31,					
		2024		2023		2022
Reconciliation of cash, cash equivalents, and restricted cash and cash equivalents:						
Cash and cash equivalents	\$	915.3	\$	543.2	\$	432.7
Restricted cash and cash equivalents (included in margin deposits, clearing funds, and interoperability funds)		841.4		834.8		530.3
Restricted cash and cash equivalents (included in cash and cash equivalents)		5.0		_		_
Restricted cash and cash equivalents (included in other current assets)		_		5.1		4.2
Customer bank deposits (included in margin deposits, clearing funds, and interoperability funds)		4.1		14.0		12.7
Total	\$	1,765.8	\$	1,397.1	\$	979.9

Net Cash Flows Provided by Operating Activities

During the year ended December 31, 2024, net cash provided by operating activities was \$335.7 million higher than net income. The variance is primarily attributable to the adjustment for depreciation and amortization of \$133.0 million, the change in Section 31 fees payable of \$130.1 million, the adjustment for impairment of intangible assets of \$81.0 million, the change in margin deposits, clearing funds, and interoperability funds related to Cboe Clear Europe and customer bank deposits of \$76.0 million, and the change in unrecognized tax benefits of \$61.2 million, partially offset by changes in accounts receivable and accounts payable and accrued liabilities of \$124.3 million and \$36.4 million, respectively.

Net cash flows provided by operating activities were \$1,100.6 million and \$1,075.6 million for the years ended December 31, 2024 and 2023, respectively. The change in net cash flows provided by operating activities was primarily due to the change in Section 31 fees payable, the adjustment for impairment of intangible assets, the change in other assets, the adjustment for impairment of investments, and the change in income taxes receivable. This was partially offset by changes in margin deposits, clearing funds, and interoperability funds, accounts receivable, and the adjustments for depreciation and amortization.

Net cash provided by operating activities was \$314.2 million higher than net income for the year ended December 31, 2023. The variance is primarily attributable to the change in margin deposits, clearing funds, and interoperability funds 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 provided by operating activities was \$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 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 impairment of goodwill and the change in Section 31 fees payable.

Net Cash Flows Used in Investing Activities

During the year ended December 31, 2024, net cash used in investing activities primarily consisted of purchases of available-for-sale financial investments of \$115.6 million, purchases of property and equipment and leasehold improvements of \$60.9 million, and contributions to investments of \$40.2 million, partially offset by proceeds from maturities of available-for-sale financial investments of \$67.9 million.

Net cash flows used in investing activities were \$141.8 million and \$55.1 million for the years ended December 31, 2024 and 2023, respectively. The variance is primarily due to the change in proceeds from maturities of available-for-sale financial investments, purchases of available-for-sale financial investments, and purchases of property and equipment and leasehold improvements, partially offset by the change in contributions to investments for the year ended December 31, 2024 compared to the year ended December 31, 2023.

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.

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, 2024, net cash used in financing activities primarily consisted of cash dividends on common stock of \$249.4 million and share repurchases of \$204.8 million.

Net cash flows used in financing activities were \$495.0 million and \$656.1 million for the years ended December 31, 2024 and 2023, respectively. The variance is primarily due to the change in principal payments of the current portion of long-term debt, partially offset by the change in share repurchases.

Net cash flows used in financing activities totaled \$656.1 million for the year ended December 31, 2023, and 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 provided by financing activities totaled \$81.7 million for the year ended December 31, 2022, and primarily consisted of proceeds from long-term debt issuance of \$663.6 million, partially offset by principal payments of long-term debt of \$220.0 million, cash dividends on common stock, share repurchases, and payments of contingent consideration related to acquisitions.

Financial Assets

The following summarizes our financial assets excluding margin deposits, clearing funds, and interoperability funds as of December 31, 2024, 2023, and 2022 (in millions):

	 As of December 31,				
	2024		2023		2022
Cash and cash equivalents	\$ 920.3	\$	543.2	\$	432.7
Financial investments	110.3		57.5		91.7
Less deferred compensation plan assets	(40.3)		(36.7)		(27.5)
Less cash collected for Section 31 fees	(110.8)		(30.5)		(93.7)
Adjusted cash (1)	\$ 879.5	\$	533.5	\$	403.2

⁽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, 2024, 2023, and 2022 (in millions):

	As of December 31,					
		2024		2023		2022
Term Loan Agreement	\$	_	\$	_	\$	305.0
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		300.0
Revolving Credit Agreement		_		_		_
Choe Clear Europe Credit Facility		_		_		_
Less unamortized discount and debt issuance costs		(9.0)		(10.8)		(13.0)
Total debt	\$	1,441.0	\$	1,439.2	\$	1,742.0

At December 31, 2024, we were in compliance with the covenants of our debt agreements.

In addition to the debt outstanding, as of December 31, 2024, we had an additional \$400 million available through our revolving credit facility, with the ability to borrow another \$200 million by increasing the commitments under the facility, subject to the agreement of the applicable lenders. Together, with adjusted cash, we had approximately \$1.3 billion available to fund our operations, capital expenditures, potential acquisitions, debt repayments and any dividends, net of minimum regulatory capital requirements of \$166.7 million, which are subject to potential applicable regulatory restrictions and approvals and potential associated tax costs, as of December 31, 2024.

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 \$2.3 billion as of December 31, 2024. 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, 2024, the Company repurchased 1,148,295 shares of common stock at an average cost per share of \$177.86, totaling \$204.3 million. Since inception of the program through December 31,

2024, the Company has repurchased 20,758,383 shares of common stock at an average cost per share of \$78.05, totaling \$1.6 billion. The Company retired 1,332,430 and 2,453,428 shares of treasury stock in the years ended December 31, 2024 and 2023, respectively. As a result of these repurchases, certain direct costs and excise taxes are incurred but do not impact our cost per share or availability. See Note 2 ("Summary of Significant Accounting Policies") for more information.

As of December 31, 2024, the Company had \$679.8 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 2 months to 128 months as of December 31, 2024.

Total rent expense related to current and former lease obligations for the years ended December 31, 2024, 2023, and 2022 totaled \$37.1 million, \$34.5 million, and \$30.0 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 \$845.5 million in margin deposits, clearing funds, and interoperability funds related to Cboe Clear Europe and Cboe Clear U.S. 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 sheets 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 U.S. and the margin deposits, clearing funds, and interoperability funds.

Future minimum payments under these leases and agreements were as follows as of December 31, 2024:

	Payments Due by Period								
Contractual Obligations		Total		Less than 1 year		More than 1 year			
Operating leases	\$	183.4	\$	25.5	\$	157.9			
Purchase obligations		856.2		87.0		769.2			
Principal payments of debt		1,450.0		_		1,450.0			
Interest payments on debt		520.8		40.9		479.9			
Total	\$	3,010.4	\$	153.4	\$	2,857.0			

Commercial Commitments and Contractual Obligations

As of December 31, 2024, 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 the trade has been submitted to and validated by the National Securities Clearing Corporation ("NSCC"), after which time NSCC provides a guarantee until the trade settles. Thus, Cboe Trading is potentially exposed to credit risk to the counterparty to an equity trade routed to another market center until the trade has been processed and validated by the NSCC on the trade date. 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 until the trade settles. 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 asset futures occurring on Cboe Digital Exchange, we deliver matched trades of our customers to Cboe Clear U.S., 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 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 April 2024 announcement of the Cboe Digital spot market wind down and unwinding of the minority ownership structure in the holding company parent of the Cboe Digital entities, the Company performed an interim impairment test for the intangible assets recognized in the Digital reporting unit as the announcement was considered a potential indication of impairment. The Company concluded that the carrying value of the trading registrations and licenses and technology exceeded their estimated fair value, as their projected future cash flows, subsequent to the decision to wind down the business, did not support their valuation, and recorded an impairment charge of \$81.0 million in the consolidated statements of income during the three months ended June 30, 2024.

As a result of the Company's annual impairment analysis, in which the Company's 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 at December 31, 2024.

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 calculating the 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, 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 Pacific are subject to increased currency translation risk as revenues and expenses are denominated in foreign currencies, primarily the Euro, British pound, Canadian dollar, Australian dollar, and Japanese Yen. We also have de minimis exposure to other foreign currencies, including the Singapore dollar, Philippine Peso, and Hong Kong dollar.

For the year ended December 31, 2024, 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):

		r Ended er 31, 2024	
	Euros (1)	ritish ınds (1)	Canadian Dollars (1)
Foreign denominated % of:			
Revenues less cost of revenues	5.7 %	2.9 %	1.4 %
Operating expenses	7.1 %	8.4 %	3.8 %
Impact of 10% adverse currency fluctuation on:			
Revenues less cost of revenues	\$ 11.9	\$ 6.1	\$ 3.0
Operating expenses	6.9	8.2	3.7

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(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 loss, net within stockholders' equity on our consolidated balance sheets.

Our primary exposure to this equity risk as of December 31, 2024 is presented by foreign currency in the following table (in millions):

	Euros (1)	British Pounds (1)	Canadian Dollars (1)
Net equity investment in Cboe Europe equities and derivatives, Cboe Clear Europe, and Cboe Canada Inc.	\$ 198.3	\$ 636.4	\$ 521.8
Impact on consolidated equity of a 10% adverse currency fluctuation	19.8	63.6	52.2

(1) Converted to U.S. dollars using the foreign exchange rate of Euros per U.S. dollar, British pounds per U.S. dollar, and Canadian dollars per U.S. dollar, respectively, as of December 31, 2024.

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. The Company maintains cash at various regulated financial institutions and brokerage firms which, at times, may be in excess of the depository insurance limits. The Company's management regularly monitors these institutions and believes that the potential for future loss is remote.

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 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 the trade has been submitted to and validated by the NSCC, after which time NSCC

provides a guarantee until the trade settles. Thus, BIDS Trading is potentially exposed to credit risk to the counterparty to an equity trade routed to another market center until the trade as been processed and validated by the NSCC on the trade date. 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 the trade has been submitted to and validated by NSCC, after which time NSCC provides a guarantee until the trade settles (T+1). Thus, Cboe Trading is potentially exposed to credit risk to the counterparty to a trade routed to another market center until the trade has been processed and validated by the NSCC 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 U.S. 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 Clear U.S. 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 U.S. On June 5, 2023, the CFTC approved an amended order of registration for Cboe Clear U.S. (formerly, Cboe Clear Digital) to clear digital asset futures on a margined basis for futures commission merchants. The new products launched January 11, 2024. As of December 31, 2024, 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 U.S. 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 U.S. 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 €1.20 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 has no reason to believe it will incur any expense associated with potential liability in
 connection with storage of digital assets because it liquidated all digital assets held on behalf of customers as of
 September 30, 2024 and no longer holds customer digital clearing assets through accounts with third-party
 custodians or through self-custody.
- Valuation Risk Cboe Digital was previously exposed to risk with respect to digital asset prices and valuations
 which were largely based on the supply and demand for those digital assets in financial markets; however, the
 Company is no longer exposed to material digital asset valuation risk due to the liquidation of digital assets held by
 Cboe Digital as of September 30, 2024.
- 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. Cboe Clear U.S. is also exposed to market risk in the event that a clearing participant defaults and the market prices of 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 U.S. collects collateral on an end of day and intraday basis from clearing participants that are clearing margin eligible futures contracts. Cboe Clear U.S. only allows collateral in USD at this time. Cboe Clear U.S. maintains pre-funded resources to cover probable losses during normal market conditions due to default of clearing participants.
- Investment Risk Choe Clear Europe as of December 31, 2024 held \$841.4 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, Cooe 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 Cooe 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, 2024 and 2023, our cash and cash equivalents and financial investments were \$1,030.6 million and \$600.7 million, respectively, of which \$301.3 million and \$244.3 million is held outside of the United States in various foreign subsidiaries in 2024 and 2023, 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, 2024, we had \$1,441.0 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, 2024, 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, 2024 and 2023, 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, 2024, 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, 2024 and 2023, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2024, 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, 2024, 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 21, 2025 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 Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates 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 a critical audit matter 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 matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

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 a control 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 21, 2025

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, 2024, 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, 2024, 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, 2024 and 2023, 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, 2024, and the related notes (collectively, the consolidated financial statements), and our report dated February 21, 2025 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 21, 2025

Cboe Global Markets, Inc. and Subsidiaries Consolidated Balance Sheets December 31, 2024 and 2023 (In millions, except share and per share data)

	December 31, 2024	December 31, 2023
Assets Current assets:		
	\$ 920.3	\$ 543.2
Cash and cash equivalents Financial investments	110.3	ψ 543.2 57.5
	110.5	37.3
Accounts receivable, net of \$6.6 allowance for credit losses at December 31, 2024 and \$4.5 at December 31, 2023	444.6	337.3
Margin deposits, clearing funds, and interoperability funds	845.5	848.8
Digital assets - safeguarded assets	_	51.3
Income taxes receivable	73.8	74.5
Other current assets	84.6	66.7
Total current assets	2,479.1	1,979.3
	-	
Investments	383.7	345.3
Property and equipment, net	118.0	109.2
Property held for sale	_	8.7
Operating lease right of use assets	124.5	136.6
Goodwill	3,124.2	3,140.6
Intangible assets, net	1,376.9	1,561.5
Other assets, net	182.7	206.3
Total assets	\$ 7,789.1	\$ 7,487.5
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable and accrued liabilities	\$ 359.7	\$ 412.7
Section 31 fees payable	182.0	51.9
Deferred revenue	6.4	5.9
Margin deposits, clearing funds, and interoperability funds	845.5	848.8
Digital assets - safeguarded liabilities	_	51.3
Income taxes payable	1.6	1.0
Current portion of contingent consideration liabilities		11.8
Total current liabilities	1,395.2	1,383.4
Long-term debt	1,441.0	1,439.2
Non-current unrecognized tax benefits	305.0	243.8
Deferred income taxes	186.8	217.8
Non-current operating lease liabilities	138.4	150.8
Other non-current liabilities	43.1	67.5
Total liabilities	3,509.5	3,502.5
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$0.01 par value: 20,000,000 shares authorized, no shares issued and		
outstanding at December 31, 2024 and December 31, 2023	_	_
Common stock, \$0.01 par value: 325,000,000 shares authorized, 104,693,373 and 104,686,478		
shares issued and outstanding, respectively at December 31, 2024 and 105,556,817 and 105,527,815 shares issued and outstanding, respectively at December 31, 2023	1.0	1.1
Common stock in treasury, at cost, 6,895 shares at December 31, 2024 and 29,002 shares at December 31, 2023	(1.4)) (10.5
Additional paid-in capital	1,512.5	1,478.6
	1,012.0	
Retained earnings	2,815.9	2,525.2
Retained earnings Accumulated other comprehensive loss, net	·	
•	2,815.9	2,525.2) (9.4 3,985.0

Cboe Global Markets, Inc. and Subsidiaries Consolidated Statements of Income Years ended December 31, 2024, 2023, and 2022 (In millions, except per share data)

	 2024	2023	2022
Revenues:			
Cash and spot markets	\$ 1,670.0	\$ 1,445.1	\$ 1,777.
Data Vantage	576.6	539.2	497.
Derivatives markets	 1,847.9	1,789.2	1,683.9
Total revenues	4,094.5	3,773.5	3,958.
Cost of revenues:			
Liquidity payments	1,329.1	1,385.8	1,670.
Routing and clearing	68.3	79.1	83.:
Section 31 fees	391.4	185.7	329.
Royalty fees and other cost of revenues	 233.3	204.9	133.
Total cost of revenues	2,022.1	1,855.5	2,216.
Revenues less cost of revenues	2,072.4	1,918.0	1,741.
Operating expenses:			
Compensation and benefits	462.4	425.8	363.
Depreciation and amortization	133.0	158.0	166.
Technology support services	102.8	99.7	77.
Professional fees and outside services	94.8	92.0	89.
Travel and promotional expenses	45.8	37.6	23.
Facilities costs	24.6	25.7	25.
Acquisition-related costs	1.3	7.4	19.
Impairment of goodwill	_	_	460.
Impairment of intangible assets	81.0	_	_
Other expenses	28.3	13.9	26.
Total operating expenses	974.0	860.1	1,252.
Operating income	1,098.4	1,057.9	489.
Non-operating (expenses) income:			
Interest expense	(51.5)	(62.4)	(60.0
Interest income	27.3	12.0	3.
Earnings on investments	29.0	39.5	7.:
Other (expense) income, net	(19.4)	0.6	(7.5
Income before income tax provision	1,083.8	1,047.6	432.
Income tax provision	318.9	286.2	197.
Net income	764.9	761.4	235.
Net income allocated to participating securities	(3.9)	(3.9)	(0.9
Net income allocated to common stockholders	\$ 761.0	\$ 757.5	\$ 234.
Basic earnings per share	\$ 7.24	\$ 7.16	\$ 2.2
Diluted earnings per share	\$ 7.21	\$ 7.13	\$ 2.19
Basic weighted average shares outstanding	105.1	105.8	106.3
Diluted weighted average shares outstanding	105.5	106.2	106.7

Cboe Global Markets, Inc. and Subsidiaries Consolidated Statements of Comprehensive Income Years ended December 31, 2024, 2023, and 2022 (In millions)

	2024	2023	2022
Net income	\$ 764.9	\$ 761.4	\$ 235.0
Other comprehensive income (loss), net of income tax:			
Foreign currency translation adjustments	(43.0)	24.6	(85.6)
Unrealized holding gains (losses) on financial investments	5.0	(2.8)	(8.0)
Post-retirement benefit obligations	0.3	(0.2)	(0.2)
Realized gains on available-for-sale financial investments	 (1.3)	 	
Comprehensive income	725.9	783.0	148.4
Comprehensive income allocated to participating securities	(3.9)	(3.9)	(0.9)
Comprehensive income allocated to common stockholders, net of			
income tax	\$ 722.0	\$ 779.1	\$ 147.5

Cboe Global Markets, Inc. and Subsidiaries Consolidated Statements of Changes in Stockholders' Equity Years ended December 31, 2024, 2023, and 2022 (In millions)

	Preferred Stock	S	Common Stock	Treasury Stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive income (loss), net	Total stockholders' equity
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		1	I	I	1	(209.4)	1	(209.4)
Stock-based compensation		1	1	I	30.7	1	1	30.7
Repurchases of common stock from employee stock plans		1	I	(8.9)	I	I	1	(8.9)
Purchase of common stock		1	1	(100.9)	1	1	1	(100.9)
Retirement of treasury stock		I	ļ	85.6	(85.6)	I	l	l
Shares issued under employee stock purchase plan		1	I	l	9.0	1	1	9.0
Net income		1	I	I	I	235.0	1	235.0
Other comprehensive loss		1	1			1	(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		1	I	ı	1	(223.5)	1	(223.5)
Stock-based compensation		1	ļ	I	41.3	I	l	41.3
Repurchases of common stock from employee stock plans		ı	I	(13.9)	I	I	1	(13.9)
Purchase of common stock		ı	I	(83.9)	1	I	1	(83.9)
Retirement of treasury stock		1	j	218.3	(34.5)	(183.8)	1	l
Shares issued under employee stock purchase plan		1	1	1	16.7	1	1	16.7
Net income		ı	I	I	I	761.4	1	761.4
Other comprehensive income		1	1			Ι	21.6	21.6
Balance at December 31, 2023	\$	\$	1.1 \$	(10.5)	1,478.6 \$	2,525.2	\$ (9.4)	\$ 3,985.0
Cash dividends on common stock of \$2.36 per share		1	I	I	1	(249.4)	1	(249.4)
Stock-based compensation		ı	İ	I	41.8	Ι	I	41.8
Repurchases of common stock from employee stock plans		1	l	(29.5)	1	I		(29.5)
Purchase of common stock		ı	İ	(205.6)	ı	I	1	(205.6)
Retirement of treasury stock		I	(0.1)	244.2	(19.3)	(224.8)	1	1
Shares issued under employee stock purchase plan		1	I	1	11.4	I	1	11.4
Net income		ı	I	I	1	764.9	1	764.9
Other comprehensive loss			1	1			(39.0)	(39.0)
Balance at December 31, 2024	\$	\$	1.0 \$	(1.4) \$	1,512.5	2,815.9	\$ (48.4)	\$ 4,279.6

See accompanying notes to consolidated financial statements.

Cboe Global Markets, Inc. and Subsidiaries Consolidated Statements of Cash Flows Years ended December 31, 2024, 2023, and 2022 (In millions)

,	20	124	2023	2022
Cash flows from operating activities: Net income	\$	764.9	\$ 761.4	\$ 235.0
Adjustments to reconcile net income to net cash provided by operating activities:	•		•	•
Depreciation and amortization		133.0	158.0	166.8
Impairment of intangible assets or goodwill Stock-based compensation expense		81.0 41.8	41.3	460.9 30.7
Impairment of investments		31.6	1.8	10.6
Provision for accounts receivable credit losses		3.1	4.0	1.1
Amortization of debt issuance cost and debt discount		2.3 2.0	2.6 (14.4)	2.4 (5.2)
Change in contingent consideration Equity earnings on investments		(26.5)	(36.9)	
Benefit for deferred income taxes		(23.6)	(15.2)	(155.7
Gain on investment		(0.4)	_	(7.5
Gain from Cboe Digital non-recourse notes and warrants wind down Other		(2.4) (3.7)	(2.6)	0.3
Changes in assets and liabilities:		(124.3)	39.4	(49.8
Accounts receivable Restricted cash and cash equivalents and customer bank deposits (included in margin deposits, clearing funds, and	d	(124.0)	00.4	(40.0
interoperability funds)	u	76.0	282.6	(217.5
Income taxes receivable		0.5	(26.3)	
Other current assets		(26.0) 17.3	(17.4)	
Other assets		(36.4)	(26.7) (19.1)	
Accounts payable and accrued liabilities Section 31 fees payable		130.1	(95.2)	
Deferred revenue		0.5	(5.8)	
Income taxes payable		0.8	(2.8)	
Unrecognized tax benefits		61.2 (2.6)	47.7 (0.8)	89.1 (12.9
Other liabilities Net cash provided by operating activities		1,100.6	1,075.6	651.1
Net cash provided by operating activities Cash flows from investing activities:		,	.,2.010	
Acquisitions, net of cash acquired		_	_	(708.3
Contributions to investments		(40.2)	(57.1)	
Purchases of available-for-sale financial investments		(115.6) 67.9	(89.8) 135.7	(104.7 51.2
Proceeds from maturities of available-for-sale financial investments Proceeds from sale of intangible assets		0.1	0.8	J1.Z
Proceeds from sale of intangible assets Proceeds from sale of property held for sale		3.3	_	_
Proceeds from sale property and equipment		0.7	_	_
Payments on notes receivable		2.8	_	_
Proceeds from investments		0.1	0.3	1.1
Proceeds from insurance Purchases of property and equipment and leasehold improvements		(60.9)	(45.0)	(59.8
Net cash used in investing activities		(141.8)	(55.1)	(835.1)
Cash flows from financing activities:				
Proceeds from long-term debt		_	(305.0)	663.6 (220.0)
Principal payments of current portion of long-term debt		_	(303.0)	(4.9)
Debt issuance costs Cash dividends on common stock		(249.4)	(223.5)	
Repurchases of common stock from employee stock plans		(29.5)	(13.9)	
Shares issued under employee stock purchase plan		8.6	(16.7)	
Payments of contingent consideration related to acquisitions		(13.9) (6.0)	(13.1)	(38.7)
(Payments)/Proceeds related to Cboe Digital syndication Purchase of common stock		(204.8)	(83.9)	(100.9
Net cash (used in) provided by financing activities		(495.0)	(656.1)	81.7
Effect of foreign currency exchange rates on cash, cash equivalents, and restricted cash and cash equivalents		(95.1)	52.8	(10.0
Increase (decrease) in cash, cash equivalents, and restricted cash and cash equivalents		368.7	417.2	(112.3)
Cash, cash equivalents, and restricted cash and cash equivalents: Beginning of period		1,397.1	979.9	1,092.2
End of period		1,765.8	1,397.1	979.9
Reconciliation of cash, cash equivalents, and restricted cash and cash equivalents:				
Cash and cash equivalents	\$	915.3	\$ 543.2	\$ 432.7
Restricted cash and cash equivalents (included in margin deposits, clearing funds, and interoperability funds)		841.4 5.0	834.8	530.3
Restricted cash and cash equivalents (included in cash and cash equivalents) Restricted cash and cash equivalents (included in other current assets)		-	5.1	4.2
Customer bank deposits (included in margin deposits, clearing funds, and interoperability funds)		4.1	14.0	12.7
Total		1,765.8	1,397.1	979.9
Supplemental disclosure of cash transactions:	\$	362.4	\$ 286.4	\$ 271.1
Cash paid for income taxes, net of refunds Cash paid for interest	Ψ	100.1	56.7	51.0
Supplemental disclosure of noncash investing activities:				
Accounts receivable acquired	\$	_	\$ —	\$ 4.4
Financial investments acquired		_	_	1.5
Other current assets acquired		_	_	1.6 593.5
Goodwill acquired		1.2	_	164.1
Intangible assets earned or acquired Property and equipment, net acquired		_	_	1.6
Data processing software and other assets acquired		_	-	2.0
Operating lease right of use asset acquired		_	_	1.2
		_	_	(6.1 (0.6
Accounts payable and accrued liabilities assumed		_		(1.2
Deferred revenue acquired		_	_	
Deferred revenue acquired Operating lease liability - non-current acquired		Ξ	=	(10.1
Deferred revenue acquired Operating lease liability - non-current acquired Contingent consideration related to acquisitions Note receivable from property held for sale		6.4		_
Deferred revenue acquired Operating lease liability - non-current acquired Contingent consideration related to acquisitions Note receivable from property held for sale Deferred income taxes acquired		_	_	(22.6
Deferred revenue acquired Operating lease liability - non-current acquired Contingent consideration related to acquisitions Note receivable from property held for sale Deferred income taxes acquired Other non-current liabilities acquired		6.4 —		(22.6
Deferred revenue acquired Operating lease liability - non-current acquired Contingent consideration related to acquisitions Note receivable from property held for sale Deferred income taxes acquired Other non-current liabilities acquired Supplemental disclosure of noncash financing activities:	\$	_	_	(22.6) (0.4)
Deferred revenue acquired Operating lease liability - non-current acquired Contingent consideration related to acquisitions Note receivable from property held for sale Deferred income taxes acquired Other non-current liabilities acquired	\$	_ _ _ _ 1.3	\$	_
Deferred revenue acquired Operating lease liability - non-current acquired Contingent consideration related to acquisitions Note receivable from property held for sale Deferred income taxes acquired Other non-current liabilities acquired Supplemental disclosure of noncash financing activities: Paycheck Protection Program loan forgiveness	\$	=	_	(22.6 (0.4) \$ 1.3

Cboe Global Markets, Inc. and Subsidiaries Notes to Consolidated Financial Statements As of December 31, 2024 and 2023 and for the Years ended December 31, 2024, 2023, and 2022

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, and FX, 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 equities exchange operator in the U.S. In addition, the Company operates Cboe Europe, one of the largest equities 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 Clear U.S., 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.

On April 25, 2024, the Company announced plans to refocus the digital asset business to leverage its core strengths in derivatives, technology, and product innovation. On May 31, 2024, the Company halted trading on the Cboe Digital spot market ("Cboe Digital spot market"). The Cboe Digital spot market is closed for all participant and trading purposes. In addition, the Company plans to transition the cash-settled margin Bitcoin and Ether futures contracts, currently available for trading on Cboe Digital Exchange, LLC's Digital Exchange ("Cboe Digital Exchange"), to CFE in the first half of 2025, pending regulatory review. The Company has brought Cboe Clear U.S. (formerly, Cboe Clear Digital) under unified leadership with the Global Head of Clearing, and expects to continue to facilitate the clearing of cash-settled margin Bitcoin and Ether futures contracts.

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 ("CODM") 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 depository insurance limits. 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 income or interest expense 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 (expense) income, net 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.

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 income and interest expense 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 2024 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. Following the April 2024 announcement of the Cboe Digital spot market wind down and unwinding of the minority ownership structure in the holding company parent of the Cboe Digital entities, the Company performed an interim impairment test for the intangible assets recognized in the Digital reporting unit as the announcement was considered a potential indication of impairment, and recorded an impairment charge in the consolidated statements of income during the three months ended June 30, 2024. See Note 10 ("Goodwill, Intangible Assets, Net and Digital Assets Held") for additional information.

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 2024 annual intangible assets impairment test using October 1 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, plus any direct costs and excise taxes, 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 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.

(I) 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, 2024, 2023, and 2022, one customer accounted for approximately 10% 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 \$403.1 million, \$389.4 million, and \$415.3 million for the years ended December 31, 2024, 2023, and 2022, 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 and directors through restricted stock units. 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 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.

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 were non-recourse in nature. The issuances of Restricted Common Units were 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 was recognized as contra-revenue ratably over a five-year period. The Company used 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 was recognized while the performance conditions of the Warrant Units remained probable in conformance with the requirements in ASC 606 – Revenue from Contracts with Customers. Further adjustments were recognized in each

reporting period until performance was complete relating to changes in the fair value of the option and Warrant liabilities in accordance with ASC 718 – Compensation – Stock Compensation. In connection with winding down the spot digital asset trading market, this former investor member agreed to settle their outstanding Warrant Units for a one-time cash payment as a part of their Unit Repurchase Agreement. See Note 19 ("Stock-Based Compensation") for additional information.

Certain Cboe Digital investor members could have earned additional Restricted Common Units if they met certain performance-based metrics outlined in an equity incentive program ("Incentive Program Units"). The Incentive Program Units were subject to the same terms and conditions as the other Restricted Common Units and were similarly liabilityclassified 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 was recognized as contra-revenue ratably over the remaining service period associated with the Incentive Program Units. Further adjustments were recognized in each reporting period until performance was 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, 2024. In connection with winding down the Cboe Digital spot market, on June 12, 2024, the Company entered into Unit Repurchase Agreements with holders of Cboe Digital Restricted Common Units to repurchase its outstanding Restricted Common Units in exchange for forgiveness of the related promissory note. The wind down of the Cboe Digital spot market resulted in a forfeiture of all earned Incentive Program Units and a reversal of contra-revenue previously recorded. Cash payments to former investor members attributable to the Incentive Program Units were recorded as contra-revenue. All amounts previously recorded within other assets, net and other (expense) income, net for changes in the fair value relating to the Restricted Common Units were reversed. 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.

The Company's investment in 7Ridge Investments 3 LP ("7Ridge Fund") represents a nonconsolidated variable interest entity ("VIE") and is accounted for under the equity method of accounting. 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).

(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, 2024. The Company does not have any finance leases as of December 31, 2024.

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 sheets 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 sheets. 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 sheets 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.

Cboe Clear U.S. 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 statements of income. 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.

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

(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 are tested for impairment annually or more frequently if events or circumstances change that indicate it is 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 only remeasured if 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 are recorded are 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 had 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 were measured at the fair value of the digital assets that the Company was safeguarding on behalf of its customers. In the event that the Company or its vendors failed to safeguard the customers' digital assets, any resulting loss would have reduced the safeguarded asset with a corresponding loss recorded in other expenses in the consolidated statement of income. On July 1, 2024, the

Company liquidated all digital assets held by Cboe Digital for customers. As a result, subsequent to July 1, 2024, the Company no longer held any digital assets – safeguarded assets or liabilities on the consolidated balance sheets. See Note 3 ("Recent Accounting Pronouncements") for more information regarding SAB 121.

3. RECENT ACCOUNTING PRONOUNCEMENTS

Recent Accounting Pronouncements - Adopted

In November 2023, the FASB issued ASU 2023-07, Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures ("ASU 2023-07"). The update, effective for annual periods beginning after December 15, 2023, was adopted by the Company for its consolidated financial statement disclosures as of and for the year ended December 31, 2024. The ASU revises reportable segment disclosure requirements, primarily through enhanced disclosures about significant segment expenses. The required disclosures, as applicable, are included in Note 16 ("Segment Reporting"), and reflect the extent of the impact of the adoption of ASU 2023-07 on the consolidated financial statement disclosures.

Recent Accounting Pronouncements - Issued, not yet Adopted

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 consolidated 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 consolidated financial statements issued for the year ending December 31, 2025 and does not anticipate a material impact to the consolidated financial statements.

In November 2024 the FASB issued ASU 2024-03, Income Statement – Reporting Comprehensive Income – Expense Disaggregation Disclosures (Subtopic 220-40): Disaggregation of Income Statement Expenses. This ASU requires disaggregated disclosure of income statement expenses for public entities. For public entities, the update is effective for fiscal years beginning after December 15, 2026, and interim reporting periods beginning after December 15, 2027. The Company expects to adopt the update for the annual financial statements issued for the year ending December 31, 2027, and is currently reviewing the impact that the adoption of ASU 2024-03 may have on the consolidated financial statements disclosures.

On March 6, 2024, the SEC adopted new climate disclosure rules, which requires companies to publish information that describes the climate-related risks that are reasonably likely to have a material impact on a company's business or consolidated financial statements. The final rules would require companies to disclose material climate-related risks, activities to mitigate or adapt to such risks, information about the companies' board of directors' oversight of climate-related risks and management's role in managing climate-related risks, and information on any climate-related targets or goals that are material to the companies' business, results of operations or financial condition. On March 15, 2024, the U.S. Court of Appeals for the Fifth Circuit granted an administrative stay of the SEC's final Climate Disclosure Rules, in response to legal challenges unaffiliated with the Company. The Company expects to review any updates regarding the Court stay and update the financial statements and disclosures accordingly based on the outcome of the ongoing legal proceedings related to these rules.

On January 23, 2025, the SEC issued Staff Accounting Bulletin 122 ("SAB 122"), which rescinds the interpretive guidance included in the Staff Accounting Bulletin 121 ("SAB 121"). SAB 121, issued March 31, 2022, provided interpretive guidance from the SEC regarding the accounting for obligations to safeguard digital assets that an entity holds on behalf of customers. For public entities, SAB 122 is effective on a fully retrospective basis in annual periods beginning after December 15, 2024. The Company expects to adopt the guidance for the consolidated financial statements issued for the year ending December 31, 2025 and does not anticipate a material impact to the consolidated financial statements given the liquidation of all digital assets held on behalf of customers on July 1, 2024. See Note 1 ("Nature of Operations") and Note 14 ("Clearing Operations") for additional information.

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 Vantage 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 U.S. 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 from 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):

	Ca	ash and Spot Markets	ot Data Vantage			Derivatives Markets	Total
Year Ended December 31, 2024							
Transaction and clearing fees	\$	1,196.3	\$	_	\$	1,708.3	\$ 2,904.6
Access and capacity fees		_		369.8		_	369.8
Market data fees		60.4		203.9		30.5	294.8
Regulatory fees		320.2		-		106.1	426.3
Other revenue		93.1		2.9		3.0	99.0
	\$	1,670.0	\$	576.6	\$	1,847.9	\$ 4,094.5

	Ca	ash and Spot Markets	Data Vantage	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 Vantage	 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

The following table depicts the disaggregation of revenue according to segment (in millions):

	(Options		North American Equities		urope and		Futures	G	ilobal FX		Digital		Total
Year Ended December 31, 2024														
Transaction and clearing fees	\$	1,599.0	\$	970.5	\$	159.6	\$	109.2	\$	66.6	\$	(0.3)	\$	2,904.6
Access and capacity fees		168.4		127.7		40.3		22.4		11.0		_		369.8
Market data fees		123.8		120.8		39.4		9.3		1.5		_		294.8
Regulatory fees		105.9		320.2		_		0.2		_		_		426.3
Other revenue		5.5		7.6		84.9		_		0.8		0.2		99.0
	\$	2,002.6	\$	1,546.8	\$	324.2	\$	141.1	\$	79.9	\$	(0.1)	\$	4,094.5
Timing of revenue recognition														
Services transferred at a point in														
time	\$	1,710.4	\$	1,298.3	\$	244.5	\$	109.4	\$	67.4	\$	(0.1)	\$	3,429.9
Services transferred over time		292.2	_	248.5	_	79.7		31.7		12.5	_		_	664.6
	\$	2,002.6	\$	1,546.8	\$	324.2	\$	141.1	\$	79.9	\$	(0.1)	\$	4,094.5
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	Ψ	161.0	Ψ	117.1	Ť	36.3	<u> </u>	22.0	Ť	10.7	Ψ	0.4	Ψ	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
Outor revenue	\$		\$	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

Contract liabilities as of December 31, 2024 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, 2023		Cash Additions	Revenue Recognized	Balance at December 31, 2024		
Liquidity provider sliding scale (1)	\$		\$ 9.6	\$ (7.2)	\$	2.4	
Other, net (2)		6.1	15.1	(17.0)		4.2	
Total deferred revenue	\$	6.1	\$ 24.7	\$ (24.2)	\$	6.6	

- (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.
- (2) Other, net deferred revenue represents cash received for unsatisfied performance obligations of liability classified contract liabilities that have yet to be recognized as revenue in the consolidated statements of income, which include but are not limited to: licensing fees, listing fees, adjustments related to ORF, membership fees, and data subscription fees.

5. ACQUISITIONS

Acquisition-related costs relate to acquisitions and other strategic opportunities. The Company expensed \$1.3 million of acquisition-related costs during the year ended December 31, 2024, all of which related to compensation, professional fees, and other expenses. These acquisition-related expenses are included in acquisition-related costs in the consolidated statements of income.

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.

6. INVESTMENTS

As of December 31, 2024 and 2023, the Company's investments were comprised of the following (in millions):

	December 31, 2024	December 31, 2023
Equity method investments:		
Investment in 7Ridge Investments 3 LP	\$ 321	.3 \$ 292.0
Total equity method investments	321	.3 292.0
Other equity investments:		
Investment in Japannext Co., Ltd.	36	.5 —
Investment in Eris Innovations Holdings, LLC	9	.5 20.0
Investment in Globacap Technology Limited		16.0
Investment in CSD Br	5	.9 5.9
Investment in Coin Metrics Inc.	4	.4 5.0
Investment in Vest Group Inc.	2	.9 2.9
Investment in OCC	0	.3 0.3
Other equity investments	2	.9 3.2
Total other equity investments	62	.4 53.3
Total investments	\$ 383	.7 \$ 345.3

Equity Method Investments

The Company's investment in 7Ridge Investments 3 LP ("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, 2024, or \$321.3 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, which are included in the carrying value of the investment balance. 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.

The Company holds an exit option to acquire Trading Technologies International Inc. ("Trading Technologies"), which is wholly-owned by the 7Ridge Fund, that becomes exercisable on the earlier of (i) December 21, 2026 or (ii) the satisfaction by the general partner of the 7Ridge Fund of certain performance goals set forth in the investment agreements. The exit option can be exercised individually or jointly by the limited partners of 7Ridge Fund. If the exit option is not exercised by the limited partners, the general partner of the 7Ridge Fund may market Trading Technologies for sale to a third party. If Trading Technologies is sold to a third party, the general partner of the 7Ridge Fund would be entitled to receive a variable portion of the sales proceeds determined based upon the satisfaction of certain contractual performance goals. The estimated value of the exit option, which includes certain assumptions related to the estimated value of Trading Technologies and the probability and timing of the option exercise, is included in the carrying value of the investment balance. As of December 31, 2024, the exit option was not exercisable. See Note 25 ("Subsequent Events") for more information.

Other Equity Investments

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 second quarter of 2024, the Company wrote off their minority investment in Globacap Technology Limited based on management's assessment of the fair value of the investment. The loss related to the write-off was recorded in other (expense) income, net in the consolidated statements of income.

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. In the fourth quarter of 2023, the Company wrote off their minority investment in Effective Investing Limited. The loss related to the write-off was recorded within other (expense) income, net in the consolidated statements of income.

In the third quarter of 2024, the Company recorded an impairment charge of \$1.2 million on its minority investment in StratiFi Technologies Inc. based on management's assessment of the fair value of the investment. The loss was recorded in other (expense) income, net in the consolidated statements of income.

In the fourth quarter of 2024, the Company invested \$36.5 million in Japannext Co., Ltd., a Japanese Proprietary Trading System and alternative trading venue. Additionally, in the fourth quarter of 2024, the Company recorded an impairment charge of \$11.1 million on its minority investments in Eris Innovations Holdings, LLC and Coin Metrics Inc., based on management's assessment of the fair value of the investments. The loss was recorded in other (expense) income, 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, 2024 and 2023 (in millions):

	Dec	cember 31, 2024	D	ecember 31, 2023
Construction in progress	\$	3.3	\$	1.5
Furniture, equipment, and leasehold improvements		306.3		322.9
Total property and equipment		309.6		324.4
Less accumulated depreciation		(191.6)		(215.2)
Property and equipment, net	\$	118.0	\$	109.2

Depreciation expense using the straight-line method was \$34.0 million, \$33.0 million and \$35.3 million for the years ended December 31, 2024, 2023, and 2022, respectively.

The sale of the Company's former headquarters, including the associated land, building, and certain furniture and equipment of the former headquarters location (the "Property"), was completed on June 28, 2024. In connection with the sale, the Company provided seller financing to the purchaser of the Property (the "Purchaser") in the form of a secured promissory note for a portion of the purchase price of the Property. The total purchase price of the Property was \$12.0 million and was comprised of \$5.0 million cash and \$7.0 million of seller financing. On June 30, 2024, the Company recognized a gain on the sale of property held for sale of \$1.0 million representing the difference between the property held for sale balance and the net present value of the consideration on the date of disposal of the Property, less expenses incurred.

The \$7.0 million in seller financing is in the form of a secured promissory note receivable to be repaid with an interest rate of 4.0% per annum, payable quarterly in arrears. The loan principal shall be repaid to the Company upon the earlier of the following: (a) the second anniversary of the closing date of the sale of the Property or (b) the closing of a sale of the Property by the Purchaser to a third party who is not related to the Purchaser. The Company accrues interest income monthly based on the agreed upon principal amount and interest rate.

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"), a portion of which notes are expected to be repaid by Consolidated Audit Trail, LLC ("CATLLC"). CAT involves the creation of an audit trail that is required by Rule 613 under the Securities Exchange Act of 1934 ("Rule 613"), and it strives to enhance regulators' ability to monitor trading activity in the U.S. national securities markets through a phased implementation. CATLLC is a national market system plan that was created by self-regulatory organizations that include the Cboe U.S. national securities exchanges, the other U.S. national securities exchanges and FINRA (who collectively are referred to as the "SROs" or "Plan Participants") to implement and operate the CAT.

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 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 a portion of prospective CAT costs.

Prior to September 3, 2024, the funding of the CAT was solely provided to CATLLC by the Plan Participants in exchange for promissory notes. However, pursuant to the CAT Funding Model, the Plan Participants submitted fee filings on behalf of CATLLC to recover a portion of historical CAT costs incurred prior to 2022, and those filings became effective as of October 1, 2024. CATLLC began remitting funds collected from CAT Executing Brokers of Buyers and Sellers to the Plan Participants in December 2024 to begin paying back a portion of the promissory notes issued by the Plan Participants to fund the CAT prior to January 1, 2022.

Additional CAT fees related to a portion of other historical CAT costs incurred between January 1, 2022 and July 15, 2024 are planned to be introduced at a later time through separate fee filings submitted by the Plan Participants. 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 Plan Participants did not satisfy any of the financial accountability milestones.

Pursuant to fee filings submitted by Plan Participants, as of September 3, 2024, CATLLC began assessing transaction-based fees to CAT Executing Brokers of Buyers and Sellers to cover a portion of prospective CAT costs. At the same time, CATLLC also began assessing a transaction-based fee to the respective Plan Participants for the same amount. To continue to fund CATLLC as it transitioned to collecting fees from Industry Members and Plan Participants to cover ongoing CAT costs in accordance with the CAT Funding Model, Plan Participants temporarily issued short-term notes to CATLLC to cover CAT costs that were payable by CATLLC until CATLLC collected sufficient proceeds from the fees to cover those costs. As of January 2025, CATLLC has fully repaid these short-term notes through funds collected form the fees assessed to CAT Executing Brokers and Plan Participants. CATLLC has also used the funds collected to pay CATLLC expenses and has retained excess funds as a reserve per the CAT Funding Model and budget. Moving forward, CATLLC plans for the Plan Participants to submit prospective fee filings on CATLLC's behalf every six months to update the transaction fee rates as necessary to cover prospective CAT costs. The last such filings were submitted in December 2024 and effected a rate change beginning January 2, 2025. The Company expects Plan Participants will no longer issue additional short-term notes notes to CATLLC to fund CAT given that CATLLC has begun imposing and collecting fees to cover CAT costs.

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, 2024 and 2023 (in millions):

	notes	vance for receivable it losses	account	vance for s receivable lit losses	Total allowance for credit losses
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
Current period provision for expected credit losses		_		3.1	3.1
Write-offs charged against the allowance		_		(0.7)	(0.7)
Recoveries collected		_		(0.3)	(0.3)
Balance at December 31, 2024	\$	30.1	\$	6.6	\$ 36.7

9. OTHER ASSETS, NET

Other assets, net consisted of the following as of December 31, 2024 and 2023 (in millions):

		ember 31, 2024	De	cember 31, 2023
Software development work in progress	\$	18.7	\$	3.5
Data processing software		126.4		128.1
Less accumulated depreciation and amortization		(98.3)		(88.3)
Data processing software, net	•	46.8		43.3
Other assets (1)		135.9		163.0
Other assets, net	\$	182.7	\$	206.3

⁽¹⁾ At December 31, 2024 the majority of the balance included notes receivable, net of allowance, and long-term prepaid assets. At December 31, 2023, the majority of the balance included notes receivable, net of allowance, a contra-revenue asset, and long-term prepaid assets. As of December 31, 2024 and 2023, the notes receivable, net balance was \$124.2 million and \$136.9 million, respectively. See Note 7 ("Property and Equipment, Net") and 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 at December 31, 2023. As of December 31, 2024 and 2023, the contra-revenue asset balance was zero and \$18.1 million, respectively.

Amortization expense related to data processing software was \$10.3 million, \$8.4 million, and \$7.2 million for the years ended December 31, 2024, 2023, and 2022, 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	urope and sia Pacific	Global FX	Total
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
Adjustments	0.2	(8.0)	0.4	0.2	_
Changes in foreign currency exchange rates	_	(12.8)	(3.6)	_	(16.4)
Balance as of December 31, 2024	\$ 306.0	\$ 1,990.8	\$ 560.0	\$ 267.4	\$ 3,124.2

Goodwill has been allocated to specific reporting units for purposes of impairment testing - Options, North American Equities, Europe and Asia Pacific, and Global FX. 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.

The following table presents the details of the intangible assets by segment (in millions):

	Options	North American Equities	urope and	Global FX	Digital	Total
Balance as of December 31, 2022	\$ 146.1	\$ 992.8	\$ 359.9	\$ 72.8	\$ 91.2	\$ 1,662.8
Dispositions	_	_	_	_	(8.0)	(8.0)
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
Additions	_	1.2	_	_	_	1.2
Sales	_	_	_	_	(0.1)	(0.1)
Amortization	(7.7)	(50.6)	(16.1)	(12.0)	(2.3)	(88.7)
Changes in foreign currency exchange rates	_	(6.3)	(9.7)	_	_	(16.0)
Impairment	_	_	_	_	(81.0)	(81.0)
Balance as of December 31, 2024	\$ 126.4	\$ 879.6	\$ 326.7	\$ 44.2	\$	\$ 1,376.9

Following the April 2024 announcement of the Cboe Digital spot market wind down and unwinding of the minority ownership structure in the holding company parent of the Cboe Digital entities, the Company performed an interim impairment test for the intangible assets recognized in the Digital reporting unit as the announcement was considered a potential indication of impairment. The Company concluded that the carrying value of the trading registrations and licenses and technology exceeded their estimated fair value, as their projected future cash flows, subsequent to the decision to wind down the business, did not support their valuation, and recorded an impairment charge of \$81.0 million in the consolidated statements of income during the three months ended June 30, 2024.

For the years ended December 31, 2024, 2023, and 2022, amortization expense was \$88.7 million, \$116.6 million and \$124.3 million, respectively. The estimated future amortization expense is \$69.6 million for 2025, \$62.4 million for 2026, \$55.6 million for 2027, \$50.1 million for 2028, and \$45.5 million for 2029.

The following tables present the categories of intangible assets by segment as of December 31, 2024 and 2023 (in millions, except as stated):

		1	Dece	ember 31, 2024	ı			Weighted
	Options	North American Equities		Europe and Asia Pacific		Global FX	Digital	Average Amortization Period (in years)
Trading registrations and licenses	\$ 95.5	\$ 603.4	\$	205.2	\$	_	\$ _	Indefinite
Customer relationships	46.6	409.7		209.2		140.0	_	14
Market data customer relationships	53.6	322.0		60.8		64.4	_	7
Technology	28.1	55.5		33.6		22.5	_	7
Trademarks and tradenames	12.9	8.1		2.3		1.2	_	5
Digital assets held	_	1.2		_		_	_	Indefinite
Accumulated amortization	(110.3)	(520.3)		(184.4)		(183.9)		
	\$ 126.4	\$ 879.6	\$	326.7	\$	44.2	\$	

			Weighted					
	Options	North American Equities	Europe and Asia Pacific		Global FX		Digital	Average Amortization Period (in years)
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	

In October 2022, the Company, through its wholly-owned subsidiary Cboe Netherlands Services Company B.V., entered into a Data Provider Agreement with Pyth Data Association ("Pyth") to create a data feed and begin publishing limited derived equities market data for certain symbols from one of its four U.S. equities exchanges on the Pyth Network, a decentralized financial market data distribution platform for aggregated data. In exchange, Pyth granted Cboe Netherlands Services Company B.V. 16,666,666 restricted PYTH tokens which unlock annually over a four-year period in equal tranches; the first 25% tranche of PYTH tokens unlocked in May 2024. The PYTH tokens, which are included within intangible assets, net in the consolidated balance sheets, are carried at their historical value of \$0.06 per token and are reviewed each reporting period for potential impairment. In May 2024, the Company recorded \$1.0 million in market data fees revenue on the consolidated statements of income, which represents the historical value of the grant of 16,666,666 restricted PYTH tokens earned for satisfying the performance obligations outlined in the Data Provider Agreement. The Company has earned additional PYTH tokens by continuing to provide data to the Pyth Network through various Pyth Reward Programs that have run since May 2023. Through December 31, 2024, the Company earned an additional 725,000 PYTH tokens via the Pyth Reward Programs. The Company recorded additional intangible assets and revenue based on the token fair value when earned.

11. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

Accounts payable and accrued liabilities consisted of the following as of December 31, 2024 and 2023 (in millions):

	Decem	ber 31, 2024	Decem	ber 31, 2023
Compensation and benefit-related liabilities	\$	89.8	\$	77.1
Royalties		44.4		44.9
Accrued liabilities		74.4		70.3
Current operating lease liabilities		19.9		20.8
Rebates payable		93.5		75.1
Marketing fee payable		19.7		17.5
Current unrecognized tax benefits		0.1		82.3
Accounts payable		17.9		24.7
Total accounts payable and accrued liabilities	\$	359.7	\$	412.7

12. DEBT

The Company's debt consisted of the following as of December 31, 2024 and 2023 (in millions):

	Decer	mber 31, 2024	Dec	ember 31, 2023
\$650 million fixed rate Senior Notes due January 2027, stated rate of 3.650%	\$	648.6	\$	647.9
\$500 million fixed rate Senior Notes due December 2030, stated rate of 1.625%		495.5		494.8
\$300 million fixed rate Senior Notes due March 2032, stated rate of 3.000%		296.9		296.5
Revolving Credit Agreement		_		_
Choe Clear Europe Credit Facility				_
Total debt	\$	1,441.0	\$	1,439.2

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, 2024, 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 five-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, 2024, 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, 2024, no borrowings were outstanding under the Revolving Credit Agreement. Accordingly, at December 31, 2024, \$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 bankruptcyrelated 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 guarters. At December 31, 2024, the Company was in compliance with these covenants and did not exercise financial covenant step-up.

Choe Clear Europe Credit Facility

On July 1, 2020, 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, June 29, 2023, and June 28, 2024, as described below.

The Facility provides for a €1.20 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 €1.7 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 at 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 0.300 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 27, 2025, 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, 2024, no borrowings were outstanding under the Facility. Accordingly, at December 31, 2024, €1.20 billion of borrowing capacity was available for the purposes permitted by the Facility. At December 31, 2024, the Company and Cboe Clear Europe were in compliance with applicable covenants.

Notes Payments and Contractual Interest

The future expected repayments related to the Senior Notes as of December 31, 2024 are as follows (in millions):

2025	\$ _
2026	_
2027	650.0
2028	_
Thereafter	800.0
Principal amounts repayable	1,450.0
Debt issuance costs	(5.0)
Unamortized discounts on notes	(4.0)
Total debt outstanding	\$ 1,441.0

Interest, commitment, and other relevant fees, subject to the specific terms of the debt obligation, are recognized as incurred in interest expense in the consolidated statements of income.

Components of interest expense, net recognized in the consolidated statements of income for the years ended December 31, 2024, 2023, and 2022 are as follows (in millions):

	Year Ended December 31, 2024		Year Ended December 31, 2023		 ar Ended ember 31, 2022
Components of interest expense:					
Contractual interest	\$	49.2	\$	59.8	\$ 57.6
Amortization of debt discount and issuance costs		2.3		2.6	2.4
Interest expense	\$	51.5	\$	62.4	\$ 60.0
Interest income		(27.3)		(12.0)	(3.6)
Interest expense, net	\$	24.2	\$	50.4	\$ 56.4

13. ACCUMULATED OTHER COMPREHENSIVE (LOSS) INCOME, NET

The following represents the changes in accumulated other comprehensive (loss) income, net by component (in millions):

	Foreign Currency Translation Adjustment		vailable-for-sale Financial Investments	Post-Retirement Benefits	Total Accumulated Other Comprehensive (Loss) Income, Net			
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)		
Other comprehensive (loss) income	 (43.0)		3.7	0.3		(39.0)		
Balance at December 31, 2024	\$ (48.6)	\$		\$ 0.2	\$	(48.4)		

14. CLEARING OPERATIONS

Cboe operates two clearing houses, Cboe Clear Europe and Cboe Clear U.S., 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.

In November 2024, Cboe Clear Europe received approval to offer access to its market participants to engage in SFT. Cboe Clear Europe introduced a service for European SFT transactions in cash equities and ETFs, which includes central clearing, settlement and post-trade lifecycle management. This service aims to enhance the current bilateral SFT process between securities lenders and borrowers into a centrally cleared model, with Cboe Clear Europe acting as the counterparty to both sides of each transaction. As of December 31, 2024, no SFT trades had yet occurred on the Cboe Clear Europe platform.

Cboe Clear Europe only assumes the guarantor role if it has an equal and offsetting claim against a clearing participant. Cboe Clear Europe, with respect to SFT services, utilizes The Bank of New York Mellon Corporation and J.P. Morgan as Tri-Party Collateral Agents. For the period ended December 31, 2024, there have been no events of default for which a liability is required to be recognized in accordance with GAAP.

Choe 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 predominantly 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 cash and cash equivalents 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 funds captions in the consolidated balance sheets and the related interest income and expense is recorded in other revenue and other cost of revenue, respectively, on the consolidated statements of income.

Choe 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's 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 Cooe 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 Cooe 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 U.S.

Cboe Clear U.S. (formerly, Cboe Clear Digital) is a digital asset derivatives clearinghouse and central counterparty that provides clearing and settlement of digital asset trades. Cboe Clear U.S. is registered as a Derivatives Clearing Organization ("DCO") regulated by the U.S. Commodity Futures Trading Commission ("CFTC"). Cboe Clear U.S. is in the process of surrendering money transmitter licenses, and giving up its registration with the U.S. Treasury Financial Crimes Enforcement Network ("FinCEN") as a money services business ("MSB"), that were necessary for engagement with the Cboe Digital spot market. Before the surrendering process was initiated, Cboe Clear U.S. was authorized by license or not subject to licensing, to conduct MSB services in 50 U.S. jurisdictions. Cboe Clear U.S. performs a guarantee function whereby Cboe Clear U.S. helps to ensure that the obligations of the transactions it clears are fulfilled. Cboe Clear U.S. attempts to mitigate this risk by performing internal compliance and due diligence procedures as well as implementing internal risk controls. Cboe Clear U.S.'s due diligence procedures include, among other things, review of the corporate information, financial position of the member participant, and risk management reviews including monitoring of Cboe Clear U.S.'s risk exposure thresholds. A clearing member is required to deposit collateral, which is in the form of cash for futures products to cover some or all of the credit risk of its failure to fulfill its obligations. As of May 31, 2024, trading is no longer offered on the Cboe Digital spot market and, therefore, Cboe Clear U.S. no longer accepts any collateral for spot products. As of December 31, 2024, Cboe Clear U.S. does not expect a material loss concerning credit risk on any member participant.

Choe Clear U.S. Clearing Participant Deposits

Customer Bank Deposits

Cboe Clear U.S. 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 statements of income. There was no interest, gains or losses on invested funds for the year ended December 31, 2024 and 2023, respectively. 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 held digital assets on behalf of its customers. In accordance with the SEC issued Staff Accounting Bulletin 121 ("SAB 121"), the Company included customer digital assets on the consolidated balance sheets in digital assets - safeguarded assets, with a corresponding offset in digital assets - safeguarded liabilities.

On July 1, 2024, the Company liquidated all digital assets held by Cboe Digital for customers. As a result, subsequent to July 1, 2024, the Company no longer held any digital assets – safeguarded assets or liabilities on the consolidated balance sheets. Digital assets – safeguarded assets totaled zero and \$51.3 million at December 31, 2024, and 2023, respectively.

The following depicts the Company's valuation of digital assets – safeguarded assets and safeguarded liabilities as of December 31, 2023:

	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							

Margin Deposits, Clearing Funds, and Interoperability Funds

The details of margin deposits, clearing funds, and interoperability funds as of December 31, 2024 and December 31, 2023, are as follows (in millions):

				Decembe	r 31, 2	2024		
	Marg	in Deposits	Clea	ring Funds	In	teroperability Funds		Total
Cboe Clear Europe central bank account	\$	378.4	\$	173.7	\$	289.3	\$	841.4
Cboe Clear Europe reverse repurchase and other		_		_		_		_
Cboe Clear U.S. customer bank deposits		4.1		_		_		4.1
Total cash margin deposits, clearing funds, and interoperability funds	\$	382.5	\$	173.7	\$	289.3	\$	845.5
				Decembe				
	Marg	in Deposits	Clea	ring Funds	In	teroperability Funds		Total
Cboe Clear Europe non-cash contributions (1)	\$	691.4	\$	80.1	\$	225.9	\$	997.4
	December 31, 2023							
				Decembe	r 31, 2	2023		
		in Deposits	Clea	Decembe		2023 teroperability Funds		Total
Cboe Clear Europe central bank account	Marg	in Deposits 361.3	Clea			teroperability	\$	Total 772.4
Cboe Clear Europe central bank account Cboe Clear Europe reverse repurchase and other				ring Funds	ln	teroperability Funds	\$	
·		361.3		ring Funds 140.1	ln	teroperability Funds 271.0	\$	772.4
Cboe Clear Europe reverse repurchase and other		361.3 2.7		ring Funds 140.1	ln	teroperability Funds 271.0	\$	772.4 62.4
Cboe Clear Europe reverse repurchase and other Cboe Clear U.S. customer bank deposits Total cash margin deposits, clearing funds, and		361.3 2.7 14.0		140.1 4.1	\$ \$ \$ er 31, 2	271.0 55.6 — 326.6	\$	772.4 62.4 14.0
Cboe Clear Europe reverse repurchase and other Cboe Clear U.S. customer bank deposits Total cash margin deposits, clearing funds, and	\$	361.3 2.7 14.0	\$	140.1 4.1 — 144.2	\$ \$ \$ er 31, 2	271.0 55.6 — 326.6	\$ \$	772.4 62.4 14.0

⁽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.

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 FASB Accounting Standards Codification ("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 guoted 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, 2024 and 2023, 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, 2024 and 2023 (in millions):

	December 31, 2024							
		Total		Level 1		Level 2		Level 3
Assets:								
U.S. Treasury securities (1)	\$	70.0	\$	70.0	\$	_	\$	_
Marketable securities (1):								
Mutual funds		23.8		23.8		_		_
Money market funds		16.5		16.5		_		_
Note receivable - building sale (2)		6.2		_		_		6.2
Total assets	\$	116.5	\$	110.3	\$		\$	6.2

	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 (3)		18.7		_		_		18.7
Cboe Digital warrant liability (3)		5.9				_		5.9
Total liabilities	\$	87.7	\$		\$	51.3	\$	36.4

⁽¹⁾ These amounts are reflected within financial investments 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, 2024. See Note 17 ("Employee Benefit Plans") for more information.

Digital Assets - Safeguarded Assets and Liabilities

Digital assets – safeguarded assets and liabilities represented the Company's former holdings of Bitcoin, Ethereum, Litecoin, Bitcoin Cash, and USD Coin on behalf of the Company's customers. The Company valued digital assets – safeguarded assets and digital assets – safeguarded liabilities by using the closing prices at 4:00pm Central Time on the CoinDesk Indices Price Index at the time the underlying digital assets were formerly held on behalf of the Company's customers. On July 1, 2024, the Company liquidated all digital assets held by Cboe Digital for customers. As a result, subsequent to July 1, 2024, the Company no longer held any digital assets – safeguarded assets or liabilities on the consolidated balance sheets. See Note 14 ("Clearing Operations") for additional details regarding digital assets formerly held on behalf of customers.

⁽²⁾ This amount is reflected within other assets, net in the consolidated balance sheets.

⁽³⁾ These amounts are reflected within other non-current liabilities in the consolidated balance sheets.

Contingent Consideration Liabilities

In connection with the acquisitions of Cboe Asia Pacific, and Cboe Canada Inc., the Company entered into contingent consideration arrangements with the sellers. The total fair value of the liabilities at December 31, 2024 was zero. In connection with the contingent consideration arrangements, the Company paid a total of \$13.9 million in contingent consideration to the sellers of Cboe Asia Pacific and Cboe Canada Inc. during the year ended December 31, 2024. In May 2024, Cboe Japan achieved milestones resulting in the payment of \$5.7 million of contingent consideration, resulting in a reversal of a previously recorded gain. Additionally, Cboe Asia Pacific's contingent consideration expired in June 2024 and the remaining balance was not achieved, resulting in an equivalent gain of \$2.7 million. In August 2024, the remaining liability related to the acquisition of Cboe Canada was not used, resulting in an equivalent gain of \$1.0 million. The aforementioned updates resulted in a total \$2.0 million loss on Cboe Asia Pacific and Cboe Canada contingent consideration liabilities during the year ended December 31, 2024. In December 2023, as a result of updated projections which exhibited a decrease in the likelihood of Cboe Japan and Cboe Canada Inc. 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. 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, 2024.

Note Receivable - Building Sale

The Company provided seller financing in the form of a secured promissory note for a portion of the purchase price of the Property sale completed on June 28, 2024. See Note 7 ("Property and Equipment, Net") for more information. The Company has elected the fair value option available under ASC 825 for this note and subsequent changes in fair value are reported in other (expense) income, net on the consolidated statements of income. The fair value was calculated using the initial projected amortization schedule, credit risk assumptions, and implied interest rates for similar instruments. These inputs are considered Level 3 in the fair value hierarchy. The note is within other assets, net on the consolidated balance sheets as of December 31, 2024. The fair value option was not elected for other notes receivable described in Note 9 ("Other Assets, Net") due to uncertain payment terms and credit and legal risks as described in Note 8 ("Credit Losses"). The note receivable related to the building sale was not 90 days or more past due or in non-accrual status as of December 31, 2024.

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. For equity method investments and intangible assets, other than digital assets held, the process also involves using a discounted cash flow method to determine the fair value of each 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.

Equity investments without readily determinable fair values that are valued using the measurement alternative are measured at fair value on a non-recurring basis. Other than the impairment charges recorded on the Company's minority investments in Globacap Technology Limited, StratiFi Technologies Inc., Eris Innovations Holdings, LLC, and Coin Metrics Inc., no observable transactions or impairments impacted the measurements of the investments accounted for as other equity investments. See Note 6 ("Investments") for more information. These measurements are considered Level 3 and these assets are recognized at fair value if they are deemed to be impaired.

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, 2024 and 2023 (in millions):

	December 31, 2024								
		Total		Level 1		Level 2		Level 3	
Assets:									
U.S. Treasury securities (1)	\$	70.0	\$	70.0	\$	_	\$	_	
Deferred compensation plan assets (1)		40.3		40.3		_		_	
Note receivable - building sale (2)		6.2		_		_		6.2	
Total assets	\$	116.5	\$	110.3	\$		\$	6.2	
Liabilities:									
Deferred compensation plan liabilities (4)	\$	40.3	\$	40.3	\$	_	\$	_	
Debt (5)		1,317.0		_		1,317.0			
Total liabilities	\$	1,357.3	\$	40.3	\$	1,317.0	\$		

	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 (3,5)		0.1		0.1		_		_
Total assets	\$	108.9	\$	57.6	\$	51.3	\$	
Liabilities:								
Contingent consideration liabilities	\$	11.8	\$	_	\$	_	\$	11.8
Deferred compensation plan liabilities (4)		36.7		36.7		_		_
Digital assets - safeguarded liabilities		51.3		_		51.3		_
Cboe Digital restricted common units liability (4)		18.7		_		_		18.7
Cboe Digital warrant liability (4)		5.9		_		_		5.9
Debt (5)		1,305.7		_		1,305.7		
Total liabilities	\$	1,430.1	\$	36.7	\$	1,357.0	\$	36.4

- (1) These amounts are reflected within financial investments in the consolidated balance sheets.
- (2) This amount is reflected within other assets, net in the consolidated balance sheets.
- (3) These amounts are reflected within intangible assets, net in the consolidated balance sheets.
- (4) These amounts are reflected within other non-current liabilities in the consolidated balance sheets.
- (5) These balances are presented at fair value in this table, but are carried at their historical value within 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. The fair values of the Senior Notes are classified as Level 2 under the fair value hierarchy and are estimated using prevailing market quotes.

At December 31, 2024 and 2023, the fair values of the Company's debt obligations were as follows (in millions):

	Fa	ir Value
	December 31, 202	4 December 31, 2023
3.650% Senior Notes	\$ 638.	4 \$ 628.5
1.625% Senior Notes	416.	2 412.7
3.000% Senior Notes	262.	4 264.5

Information on Level 3 Financial Assets and Liabilities

The following table sets forth a summary of changes in the fair value of the Company's Level 3 financial assets and liabilities during the year ended December 31, 2024 and 2023 (in millions):

		Level 3 Financial Assets and Liabilities for the Year Ended December 31, 2024												
	Begi	ance at nning of eriod		es) Gains ng Period	Adjustments Addi		Additions	ons Settlements			Foreign Currency anslation		llance at of Period	
Assets:														
Note receivable - building sale	\$	_	\$	(0.8)	\$	_	\$	7.0	\$	_	\$	_	\$	6.2
Total assets	\$	_	\$	(0.8)	\$		\$	7.0	\$	_	\$	_	\$	6.2
											_			
	Begi	ance at nning of eriod	Losses (Gains) during Period		Adjustments		Additions		Se	ttlements	Foreign Currency Translation		Balance at End of Period	
Liabilities:														
Contingent consideration liabilities	\$	11.8	\$	2.0	\$	_	\$	_	\$	(13.9)	\$	0.1	\$	_
Cboe Digital restricted common units liability		18.7		(1.0)		(12.1)		_		(5.6)		_		_
Cboe Digital warrant liability		5.9		(1.4)		(4.1)		_		(0.4)		_		_
Total liabilities	\$	36.4	\$	(0.4)	\$	(16.2)	\$		\$	(19.9)	\$	0.1	\$	_
			Leve	el 3 Financia	l Ass	ets and Lia	biliti	ies for the Y	ear E	nded Decer	nber	31, 2023		
	Begi	Balance at Beginning of Period		s) Losses ig Period	Adj	ustments	Δ	Additions	Se	ttlements	C	Foreign Currency anslation		lance at 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

16. SEGMENT REPORTING

The Company operates six reportable business segments: Options, North American Equities, Europe and Asia Pacific, Futures, Global FX, and Digital which are further described below and is reflective of how the Company's CODM reviews and operates the business, as discussed in Note 1 ("Nature of Operations"). The Company's reportable business segments represent strategic business units that offer different products and services across different geographic areas. The Company's CODM is the chief executive officer. The CODM function is supported by business segment management and leadership personnel who lead the day-to-day operations of each reportable business segment.

The accounting policies of the reportable business segments are the same as those described in Note 2 ("Summary of Significant Accounting Policies"). Segment performance is primarily evaluated on operating income (loss). The CODM uses segment operating income (loss) to allocate resources (which includes but is not limited to employees, financial or capital resources). The Company's CODM does not assess assets or income and expenses below operating income (loss) at the segment-level as key performance metrics. 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. The Company's CODM primarily reviews operating expenses at the consolidated level for purposes of evaluating actual results versus budgets.

The tables below represent the primary measure of segment performance evaluated by the CODM, as well as additional measures that are regularly provided to the CODM on a segment-level.

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 corporate listing services on Cboe Canada Inc., ETP listings on BZX, the Cboe Global Markets, Inc. common stock listing, and 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, including exchange traded funds, exchange traded notes, and 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. Choe Europe operates lit and dark books, a periodic auctions book, a closing cross book, and two BIDS orderbooks; a Large-in-Scale ("LIS") trading negotiation facility and - predominantly for UK and Swiss symbols - a volume-weighted average price ("VWAP") trajectory crossing facility. Cboe NL, based in Amsterdam, operates similar business functionality to that offered by Cboe Europe (with exception of Trajectory Crossing), and provides for trading only in European Economic Area ("EEA") symbols. Cboe Europe Derivatives, a pan-European derivatives platform, offers futures and options based on Cboe Europe equity indices, and single stock options. Cboe Clear Europe offers the clearing of equity and equity-like instruments for Cboe-operated and other regulated trading venues, the clearing of derivative transactions executed on CEDX, and has recently introduced a service to clear Securities Financing Transactions. 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. On April 25, 2024, the Company announced plans to transition the cash-settled margin Bitcoin and Ether futures contracts, currently available for trading on the Cboe Digital Exchange, to CFE in the first half of 2025, pending regulatory review.

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 regulated futures exchange (Cboe Digital Exchange) and a regulated clearinghouse (Cboe Clear U.S.), as well as revenue generated from the licensing of proprietary market data and from access and capacity services. Prior to May 31, 2024, the Digital segment also included a U.S.-based spot digital asset trading market ("Cboe Digital spot market"). As of May 31, 2024, the Cboe Digital spot market is closed for all participant and trading purposes. In addition, the Company plans to transition the cash-settled margin Bitcoin and Ether futures contracts, currently available for trading on the Cboe Digital Exchange, to CFE in the first half of 2025, pending regulatory review. The Company expects that Digital will cease to be a distinct reportable business segment in the first quarter of 2025.

Net income (loss) (f)

	_						Υ	ear Ended I	Decen	nber 31,					
	_							20	24						
		Options		North American Equities		urope and sia Pacific		Futures	G	lobal FX	Digital	Ite	orporate ems and ninations		Total
Revenues	\$	2,002.6	\$	1,546.8	\$	324.2	\$	141.1	\$	79.9	\$ (0.1)	\$		\$	4,094.5
Cost of revenues		743.3		1,163.0		104.0		7.6		2.3	1.9		_		2,022.1
Revenues less cost of revenues (a)		1,259.3		383.8		220.2		133.5		77.6	(2.0)				2,072.4
Depreciation and amortization (b)		27.0		58.2		29.3		2.3		13.5	2.8		(0.1)		133.0
Other segment operating expenses (c)		353.9		157.0		149.2		32.3		30.9	107.6		10.1		841.0
Operating income (loss)	\$	878.4	\$	168.6	\$	41.7	\$	98.9	\$	33.2	\$ (112.4)	\$	(10.0)	\$	1,098.4
Non-operating (expenses) income:															
Interest expense (d)	\$	0.1	\$	_	\$	(7.8)	\$	_	\$	_	\$ _	\$	(43.8)	\$	(51.5)
Interest income (d)		0.5		2.4		4.1		_		0.1	3.7		16.5		27.3
Earnings on investments (d)		_		_		_		_		_	_		29.0		29.0
Other (expense) income, net (d)		0.8		0.7		(0.1)		_		_	1.5		(22.3)		(19.4)
Income before income tax provision		879.8		171.7	_	37.9	_	98.9		33.3	(107.2)		(30.6)	_	1,083.8
Income tax provision (benefit) (e)		299.1		23.1		13.3		28.4		0.1	(28.6)		(16.5)		318.9
Net income (loss) (f)	\$	580.7	\$	148.6	\$	24.6	\$	70.5	\$	33.2	\$ (78.6)	\$	(14.1)	\$	764.9
							Υ	ear Ended I	Decen	nber 31,					
	Ξ							20	23						
		Options		North American Equities		urope and sia Pacific	ı	Futures	G	lobal FX	Digital	Ite	orporate ems and ninations		Total
Revenues	\$	1,939.5	\$	1,353.0	\$	281.2	\$	129.0	\$	74.9	\$ (4.1)	\$	_	\$	3,773.5
Cost of revenues		770.3		987.7		91.0		3.9		1.4	1.2		_		1,855.5
Revenues less cost of revenues (a)		1,169.2		365.3		190.2		125.1		73.5	(5.3)				1,918.0
Depreciation and amortization (b)		30.1		69.4		30.7		2.0		18.4	7.4		_		158.0
Other segment operating expenses (c)		287.8		177.9		126.8		37.0		30.4	34.0		8.2		702.1
Operating income (loss)	\$	851.3	\$	118.0	\$	32.7	\$	86.1	\$	24.7	\$ (46.7)	\$	(8.2)	\$	1,057.9
Non-operating (expenses) income:															
Interest expense (d)	\$	0.2	\$	_	\$	(7.8)	\$	_	\$	_	\$ _	\$	(54.8)	\$	(62.4)
Interest income (d)		(0.1)		1.4		3.0		_		_	2.0		5.7		12.0
Earnings on investments (d)		_		_		_		_		_	_		39.5		39.5
		(0.1)		_		(0.6)		_		(0.2)			1.5		0.6
Other (expense) income, net (d)	_	(0.1)	_		_		_							_	
Other (expense) income, net (d) Income before income tax provision		851.3		119.4		27.3		86.1		24.5	(44.7)		(16.3)		1,047.6
Income before income tax				119.4 14.8		27.3 6.8		86.1 33.4		24.5 0.5	(44.7) (10.4)		(16.3) (34.6)		1,047.6 286.2

Summarized financial data of reportable segments was as follows (in millions) (continued from previous page):

		Year Ended December 31,														
		2022														
			urope and sia Pacific			Global FX		Digital		Corporate Items and Eliminations			Total			
Revenues	\$	1,823.2	\$	1,681.7	\$	264.6	\$	119.8	\$	68.9	\$	0.3	\$	_	\$	3,958.5
Cost of revenues		840.0		1,302.8		68.5		3.8		1.0		0.7				2,216.8
Revenues less cost of revenues (a)		983.2		378.9		196.1		116.0		67.9		(0.4)		_		1,741.7
Depreciation and amortization (b)		26.5		74.1		37.0		2.6		21.9		4.7		_		166.8
Other segment operating expenses (c)		216.2		158.2		121.0		58.2		37.2		486.3		8.2		1,085.3
Operating income (loss)	\$	740.5	\$	146.6	\$	38.1	\$	55.2	\$	8.8	\$	(491.4)	\$	(8.2)	\$	489.6
Non-operating (expenses) income:																
Interest expense (d)	\$	_	\$	_	\$	(8.8)	\$	_	\$	0.3	\$	_	\$	(51.5)	\$	(60.0)
Interest income (d)		_		0.4		0.8		_		0.1		_		2.3		3.6
Earnings on investments (d)		_		_		_		_		_		_		7.2		7.2
Other (expense) income, net (d)		0.1		(0.1)		(0.4)		_		_		1.3		(8.4)		(7.5)
Income before income tax provision		740.6		146.9		29.7		55.2		9.2		(490.1)		(58.6)		432.9
Income tax provision (benefit) (e)		260.7		20.5		6.8		42.4		0.1		(119.0)		(13.6)		197.9
Net income (loss) (f)	\$	479.9	\$	126.4	\$	22.9	\$	12.8	\$	9.1	\$	(371.1)	\$	(45.0)	\$	235.0

⁽a) Revenues less cost of revenues by segment is a measure that is regularly provided to the CODM, as well as a component of operating income (loss).

Geographical Information

The following summarizes revenues less cost of revenues based on primary jurisdiction (in millions):

		 Inited States	Non-U.S.	Total
F	Revenues less cost of revenues:			
	Year ended December 31, 2024	\$ 1,817.6	\$ 254.8	\$ 2,072.4
	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

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 Executive Retirement Plan and the Deferred Compensation Plan, which are defined contribution plans that are non-qualified under the Internal Revenue Code. The non-qualified plans' assets, held in a trust, are subject to the claims of general creditors of the Company and totaled \$40.3 million at December 31, 2024. Although the value of the plans are 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 non-qualified plans have no impact on net income as the investment results are recorded in equal amounts to both other (expense) income, net and compensation and benefits expense in the consolidated statements of income. The Company matches a portion of employee contributions made to the SMART Plan and Supplemental Executive Retirement Plan. The Company contributed \$15.9 million, \$15.0 million, and \$14.4 million to the defined contribution plans for the years ended December 31, 2024, 2023, and 2022, respectively.

⁽b) Depreciation and amortization at the segment-level is not regularly provided to the CODM, however depreciation and amortization is a component of operating income (loss) and identified as a "specific profit or loss" item in accordance with guidance, and therefore has been disclosed separately.

⁽c) Other segment operating expenses includes compensation and benefits, technology support services, professional fees and outside services, travel and promotional expenses, facilities costs, acquisition-related costs, impairment of intangible assets, impairment of goodwill, and other expenses. The disaggregation of expenses is not regularly provided to the CODM at the segment-level.

⁽d) Non-operating (expenses) income at the segment-level is not regularly provided to the CODM, however non-operating (expenses) income is a component of a measure that is regularly provided to the CODM and the components of non-operating (expenses) income included above are identified as "specific profit or loss" items in accordance with guidance, and therefore have been disclosed separately.

⁽e) Income tax provision (benefit) at the segment-level is not regularly provided to the CODM, however income tax provision (benefit) is a component of a measure that is regularly provided to the CODM and identified as a "specific profit or loss" item in accordance with guidance, and therefore has been disclosed separately.

⁽f) Net income (loss) at the segment-level is not regularly provided to the CODM, however net income (loss) is a component of a measure that is regularly provided to the CODM, and therefore has been disclosed separately.

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 \$4.8 million, \$4.3 million, and \$3.0 million for the years ended December 31, 2024, 2023, and 2022, 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, 2024, 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, 2024, 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.

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 U.S. 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 Inc. is regulated by the Ontario Securities Commission ("OSC"). Cboe Canada Inc. is required to maintain sufficient financial resources for the proper performance of its functions and to meet its responsibilities, but it has no prescribed minimum capital requirement. Cboe Canada Inc. 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 Inc. must report the monthly calculations to the OSC on a quarterly basis.

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, 2024 (in millions):

Subsidiary	Regulatory Authority	Actual	Minimum Requirement
Cboe Trading	FINRA/SEC	\$ 11.0	
BIDS Trading	FINRA/SEC	8.0	0.2
Cboe Fixed Income	FINRA/SEC	4.4	0.1
Cboe Europe	FCA	65.1	32.7
Cboe Chi-X Europe	FCA	0.1	0.1
Cboe NL	Dutch Authority for Financial Markets	12.5	8.4
Cboe Clear Europe	DNB	89.2	57.9
CFE	CFTC	60.4	41.4
Cboe SEF	CFTC	2.9	2.0
Cboe Digital Exchange	CFTC	35.1	2.9
Cboe Clear U.S.	CFTC	31.6	10.5
Cboe Australia	ASIC	13.5	5.0
Cboe Japan	JFSA	10.0	4.4

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 of certain awards 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 \$40.2 million, \$33.9 million, and \$30.7 million for the years ended December 31, 2024, 2023, and 2022, 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 \$1.8 million, \$1.9 million, and \$1.9 million for the years ended December 31, 2024, 2023, and 2022, respectively. Stock-based compensation expense relating to Restricted Common Units and Warrant Units granted to investor members of Cooe Digital was recorded as contra-revenue in the consolidated statements of income. In connection with winding down the Cooe Digital spot market, on June 12, 2024 all of the remaining Cooe Digital Restricted Common Units and Warrant Units were forfeited and no Cooe Digital Restricted Common Units or Warrant Units were outstanding as of the year ended December 31, 2024. See below for additional information.

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, 2024, 2023, and 2022:

	Number of shares	Weighted verage grant ate fair value
Nonvested stock at January 1, 2022	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
Granted	226,061	183.27
Vested	(298,023)	117.28
Forfeited	(43,484)	145.53
Nonvested stock at December 31, 2024	522,735	\$ 153.20

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. Starting in 2024, the award agreements 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 continuous 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, 2024 and 2023.

In the year ended December 31, 2024, to satisfy employees' tax obligations upon the vesting of restricted stock units, the Company purchased 110,361 shares of common stock totaling \$20.8 million as the result of the vesting of 297,669 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, 2024, 2023, and 2022:

	Number of Shares	Weighted average grant date fair value
Nonvested stock at January 1, 2022	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
Granted	86,996	145.21
Vested	(110,376)	100.50
Forfeited	_	_
Nonvested stock at December 31, 2024	111,104	\$ 168.45

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 2024: risk-free interest rate (4.41)%, 2.86-year volatility (21.56)% and 2.86-year correlation with S&P 500 Index (0.39). 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, 2024, to satisfy employees' tax obligations upon the vesting of performance stock, the Company purchased 46,867 shares of common stock totaling \$8.6 million as the result of the vesting of 110,376 shares of performance stock.

As of December 31, 2024, there were \$51.9 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 1.8 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 \$2.8 million, \$2.7 million, and \$0.6 million for the years ended December 31, 2024, 2023, and 2022, respectively. As of December 31, 2024, 491,793 shares were reserved for future issuance under the ESPP.

Choe 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 former investor members and their affiliates are our customers, including trading permit holders, trading privilege holders, participants, and members. Certain former Cboe Digital investor members paid for the Restricted Common Units through the issuance of promissory notes, which were non-recourse in nature. The issuances of Restricted Common Units for non-recourse promissory notes were accounted for as in-substance stock options. The promissory notes generally bore interest at a rate of 5% per annum and matured upon the earlier of the sale of vested Restricted Common Units, or either November 18, 2032 or November 18, 2037. One former Cboe Digital investor member paid for the Restricted Common Units in exchange for cash.

As of March 31, 2024, 185 Restricted Common Units (all unvested) were outstanding, with a weighted average exercise price of \$0.3 million and a weighted average remaining contractual term of 5 years. On April 25, 2024, the Company announced plans to wind down the spot digital asset trading market currently offered by Cboe Digital and to dissolve its minority ownership structure.

In connection with winding down the Cboe Digital spot market, on June 12, 2024, the Company entered into Unit Repurchase Agreements with holders of Cboe Digital Restricted Common Units to repurchase its outstanding Restricted Common Units in exchange for forgiveness of the related promissory note. Certain former investor members also received a cash payment in addition to the forgiveness of their promissory note. The former Cboe Digital investor who paid for their Restricted Common Units in cash also received an additional payment equal to the amount they paid for their Restricted Common Units. As a result, all Cboe Digital Restricted Common Units were forfeited as of June 30, 2024. The Company paid \$3.3 million in total to settle the Restricted Common Units. No Cboe Digital Restricted Common Units were outstanding during the year ended December 31, 2024.

The following table summarizes the option activity during the years ended December 31, 2024 and 2023 (in millions, except number of shares and contractual term):

	Number of shares	e	Weighted average exercise price	Aggregate intrinsic value	Weighted average remaining contractual term
Outstanding at January 1, 2023	185	\$	0.3	\$ —	6 years
Granted	_		_	_	_
Vested	<u> </u>				
Outstanding at December 31, 2023	185	\$	0.3	\$ —	5 years
Granted	_		_	_	_
Vested	_		_	_	_
Forfeited	(185)	\$	0.3	\$	
Outstanding at December 31, 2024	_	\$	_	\$ —	

Vesting of Restricted Common Units was based on certain conditions relating to the participation and performance of the former Cboe Digital investor members on the Cboe Digital platforms, generally over a five-year period. Performance was generally measured based on participation on the Cboe Digital platforms and the former investor members maintaining certain average daily volumes on the platforms. Due to the existence of an option for former investor members to sell their shares immediately after vesting, the options were liability classified. The options were due to expire upon the maturity of the promissory notes, which was either November 18, 2032 or November 18, 2037, unless the options were exercised.

The cost associated with the options was 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. The wind down of the Cboe Digital spot market resulted in a forfeiture of all Cboe Digital Restricted Common Units and a reversal of contra-revenue previously recorded. Cash payments to former investor members attributable to the Restricted Common Units (other than payments to the former investor member to refund their cash payment for the Restricted Common Units) were recorded as contra-revenue. As a result, \$2.4 million of contra-revenue was reversed in the three months ended June 30, 2024. All amounts previously recorded within other assets, net relating to the Restricted Common Units were reversed. Any impact to other (expense) income, net for changes in the fair value of the Cboe Digital Restricted Common Units was reversed.

Changes in the fair value of the options, subsequent to the grant date, were recognized in other (expense) income, net in the consolidated statements of income in the period in which the fair value of the options changed. The Company used 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 three months ended June 30, 2024, there was \$(0.3)

million recognized in other (expense) income, net in the consolidated statements of income related to a reversal of previously recognized fair value adjustments of the options.

Prior to the execution of Unit Repurchase Agreements, certain former Cboe Digital investor members were able to earn additional Incentive Program Units. The Incentive Program Units were subject to the same terms and conditions as the other Restricted Common Units and were 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 wind down of the Cboe Digital spot market resulted in a forfeiture of all earned Incentive Program Units and a reversal of contra-revenue previously recorded. Cash payments to former investor members attributable to the Incentive Program Units were recorded as contra-revenue. The Company paid \$2.3 million in total to settle the Incentive Program Units. As a result, \$1.4 million of contra-revenue was recorded in the three months ended June 30, 2024, due to the cash payments exceeding the amount of contra-revenue previously recorded for Incentive Program Units. All amounts previously recorded within other assets, net and other (expense) income, net for changes in the fair value relating to the Restricted Common Units were reversed.

Choe 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 former investor member is a customer of Cboe Digital.

The vesting of the Warrant Units was based upon the achievement of certain conditions relating to the service provided by the former investor member over a two-year period, of which some conditions represented conditions that are not service, performance, or market conditions and, therefore, the Warrant Units were liability classified. As of March 31, 2024, 40 Warrant Units (with a weighted average exercise price of \$0.2 million) had vested, but no Warrant Units were exercised.

In connection with winding down the spot digital asset trading market, this former investor member agreed to settle their outstanding Warrant Units for a one-time cash payment as a part of their Unit Repurchase Agreement. Unvested Warrant Units were forfeited. The Company paid \$0.4 million in total to settle the Warrant Units. No Cboe Digital Warrant Units were outstanding as of December 31, 2024.

The cost associated with the Warrant Units was recognized as contra-revenue ratably throughout the expected life of the Warrant before exercise. Changes in the fair value of the Warrant Units, subsequent to the grant date, were recognized in other (expense) income, net in the consolidated statements of income in the period in which the fair value of the Warrant Units changed. The Company used 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. Given the cash payment to the Warrant Units holder relates to a settlement of a vested instrument, the difference between the liability previously recorded for the vested Warrant Units and the amount of the Unit Repurchase Agreement was recorded as \$1.3 million recognized in other (expense) income, net in the consolidated statements of income in the three months ended June 30, 2024.

The following table summarizes the Warrant Unit activity during the years ended December 31, 2024 and 2023 (in millions, except number of shares):

	Number of shares	Weighted average exercise price
Outstanding at January 1, 2023	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
Granted	_	_
Vested, but not exercised	_	_
Forfeited	(80)	0.2
Outstanding and exercisable at December 31, 2024		_
Outstanding at December 31, 2024		\$

20. EQUITY

Common Stock

The Company's common stock is listed on Cboe BZX under the trading symbol CBOE. As of December 31, 2024, 325,000,000 shares of the Company's common stock were authorized, \$0.01 par value, and 104,693,373 and 104,686,478 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 6,895 and 29,002 shares of common stock in treasury as of December 31, 2024 and December 31, 2023, respectively.

On December 19, 2024, the Board of Directors approved the retirement of 1,332,430 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 \$2.3 billion as of December 31, 2024. 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.

Under the program, for the year ended December 31, 2024, the Company has repurchased 1,148,295 shares of common stock at an average cost per share of \$177.86, totaling \$204.3 million. Since inception of the program through December 31, 2024, the Company has repurchased 20,758,383 shares of common stock at an average cost per share of \$78.05, totaling \$1.6 billion. As a result of these repurchases, certain direct costs and excise taxes are incurred but do not impact our cost per share or availability. See Note 2 ("Summary of Significant Accounting Policies") for more information.

As of December 31, 2024, the Company had \$679.8 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)
2024			
Fourth quarter	_	\$ —	\$ —
Third quarter	144,370	170.45	24.6
Second quarter	514,239	175.76	90.4
First quarter	489,686	182.26	89.3
Total open market common stock repurchases	1,148,295		\$ 204.3
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

Purchase of Common Stock from Employees

The Company purchased 157,228 and 106,460 shares that were not part of the publicly announced share repurchase authorization from employees for an average price paid per share of \$187.07 and \$130.35 during the years ended December 31, 2024 and 2023, 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, 2024, and 2023, the Company had no shares of preferred stock issued or outstanding.

Dividends

During the year ended December 31, 2024, the Company declared and paid cash dividends per share of \$2.36, for an aggregate payout of \$249.4 million. 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.

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, 2024 and 2023 (in millions):

Deferred tax assets: 2024 2023 Accrued compensation and benefits \$ 20.2 \$ 19.3 Property, equipment and technology, net 14.6 12.7 Investments — 83.7 Operating leases 40.4 42.6 Other 88.7 84.2 Subtotal 163.9 242.5 Valuation allowances (17.0) (11.8) Otal deferred tax assets 146.9 230.7 Deferred tax liabilities: (240.2) (384.7) Intangibles (240.2) (384.7) Property, equipment and technology, net (19.0) (17.4) Investments (33.8) — Prepaid expenses or assets (4.5) (4.4) Operating leases (31.9) (33.9) Total deferred tax liabilities (329.4) (440.4) Net deferred tax liabilities (329.4) (440.4)		 As of December 31,		
Accrued compensation and benefits \$ 20.2 \$ 19.3 Property, equipment and technology, net 14.6 12.7 Investments — 83.7 Operating leases 40.4 42.6 Other 88.7 84.2 Subtotal 163.9 242.5 Valuation allowances (17.0) (11.8) Total deferred tax assets 146.9 230.7 Deferred tax liabilities: (240.2) (384.7) Intangibles (240.2) (338.) — Property, equipment and technology, net (19.0) (17.4) Investments (33.8) — Prepaid expenses or assets (4.5) (4.4) Operating leases (31.9) (33.9) Total deferred tax liabilities (329.4) (440.4)		2024	2023	
Property, equipment and technology, net 14.6 12.7 Investments — 83.7 Operating leases 40.4 42.6 Other 88.7 84.2 Subtotal 163.9 242.5 Valuation allowances (17.0) (11.8) Total deferred tax assets 146.9 230.7 Deferred tax liabilities: (240.2) (384.7) Property, equipment and technology, net (19.0) (17.4) Investments (33.8) — Prepaid expenses or assets (4.5) (4.4) Operating leases (31.9) (33.9) Total deferred tax liabilities (329.4) (440.4)	Deferred tax assets:			
Investments — 83.7 Operating leases 40.4 42.6 Other 88.7 84.2 Subtotal 163.9 242.5 Valuation allowances (17.0) (11.8) Total deferred tax assets 146.9 230.7 Deferred tax liabilities: (240.2) (384.7) Property, equipment and technology, net (19.0) (17.4) Investments (33.8) — Prepaid expenses or assets (4.5) (4.4) Operating leases (31.9) (33.9) Total deferred tax liabilities (329.4) (440.4)	Accrued compensation and benefits	\$ 20.2 \$	19.3	
Operating leases 40.4 42.6 Other 88.7 84.2 Subtotal 163.9 242.5 Valuation allowances (17.0) (11.8) Total deferred tax assets 146.9 230.7 Deferred tax liabilities: (240.2) (384.7) Property, equipment and technology, net (19.0) (17.4) Investments (33.8) — Prepaid expenses or assets (4.5) (4.4) Operating leases (31.9) (33.9) Total deferred tax liabilities (329.4) (440.4)	Property, equipment and technology, net	14.6	12.7	
Other 88.7 84.2 Subtotal 163.9 242.5 Valuation allowances (17.0) (11.8) Total deferred tax assets 146.9 230.7 Deferred tax liabilities: (240.2) (384.7) Property, equipment and technology, net (19.0) (17.4) Investments (33.8) - Prepaid expenses or assets (4.5) (4.4) Operating leases (31.9) (33.9) Total deferred tax liabilities (329.4) (440.4)	Investments	_	83.7	
Subtotal 163.9 242.5 Valuation allowances (17.0) (11.8) Total deferred tax assets 146.9 230.7 Deferred tax liabilities: Intangibles (240.2) (384.7) Property, equipment and technology, net (19.0) (17.4) Investments (33.8) — Prepaid expenses or assets (4.5) (4.4) Operating leases (31.9) (33.9) Total deferred tax liabilities (329.4) (440.4)	Operating leases	40.4	42.6	
Valuation allowances (17.0) (11.8) Total deferred tax assets 146.9 230.7 Deferred tax liabilities: Intangibles (240.2) (384.7) Property, equipment and technology, net (19.0) (17.4) Investments (33.8) — Prepaid expenses or assets (4.5) (4.4) Operating leases (31.9) (33.9) Total deferred tax liabilities (329.4) (440.4)	Other	88.7	84.2	
Total deferred tax assets 146.9 230.7 Deferred tax liabilities: Intangibles (240.2) (384.7) Property, equipment and technology, net (19.0) (17.4) Investments (33.8) — Prepaid expenses or assets (4.5) (4.4) Operating leases (31.9) (33.9) Total deferred tax liabilities (329.4) (440.4)	Subtotal	163.9	242.5	
Deferred tax liabilities: (240.2) (384.7) Intangibles (19.0) (17.4) Property, equipment and technology, net (33.8) — Investments (33.8) — Prepaid expenses or assets (4.5) (4.4) Operating leases (31.9) (33.9) Total deferred tax liabilities (329.4) (440.4)	Valuation allowances	(17.0)	(11.8)	
Intangibles (240.2) (384.7) Property, equipment and technology, net (19.0) (17.4) Investments (33.8) — Prepaid expenses or assets (4.5) (4.4) Operating leases (31.9) (33.9) Total deferred tax liabilities (329.4) (440.4)	Total deferred tax assets	146.9	230.7	
Property, equipment and technology, net (19.0) (17.4) Investments (33.8) — Prepaid expenses or assets (4.5) (4.4) Operating leases (31.9) (33.9) Total deferred tax liabilities (329.4) (440.4)	Deferred tax liabilities:			
Investments (33.8) — Prepaid expenses or assets (4.5) (4.4) Operating leases (31.9) (33.9) Total deferred tax liabilities (329.4) (440.4)	Intangibles	(240.2)	(384.7)	
Prepaid expenses or assets (4.5) (4.4) Operating leases (31.9) (33.9) Total deferred tax liabilities (329.4) (440.4)	Property, equipment and technology, net	(19.0)	(17.4)	
Operating leases (31.9) (33.9) Total deferred tax liabilities (329.4) (440.4)	Investments	(33.8)	_	
Total deferred tax liabilities (329.4)	Prepaid expenses or assets	(4.5)	(4.4)	
	Operating leases	(31.9)	(33.9)	
Net deferred tax liabilities \$\\((182.5) \) \$\\((209.7) \)	Total deferred tax liabilities	(329.4)	(440.4)	
	Net deferred tax liabilities	\$ (182.5) \$	(209.7)	

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 \$17.0 million and \$11.8 million were recorded against gross deferred tax assets for certain investments, net operating and capital losses as of December 31, 2024 and 2023, respectively.

As of December 31, 2024, the Company has capital loss carryforwards of \$1.8 million, which, if unused, will expire in 2025 and 2029. The Company also has net operating loss carryforwards of \$14.4 million, most of which have an indefinite 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, 2024, the cumulative amount of undistributed earnings in these subsidiaries is \$150.7 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, 2024, 2023, and 2022 consists of the following (in millions):

	 Year Ended December 31,					
	2024		2023		2022	
Current tax expense:						
Federal	\$ 208.8	\$	188.1	\$	210.4	
State	117.7		97.8		130.2	
Foreign	16.0		15.5		13.0	
Total current tax expense	342.5		301.4		353.6	
Deferred income tax (benefit) expense:						
Federal	(19.5)		(3.4)		(126.2)	
State	(2.4)		1.5		(22.7)	
Foreign	(1.7)		(13.3)		(6.8)	
Total deferred income tax benefit	(23.6)		(15.2)		(155.7)	
Total	\$ 318.9	\$	286.2	\$	197.9	

For the years ended December 31, 2024, 2023, and 2022, income before taxes consists of the following (in millions):

	 Year Ended December 31,				
	2024		2023		2022
U.S. operations	\$ 1,060.2	\$	1,010.5	\$	401.3
Foreign operations	 23.6		37.1		31.6
Total	\$ 1,083.8	\$	1,047.6	\$	432.9

A reconciliation of the statutory federal income tax rate to the effective income tax rate for the years ended December 31, 2024, 2023, and 2022 is as follows:

	Year Ended December 31,		
	2024	2023	2022
Statutory U.S. federal income tax rate	21.0 %	21.0 %	21.0 %
Impact of federal, state and local tax law & rate changes, net	0.1 %	— %	(0.5)%
State taxes, net of federal benefit	4.5 %	4.3 %	4.5 %
Uncertain tax positions	3.9 %	2.9 %	20.6 %
Deduction for Foreign Derived Intangible Income	(0.4)%	(0.4)%	(1.0)%
Valuation allowances	0.4 %	(0.5)%	0.6 %
Other, net	(0.1)%	<u> </u>	0.5 %
Effective income tax rate	29.4 %	27.3 %	45.7 %

A reconciliation of the beginning and ending unrecognized tax benefits, excluding interest and penalties, is as follows (in millions):

	2024	2023	2022
Balance as of January 1	\$ 237.5	\$ 212.1	\$ 162.1
Gross increases related to prior year tax positions	0.2	_	21.8
Gross decreases related to prior year tax positions	(3.1)	(1.5)	_
Gross increases related to current year tax positions	34.4	31.1	32.9
Settlements	(49.9)	(2.5)	(3.7)
Lapse of statute of limitations	 	(1.7)	(1.0)
Balance as of December 31	\$ 219.1	\$ 237.5	\$ 212.1

As of December 31, 2024, 2023, and 2022, the Company had \$173.1 million, \$196.6 million, and \$177.1 million, respectively, of unrecognized tax benefits, net of federal benefit, which, if recognized in the future, would affect the effective income tax rate. No reductions to unrecognized tax benefits from the lapse of the applicable statutes of limitations and potential audit settlements are expected during the next twelve months.

Estimated interest (income) costs and (benefits) penalties are classified as part of the provision for income taxes in the Company's consolidated statements of income and were \$(2.5) million, \$14.3 million, and \$39.1 million, for the periods ended December 31, 2024, 2023, and 2022, respectively. Accrued interest and penalties were \$86.0 million, \$88.5 million and \$74.4 million as of December 31, 2024, 2023, and 2022, 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	2021-2024
California	2015-2024
Illinois	2021-2024
New York	2015-2024
New York City	2015-2024
United Kingdom	2021-2024
Netherlands	2018-2024

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, 2024, 2023, and 2022 (in millions, except per share data):

	Year Ended December 31,					
		2024		2023		2022
Basic earnings per share numerator:						
Net income	\$	764.9	\$	761.4	\$	235.0
Net income allocated to participating securities		(3.9)		(3.9)		(0.9)
Net income allocated to common stockholders	\$	761.0	\$	757.5	\$	234.1
Basic earnings per share denominator:						
Weighted average shares outstanding		105.1		105.8		106.3
Basic earnings per share	\$	7.24	\$	7.16	\$	2.20
Diluted earnings per share numerator:						
Net income	\$	764.9	\$	761.4	\$	235.0
Net income allocated to participating securities		(3.9)		(3.9)		(0.9)
Net income allocated to common stockholders	\$	761.0	\$	757.5	\$	234.1
Diluted earnings per share denominator:						
Weighted average shares outstanding		105.1		105.8		106.3
Dilutive common shares issued under stock program		0.4		0.4		0.4
Total dilutive weighted average shares		105.5		106.2		106.7
Diluted earnings per share	\$	7.21	\$	7.13	\$	2.19

For the periods presented, the Company did not have shares of stock-based compensation that would have an antidilutive effect on the computation of diluted earnings per share.

23. COMMITMENTS, CONTINGENCIES, AND GUARANTEES

Legal Proceedings

As of December 31, 2024, 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, 2024, 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 Plan to implement a revised funding model ("CAT Funding Model") for 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 funded by monies loaned 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 ("ASA") 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 U.S. national securities exchanges, the NYSE U.S. national securities exchanges, the Nasdaq U.S. national securities exchanges and CATLLC ("Intervenors") 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 and merits briefing concluded in the second quarter of 2024.

On September 13, 2024, Citadel filed a motion to stay the CAT Funding Model Order and to enjoin the collection of certain CAT fees during the pendency of this litigation, which the 11th Circuit denied on November 27, 2024. Oral argument on the merits was held on February 3, 2025. This challenge or any other challenge to the CAT Funding Model Order and/or Plan Participant(s) fee filings on behalf of CATLLC may significantly delay efforts by CATLLC to continue collecting the CAT fees. 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 challenge is without merit and intends to vigorously litigate the matter.

CAT Putative Class Action

A putative class action was filed on April 16, 2024 captioned *Erik A. Davidson, John Restivo and National Center for Public Policy Research vs. Gary Gensler, SEC and CATLLC.* Cboe and the Plan Participants are not parties to this litigation. The complaint alleges, among other things, that the SEC engaged in unlawful agency action and violated multiple provisions of the U.S. Constitution when it promulgated Rule 613 in 2012 mandating the creation and funding of the CAT. Plaintiffs' motion for a preliminary injunction and stay was denied. On January 13, 2025, plaintiffs' motion for leave to file an amended complaint was granted. This challenge or any other challenge to the constitutionality of the CAT may delay CATLLC's assessment of CAT fees to recover a portion of CAT costs. 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.

Citadel Petition for Review of SEC Temporary Conditional Exemptive Order

On July 17, 2024, Citadel filed a Petition for Review ("PFR") of the SEC's May 20, 2024 Order Granting A Temporary Conditional Exemption Pursuant to Section 36(a)(1) of the Securities Exchange Act of 1934 ("Exchange Act") and Rule 608(e) of Regulation NMS Under the Exchange Act, Relating to the Reporting of Responses to Requests for Quotes and Other Solicitation Responses Provided in a Standard Electronic Format, as Required by Section 6.4(d) of the NMS Plan Governing the CAT ("CAT RFQ Exemptive Order") in the 11th Circuit. The PFR does not identify any requested relief. On August 1, 2024, the 11th Circuit granted Citadel's July 19, 2024 unopposed motion to stay the PFR until a decision is issued in the CAT Funding Model Order Litigation (described above), which is also before the 11th Circuit. On September 11, 2024, the 11th Circuit granted motions filed by the Cboe U.S. national securities exchanges, the Nasdaq U.S. national securities exchanges and CATLLC to intervene on behalf of the SEC. This challenge or any other challenge to SEC Orders concerning the CAT may delay the CATLLC's implementation of CAT fees to recover a portion of CAT costs. 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.

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 designated contract markets 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 U.S. 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, Cboe Europe, Cboe Chi-X Europe, Cboe Clear Europe, Cboe NL, Cboe Australia, Cboe Japan, and Cboe Canada Inc. may be subject to routine reviews, audits, examinations, investigations, or inspections, as applicable, by their respective regulators, and while they 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.

As the Company previously held digital assets for customers, Cboe Digital committed to securely storing all digital assets it formerly held on behalf of users. As such, Cboe Digital was potentially 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 formerly within its control, (iii) it has established security around custodial private keys to minimize the risk of theft or loss, and (iv) Cboe Digital no longer holds digital assets for customers. There were no loss events impacting safeguarded assets caused by the theft or loss of digital asset user private keys as of December 31, 2024.

The Company is also currently a party to various other legal and regulatory 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.

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 \$18.1 million each year for the next five years. On January 29, 2024, the Company entered into an addendum to the corporate agreement with a cloud services provider, which contains annual minimum fee requirements that total between \$5.3 million and \$6.9 million each year for the next five years.

See Note 14 ("Clearing Operations") for information on the clearinghouse exposure guarantees for Cboe Clear Europe and Cboe Clear U.S.

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, 2024. 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, 2024, \$26.7 million of right of use assets and \$26.7 million of lease liabilities were added related to new operating leases and existing lease extensions.

In May 2024, the Company entered into an agreement to amend its lease agreement for its Lenexa, Kansas office space. As part of the agreement, the lease term was reduced and now ends on September 30, 2025. In consideration for the reduction in lease term, the Company agreed to pay a reduction fee totaling \$1.3 million to be paid in two equal installments in May 2024 and September 2025. The amended lease agreement was treated as a full termination without an embedded option to terminate included in the original agreement. Upon the termination, the Company considered the present value of future lease payments and adjusted its right of use assets and lease liabilities balances accordingly based on the percentage reduction in the remaining lease term; the right of use assets decreased \$10.3 million and the lease liabilities

decreased \$11.0 million, with the \$0.7 million difference recorded as a gain on lease termination in other (expense) income, net in the consolidated statements of income during the three months ended June 30, 2024. The \$1.3 million lease reduction payments are included in the present value of the lease liability balance along with normal rent payments and will be recognized through straight-line lease expense over the remaining term of the lease.

Additionally, in September 2024, the Company signed a new lease to secure approximately 60,000 square feet of office space in Overland Park, Kansas. The initial term of the lease is 129 months from the accounting commencement date, September 1, 2024. The Company has the option to renew the lease for two additional terms of 60 months each. The total legally binding minimum lease payments for the lease are approximately \$12.0 million, net of allowance incentives.

The following table presents the supplemental balance sheet information related to leases as of December 31, 2024 and 2023 (in millions):

	De	cember 31, 2024	D	ecember 31, 2023
Operating lease right of use assets	\$	124.5	\$	136.6
Total leased assets	\$	124.5	\$	136.6
Current operating lease liabilities (1)	\$	19.9	\$	20.8
Non-current operating lease liabilities		138.4		150.8
Total leased liabilities	\$	158.3	\$	171.6

⁽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, 2024 and 2023 (in millions, except as stated):

	 ar Ended ember 31, 2024	Year Ended ecember 31, 2023
Operating lease costs (1)	\$ 37.1	\$ 34.5
Lease term and discount rate information:		
Weighted average remaining lease term (years)	7.6	8.6
Weighted average discount rate	3.6 %	3.4 %
Supplemental cash flow information and non-cash activity:		
Cash paid for amounts included in the measurement of lease liabilities	\$ 27.2	\$ 24.9
Right of use assets obtained in exchange for lease liabilities	26.7	44.5
Reduction in lease liability due to remeasurement	(18.5)	_

⁽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, 2024, 2023, and 2022 were \$37.1 million, \$34.5 million, and \$30.0 million, respectively.

The maturities of the lease liabilities are as follows as of December 31, 2024 (in millions):

	De	cember 31, 2024
2025	\$	25.5
2026		28.4
2027		25.0
2028		23.0
2029		14.4
After 2029		67.1
Total lease payments	\$	183.4
Less: Interest		(25.1)
Present value of lease liabilities	\$	158.3

25. SUBSEQUENT EVENTS

In January 2025, the Company received notification from the 7Ridge Fund that certain performance goals were met and the exit option to acquire Trading Technologies became exercisable. As of February 21, 2025, the exit option has not been exercised.

On February 10 and 11, 2025, the Company's Board of Directors and Compensation Committee, as applicable, approved granting \$47.8 million of RSUs and \$6.0 million of PSUs, with an effective date of February 19, 2025, 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, 2025. 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 11, 2025, the Company's Board of Directors declared a quarterly cash dividend of \$0.63 per share. The dividend is payable on March 14, 2025 to stockholders of record at the close of business on February 28, 2025.

Subsequent to the year ended December 31, 2024, from January 1, 2025 through February 19, 2025, the Company repurchased 77,108 shares of its common stock under its share repurchase program at an average cost per share of \$206.47, for a total value of \$15.9 million. As of February 19, 2025, the Company had \$663.9 million of availability remaining under its existing share repurchase authorizations.

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, 2024.

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, 2024. 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.

No changes occurred in the Company's internal control over financial reporting during the fourth quarter of 2024 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, 2024, internal control over financial reporting is effective.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2024 has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report on page 94.

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, 2024.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

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 2025 Annual Meeting of Stockholders planned to be held on May 6, 2025, which will be filed within 120 days of the end of our fiscal year ended December 31, 2024 ("2025 Proxy Statement") and is incorporated herein by reference. Information relating to our executive officers is included on pages 26 and 27 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.

Insider Trading Arrangements and Policies

We have adopted insider trading policies and procedures governing the purchase, sale, and/or other dispositions of the Company's securities by directors, officers and employees that are reasonably designed to promote compliance with insider trading laws, rules and regulations, and any listing standards applicable to the Company. A copy of the Company's insider trading policy has been filed as Exhibit 19.1 to this Annual Report on Form 10-K.

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 2025 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 2025 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 2025 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 2025 Proxy Statement and is incorporated herein by reference.

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 92. These consolidated financial statements are as follows:

- Consolidated Balance Sheets as of December 31, 2024 and 2023
- Consolidated Statements of Income for the years ended December 31, 2024, 2023, and 2022
- Consolidated Statements of Comprehensive Income for the years ended December 31, 2024, 2023, and 2022
- Consolidated Statements of Changes in Stockholders' Equity for the years ended December 31, 2024, 2023, and 2022
- Consolidated Statements of Cash Flows for the years ended December 31, 2024, 2023, and 2022
- 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	Eighth Amended and Restated Bylaws, incorporated by reference to Exhibit 3.1 to the Company's Amended Current Report on Form 8-K (File No. 001-34774) filed on December 5, 2024.
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 (filed herewith).

- 10.1 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.
- 10.2 Facility Agreement, dated July 1, 2020, by and among European Central Counterparty N.V. as borrower, Cboe Global Markets, Inc. as guarantor, 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 lenders named therein (the "Facility Agreement"), 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, 2020.
- 10.3 Amendment and Restatement Agreement, dated July 1, 2021, by and among European Central Counterparty N.V., Cboe Global Markets, Inc., as guarantor, Bank of America Europe Designated Activity Company, as coordinator 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 2, 2021.
- 10.4 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.
- 10.5 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.
- 10.6 Amendment and Restatement Agreement, dated June 25, 2024, 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, June 30, 2022, and June 29, 2023, 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 June 28, 2024.
- 10.7 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.+
- 10.8 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.+
- 10.9 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.+
- 10.10 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.+
- 10.11 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.+
- 10.12 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.+
- 10.13 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.+
- 10.14 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.+

- 10.15 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.+
- 10.16 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.+
- 10.17 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.
- 10.18 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. +
- 10.19 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 August 4, 2023.+
- 10.20 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.+
- 10.21 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.
- 10.22 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.
- 10.23 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.
- 10.24 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.
- 10.25 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.+
- 10.26 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.
- 10.27 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.+
- 10.28 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.
- 10.29 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.+
- 10.30 Amendment No. 23 to the S&P License Agreement, effective as of May 31, 2024, incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-34774) filed on August 2, 2024.+
- 10.31 Amendment No. 24 to the S&P License Agreement, effective as of September 1, 2024, incorporated by reference to Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q (File No. 001-34774) filed on November 1, 2024.+
- 10.32 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.
- 10.33 Form of Second Amended and Restated Director Indemnification Agreement, incorporated by reference to Exhibit 10.32 to the Company's Annual Report on Form 10-K for the year ended December 31, 2023 (File No. 001-34774) filed on February 16, 2024.
- 10.34 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.*
- 10.35 Relocation Benefits for Fredric J. Tomczyk, incorporated by reference to Exhibit 10.34 to the Company's Annual Report on Form 10-K for the year ended December 31, 2023 (File No. 001-34774) filed on February 16, 2024.*

- 10.36 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.*
- 10.37 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.*
- 10.38 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.*
- 10.39 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.*
- 10.40 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.*
- 10.41 Cboe Global Markets, Inc. Supplemental Retirement Plan, incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2024 (File No. 001-34774) filed on November 1, 2024.*
- 10.42 Cboe Global Markets, Inc. Deferred Compensation Plan for Officers, incorporated by reference to Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2024 (File No. 001-34774) filed on November 1, 2024.*
- 10.43 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.*
- 10.44 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.*
- 10.45 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.*
- 10.46 Second Amended and Restated Cooe 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.*
- 10.47 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 *
- 10.48 Cboe Global Markets, Inc. Director Equity Deferral Plan, as amended and restated, incorporated by reference to Exhibit 10.55 to the Company's Annual Report on Form 10-K for the year ended December 31, 2023 (File No. 001-34774) filed on February 16, 2024.*
- 10.49 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.*
- 10.50 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.*
- 10.51 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.*
- 10.52 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.*
- 10.53 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.*
- 10.54 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.*

- 10.55 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.*
- 10.56 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.*
- 10.57 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.*
- 10.58 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.*
- 10.59 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.*
- 10.60 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.*
- 10.61 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.*
- 10.62 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.*
- 10.63 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.*
- 10.64 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.*
- 10.65 Form of 2024 Restricted Stock Unit Award Agreement (for Executive Officers), incorporated by reference to Exhibit 10.89 to the Company's Annual Report on Form 10-K for the year ended December 31, 2023 (File No. 001-34774) filed on February 16, 2024.*
- 10.66 Form of 2024 Restricted Stock Unit Award Agreement (relative total shareholder return), incorporated by reference to Exhibit 10.90 to the Company's Annual Report on Form 10-K for the year ended December 31, 2023 (File No. 001-34774) filed on February 16, 2024.*
- 10.67 Form of 2024 Restricted Stock Unit Award Agreement (earnings per share), incorporated by reference to Exhibit 10.91 to the Company's Annual Report on Form 10-K for the year ended December 31, 2023 (File No. 001-34774) filed on February 16, 2024.*
- 10.68 Form of 2024 Restricted Stock Unit Award Agreement without Retirement Vesting (relative total shareholder return), incorporated by reference to Exhibit 10.92 to the Company's Annual Report on Form 10-K for the year ended December 31, 2023 (File No. 001-34774) filed on February 16, 2024.*
- 10.69 Form of 2024 Restricted Stock Unit Award Agreement without Retirement Vesting (earnings per share), incorporated by reference to Exhibit 10.93 to the Company's Annual Report on Form 10-K for the year ended December 31, 2023 (File No. 001-34774) filed on February 16, 2024.*
- 10.70 Form of 2024 Restricted Stock Unit Award Agreement without Retirement Vesting (3 Year Cliff Vest), incorporated by reference to Exhibit 10.94 to the Company's Annual Report on Form 10-K for the year ended December 31, 2023 (File No. 001-34774) filed on February 16, 2024.*
- 10.71 Form of Restricted Stock Unit Award Agreement (for Non-employee US and CDN Directors) (filed herewith).*
- 10.72 Form of Restricted Stock Unit Award Agreement (for Non-employee CDN Directors) (filed herewith).*
- 10.73 Form of 2025 Restricted Stock Unit Award Agreement (for Executive Officers) (filed herewith).*
- 10.74 Form of 2025 Restricted Stock Unit Award Agreement (relative total shareholder return) (filed herewith).*
- 10.75 Form of 2025 Restricted Stock Unit Award Agreement (earnings per share) (filed herewith).*
- 10.76 Form of 2025 Restricted Stock Unit Award Agreement without Retirement Vesting (relative total shareholder return) (filed herewith).*
- 10.77 Form of 2025 Restricted Stock Unit Award Agreement without Retirement Vesting (earnings per share) (filed herewith).*
- 10.78 Form of 2025 Restricted Stock Unit Award Agreement without Retirement Vesting (3 Year Cliff Vest) (filed herewith).*

- 10.79 Form of 2025 Restricted Stock Unit Award Agreement for Fredric J. Tomczyk (filed herewith).*
- 19.1 Cboe Global Markets, Inc. and Subsidiaries Insider Trading Policy (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, incorporated by reference to Exhibit 97.1 to the Company's Annual Report on Form 10-K for the year ended December 31, 2023 (File No. 001-34774) filed on February 16, 2024.*
- 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).

Item 16. Form 10-K Summary

None.

^{*}Indicates Management Compensatory Plan, Contract or Arrangement.

⁺Certain confidential portions (as indicated therein) of this exhibit have been omitted.

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 21, 2025 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 and Jill M. Griebenow, each as attorney-in-fact and agent, with full power of substitution and resubstitution, 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, 2024 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 or her 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.

<u>SIGNATURE</u>	TITLE	DATE
/s/ FREDRIC J. TOMCZYK	Chief Executive Officer	February 21, 2025
Fredric J. Tomczyk	(Principal Executive Officer)	• •
/s/ JILL M. GRIEBENOW	Executive Vice President, Chief Financial Officer	February 21, 2025
Jill M. Griebenow	(Principal Financial Officer)	• •
/s/ ALLEN L. WILKINSON	Senior Vice President, Chief Accounting Officer	February 21, 2025
Allen L. Wilkinson	(Principal Accounting Officer)	
/s/ WILLIAM M. FARROW III	Chairman	February 21, 2025
William M. Farrow III		
/s/ EDWARD J. FITZPATRICK	Director	February 21, 2025
Edward J. Fitzpatrick		
/s/ IVAN K. FONG	Director	February 21, 2025
Ivan K. Fong		
/s/ JANET P. FROETSCHER	Director	February 21, 2025
Janet P. Froetscher		
/s/ JILL R. GOODMAN	Director	February 21, 2025
Jill R. Goodman		
/s/ ERIN A. MANSFIELD	Director	February 21, 2025
Erin A. Mansfield		
/s/ CECILIA H. MAO	Director	February 21, 2025
Cecilia H. Mao		

<u>SIGNATURE</u>	<u>TI</u> :	<u>TLE</u>	DATE
/s/ ALEXANDER J. MATTURRI	Director		February 21, 2025
Alexander J. Matturri			
/s/ JENNIFER J. McPEEK	Director		February 21, 2025
Jennifer J. McPeek			
/s/ RODERICK A. PALMORE	Director		February 21, 2025
Roderick A. Palmore			
/s/ JAMES E. PARISI	Director		February 21, 2025
James E. Parisi			





Investor Information

Stock Listing

Cboe Global Markets, Inc.'s common stock is listed on the Cboe BZX Exchange, Inc. under the ticker symbol "CBOE." On December 31, 2024, there were 104,686,478 shares of common stock outstanding.

Annual Meeting

The 2025 Annual Meeting of Stockholders will be held on Tuesday, May 6, 2025, at 8:00 a.m. Central Time, via a live webcast at www.virtualshareholdermeeting.com/CBOE2025.

Holders of common stock of record at the close of business on March 18, 2025 are entitled to vote at the Annual Meeting. A notice of meeting, proxy statement and proxy card or voting instructions were provided to stockholders of record with this Form 10-K.

Transfer Agent

Registered stockholders can access their account online. Log on to www.shareholder.broadridge.com/cboe to view share balance, change address, complete certain transactions and get answers to other stock related inquiries. You can also write or call the Cboe transfer agent at:

Broadridge Corporate Issuer Solutions

Phone: 1-877-830-4936

E-mail: shareholder@broadridge.com

Website: http://www.shareholder.broadridge.com

Investor Relations

Direct inquiries to: Investor Relations Cboe Global Markets, Inc. 433 W. Van Buren Street Chicago, IL 60607 Phone: 312-786-7559

E-mail: <u>investorrelations@cboe.com</u>

Investor information is available on the Investor Relations section of the Cboe website, http://ir.cboe.com, including SEC filings, quarterly earnings releases, webcasts and presentations, press releases, information on corporate governance and a variety of stockholder resources, including historical stock information, dividend payments, an investor FAQ and a list of analysts who cover the company.

Corporate Information

Cboe Global Markets (Cboe: CBOE), 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, and FX, across North America, Europe and Asia Pacific. Above all, we are committed to building a trusted, inclusive global marketplace that enables people to pursue a sustainable financial future. To learn more about the Exchange for the World Stage, visit www.cboe.com.

Independent Auditors for the 2024 Fiscal Year KPMG LLP

Kansas City, MO



