

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2022

- OR -

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

**For the transition period from to
Commission file number 001-31553**

CME GROUP INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

20 South Wacker Drive
(Address of principal executive offices)

Chicago Illinois

36-4459170
(I.R.S. Employer
Identification No.)

60606
(Zip Code)

(312) 930-1000

(Registrant's telephone number, including area code)

Not Applicable

(Former name, former address and former fiscal year, if changed since last report)

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

<u>Title of each class</u>	<u>Trading symbol</u>	<u>Name of each exchange on which registered</u>
Class A Common Stock	CME	The Nasdaq Stock Market

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

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

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

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes ☐ No ☒

The number of shares outstanding of each of the registrant's classes of common stock as of July 13, 2022 was as follows: 359,433,297 shares of Class A common stock, \$0.01 par value; 625 shares of Class B-1 common stock, \$0.01 par value; 813 shares of Class B-2 common stock, \$0.01 par value; 1,287 shares of Class B-3 common stock, \$0.01 par value; and 413 shares of Class B-4 common stock, \$0.01 par value.

CME GROUP INC.
FORM 10-Q
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PART I. FINANCIAL INFORMATION

Certain Terms

All references to “options” or “options contracts” in the text of this document refer to options on futures contracts.

Further information about CME Group and its products can be found at <http://www.cmegroup.com>. Information made available on our website does not constitute a part of this Quarterly Report on Form 10-Q.

Information about Contract Volume and Average Rate per Contract

All amounts regarding contract volume and average rate per contract are for CME Group's listed futures and options on futures contracts unless otherwise noted.

Trademark Information

CME Group, the Globe logo, CME, Chicago Mercantile Exchange, Globex, and E-mini are trademarks of Chicago Mercantile Exchange Inc. CBOT and Chicago Board of Trade are trademarks of Board of Trade of the City of Chicago, Inc. NYMEX, New York Mercantile Exchange and ClearPort are trademarks of New York Mercantile Exchange, Inc. COMEX is a trademark of Commodity Exchange, Inc. NEX, BrokerTec and EBS are trademarks of various entities of NEX Group Limited (NEX). Dow Jones, Dow Jones Industrial Average, S&P 500 and S&P are service and/or trademarks of Dow Jones Trademark Holdings LLC, Standard & Poor's Financial Services LLC and S&P/Dow Jones Indices LLC, as the case may be, and have been licensed for use by Chicago Mercantile Exchange Inc. ("CME"). All other trademarks are the property of their respective owners.

Forward-Looking Statements

From time to time, in this Quarterly Report on Form 10-Q as well as in other written reports and verbal statements, we discuss our expectations regarding future performance. These forward-looking statements are identified by their use of terms and phrases such as "believe," "anticipate," "could," "estimate," "intend," "may," "plan," "expect" and similar expressions, including references to assumptions. These forward-looking statements are based on currently available competitive, financial and economic data, current expectations, estimates, forecasts and projections about the industries in which we operate and management's beliefs and assumptions. These statements are not guarantees of future performance and involve risks, uncertainties and assumptions that are difficult to predict. Therefore, actual outcomes and results may differ materially from what is expressed or implied in any forward-looking statements. We want to caution you not to place undue reliance on any forward-looking statements. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise. Among the factors that might affect our performance are:

- increasing competition by foreign and domestic entities, including increased competition from new entrants into our markets and consolidation of existing entities;
- our ability to keep pace with rapid technological developments, including our ability to complete the development, implementation and maintenance of the enhanced functionality required by our customers while maintaining reliability and ensuring that such technology is not vulnerable to security risks;
- our ability to continue introducing competitive new products and services on a timely, cost-effective basis, including through our electronic trading capabilities, and our ability to maintain the competitiveness of our existing products and services, including our ability to provide effective services to the swaps market;
- our ability to adjust our fixed costs and expenses if our revenues decline;
- our ability to maintain existing customers at substantially similar trading levels, develop strategic relationships and attract new customers;
- our ability to expand and globally offer our products and services;
- changes in regulations, including the impact of any changes in laws or government policies with respect to our products or services or our industry, such as any changes to regulations and policies that require increased financial and operational resources from us or our customers;
- the costs associated with protecting our intellectual property rights and our ability to operate our business without violating the intellectual property rights of others;
- decreases in revenue from our market data as a result of decreased demand or changes to regulations in various jurisdictions;
- changes in our rate per contract due to shifts in the mix of the products traded, the trading venue and the mix of customers (whether the customer receives member or non-member fees or participates in one of our various incentive programs) and the impact of our tiered pricing structure;

- the ability of our credit and liquidity risk management practices to adequately protect us from the credit risks of clearing members and other counterparties, and to satisfy the margin and liquidity requirements associated with the BrokerTec matched principal business;
- the ability of our compliance and risk management programs to effectively monitor and manage our risks, including our ability to prevent errors and misconduct and protect our infrastructure against security breaches and misappropriation of our intellectual property assets;
- our dependence on third-party providers and exposure to risk through third parties, including risks related to the performance, reliability and security of technology used by our third-party providers;
- volatility in commodity, equity and fixed income prices, and price volatility of financial benchmarks and instruments such as interest rates, credit spreads, equity indices, fixed income instruments and foreign exchange rates;
- economic, social, political and market conditions, including the volatility of the capital and credit markets and the impact of economic conditions on the trading activity of our current and potential customers;
- the impact of the COVID-19 pandemic and response by governments and other third parties;
- our ability to accommodate increases in contract volume and order transaction traffic and to implement enhancements without failure or degradation of the performance of our trading and clearing systems;
- our ability to execute our growth strategy and maintain our growth effectively;
- our ability to manage the risks, control the costs and achieve the synergies associated with our strategy for acquisitions, investments and alliances, including those associated with our investment in S&P/Dow Jones Indices LLC (S&P/DJI), our OSTTRA joint venture with IHS Markit (now part of S&P Global) and our partnership with Google Cloud;
- uncertainty related to the transition from LIBOR;
- our ability to continue to generate funds and/or manage our indebtedness to allow us to continue to invest in our business;
- industry and customer consolidation;
- decreases in trading and clearing activity;
- the imposition of a transaction tax or user fee on futures and options transactions and/or repeal of the 60/40 tax treatment of such transactions;
- our ability to maintain our brand and reputation; and
- the unfavorable resolution of material legal proceedings.

For a detailed discussion of these and other factors that might affect our performance, see Item 1A. of our Annual Report on Form 10-K for the year ended December 31, 2021, filed with the Securities and Exchange Commission on February 25, 2022 and Item 1A. in Part II of this Quarterly Report on Form 10-Q.

ITEM 1. FINANCIAL STATEMENTS

CME GROUP INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(dollars in millions, except par value data; shares in thousands)

	June 30, 2022 (unaudited)	December 31, 2021
Assets		
Current Assets:		
Cash and cash equivalents	\$ 1,879.5	\$ 2,834.9
Marketable securities	95.1	115.0
Accounts receivable, net of allowance of \$5.8 and \$5.6	582.3	434.5
Other current assets (includes \$4.7 and \$4.8 in restricted cash)	463.7	427.8
Performance bonds and guaranty fund contributions	138,430.4	157,949.6
Total current assets	141,451.0	161,761.8
Property, net of accumulated depreciation and amortization of \$1,097.3 and \$1,039.4	481.6	505.3
Intangible assets—trading products	17,175.3	17,175.3
Intangible assets—other, net	3,382.1	3,532.0
Goodwill	10,484.1	10,528.0
Other assets (includes \$0.4 and \$0.5 in restricted cash)	3,697.2	3,277.9
Total Assets	\$ 176,671.3	\$ 196,780.3
Liabilities and Equity		
Current Liabilities:		
Accounts payable	\$ 80.9	\$ 48.8
Short-term debt	—	749.4
Other current liabilities	488.8	1,650.6
Performance bonds and guaranty fund contributions	138,430.4	157,949.6
Total current liabilities	139,000.1	160,398.4
Long-term debt	3,436.7	2,695.7
Deferred income tax liabilities, net	5,363.0	5,390.4
Other liabilities	869.8	896.5
Total Liabilities	148,669.6	169,381.0
Shareholders' Equity:		
Preferred stock, \$0.01 par value, 10,000 shares authorized as of June 30, 2022 and December 31, 2021; 4,584 issued and outstanding as of June 30, 2022 and December 31, 2021	—	—
Class A common stock, \$0.01 par value, 1,000,000 shares authorized at June 30, 2022 and December 31, 2021; 358,677 and 358,599 shares issued and outstanding as of June 30, 2022 and December 31, 2021, respectively	3.6	3.6
Class B common stock, \$0.01 par value, 3 shares authorized, issued and outstanding as of June 30, 2022 and December 31, 2021	—	—
Additional paid-in capital	22,232.3	22,190.3
Retained earnings	5,797.5	5,151.9
Accumulated other comprehensive income (loss)	(31.7)	53.5
Total CME Group Shareholders' Equity	28,001.7	27,399.3
Total Liabilities and Equity	\$ 176,671.3	\$ 196,780.3

See accompanying notes to unaudited consolidated financial statements.

CME GROUP INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(dollars in millions, except per share data; shares in thousands)
(unaudited)

	Quarter Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Revenues				
Clearing and transaction fees	\$ 1,024.6	\$ 929.9	\$ 2,162.7	\$ 1,936.9
Market data and information services	151.7	145.2	303.4	289.4
Other	60.9	104.1	117.7	206.2
Total Revenues	1,237.2	1,179.2	2,583.8	2,432.5
Expenses				
Compensation and benefits	185.3	211.7	370.5	436.7
Technology	45.9	49.3	91.8	97.5
Professional fees and outside services	32.0	36.8	63.8	74.2
Amortization of purchased intangibles	57.1	59.4	115.5	120.0
Depreciation and amortization	33.0	37.1	66.5	74.7
Licensing and other fee agreements	83.1	54.2	164.0	118.9
Other	51.1	56.0	102.9	110.7
Total Expenses	487.5	504.5	975.0	1,032.7
Operating Income	749.7	674.7	1,608.8	1,399.8
Non-Operating Income (Expense)				
Investment income	286.9	62.4	360.0	93.3
Interest and other borrowing costs	(39.9)	(41.7)	(82.4)	(83.2)
Equity in net earnings of unconsolidated subsidiaries	87.3	55.7	160.6	111.9
Other non-operating income (expense)	(217.3)	(25.0)	(264.0)	(43.4)
Total Non-Operating Income (Expense)	117.0	51.4	174.2	78.6
Income before Income Taxes	866.7	726.1	1,783.0	1,478.4
Income tax provision	204.2	215.5	409.5	393.0
Net Income	662.5	510.6	1,373.5	1,085.4
Less: net (income) loss attributable to non-controlling interests	—	(0.3)	—	(0.7)
Net Income Attributable to CME Group	662.5	510.3	1,373.5	1,084.7
Net Income Attributable to Common Shareholders of CME Group	\$ 654.1	\$ 510.3	\$ 1,356.1	\$ 1,084.7
Earnings per Share Attributable to Common Shareholders of CME Group:				
Basic	\$ 1.82	\$ 1.42	\$ 3.78	\$ 3.03
Diluted	1.82	1.42	3.78	3.02
Weighted Average Number of Common Shares:				
Basic	358,641	358,261	358,625	358,204
Diluted	359,205	358,888	359,179	358,853

See accompanying notes to unaudited consolidated financial statements.

CME GROUP INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(in millions)
(unaudited)

	Quarter Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Net income	\$ 662.5	\$ 510.6	\$ 1,373.5	\$ 1,085.4
Other comprehensive income (loss), net of tax:				
Investment securities:				
Net unrealized holding gains (losses) arising during the period	(1.0)	0.4	(2.3)	(0.7)
Income tax benefit (expense)	0.3	(0.1)	0.6	0.2
Investment securities, net	(0.7)	0.3	(1.7)	(0.5)
Defined benefit plans:				
Net change in defined benefit plans arising during the period	—	—	(3.7)	—
Amortization of net actuarial (gains) losses included in compensation and benefits expense	0.3	1.1	0.6	2.2
Income tax benefit (expense)	(0.1)	(0.3)	0.8	(0.6)
Defined benefit plans, net	0.2	0.8	(2.3)	1.6
Derivative investments:				
Reclassification of net unrealized (gains) losses to interest expense and other non-operating income (expense)	(0.9)	(0.3)	(0.1)	(0.6)
Income tax benefit (expense)	0.2	0.1	—	0.2
Derivative investments, net	(0.7)	(0.2)	(0.1)	(0.4)
Foreign currency translation:				
Foreign currency translation adjustments	(58.5)	21.6	(81.1)	(29.6)
Foreign currency translation, net	(58.5)	21.6	(81.1)	(29.6)
Other comprehensive income (loss), net of tax	(59.7)	22.5	(85.2)	(28.9)
Comprehensive income	602.8	533.1	1,288.3	1,056.5
Less: comprehensive (income) loss attributable to non-controlling interests	—	(0.3)	—	(0.7)
Comprehensive income attributable to CME Group	<u>\$ 602.8</u>	<u>\$ 532.8</u>	<u>\$ 1,288.3</u>	<u>\$ 1,055.8</u>

See accompanying notes to unaudited consolidated financial statements.

CME GROUP INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY
(dollars in millions, except per share data; shares in thousands)
(unaudited)

	Six Months Ended, June 30, 2022						
	Preferred Stock (Shares)	Class A Common Stock (Shares)	Class B Common Stock (Shares)	Preferred Stock, Common Stock and Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total CME Group Shareholders' Equity
Balance at December 31, 2021	4,584	358,599	3	\$ 22,193.9	\$ 5,151.9	\$ 53.5	\$ 27,399.3
Net income					1,373.5		1,373.5
Other comprehensive income (loss)						(85.2)	(85.2)
Dividends on common and preferred stock of \$2.00 per share					(727.9)		(727.9)
Exercise of stock options		1		0.1			0.1
Vesting of issued restricted Class A common stock		39		(5.3)			(5.3)
Shares issued to Board of Directors		19		4.0			4.0
Shares issued under Employee Stock Purchase Plan		19		3.8			3.8
Stock-based compensation				39.4			39.4
Balance at June 30, 2022	<u>4,584</u>	<u>358,677</u>	<u>3</u>	<u>\$ 22,235.9</u>	<u>\$ 5,797.5</u>	<u>\$ (31.7)</u>	<u>\$ 28,001.7</u>

CME GROUP INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY (continued)
(dollars in millions, except per share data; shares in thousands)
(unaudited)

	Quarter Ended, June 30, 2022						
	Preferred Stock (Shares)	Class A Common Stock (Shares)	Class B Common Stock (Shares)	Preferred Stock, Common Stock and Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total CME Group Shareholders' Equity
Balance at March 31, 2022	4,584	358,631	3	\$ 22,209.9	\$ 5,498.9	\$ 28.0	\$ 27,736.8
Net income					662.5		662.5
Other comprehensive income (loss)						(59.7)	(59.7)
Dividends on common and preferred stock of \$1.00 per share					(363.9)		(363.9)
Exercise of stock options		1		0.1			0.1
Vesting of issued restricted Class A common stock		8		(1.0)			(1.0)
Shares issued to Board of Directors		18		3.7			3.7
Shares issued under Employee Stock Purchase Plan		19		3.8			3.8
Stock-based compensation				19.4			19.4
Balance at June 30, 2022	<u>4,584</u>	<u>358,677</u>	<u>3</u>	<u>\$ 22,235.9</u>	<u>\$ 5,797.5</u>	<u>\$ (31.7)</u>	<u>\$ 28,001.7</u>

CME GROUP INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY (continued)
(dollars in millions, except per share data; shares in thousands)
(unaudited)

	Six Months Ended, June 30, 2021							
	Class A Common Stock (Shares)	Class B Common Stock (Shares)	Common Stock and Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total CME Group Shareholders' Equity	Non- controlling Interest	Total Equity
Balance at December 31, 2020	358,110	3	\$ 21,189.1	\$ 4,995.9	\$ 134.9	\$ 26,319.9	\$ 31.6	\$ 26,351.5
Net income				1,084.7		1,084.7	0.7	1,085.4
Other comprehensive income (loss)					(28.9)	(28.9)		(28.9)
Dividends on common stock of \$1.80 per share				(646.1)		(646.1)		(646.1)
Purchase of non-controlling interest			(4.4)			(4.4)	(8.1)	(12.5)
Exercise of stock options	58		3.2			3.2		3.2
Vesting of issued restricted Class A common stock	104		(13.5)			(13.5)		(13.5)
Shares issued to Board of Directors	13		2.9			2.9		2.9
Shares issued under Employee Stock Purchase Plan	20		4.4			4.4		4.4
Stock-based compensation			41.0			41.0		41.0
Balance at June 30, 2021	358,305	3	\$ 21,222.7	\$ 5,434.5	\$ 106.0	\$ 26,763.2	\$ 24.2	\$ 26,787.4

CME GROUP INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EQUITY (continued)
(dollars in millions, except per share data; shares in thousands)
(unaudited)

	Quarter Ended, June 30, 2021							
	Class A Common Stock (Shares)	Class B Common Stock (Shares)	Common Stock and Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total CME Group Shareholders' Equity	Non- controlling Interest	Total Equity
Balance at March 31, 2021	358,240	3	\$ 21,197.1	\$ 5,247.3	\$ 83.5	\$ 26,527.9	\$ 28.0	\$ 26,555.9
Net income				510.3		510.3	0.3	510.6
Other comprehensive income (loss)					22.5	22.5		22.5
Dividends on common stock of \$0.90 per share				(323.1)		(323.1)		(323.1)
Purchase of non-controlling interest			(2.2)			(2.2)	(4.1)	(6.3)
Exercise of stock options	27		1.5			1.5		1.5
Vesting of issued restricted Class A common stock	5		(0.4)			(0.4)		(0.4)
Shares issued to Board of Directors	13		2.9			2.9		2.9
Shares issued under Employee Stock Purchase Plan	20		4.4			4.4		4.4
Stock-based compensation			19.4			19.4		19.4
Balance at June 30, 2021	358,305	3	\$ 21,222.7	\$ 5,434.5	\$ 106.0	\$ 26,763.2	\$ 24.2	\$ 26,787.4

CME GROUP INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in millions)
(unaudited)

	Six Months Ended June 30,	
	2022	2021
Cash Flows from Operating Activities		
Net income	\$ 1,373.5	\$ 1,085.4
Adjustments to reconcile net income to net cash provided by operating activities:		
Stock-based compensation	39.4	41.0
Amortization of purchased intangibles	115.5	120.0
Depreciation and amortization	66.5	74.7
Net realized and unrealized (gains) losses on investments	(3.0)	(20.7)
Cash dividends in excess of earnings (undistributed net earnings) of unconsolidated subsidiaries	(3.9)	1.9
Deferred income taxes	(12.0)	19.2
Change in:		
Accounts receivable	(148.0)	(132.5)
Other current assets	(19.0)	(22.3)
Other assets	52.1	31.1
Accounts payable	32.0	(21.0)
Income taxes payable	(52.2)	(83.7)
Other current liabilities	5.6	24.5
Other liabilities	(39.0)	(17.3)
Other	9.2	2.2
Net Cash Provided by Operating Activities	<u>1,416.7</u>	<u>1,102.5</u>
Cash Flows from Investing Activities		
Proceeds from maturities of available-for-sale marketable securities	3.9	5.7
Purchases of available-for-sale marketable securities	(2.9)	(4.9)
Purchases of property, net	(41.3)	(68.2)
Investment in S&P/Dow Jones Indices LLC	(410.0)	—
Investments in privately-held equity investments	(1.1)	(1.5)
Purchase of non-controlling interest	—	(12.5)
Proceeds from sales of investments	10.9	13.4
Net Cash Used in Investing Activities	<u>(440.5)</u>	<u>(68.0)</u>
Cash Flows from Financing Activities		
Proceeds from debt, net of issuance costs	741.0	—
Repayment of debt, including call premium	(756.2)	—
Cash dividends	(1,906.8)	(1,540.0)
Change in performance bond and guaranty fund contributions	(19,519.2)	54,518.0
Employee taxes paid on restricted stock vesting	(5.3)	(13.5)
Other	(4.6)	(0.8)
Net Cash (Used in) Provided by Financing Activities	<u>(21,451.1)</u>	<u>52,963.7</u>

CME GROUP INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS (continued)
(in millions)
(unaudited)

	Six Months Ended June 30,	
	2022	2021
Net change in cash, cash equivalents, restricted cash and restricted cash equivalents	\$ (20,474.9)	\$ 53,998.2
Cash, cash equivalents, restricted cash and restricted cash equivalents, beginning of period	160,789.9	88,420.3
Cash, Cash Equivalents, Restricted Cash and Restricted Cash Equivalents, End of Period	\$ 140,315.0	\$ 142,418.5
Reconciliation of cash, cash equivalents, restricted cash and restricted cash equivalents:		
Cash and cash equivalents	\$ 1,879.5	\$ 1,081.0
Cash classified as assets held for sale	—	30.0
Short-term restricted cash	4.7	4.8
Long-term restricted cash	0.4	2.9
Restricted cash and restricted cash equivalents (performance bonds and guaranty fund contributions)	138,430.4	141,299.8
Total	\$ 140,315.0	\$ 142,418.5
Supplemental Disclosure of Cash Flow Information		
Income taxes paid	\$ 479.4	\$ 433.7
Interest paid	67.3	67.1
Non-cash investing activities:		
Accrued proceeds from sale of investments	—	0.7

See accompanying notes to unaudited consolidated financial statements.

NOTES TO UNAUDITED CONSOLIDATED FINANCIAL STATEMENTS

1. Basis of Presentation

The consolidated financial statements consist of CME Group Inc. (CME Group) and its subsidiaries (collectively, the company), including Chicago Mercantile Exchange Inc. (CME), Board of Trade of the City of Chicago, Inc. (CBOT), New York Mercantile Exchange, Inc. (NYMEX), Commodity Exchange, Inc. (COMEX) and NEX Group Limited (NEX). The clearing house is operated by CME.

In January 2021, the company announced that it agreed with IHS Markit (now a part of S&P Global) to combine their post-trade services into a new joint venture, OSTTRA. The joint venture was launched in September 2021. OSTTRA performs trade processing and risk mitigation services.

The accompanying interim consolidated financial statements have been prepared by CME Group without audit. Certain notes and other information normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States have been condensed or omitted. In the opinion of management, the accompanying consolidated financial statements include all adjustments (consisting only of normal recurring adjustments) considered necessary to present fairly the financial position of the company at June 30, 2022 and December 31, 2021 and the results of operations and cash flows for the periods indicated. Quarterly results are not necessarily indicative of results for any subsequent period.

During the fourth quarter of 2021, the company revised the presentation of the consolidated statements of cash flows to include cash performance bonds and guaranty fund contributions as restricted cash and restricted cash equivalents within the beginning and ending balances of the reconciliation of cash, cash equivalents, restricted cash and restricted cash equivalents. Total cash flows from financing activities were revised to include the changes associated with the cash performance bonds and guaranty fund contribution liability. See Note 4. Performance Bonds and Guaranty Fund Contributions for additional information on cash performance bonds and guaranty fund contributions.

The prior period amounts have been revised to conform to the current period presentation. The revision in presentation is considered immaterial to the company's overall financial statements and has had no impact on the consolidated balance sheets, consolidated statements of income, consolidated statements of comprehensive income or consolidated statements of equity, including all previously filed financial statements. These cash performance bonds and guaranty fund contributions cannot be used for the company's operations or to satisfy any operational liabilities.

The following table presents the effects of the changes on the presentation of these cash flows to the previously reported consolidated statements of cash flows of June 30, 2021:

(in millions)	2021		
	As Previously Reported	Adjustments	Revised
Net cash provided by (used in) financing activities	\$ (1,554.3)	54,518.0	\$ 52,963.7
Net change in cash, cash equivalents, restricted cash and restricted cash equivalents	(519.8)	54,518.0	53,998.2

The accompanying consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto in CME Group's Annual Report on Form 10-K for the year ended December 31, 2021, filed with the Securities and Exchange Commission (SEC) on February 25, 2022.

2. Accounting Policies

Newly Adopted Accounting Policies. The company adopted the following accounting policies during 2022:

In August 2020, FASB issued an accounting update that simplifies the accounting for convertible instruments and amends certain guidance on the computation of EPS for convertible instruments. This guidance reduces the number of accounting models used for the allocation of proceeds attributable to the issuance of a convertible instrument, thereby eliminating the beneficial conversion feature model. It is also noted that this guidance revises and eliminates certain criteria for achieving equity classification on the balance sheet. This accounting update requires entities to provide expanded disclosures about the terms and features of convertible instruments, including information about events, conditions and circumstances that can affect how to assess the amount or timing of an entity's future cash flows related to those instruments. The company adopted this guidance on January 1, 2022. Adoption of this guidance did not have an impact on the consolidated financial statements.

3. Revenue Recognition

The company generates revenue from customers from the following sources:

Clearing and transaction fees. Clearing and transaction fees include electronic trading fees and brokerage commissions, surcharges for privately-negotiated transactions, portfolio reconciliation and compression services, risk mitigation and other volume-related charges for trade contracts. Clearing and transaction fees are assessed upfront at the time of trade execution. As such, the company recognizes the majority of the fee revenue upon successful execution of the trade. The minimal remaining portion of the fee revenue related to settlement activities performed after trade execution is recognized over the short-term period that the contract is outstanding, based on management's estimates of the average contract lifecycle. These estimates are based on various assumptions to approximate the amount of fee revenue to be attributed to services performed through contract settlement, expiration, or termination. For cleared trades, these assumptions include the average number of days that a contract remains in open interest, contract turnover, average revenue per day, and revenue remaining in open interest at the end of each period.

The nature of contracts gives rise to several types of variable consideration, including volume-based pricing tiers, customer incentives associated with market maker programs and other fee discounts. The company includes fee discounts and incentives in the estimated transaction price when there is a basis to reasonably estimate the amount of the fee reduction. These estimates are based on historical experience, anticipated performance, and best judgment at the time. Because of the company's certainty in estimating these amounts, they are included in the transaction price of contracts.

Market data and information services. Market data and information services represent revenue from the dissemination of market data to subscribers, distributors, and other third-party licensees of market data. Pricing for market data is primarily based on the number of reportable devices used as well as the number of subscribers enrolled under the arrangement. Fees for these services are generally billed monthly. Market data services are satisfied over time and revenue is recognized on a monthly basis as the customers receive and consume the benefit of the market data services. However, the company also maintains certain annual license arrangements with one-time upfront fees. The fees for annual licenses are initially recorded as a contract liability and recognized as revenue monthly over the term of the annual period.

Other. Other revenues include certain access and communication fees, fees for collateral management, equity membership subscription fees, and fees for trade order routing through agreements from various strategic relationships. Access and communication fees are charges to customers that utilize various telecommunications networks and communications services. Fees for these services are generally billed monthly and the associated fee revenue is recognized as billed. Collateral management fees are charged to clearing firms that have collateral on deposit with the clearing house to meet their minimum performance bond and guaranty fund obligations on the exchange. These fees are calculated based on daily collateral balances and are billed monthly. This fee revenue is recognized monthly as billed as the customers receive and consume the benefits of the services. The company also has an equity membership program which provides equity members the option to substitute a monthly subscription fee for their existing requirement to hold CME Group Class A common stock. Choosing to pay this fee in lieu of holding Class A shares is entirely voluntary and the client's choice. Fee revenue under this program is earned monthly as billed over the contractual term. Pricing for strategic relationships may be driven by customer levels and activity. There are fee arrangements which provide for monthly as well as quarterly payments in arrears. Revenue is recognized monthly for strategic relationship arrangements as the customers receive and consume the benefits of the services.

The following table represents a disaggregation of revenue from contracts with customers by product line for the quarters and six months ended June 30, 2022 and 2021:

(in millions)	Quarter Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Interest rates	\$ 324.6	\$ 265.5	\$ 699.5	\$ 565.2
Equity indexes	255.9	172.3	515.0	370.8
Foreign exchange	45.2	39.0	90.0	79.5
Agricultural commodities	114.3	138.0	240.3	258.5
Energy	140.2	141.0	315.4	299.1
Metals	45.2	51.5	99.6	109.8
BrokerTec fixed income	42.1	42.8	86.4	88.3
EBS foreign exchange	39.8	41.4	82.2	86.7
Optimization	—	21.5	—	45.9
Interest rate swap	17.3	16.9	34.3	33.1
Total clearing and transaction fees	1,024.6	929.9	2,162.7	1,936.9
Market data and information services	151.7	145.2	303.4	289.4
Other	60.9	104.1	117.7	206.2
Total revenues	<u>\$ 1,237.2</u>	<u>\$ 1,179.2</u>	<u>\$ 2,583.8</u>	<u>\$ 2,432.5</u>
Timing of Revenue Recognition				
Services transferred at a point in time	\$ 965.8	\$ 870.1	\$ 2,043.1	\$ 1,815.4
Services transferred over time	266.6	303.7	531.3	609.8
One-time charges and miscellaneous revenues	4.8	5.4	9.4	7.3
Total revenues	<u>\$ 1,237.2</u>	<u>\$ 1,179.2</u>	<u>\$ 2,583.8</u>	<u>\$ 2,432.5</u>

The timing of revenue recognition, billings and cash collections results in billed accounts receivable, and customer advances and deposits (contract liabilities) on the consolidated balance sheets. Certain fees for transactions, annual licenses, and other revenue arrangements are billed upfront before revenue is recognized, which results in the recognition of contract liabilities. These liabilities are recognized on the consolidated balance sheets on a contract-by-contract basis upon commencement of services under the customer contract. These upfront customer payments are recognized as revenue over time as the obligations under the contracts are satisfied. Changes in the contract liability balances during the six months ended June 30, 2022 were not materially impacted by any other factors. The balance of contract liabilities was \$35.6 million and \$15.2 million as of June 30, 2022 and December 31, 2021, respectively.

4. Performance Bonds and Guaranty Fund Contributions

Performance Bonds and Guaranty Fund Contributions. CME has been designated as a systemically important financial market utility by the Financial Stability Oversight Council and is authorized to maintain cash accounts at the Federal Reserve Bank of Chicago. At June 30, 2022, CME maintained \$128.6 billion within the cash account at the Federal Reserve Bank of Chicago. The cash deposit at the Federal Reserve Bank of Chicago is included within performance bonds and guaranty fund contributions on the consolidated balance sheets.

Clearing House Contract Settlement. The clearing house marks-to-market open positions for all futures and options contracts twice a day (once a day for CME's cleared-only interest rate swap contracts). Based on values derived from the mark-to-market process, the clearing house requires payments from clearing firms whose positions have lost value and makes payments to clearing firms whose positions have gained value. Under the extremely unlikely scenario of simultaneous default by every clearing firm who has open positions with unrealized losses, the maximum exposure related to positions other than cleared-only interest rate swap contracts would be one half day of changes in fair value of all open positions, before considering the clearing house's ability to access defaulting clearing firms' collateral deposits.

For CME's cleared-only interest rate swap contracts, the maximum exposure related to CME's guarantee would be one full day of changes in fair value of all open positions, before considering CME's ability to access defaulting clearing firms' collateral.

During the first six months of 2022, the clearing house transferred an average of approximately \$6.2 billion a day through its clearing systems for settlement from clearing firms whose positions had lost value to clearing firms whose positions had gained

value. The clearing house reduces its guarantee exposure through initial and maintenance performance bond requirements and mandatory guaranty fund contributions. Management has assessed the fair value of the company's settlement guarantee liability by taking the following factors into consideration: the design and operations of the clearing risk management process, the financial safeguard packages in place, historical evidence of default by a clearing member and the estimated probability of potential payouts by the clearing house. Based on the assessment performed, management estimates the guarantee liability to be nominal and therefore has not recorded any liability at June 30, 2022 and December 31, 2021. The company does not have a history of significant losses recognized on performance bond collateral as posted by our clearing members, and management currently does not anticipate any future credit losses on its performance bond assets. Accordingly, the company has not provided an allowance for credit losses on these performance bond deposits, nor has it recorded any liabilities to reflect an allowance for credit losses related to our off-balance sheet credit exposures and guarantees.

5. Intangible Assets and Goodwill

Intangible assets consisted of the following at June 30, 2022 and December 31, 2021:

(in millions)	June 30, 2022			December 31, 2021			
	Assigned Value	Accumulated Amortization	Net Book Value	Assigned Value	Accumulated Amortization	Deconsolidation ⁽²⁾	Net Book Value
Amortizable Intangible Assets:							
Clearing firm, market data and other customer relationships	\$ 4,685.3	\$ (1,804.3)	\$ 2,881.0	\$ 5,818.2	\$ (1,847.7)	(950.0)	\$ 3,020.5
Technology-related intellectual property	62.5	(52.1)	10.4	175.3	(76.3)	(84.6)	14.4
Other	69.8	(29.1)	40.7	105.7	(35.5)	(23.1)	47.1
Total amortizable intangible assets	\$ 4,817.6	\$ (1,885.5)	\$ 2,932.1	\$ 6,099.2	\$ (1,959.5)	\$ (1,057.7)	\$ 3,082.0
Indefinite-Lived Intangible Assets:							
Trade names			450.0				450.0
Total intangible assets – other, net			\$ 3,382.1				\$ 3,532.0
Trading products ⁽¹⁾			\$ 17,175.3				\$ 17,175.3

(1) Trading products represent futures and options products acquired in our business combinations with CBOT Holdings, Inc., NYMEX Holdings, Inc. and The Board of Trade of Kansas City, Missouri, Inc. Clearing and transaction fees are generated through the trading of these products. These trading products, most of which have traded for decades, require authorization from the Commodity Futures Trading Commission (CFTC). Product authorizations from the CFTC have no term limits.

(2) The activity from deconsolidation includes intangible assets as part of the contribution of the net assets of the optimization business to OSTTRA.

Total amortization expense for intangible assets was \$57.1 million and \$59.4 million for the quarters ended June 30, 2022 and 2021, respectively. Total amortization expense for intangible assets was \$115.5 million and \$120.0 million for the six months ended June 30, 2022 and 2021, respectively.

As of June 30, 2022, the future estimated amortization expense related to amortizable intangible assets is expected to be as follows:

(in millions)	Amortization Expense
Remainder of 2022	\$ 114.4
2023	227.6
2024	221.1
2025	221.1
2026	221.1
2027	219.9
Thereafter	1,706.9

Goodwill activity consisted of the following for the periods ended June 30, 2022 and December 31, 2021:

<i>(in millions)</i>	Balance at December 31, 2021	Deconsolidation ⁽¹⁾	Other Activity ⁽²⁾	Balance at June 30, 2022
CBOT Holdings	\$ 5,066.4	\$ —	\$ —	\$ 5,066.4
NYMEX Holdings	2,462.2	—	—	2,462.2
NEX	2,959.0	—	(43.9)	2,915.1
Other	40.4	—	—	40.4
Total Goodwill	<u>\$ 10,528.0</u>	<u>\$ —</u>	<u>\$ (43.9)</u>	<u>\$ 10,484.1</u>

<i>(in millions)</i>	Balance at December 31, 2020	Deconsolidation ⁽¹⁾	Other Activity ⁽²⁾	Balance at December 31, 2021
CBOT Holdings	\$ 5,066.4	\$ —	\$ —	\$ 5,066.4
NYMEX Holdings	2,462.2	—	—	2,462.2
NEX	3,229.8	(246.2)	(24.6)	2,959.0
Other	40.4	—	—	40.4
Total Goodwill	<u>\$ 10,798.8</u>	<u>\$ (246.2)</u>	<u>\$ (24.6)</u>	<u>\$ 10,528.0</u>

(1) The activity from deconsolidation includes goodwill as part of the contribution of the net assets of the optimization business to OSTTRA.

(2) Other activity includes currency translation adjustments.

6. Long-Term Investments

In June 2022, the company invested \$410.0 million in S&P/Dow Jones Indices LLC (S&P/DJI), which S&P/DJI used as part of the consideration for its acquisition of the IHS Markit index business. Following the additional contribution, the company's ownership interest remained at 27%. At June 30, 2022, the company's investment in S&P/DJI was \$1.4 billion.

7. Debt

Short-term debt consisted of the following at June 30, 2022 and December 31, 2021:

<i>(in millions)</i>	June 30, 2022	December 31, 2021
\$750.0 million fixed rate notes due September 2022, stated rate of 3.00% ⁽¹⁾	—	749.4
Total short-term debt	<u>\$ —</u>	<u>\$ 749.4</u>

(1) The company maintained a forward-starting interest rate swap agreement that modified the interest obligation associated with these notes so that the interest payable on the notes effectively became fixed at a rate of 3.32%.

Long-term debt consisted of the following at June 30, 2022 and December 31, 2021:

<i>(in millions)</i>	June 30, 2022	December 31, 2021
€15.0 million fixed rate notes due May 2023, stated rate of 4.30%	15.6	16.8
\$750.0 million fixed rate notes due March 2025, stated rate of 3.00% ⁽¹⁾	748.1	747.7
\$500.0 million fixed rate notes due June 2028, stated rate of 3.75%	497.4	497.2
\$750.0 million fixed rate notes due March 2032, stated rate of 2.65%	741.3	—
\$750.0 million fixed rate notes due September 2043, stated rate of 5.30% ⁽²⁾	743.5	743.4
\$700.0 million fixed rate notes due June 2048, stated rate of 4.15%	690.8	690.6
Total long-term debt	<u>\$ 3,436.7</u>	<u>\$ 2,695.7</u>

(1) The company maintained a forward-starting interest rate swap agreement that modified the interest obligation associated with these notes so that the interest payable on the notes effectively became fixed at a rate of 3.11%.

(2) The company maintained a forward-starting interest rate swap agreement that modified the interest obligation associated with these notes so that the interest payable on the notes effectively became fixed at a rate of 4.73%.

Long-term debt maturities, at par value (in U.S. dollar equivalent), were as follows at June 30, 2022:

<i>(in millions)</i>	Par Value
2023	\$ 15.7
2024	—
2025	750.0
2026	—
2027	—
Thereafter	2,700.0

8. Contingencies

Legal and Regulatory Matters. In the normal course of business, the company discusses matters with its regulators raised during regulatory examinations or otherwise subject to their inquiry and oversight. These matters could result in censures, fines, penalties or other sanctions. Management believes the outcome of any resulting actions will not have a material impact on its consolidated financial position or results of operations. However, the company is unable to predict the outcome or the timing of the ultimate resolution of these matters, or the potential fines, penalties or injunctive or other equitable relief, if any, that may result from these matters.

A putative class action complaint was filed January 15, 2014 in the Circuit Court of Cook County, Chancery Division, against CME Group Inc. and the Board of Trade of the City of Chicago, Inc. The plaintiffs, certain Class B shareholders of CME Group and Class B members of CBOT, allege breach of contract and breach of the implied covenant of good faith and fair dealing for violations of their core rights granted in the defendants' respective Certificates of Incorporation. On December 2, 2021, the court granted the plaintiffs' motion for certification of a damages-only class. No trial date has been set. Given the uncertainty of factors that may potentially affect the resolution of the matter, at this time the company is unable to estimate the reasonably possible loss or range of reasonably possible losses in the unlikely event it were found to be liable at trial. Based on its investigation to date, the company believes that it has strong factual and legal defenses to the claims.

In addition, the company is a defendant in, and has potential for, various other legal proceedings arising from its regular business activities. While the ultimate results of such proceedings against the company cannot be predicted with certainty, the company believes that the resolution of any of these matters on an individual or aggregate basis will not have a material impact on its consolidated financial position or results of operations.

No accrual was required for legal and regulatory matters as none were probable and estimable as of June 30, 2022 and December 31, 2021.

Intellectual Property Indemnifications. Certain agreements with customers and other third parties related to accessing the CME Group platforms, utilizing market data services and licensing CME SPAN software may contain indemnifications from intellectual property claims that may be made against them as a result of their use of the applicable products and/or services. The potential future claims relating to these indemnifications cannot be estimated and therefore no liability has been recorded.

9. Leases

The company has operating leases for corporate offices. The operating leases have remaining lease terms of up to 16 years, some of which include options to extend or renew the leases for up to an additional five years, and some of which include options to early terminate the leases in less than 12 months. Management evaluates whether these options are exercisable at least quarterly in order to determine whether the contract term must be reassessed. For a small number of the leases, primarily the international locations, management's approach is to enter into short-term leases for a lease term of 12 months or less in order to provide for greater flexibility in the local environment. For certain office spaces, the company has entered into arrangements to sublease excess space to third parties, while the original lease contract remains in effect with the landlord.

The company also has one finance lease, which is related to the sale of our data center in March 2016. In connection with the sale, the company leased back a portion of the property. The sale leaseback transaction was recognized under the financing method and not as a sale leaseback arrangement.

The right-of-use lease asset is recorded within other assets, and the present value of the lease liability is recorded within other liabilities (segregated between short term and long term) on the consolidated balance sheets. The discount rate applied to the lease payments represents the company's incremental borrowing rate.

The components of lease costs were as follows:

(in millions)	Quarter Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Operating lease expense:				
Operating lease cost	\$ 14.1	\$ 16.3	\$ 28.8	\$ 33.1
Short-term lease cost	0.1	0.2	0.2	0.4
Total operating lease expense included in other expense	\$ 14.2	\$ 16.5	\$ 29.0	\$ 33.5
Finance lease expense:				
Interest expense	\$ 0.7	\$ 0.8	\$ 1.4	\$ 1.6
Depreciation expense	2.1	2.1	4.3	4.3
Total finance lease expense	\$ 2.8	\$ 2.9	\$ 5.7	\$ 5.9
Sublease revenue included in other revenue	\$ 2.8	\$ 2.4	\$ 5.5	\$ 4.9

Supplemental cash flow information related to leases was as follows:

(in millions)	Quarter Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Cash outflows for operating leases	\$ 16.3	\$ 14.8	\$ 33.2	\$ 30.1
Cash outflows for finance leases	4.2	4.3	8.5	8.5

Supplemental balance sheet information related to leases was as follows:

Operating leases

(in millions)	June 30, 2022	December 31, 2021
Operating lease right-of-use assets	\$ 329.9	\$ 345.3
Operating lease liabilities:		
Other current liabilities	\$ 48.5	\$ 47.3
Other liabilities	408.9	449.4
Total operating lease liabilities	\$ 457.4	\$ 496.7
Weighted average remaining lease term (in months)	127	132
Weighted average discount rate	3.8 %	3.9 %

Finance leases

(in millions)	June 30, 2022	December 31, 2021
Finance lease right-of-use assets	\$ 75.8	\$ 80.2
Finance lease liabilities:		
Other current liabilities	\$ 8.1	\$ 7.9
Other liabilities	71.9	75.9
Total finance lease liabilities	<u>\$ 80.0</u>	<u>\$ 83.8</u>
Weighted average remaining lease term (in months)	105	111
Weighted average discount rate	3.5 %	3.5 %

Future minimum lease payments were as follows as of June 30, 2022 for operating and finance leases:

(in millions)	Operating Leases
Remainder of 2022	\$ 32.5
2023	65.7
2024	60.0
2025	57.1
2026	52.8
2027	50.5
Thereafter	243.9
Total lease payments	562.5
Less: imputed interest	(105.1)
Present value of lease liability	<u>\$ 457.4</u>

(in millions)	Finance Leases
Remainder of 2022	\$ 8.6
2023	17.2
2024	17.4
2025	17.5
2026	17.6
2027	17.8
Thereafter	58.9
Total lease payments	155.0
Less: imputed interest	(75.0)
Present value of lease liability	<u>\$ 80.0</u>

10. Guarantees

Mutual Offset Agreement. CME and Singapore Exchange Limited (SGX) maintain a mutual offset agreement with a current term through May 2023. This agreement enables market participants to open a futures position on one exchange and liquidate it on the other. The term of the agreement will automatically renew for a one-year period after May 2023 unless either party provides advance notice of their intent to terminate. CME can maintain collateral in the form of irrevocable, standby letters of credit. At June 30, 2022, CME was contingently liable to SGX on letters of credit totaling \$330.0 million. CME also maintains a \$350.0 million line of credit to meet its obligations under this agreement. Regardless of the collateral, CME guarantees all cleared transactions submitted through SGX and would initiate procedures designed to satisfy these financial obligations in the event of a default, such as the use of performance bonds and guaranty fund contributions of the defaulting clearing firm. Management has assessed the fair value of the company's guarantee liability under this mutual offset agreement by taking the following factors into consideration: the design and operations of the clearing risk management process, the financial safeguard packages in place, historical evidence of default by a clearing member and the estimated probability of potential payouts by the

clearing house. Based on the assessment performed, management estimates the guarantee liability to be nominal and therefore has not recorded any liability at June 30, 2022 and December 31, 2021.

Family Farmer and Rancher Protection Fund. In 2012, the company established the Family Farmer and Rancher Protection Fund (the Fund). The Fund is designed to provide payments, up to certain maximum levels, to family farmers, ranchers and other agricultural industry participants who use the company's agricultural commodity products and who suffer losses to their segregated account balances due to their CME clearing member becoming insolvent. Under the terms of the Fund, farmers and ranchers are eligible for up to \$25,000 per participant. Farming and ranching cooperatives are eligible for up to \$100,000 per cooperative. The Fund was established with a maximum of \$100.0 million available for distribution to participants. Since its establishment, the Fund has made payments of approximately \$2.0 million, which leaves \$98.0 million available for future claims. If, at any time, payments due to participants were to exceed the amount remaining in the Fund, payments would be pro-rated. Clearing members and customers must register with the company in advance and provide certain documentation in order to substantiate their eligibility. The company believes that its guarantee liability is nominal and therefore has not recorded any liability at June 30, 2022 and December 31, 2021.

11. Accumulated Other Comprehensive Income (Loss)

The following tables present changes in the accumulated balances for each component of other comprehensive income (loss), including current period other comprehensive income (loss) and reclassifications out of accumulated other comprehensive income (loss):

<i>(in millions)</i>	Investment Securities	Defined Benefit Plans	Derivative Investments	Foreign Currency Translation	Total
Balance at December 31, 2021	\$ 1.1	\$ (34.8)	\$ 66.1	\$ 21.1	\$ 53.5
Other comprehensive income (loss) before reclassifications and income tax benefit (expense)	(2.3)	(3.7)		(81.1)	(87.1)
Amounts reclassified from accumulated other comprehensive income (loss)	—	0.6	(0.1)	—	0.5
Income tax benefit (expense)	0.6	0.8	—	—	1.4
Net current period other comprehensive income (loss)	(1.7)	(2.3)	(0.1)	(81.1)	(85.2)
Balance at June 30, 2022	<u>\$ (0.6)</u>	<u>\$ (37.1)</u>	<u>\$ 66.0</u>	<u>\$ (60.0)</u>	<u>\$ (31.7)</u>

<i>(in millions)</i>	Investment Securities	Defined Benefit Plans	Derivative Investments	Foreign Currency Translation	Total
Balance at December 31, 2020	\$ 1.6	\$ (57.1)	\$ 67.0	\$ 123.4	\$ 134.9
Other comprehensive income (loss) before reclassifications and income tax benefit (expense)	(0.7)	—	—	(29.6)	(30.3)
Amounts reclassified from accumulated other comprehensive income (loss)	—	2.2	(0.6)	—	1.6
Income tax benefit (expense)	0.2	(0.6)	0.2	—	(0.2)
Net current period other comprehensive income (loss)	(0.5)	1.6	(0.4)	(29.6)	(28.9)
Balance at June 30, 2021	<u>\$ 1.1</u>	<u>\$ (55.5)</u>	<u>\$ 66.6</u>	<u>\$ 93.8</u>	<u>\$ 106.0</u>

12. Fair Value Measurements

The company uses a three-level classification hierarchy of fair value measurements for disclosure purposes:

- Level 1 inputs, which are considered the most reliable evidence of fair value, consist of quoted prices (unadjusted) for identical assets or liabilities in active markets.
- Level 2 inputs consist of observable market data, such as quoted prices for similar assets and liabilities in active markets, or inputs other than quoted prices that are directly observable.
- Level 3 inputs consist of unobservable inputs which are derived and cannot be corroborated by market data or other entity-specific inputs.

The company's level 1 assets generally include investments in publicly traded mutual funds, equity securities and corporate debt securities with quoted market prices. In general, the company uses quoted prices in active markets for identical assets to determine the fair value of marketable securities.

The company's level 2 assets and liabilities generally consist of long-term debt notes. The fair values of the long-term debt notes were based on quoted market prices in an inactive market.

The company's level 3 assets and liabilities include certain investments that were adjusted to fair value.

Recurring Fair Value Measurements. Financial assets and liabilities recorded at fair value on the consolidated balance sheet as of June 30, 2022 were classified in their entirety based on the lowest level of input that was significant to each asset and liability's fair value measurement. The following table presents financial instruments measured at fair value on a recurring basis:

(in millions)	June 30, 2022			
	Level 1	Level 2	Level 3	Total
Assets at Fair Value:				
Marketable securities:				
Corporate debt securities	\$ 12.7	\$ —	\$ —	\$ 12.7
Mutual funds	82.2	—	—	82.2
Equity securities	0.2	—	—	0.2
Total Marketable Securities	95.1	—	—	95.1
Total Assets at Fair Value	\$ 95.1	\$ —	\$ —	\$ 95.1

Non-Recurring Fair Value Measurements. The company also recognized net unrealized loss on investments of \$9.9 million on equity investments without readily determinable fair value. The fair value of these investments were estimated to be \$27.1 million at June 30, 2022. The assessment was based on quantitative and qualitative indicators of fair value. The fair value measurement of the investment is considered level 3 and non-recurring.

Fair Values of Long-Term Debt Notes. The following presents the estimated fair values of long-term debt notes, which are carried at amortized cost on the consolidated balance sheets. The fair values below are classified as level 2 under the fair value hierarchy and were estimated using quoted market prices in inactive markets.

At June 30, 2022, the fair values (in U.S. dollar equivalent) were as follows:

(in millions)	Fair Value	Level
€15.0 million fixed rate notes due May 2023	16.1	Level 2
\$750.0 million fixed rate notes due March 2025	742.9	Level 2
\$500.0 million fixed rate notes due June 2028	488.1	Level 2
\$750.0 million fixed rate notes due March 2032	658.5	Level 2
\$750.0 million fixed rate notes due September 2043	812.8	Level 2
\$700.0 million fixed rate notes due June 2048	661.4	Level 2

13. Earnings Per Share

The company uses the two-class method to calculate basic and diluted earnings per common share because its Series G preferred stock are participating securities. Under the two-class method, undistributed earnings are allocated to common stock and participating securities according to their respective rights in undistributed earnings, as if all of the earnings for the period had been distributed. Basic earnings per common share is computed by dividing the net income attributable to common shareholders by the weighted average number of common shares outstanding during the period. Net income attributable to common shareholders is reduced for preferred stock dividends earned during the period. Preferred stock also receives a proportionate allocation of undistributed or overdistributed earnings for the period because Series G preferred stock has a contractual obligation to share in profits and losses of the company. Diluted earnings per share is computed by dividing the net income attributable to common shareholders by the weighted average number of common shares outstanding plus potentially dilutive common shares. Anti-dilutive stock awards were as follows for the periods presented:

<i>(in thousands)</i>	Quarter Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Stock awards	128	1	130	117
Total	128	1	130	117

The following table presents the earnings per share calculation for the periods presented:

	Quarter Ended June 30,		Six Months Ended June 30,	
	2022	2021	2022	2021
Net Income Attributable to CME Group <i>(in millions)</i>	\$ 662.5	\$ 510.3	\$ 1,373.5	\$ 1,084.7
Less: preferred stock dividends	(4.6)	—	(9.2)	—
Less: undistributed earnings allocated to preferred stock	(3.8)	—	(8.2)	—
Net Income Attributable to Common Shareholders of CME Group	\$ 654.1	\$ 510.3	\$ 1,356.1	\$ 1,084.7
Weighted Average Number of Common Shares <i>(in thousands)</i> :				
Basic	358,641	358,261	358,625	358,204
Effect of stock options, restricted stock and performance shares	564	627	554	649
Diluted	359,205	358,888	359,179	358,853
Earnings per Common Share Attributable to Common Shareholders of CME Group:				
Basic	\$ 1.82	\$ 1.42	\$ 3.78	\$ 3.03
Diluted	1.82	1.42	3.78	3.02

14. Subsequent Events

The company has evaluated subsequent events through the date the financial statements were issued. The company has determined that there were no subsequent events that met the requirement for recognition or disclosure in the consolidated financial statements.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion is provided as a supplement to, and should be read in conjunction with, the accompanying unaudited consolidated financial statements and notes in this Quarterly Report on Form 10-Q and our Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on February 25, 2022.

References in this discussion and analysis to “we” and “our” are to CME Group Inc. (CME Group) and its consolidated subsidiaries, collectively. References to “exchange” are to Chicago Mercantile Exchange Inc. (CME), the Board of Trade of the City of Chicago, Inc. (CBOT), New York Mercantile Exchange, Inc. (NYMEX), and Commodity Exchange, Inc. (COMEX), collectively, unless otherwise noted.

RESULTS OF OPERATIONS

Financial Highlights

The following summarizes significant changes in our financial performance for the periods presented.

(dollars in millions, except per share data)	Quarter Ended June 30,			Change	Six Months Ended June 30,			Change
	2022	2021			2022	2021		
Total revenues	\$ 1,237.2	\$ 1,179.2		5 %	\$ 2,583.8	\$ 2,432.5		6 %
Total expenses	487.5	504.5		(3)	975.0	1,032.7		(6)
Operating margin	60.6 %	57.2 %			62.3 %	57.5 %		
Non-operating income (expense)	\$ 117.0	\$ 51.4		128	\$ 174.2	\$ 78.6		122
Effective tax rate	23.6 %	29.7 %			23.0 %	26.6 %		
Net income attributable to CME Group	\$ 662.5	\$ 510.3		30	\$ 1,373.5	\$ 1,084.7		27
Diluted earnings per common share attributable to CME Group	1.82	1.42		28	3.78	3.02		25
Cash flows from operating activities					1,416.7	1,102.5		28

Revenues

(dollars in millions)	Quarter Ended June 30,			Change	Six Months Ended June 30,			Change
	2022	2021			2022	2021		
Clearing and transaction fees	\$ 1,024.6	\$ 929.9		10 %	\$ 2,162.7	\$ 1,936.9		12 %
Market data and information services	151.7	145.2		4	303.4	289.4		5
Other	60.9	104.1		(41)	117.7	206.2		(43)
Total Revenues	\$ 1,237.2	\$ 1,179.2		5	\$ 2,583.8	\$ 2,432.5		6

Clearing and Transaction Fees

Futures and Options Contracts

The following table summarizes our total contract volume, revenue and average rate per contract for futures and options. Total contract volume includes contracts that are traded on our exchange and cleared through our clearing house and certain cleared-only contracts. Volume is measured in round turns, which is considered a completed transaction that involves a purchase and an offsetting sale of a contract. Average rate per contract is determined by dividing total clearing and transaction fees by total contract volume. Contract volume and average rate per contract disclosures exclude trading volume for the cash markets business and interest rate swaps volume.

	Quarter Ended June 30,			Change	Six Months Ended June 30,			Change
	2022	2021			2022	2021		
Total contract volume (in millions)	1,429.4	1,161.6		23 %	3,036.5	2,493.0		22 %
Clearing and transaction fees (in millions)	\$ 925.4	\$ 807.3		15	\$ 1,959.8	\$ 1,682.9		16
Average rate per contract	\$ 0.647	\$ 0.695		(7)	\$ 0.645	\$ 0.675		(4)

We estimate the following net changes in clearing and transaction fees based on changes in total contract volume and changes in average rate per contract for futures and options during the second quarter and first six months of 2022 when compared with the same periods in 2021.

<i>(in millions)</i>	Quarter Ended	Six Months Ended
Increases due to changes in total contract volumes	\$ 173.4	\$ 350.7
Decreases due to changes in average rate per contract	(55.3)	(73.8)
Net increases in clearing and transaction fees	\$ 118.1	\$ 276.9

Average rate per contract is impacted by our rate structure, including volume-based incentives; product mix; trading venue, and the percentage of volume executed by customers who are members compared with non-member customers. Due to the relationship between average rate per contract and contract volume, the change in clearing and transaction fees attributable to changes in each is only an approximation.

Contract Volume

The following table summarizes average daily contract volume. Contract volume can be influenced by many factors, including political and economic conditions, the regulatory environment and market competition.

	Quarter Ended June 30,			Six Months Ended June 30,		
(amounts in thousands)	2022	2021	Change	2022	2021	Change
Average Daily Volume by Product Line:						
Interest rates	10,630	8,581	24 %	11,558	9,450	22 %
Equity indexes	7,751	4,926	57	7,851	5,512	42
Foreign exchange	950	769	24	927	810	14
Agricultural commodities	1,308	1,631	(20)	1,391	1,552	(10)
Energy	1,932	1,963	(2)	2,223	2,160	3
Metals	484	568	(15)	538	621	(13)
Aggregate average daily volume	23,055	18,438	25	24,488	20,105	22
Average Daily Volume by Venue:						
CME Globex	21,531	17,223	25	22,796	18,803	21
Open outcry	725	646	12	878	662	33
Privately negotiated	799	569	40	814	640	27
Aggregate average daily volume	23,055	18,438	25	24,488	20,105	22
Electronic Volume as a Percentage of Total Volume	93%	93 %		93%	94 %	

Overall market volatility increased throughout the second quarter and first six months of 2022 following lower overall volatility in the same periods in 2021. In the first half of 2022, interest rate volatility was higher as result of a change in market expectations regarding the Federal Reserve's interest rate policy following higher than expected inflation levels. In June 2022, the Federal Open Market Committee raised the Federal Funds rate by three-quarters of a percentage point and has indicated that it intends to further raise interest rates in the near future. In addition, geopolitical uncertainty due to the conflict between Russia and Ukraine also continues to result in additional market volatility within the equity and foreign exchange markets. However, the geopolitical uncertainty between Russia and Ukraine also led to risk aversion and reduced trading by market participants within the agricultural commodity and energy markets due to global commodity trade uncertainty and low supplies of crude and refined products. We believe these factors led to the changes in contract volume during the second quarter and first six months of 2022, when compared with the same periods in 2021.

Interest Rate Products

The following table summarizes average daily contract volume for our key interest rate products.

	Quarter Ended June 30,			Six Months Ended June 30,		
(amounts in thousands)	2022	2021	Change	2022	2021	Change
Eurodollar futures and options:						
Futures expiring within two years	1,142	1,165	(2)%	1,506	1,213	24 %
Options	852	968	(12)	1,171	1,036	13
Futures expiring beyond two years	467	1,011	(54)	639	1,209	(47)
SOFR futures and options:						
Futures expiring within two years	1,388	110	n.m.	1,216	106	n.m.
Futures expiring beyond two years	241	8	n.m.	198	9	n.m.
Options	223	—	n.m.	131	—	n.m.
U.S. Treasury futures and options:						
10-Year ⁽¹⁾	2,466	2,431	1	2,661	2,682	(1)
5-Year ⁽¹⁾	1,586	1,182	34	1,664	1,328	25
2-Year ⁽¹⁾	750	426	76	730	464	57
Treasury Bond ⁽¹⁾	536	542	(1)	546	614	(11)
Federal Funds futures and options	300	91	n.m.	357	96	n.m.

(1) U.S. Treasury futures and options now include respective weekly treasury options that were previously separated under a unique product category. Prior period amounts have been revised to conform to the current period presentation.

n.m. not meaningful

In the second quarter and first six months of 2022, overall interest rate contract volumes increased when compared with the same periods in 2021. We believe these increases were due to higher interest rate volatility as a result of a change in market expectations regarding the Federal Reserve's interest rate policy. This was due to higher than expected inflation levels, which led to the Federal Open Market Committee decision to increase the Federal Funds rate by three-quarters of a percentage point in June 2022. The increases in Secured Overnight Financing Rate contract (SOFR) volumes were due to more market participants transitioning to the new reference rate and incentive programs designed to encourage market participation in SOFR options trading.

Equity Index Products

The following table summarizes average daily contract volume for our key equity index products.

(amounts in thousands)	Quarter Ended June 30,		Change	Six Months Ended June 30,		Change
	2022	2021		2022	2021	
E-mini S&P 500 futures and options ⁽¹⁾	4,494	2,840	58 %	4,486	3,160	42 %
E-mini Nasdaq 100 futures and options ⁽¹⁾	2,324	1,391	67	2,352	1,555	51
E-mini Russell 2000 futures and options ⁽¹⁾	394	313	26	423	363	16

(1) E-mini S&P 500 and Nasdaq 100 futures and options now include respective weekly Micro E-mini options that were previously separated under a unique product category. Prior period amounts have been revised to conform to the current period presentation.

In the second quarter and first six months of 2022, equity index contract volumes increased when compared with the same periods in 2021. Volatility within the broad-based indexes increased as a result of the rising tensions and geopolitical uncertainty with Russia and Ukraine as well as the Federal Reserve's increases to the Federal Funds rate due to higher than expected inflation levels in 2022. In addition, a market repricing of certain technology-based stocks contributed to the increases in the E-mini Nasdaq 100 contract volumes. We believe these factors led to the overall increases in equity contract volumes.

Foreign Exchange Products

The following table summarizes average daily contract volume for our key foreign exchange products.

(amounts in thousands)	Quarter Ended June 30,		Change	Six Months Ended June 30,		Change
	2022	2021		2022	2021	
Euro	239	208	15 %	244	218	12 %
Japanese Yen	170	112	53	152	112	36
British Pound	120	99	21	119	99	20
Australian dollar	108	99	9	105	109	(4)

Overall foreign exchange contract volumes increased in the second quarter and first six months of 2022 when compared with the same periods in 2021. Market volatility increased in 2022 following low foreign exchange volatility in 2021 as a result of the rising tension and geopolitical uncertainty with Russia and Ukraine as well as changes in the Federal Reserve's interest rate policy due to higher than expected inflation in 2022. We believe these factors led to the overall increases in foreign exchange contract volumes.

Agricultural Commodity Products

The following table summarizes average daily contract volume for our key agricultural commodity products.

(amounts in thousands)	Quarter Ended June 30,		Change	Six Months Ended June 30,		Change
	2022	2021		2022	2021	
Corn	466	604	(23)%	476	558	(15)%
Soybean	266	322	(17)	295	325	(9)
Wheat	167	230	(27)	196	214	(8)

Overall commodity contract volumes decreased in the second quarter and the first six months of 2022 when compared with the same periods in 2021. These decreases were largely due to risk aversion by market participants following price increases and global trade uncertainty due to the conflict between Russia and Ukraine. We believe these factors led to the overall decrease in commodity contract volumes.

Energy Products

The following table summarizes average daily contract volume for our key energy products.

(amounts in thousands)	Quarter Ended June 30,		Change	Six Months Ended June 30,		Change
	2022	2021		2022	2021	
WTI crude oil	975	1,069	(9)%	1,207	1,166	4 %
Natural gas	554	467	19	548	517	6
Refined products	319	318	—	364	349	4

Overall energy contract volume decreased slightly in the second quarter of 2022 and increased slightly in the first six months of 2022 when compared with the same periods in 2021. Participant trading activity slowed in the second quarter of 2022 following a more active trading period in early 2022 largely due to very low levels of supply for crude and refined products throughout the world caused mainly by the ongoing geopolitical conflict with Russia and Ukraine. There were periods of higher trading and volatility in the first quarter of 2022 when the geopolitical conflict between Russia and Ukraine began. Natural gas volume increased largely due to higher demand as result of sanctions placed on Russia.

Metal Products

The following table summarizes average daily volume for our key metal products.

(amounts in thousands)	Quarter Ended June 30,		Change	Six Months Ended June 30,		Change
	2022	2021		2022	2021	
Gold	288	327	(12)%	339	365	(7)%
Copper	89	119	(25)	89	119	(25)
Silver	82	100	(18)	84	114	(26)

In the second quarter and first six months of 2022, metal contract volumes decreased when compared with the same periods in 2021 due to lower overall market volatility within the gold and silver markets. Volatility was higher in 2021, as investors were using gold and other precious metals as safe-haven investments following the COVID-19 pandemic.

Average Rate per Contract

The average rate per contract decreased in the second quarter and first six months of 2022 when compared with the same periods in 2021. The decreases in the average rate per contract were primarily due to changes in product mix. In the second quarter of 2022, equity index contract volume increased by 7 percentage points as a percent of total volume, while all other products collectively decreased by 7 percentage points. In the first six months of 2022, equity index and interest rate contract volumes increased by 5 percentage points as a percent of total volume, while all other products collectively decreased by 5 percentage points. In general, equity index and interest rate products have a lower rate per contract compared with the remaining contracts. In addition, the average rate per contract decreased due to higher volume-based incentives and discounts on certain contracts.

Cash Markets Business

Total clearing and transaction fees revenues in the second quarter and the first six months of 2022 include \$81.9 million and \$168.6 million of transaction fees attributable to the cash markets business compared with \$105.7 million and \$220.9 million in the second quarter and first six months of 2021, respectively. This revenue primarily includes BrokerTec Americas LLC's fixed income volume and EBS's foreign exchange volume. In September 2021, we contributed the net assets of our optimization business to OSTTRA, our new joint venture with IHS Markit (now a part of S&P Global).

(amounts in millions)	Quarter Ended June 30,			Change	Six Months Ended June 30,			Change
	2022	2021			2022	2021		
BrokerTec fixed income transaction fees	\$ 42.1	\$ 42.8	(2)%		\$ 86.4	\$ 88.3	(2)%	
EBS foreign exchange transaction fees	39.8	41.4	(4)%		82.2	86.7	(5)%	
Optimization transaction fees	—	21.5	n.m.		—	45.9	n.m.	

The related average daily notional value for the second quarter and first six months of 2022 were as follows:

(amounts in billions)	Quarter Ended June 30,			Change	Six Months Ended June 30,			Change
	2022	2021			2022	2021		
European Repo (in euros)	\$ 345.7	\$ 300.9	15 %		\$ 333.2	\$ 294.0	13 %	
U.S. Treasury	134.1	105.9	27		140.8	120.7	17	
Spot FX	65.4	61.7	6		66.7	67.1	(1)	

Overall average daily notional value for the cash markets business increased in the second quarter and the first six months of 2022 compared with the same periods in 2021. The increases in European Repo and U.S. Treasury transactions were largely due to increased volatility as a result of a change in market expectations regarding the Federal Reserve's interest rate policy, following higher than expected inflation levels in 2022. Despite the increase in average daily notional value, transaction revenue for BrokerTec and EBS decreased slightly due to the tiered pricing structure and incentive rate programs.

Concentration of Revenue

We bill a substantial portion of our clearing and transaction fees directly to our clearing firms. The majority of clearing and transaction fees received from clearing firms represent charges for trades executed and cleared on behalf of their customers. One individual firm represented approximately 10% of our clearing and transaction fees in the first six months of 2022. Should a clearing firm withdraw, we believe that the customer portion of the firm's trading activity would likely transfer to another clearing firm of the exchange. Therefore, we do not believe we are exposed to significant risk from the ongoing loss of revenue received from or through a particular clearing firm.

Other Sources of Revenue

During the second quarter and first six months of 2022, overall market data and information services revenues increased when compared with the same periods in 2021, largely due to price increases for certain products and increases in certain device counts.

The two largest resellers of our market data represented approximately 33% of our market data and information services revenue in the first six months of 2022. Despite this concentration, we consider exposure to significant risk of revenue loss to be minimal. In the event that one of these vendors no longer subscribes to our market data, we believe the majority of that vendor's customers would likely subscribe to our market data through another reseller. Additionally, several of our largest

institutional customers that utilize services from our two largest resellers report usage and remit payment of their fees directly to us.

In the second quarter and first six months of 2022, the decrease in other revenue when compared with the same periods in 2021 were largely attributable to the deconsolidation of the optimization business in September 2021 as part of the contribution of the business's net assets to OSTTRA, our joint venture with IHS Markit. In the second quarter and first six months of 2021, the optimization business generated \$44.4 million and \$86.9 million in other revenue.

Expenses

(dollars in millions)	Quarter Ended June 30,			Six Months Ended June 30,		
	2022	2021	Change	2022	2021	Change
Compensation and benefits	\$ 185.3	\$ 211.7	(13)%	\$ 370.5	\$ 436.7	(15)%
Technology	45.9	49.3	(7)	91.8	97.5	(6)
Professional fees and outside services	32.0	36.8	(13)	63.8	74.2	(14)
Amortization of purchased intangibles	57.1	59.4	(4)	115.5	120.0	(4)
Depreciation and amortization	33.0	37.1	(11)	66.5	74.7	(11)
Licensing and other fee agreements	83.1	54.2	53	164.0	118.9	38
Other	51.1	56.0	(9)	102.9	110.7	(7)
Total Expenses	<u>\$ 487.5</u>	<u>\$ 504.5</u>	<u>(3)</u>	<u>\$ 975.0</u>	<u>\$ 1,032.7</u>	<u>(6)</u>

Operating expenses decreased by \$17.0 million and \$57.7 million in the second quarter and first six months of 2022 when compared with the same periods in 2021. The following table shows the estimated impacts of key factors resulting in the change in operating expenses:

(dollars in millions)	Quarter Ended, June 30, 2022		Six Months Ended, March 31, 2022	
	Amount of Change	Change as a Percentage of Total Expenses	Amount of Change	Change as a Percentage of Total Expenses
Salaries, benefits and employer taxes	\$ (19.1)	(4)%	\$ (44.1)	(4)%
Non-qualified deferred compensation	(17.4)	(3)	(25.7)	(2)
Foreign currency exchange rate fluctuation	(9.9)	(1)	(16.5)	(2)
Professional fees and outside services	(4.7)	(2)	(10.4)	(1)
Employee separation and retention costs	(0.9)	—	(11.2)	(1)
Licensing and other fee agreements	28.9	6	45.1	4
Bonus	9.8	2	15.2	1
Other expenses, net	(3.7)	(1)	(10.1)	(1)
Total decrease	<u>\$ (17.0)</u>	<u>(3)%</u>	<u>\$ (57.7)</u>	<u>(6)%</u>

Decreases in operating expenses in the second quarter and first six months of 2022 when compared with the same periods in 2021 were as follows:

- Salaries, benefits and employer taxes were lower during the second quarter and first six months of 2022 when compared to the same periods in 2021 due to a net decrease in headcount through June 30, 2022, including the contribution of employees from CME Group's optimization businesses to the new OSTTRA joint venture with IHS Markit in September 2021.
- A decrease in our non-qualified deferred compensation liability during the second quarter and first six months of 2022, the impact of which does not affect net income because of an equal and offsetting change in investment income, contributed to a decrease in compensation and benefits expense.
- In the second quarter and first six months of 2022, we recognized a net gain of \$8.9 million and \$13.1 million, compared with a net loss of \$1.0 million and \$3.4 million in the same periods in 2021, due to currency exchange rate fluctuations. Gains and losses from exchange rate fluctuations are recognized in the consolidated statements of income when subsidiaries with a U.S. dollar functional currency hold certain monetary assets and liabilities denominated in foreign currencies.
- Professional fees and outside services expenses decreased due to a greater reliance on consultants for platform integrations, information security and systems enhancements in the second quarter and first six months of 2021 as well

as a reduction in legal fees related to our business activities and product offerings. The decrease in professional fees was partially offset by an increase in Google-related consulting fees that occurred as a result of CME Group's partnership with Google Cloud, which began in November 2021.

- Employee separation and retention costs were lower during the second quarter and first six months of 2022 due to a lower reduction in workforce compared to the same periods in 2021.

Increases in operating expenses in the second quarter and first six months of 2022 when compared with the same periods in 2021 were as follows:

- An increase in licensing and other fee agreements expense was due to higher volumes for certain equity products in the second quarter and first six months of 2022 compared to the same periods in 2021.
- Bonus expense increased in the second quarter and first six months of 2022 largely due to performance relative to our 2022 cash earnings target when compared with the same periods in 2021.

Non-Operating Income (Expense)

(dollars in millions)	Quarter Ended June 30,		Change	Six Months Ended June 30,		Change
	2022	2021		2022	2021	
Investment income	\$ 286.9	\$ 62.4	n.m.	\$ 360.0	\$ 93.3	n.m.
Interest and other borrowing costs	(39.9)	(41.7)	(5)	(82.4)	(83.2)	(1)
Equity in net earnings of unconsolidated subsidiaries	87.3	55.7	56	160.6	111.9	43
Other non-operating income (expense)	(217.3)	(25.0)	n.m.	(264.0)	(43.4)	n.m.
Total Non-Operating	<u>\$ 117.0</u>	<u>\$ 51.4</u>	128	<u>\$ 174.2</u>	<u>\$ 78.6</u>	122

n.m. not meaningful

Investment income. In the second quarter and first six months of 2022 when compared with the same periods in 2021, there were increases in earnings from cash performance bond and guaranty fund contributions that are reinvested due to higher average reinvestment balances as well as higher rates of interest earned in the cash account at the Federal Reserve Bank of Chicago following interest rate hikes in the first half of 2022. These increases in income were partially offset by decreases in net realized and unrealized gains on investments and decreases in earnings on our deferred compensation plan, the impact of which does not affect net income because of an equal and offsetting change in compensation and benefits expense.

Equity in net earnings (losses) of unconsolidated subsidiaries. Higher income generated from our S&P/Dow Jones Indices LLC (S&P/DJI) business venture contributed to an increase in equity in net earnings of unconsolidated subsidiaries in the second quarter and first six months of 2022 when compared with the same periods in 2021. We also recognized our share of net earnings on our investment in OSTTRA, our new joint venture with IHS Markit that was formed in September 2021.

Other income (expense). In the second quarter and first six months of 2022 when compared with the same periods in 2021, we recognized higher expenses related to the distribution of interest earned on performance bond collateral reinvestments to the clearing firms caused by higher interest income earned on our reinvestment during the period due to a higher Federal Funds rate in early 2022.

Income Tax Provision

The following table summarizes the effective tax rates for the periods presented:

	2022	2021
Quarter ended June 30	23.6 %	29.7 %
Six months ended June 30	23.0 %	26.6 %

The overall effective tax rate decreased in the second quarter and first six months of 2022 when compared with the same periods in 2021. In the second quarter of 2021, we recognized additional deferred tax expense related to the impact of the United Kingdom tax rate increase from 19% to 25%, which is effective April 1, 2023.

Liquidity and Capital Resources

Sources and Uses of Cash. Net cash provided by operating activities increased in the first six months of 2022 when compared with the same period in 2021 largely due to an increase in trading volume and revenue as well as an overall decrease in operating expenses. Net cash used in investing activities was higher during the first six months of 2022 when compared with the same period in 2021 largely due to the investment in S&P/DJI in the first six months of 2022. Cash used in financing

activities was higher during the first six months of 2022 when compared with the same period in 2021 due to a decrease in cash performance bonds and guaranty fund contributions.

Debt Instruments. The following table summarizes our debt outstanding at June 30, 2022:

<i>(in millions)</i>	Par Value	
Fixed rate notes due May 2023, stated rate of 4.30%	€	15.0
Fixed rate notes due March 2025, stated rate of 3.00% ⁽¹⁾	\$	750.0
Fixed rate notes due June 2028, stated rate of 3.75%	\$	500.0
Fixed rate notes due March 2032, stated rate of 2.65%	\$	750.0
Fixed rate notes due September 2043, stated rate of 5.30% ⁽²⁾	\$	750.0
Fixed rate notes due June 2048, stated rate of 4.15%	\$	700.0

(1) We maintained a forward-starting interest rate swap agreement that modified the interest obligation associated with these notes so that the interest payable on the notes effectively became fixed at a rate of 3.11%.

(2) We maintained a forward-starting interest rate swap agreement that modified the interest obligation associated with these notes so that the interest payable effectively became fixed at a rate of 4.73%.

We maintain a \$2.3 billion multi-currency revolving senior credit facility with various financial institutions, which matures in November 2026. The proceeds from this facility can be used for general corporate purposes, which includes providing liquidity for our clearing house in certain circumstances at CME Group's discretion and, if necessary, for maturities of commercial paper. As long as we are not in default under this facility, we have the option to increase it up to \$3.3 billion with the consent of the agent and lenders providing the additional funds. This facility is voluntarily pre-payable from time to time without premium or penalty. Under this facility, we are required to remain in compliance with a consolidated net worth test, which is defined as our consolidated shareholders' equity at September 30, 2021, giving effect to share repurchases made and special dividends paid during the term of the agreements (and in no event greater than \$2.0 billion in aggregate), multiplied by 0.65. We currently do not have any borrowings outstanding under this facility, but any commercial paper balance if or when outstanding can be backstopped against this facility.

We maintain a 364-day multi-currency revolving secured credit facility with a consortium of domestic and international banks to be used in certain situations by the clearing house. The facility provides for borrowings of up to \$7.0 billion. We may use the proceeds to provide temporary liquidity in the unlikely event a clearing firm fails to promptly discharge an obligation to CME Clearing, in the event of a liquidity constraint or default by a depository (custodian for our collateral), in the event of a temporary disruption with the domestic payments system that would delay payment of settlement variation between us and our clearing firms, or in other cases as provided by the CME rulebook. Clearing firm guaranty fund contributions received in the form of cash or U.S. Treasury securities as well as the performance bond assets (pursuant to the CME rulebook) can be used to collateralize the facility. At June 30, 2022, guaranty fund contributions available to collateralize the facility totaled \$8.0 billion. We have the option to request an increase in the line from \$7.0 billion to \$10.0 billion. Our 364-day facility contains a requirement that CME remain in compliance with a consolidated tangible net worth test, defined as CME's consolidated shareholder's equity less intangible assets (as defined in the agreement), of not less than \$800.0 million. We currently do not have any borrowings outstanding under this facility.

The indentures governing our fixed rate notes, our \$2.3 billion multi-currency revolving senior credit facility and our 364-day multi-currency revolving secured credit facility for \$7.0 billion do not contain specific covenants that restrict the ability to pay dividends. These documents, however, do contain other customary financial and operating covenants that place restrictions on the operations of the company that could indirectly affect the ability to pay dividends.

At June 30, 2022, we have excess borrowing capacity for general corporate purposes of approximately \$2.3 billion under our multi-currency revolving senior credit facility.

At June 30, 2022, we were in compliance with the various covenant requirements of all our debt facilities.

CME Group, as a holding company, has no operations of its own. Instead, it relies on dividends declared and paid to it by its subsidiaries in order to provide the funds which it uses to pay dividends to its shareholders.

To satisfy our performance bond obligation with Singapore Exchange Limited, we may pledge irrevocable standby letters of credit. At June 30, 2022, the letters of credit totaled \$330.0 million. We also maintain a \$350.0 million line of credit to meet our obligations under this agreement.

The following table summarizes our credit ratings at June 30, 2022:

Rating Agency	Short-Term Debt Rating	Long-Term Debt Rating	Outlook
Standard & Poor's Global Ratings	A1+	AA-	Stable
Moody's Investors Service, Inc.	P1	Aa3	Stable

Given our cash flow generation, our ability to pay down debt levels and our ability to refinance existing debt facilities if necessary, we expect to maintain an investment grade rating. If our ratings are downgraded below investment grade within certain specified time periods due to a change of control, we are required to make an offer to repurchase our fixed rate notes at a price equal to 101% of the principal amount, plus accrued and unpaid interest. No report of any rating agency is incorporated by reference herein.

Liquidity and Cash Management. Cash and cash equivalents totaled \$1.9 billion and \$2.8 billion at June 30, 2022 and December 31, 2021, respectively. The balance retained in cash and cash equivalents is a function of anticipated or possible short-term cash needs, prevailing interest rates, our corporate investment policy and alternative investment choices. A majority of our cash and cash equivalents balance is invested in money market mutual funds that invest only in U.S. Treasury securities, U.S. government agency securities and U.S. Treasury security reverse repurchase agreements and short-term bank deposits. Our exposure to credit and liquidity risk is minimal given the nature of the investments. Cash that is not available for general corporate purposes because of regulatory requirements or other restrictions is classified as restricted cash and is included in other current assets or other assets in the consolidated balance sheets.

Regulatory Requirements. CME is regulated by the CFTC as a Derivatives Clearing Organization (DCO). DCOs are required to maintain capital, as defined by the CFTC, in an amount at least equal to one year of projected operating expenses as well as cash, liquid securities, or a line of credit at least equal to six months of projected operating expenses. CME was designated by the Financial Stability Oversight Council as a systemically important financial market utility under Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act. As a result, CME must comply with CFTC regulations applicable to a systemically important DCO for financial resources and liquidity resources. CME is in compliance with all DCO financial requirements.

CME, CBOT, NYMEX and COMEX are regulated by the CFTC as Designated Contract Markets (DCM). DCMs are required to maintain capital, as defined by the CFTC, in an amount at least equal to one year of projected operating expenses as well as cash, liquid securities or a line of credit at least equal to six months of projected operating expenses. Our DCMs are in compliance with all DCM financial requirements.

BrokerTec Americas LLC is required to maintain sufficient net capital under Securities Exchange Act of 1934, as amended (Exchange Act), Rule 15c3-1 (the Net Capital Rule). The Net Capital Rule focuses on liquidity and is designed to protect securities customers, counterparties, and creditors by requiring that broker-dealers have sufficient liquid resources on hand at all times to satisfy claims promptly. Rule 15c3-3, or the customer protection rule, which complements Rule 15c3-1, is designed to ensure that customer property (securities and funds) in the custody of broker-dealers is adequately safeguarded. By law, both of these rules apply to the activities of registered broker-dealers, but not to unregistered affiliates. The firm began operating as a (k)(2)(i) broker dealer in November 2017 following notification to the Financial Industry Regulatory Authority and the SEC. A company operating under the (k)(2)(i) exemption is not required to lock up customer funds as would otherwise be required under Exchange Act Rule 15c3-3.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are subject to various market risks, including those caused by changes in interest rates, credit, foreign currency exchange rates and equity prices. There have not been material changes in our exposure to market risk since December 31, 2021. Refer to Item 7A. of CME Group's Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on February 25, 2022, for additional information.

ITEM 4. CONTROLS AND PROCEDURES

(a) Disclosure Controls and Procedures. Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this report. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of such period, our disclosure controls and procedures are effective.

(b) Changes in Internal Control Over Financial Reporting. As required by Rule 13a-15(d) under the Exchange Act, the company's management, including the company's Chief Executive Officer and Chief Financial Officer, have evaluated the company's internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) to determine whether any changes occurred during the quarter covered by this quarterly report that have

materially affected, or are reasonably likely to materially affect, the company's internal control over financial reporting. There were no changes in the company's internal control over financial reporting which occurred during the fiscal quarter ended June 30, 2022, that have materially affected, or are reasonably likely to materially affect, the company's internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

The disclosure under "Legal and Regulatory Matters" in Note 8. Contingencies in the Notes to Unaudited Consolidated Financial Statements in Item 1 of Part I of this report is incorporated herein by reference. Such disclosure includes updates to the legal proceedings disclosed in the company's Annual Report on Form 10-K, for the year ended December 31, 2021, filed with the SEC on February 25, 2022.

ITEM 1A. RISK FACTORS

There have been no material changes in the company's risk factors from those disclosed in the company's Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on February 25, 2022.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Issuer Purchases of Equity Securities

Period	(a) Total Number of Class A Shares Purchased (1)	(b) Average Price Paid Per Share	(c) Total Number of Class A Shares Purchased as Part of Publicly Announced Plans or Programs	(d) Maximum Number (or Approximate Value) that May Yet Be Purchased Under the Plans or Programs (in millions)
April 1 to April 30	284	\$ 236.82	—	\$ —
May 1 to May 31	16	196.01	—	—
June 1 to June 30	4,728	202.67	—	—
Total	5,028		—	

- (1) Shares purchased consist of an aggregate of 5,028 shares of Class A common stock surrendered in the second quarter of 2022 to satisfy employees' tax obligations upon the vesting of restricted stock.

ITEM 6. EXHIBITS

10.1 ⁽¹⁾	CME Group Inc. Third Amended and Restated Omnibus Stock Plan, amended and restated as of May 4, 2022.
10.2 ⁽¹⁾	CME Group Inc. Director Stock Plan, amended and restated as of May 4, 2022 (incorporated by reference to Exhibit 99.1 to CME Group Inc.'s Form S-8, filed with the SEC on June 9, 2022).
10.3 ⁽¹⁾	CME Group Inc. Employee Stock Purchase Plan, amended and restated as of May 4, 2022 (incorporated by reference to Exhibit 99.2 to CME Group Inc.'s Form S-8, filed with the SEC on June 9, 2022).
10.4	Amendment No. 6 to Credit Agreement, dated as of April 27, 2022, among Chicago Mercantile Exchange Inc., Bank of America, N.A., in its capacity as administrative agent, Citibank, N.A., in its capacity as collateral agent and collateral monitoring agent, and the banks party thereto. The Amended Credit Agreement, as amended through Amendment No. 6, among Chicago Mercantile Exchange Inc., each of the banks party thereto, Bank of America, N.A., in its capacity as administrative agent, and Citibank, N.A., in its capacity as collateral agent and collateral monitoring agent, is attached as Annex A to Amendment No. 6 (incorporated by reference to Exhibit 10.1 to CME Group Inc.'s Current Report on Form 8-K, filed with the SEC on April 28, 2022).
10.5 ‡	License Agreement, dated June 29, 2012, between Standard & Poor's Financial Services LLC and Chicago Mercantile Exchange Inc.
31.1	Section 302 Certification—Terrence A. Duffy
31.2	Section 302 Certification—John W. Pietrowicz
32.1	Section 906 Certification
101	The following materials from CME Group Inc.'s Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2022, formatted in Inline XBRL (Xtensible Business Reporting Language): (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Income, (iii) the Consolidated Statements of Comprehensive Income, (iv) the Consolidated Statements of Equity, (v) the Consolidated Statements of Cash Flows and (vi) Notes to Unaudited Consolidated Financial Statements, tagged as blocks of text.
104	Cover Page Interactive Data File included in the Inline XBRL Document Set for Exhibit 101.
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
(1)	Management contract, compensatory plan or arrangement.
‡	Portions of this exhibit have been redacted in compliance with Item 601(b)(10) of Regulation S-K.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

CME Group Inc.
(Registrant)

Dated: August 3, 2022

By: /s/ John W. Pietrowicz

John W. Pietrowicz

**Chief Financial Officer & Senior Managing
Director Finance**

**Principal Financial Offer and
Duly Authorized Officer**

LICENSE AGREEMENT

This License Agreement dated June 29, 2012 is made by and between Standard & Poor's Financial Services LLC ("S&P FS LLC"), a Delaware limited liability company having an office at 55 Water Street, New York, New York 10041, and the Chicago Mercantile Exchange Inc. ("CME"), a Delaware corporation having an office at 20 South Wacker Drive, Chicago, Illinois 60606.

RECITALS:

WHEREAS, S&P compiles, calculates, maintains and owns rights in and to the S&P Stock Indices and to the proprietary data contained therein; and

WHEREAS, S&P uses in commerce and has trade name and trademark rights to the designations listed in Appendix 1 to this Agreement; and

WHEREAS, CME wishes to use the S&P Stock Indices and S&P Marks in connection with: (i) creating, issuing, listing, trading, clearing, marketing, and promoting Futures Contracts, Options on Futures Contracts, Swap Contracts, Options on Swap Contracts and Standardized Option Contracts and activities related thereto; and (ii) making disclosure about such Contracts under applicable laws, rules and regulations in order to identify that S&P is the source of the S&P Stock Indices, pursuant to the terms and conditions hereinafter set forth; and

WHEREAS, the current license relationship between CME and S&P is set forth in a license agreement dated September 20, 2005, as amended (the "2005 Agreement"); and

WHEREAS, the parties wish to (i) modify and extend their license relationship on the terms and conditions set forth herein, and (ii) supersede and replace all prior agreements with regard to the subject matter of this Agreement; and

WHEREAS, pursuant to the terms of a Contribution Agreement, dated as of November 4, 2011, by and among MHP and CME and its Affiliate (the "Contribution Agreement"), MHP and such Affiliate have each agreed to contribute various assets comprising their respective index businesses to a Delaware limited liability company to be formed upon the closing of the Transaction (as defined below) ("Licensor"); and

WHEREAS, the Contribution Agreement provides that the Operating Agreement and this Agreement will be entered into at the closing of the transactions contemplated thereby (the transactions contemplated by the Contribution Agreement being collectively referred to herein as the "Transaction"), where this Agreement, being part of the Transaction, shall form a single, integrated agreement among the parties;

NOW, THEREFORE, in consideration of the premises and the mutual covenants and agreements contained herein, it is agreed as follows:

1. DEFINITIONS. For purposes of this Agreement, the following definitions shall apply:

(a) “Affiliate” shall mean, with respect to any person or entity, any other person or entity that directly or indirectly controls, is controlled by or is under common control with such first person or entity; provided that the term “Affiliate” does not include: (i) any Company Entity when used with respect to any CME Entity or any MHP Entity (each as defined in the Operating Agreement) and (ii) any CME Entity or MHP Entity when used with respect to any Company Entity. For purposes of this Agreement, control means, with respect to any entity, the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of such entity, whether through the ownership of voting securities, by contract or otherwise.

(b) “Agreement” shall mean this License Agreement.

(c) “Annual Net Revenue Floor” shall have the meaning ascribed in Appendix 3, Section 2.

(d) “Bilateral Swap Contracts” shall mean Swap Contracts that are bilaterally traded and not listed on a Competitive Market nor cleared through a centralized clearinghouse.

(e) “CBOE” shall mean the Chicago Board Options Exchange, Incorporated and any successor in interest thereof.

(f) “CBOE/S&P License Agreement” shall mean the license agreement dated as of November 1, 1994, as amended, between S&P and CBOE pursuant to which, among other things, S&P has granted to CBOE the right to use the S&P 500 Index and certain other S&P Stock Indices as the underlying interest in listed, standardized option contracts that trade on CBOE’s exchange.

(g) “Centrally Cleared Swap Contract” shall mean a “Swap Contract” that is listed on a Competitive Market or cleared through a centralized clearinghouse and does not meet the requirement of a Futures Equivalent Swap Contract.

(h) “CFTC” shall mean the Commodity Futures Trading Commission, as from time to time constituted or, if at any time after the execution of this Agreement such Commission is not existing and performing the duties assigned to it under the Commodity Exchange Act, as amended, then the body performing such duties at such time.

(i) “Cleared OTC Option Contracts” shall mean options contracts that (i) use an S&P Stock Index as their underlying interest, (ii) are securities under the Securities Exchange Act of

1934 as amended, (iii) are traded over-the-counter and (iv) are reported to and cleared by The Options Clearing Corporation (“OCC”) or any other clearing agency.

(j) “CME” shall have the meaning ascribed in the Preamble of this Agreement.

(k) “CME Disclaimers” shall have the meaning ascribed in Section 10(c) of this Agreement.

(l) “CME Substitute Contracts” shall have the meaning ascribed in Section 8(a) of this Agreement.

(m) “CME Substitute Index” shall have the meaning ascribed in Section 8(a) of this Agreement.

(n) “Commencement Date” shall have the meaning ascribed in Section 6(a) of this Agreement.

(o) “Competitive Market” shall mean (i) an organized, regulated derivatives market that is subject to regulation as a designated contract market regulated by the CFTC (assuming for this purpose that such a Competitive Market were operating in the United States regardless of where it is actually operating) or under a comparable international regulatory structure that employs a central counter-party model and offers for trading products that would be Futures Contracts under this Agreement (for example, without limitation, CBOE Futures Exchange, Eurex, InterContinentalExchange and NYSE-Euronext), (ii) an entity that offers electronic trading in futures look-alike products (*i.e.*, highly standardized products for future settlement or delivery) through a central order book and that has obtained a recognized status or formal exemptive or no-action relief from the CFTC in order to offer such products for trading to U.S. customers or obtained comparable status or relief from a non-U.S. regulatory agency or (iii) a swap execution facility (SEF), swap designated contract markets (DCM), a Designated Clearing Organization (DCO) or other facility, trading system or platform that provides access to clearing.

(p) “Confidential Information” shall have the meaning ascribed to it in Section 12(b) of this Agreement.

(q) “Contract” shall mean a Futures Contract, Option on Futures Contract, Centrally Cleared Swap Contract, Option on Centrally Cleared Swap Contract, Standardized Option Contract, Futures Equivalent Swap Contract or Derived Contract.

(r) “Contribution Agreement” shall have the meaning ascribed in the Recitals to this Agreement.

(s) “Derived Contracts” shall mean cash-settled Futures Contracts, Options on Futures Contract, Swaps and Options on Swaps the final settlement price of which is calculated using one or more values of a third party’s index that is calculated using the values of an S&P Stock Index. By way of example, the products branded as “TRAKRS” that were based in part on an S&P Index and were listed on CME prior to the Commencement Date are Derived Contracts.

(t) “Equity Index” shall mean any index (i) as to which 25% or more of the components are comprised of listed equity securities (including ETFs as to which equity securities are a significant factor in determining the price thereof) or (ii) as to which 25% or more of the total market capitalization or total value is represented by listed equity securities (including ETFs as to which equity securities are a significant factor in determining the price thereof).

(u) “Equity Index Complex Revenue” shall *****.

(v) “ETF” shall mean a pooled investment vehicle, trust, investment company or other collective or commingled investment vehicle (including, but not limited to, an issuer registered under the U.S. Investment Company Act of 1940), that has the following characteristics: (i) the vehicle issues, sells, and redeems blocks of shares or other interests, which blocks are sometimes referred to as “creation units”; (ii) the shares, units or similar interests thereof are listed on an exchange; and (iii) the investment objective thereof is to own a basket of stocks and/or other financial instruments (such as futures, options, and other derivative contracts) in an attempt to replicate substantially the price and dividend performance of the stocks represented by a single index, such as an S&P Stock Index.

(w) “Futures Contracts” shall mean: (1) all instruments: (A) the trading of which is within the jurisdiction of CFTC (assuming for this purpose that the instruments were traded in the United States regardless of where they are actually traded), (B) which are regulated by the CFTC as futures contracts (assuming for this purpose that such instruments were traded in the United States regardless of where they are actually traded), and (C) which any CME Entity has the authority to trade under its articles, by-laws, and rules; and (2) those instruments which, as of September 24, 1997, meet all of the requirements specified in clause (1) of this Subsection (w) but subsequent to September 24, 1997 fail to meet the requirements of clause (1)(A) of this Subsection (r) solely because another U.S. regulatory authority (in addition to, or in substitution of, the CFTC) is given regulatory jurisdiction over such instruments.

(x) “Futures Equivalent Product” shall mean *****.

(y) “Futures Equivalent Swap Contract” shall mean *****.

(z) “Futures Equivalent Swap Contract License Agreement” shall have the meaning ascribed in Section 2(j)(4).

(aa) “Futures Equivalent Swap Contracts Sublicense Agreement” shall have the meaning ascribed in Section 2(j)(3).

(bb) “Futures Equivalent Swap Contract Licensee” shall have the meaning ascribed in Section 2(j)(4).”

(cc) “Futures Sublicensee” shall have the meaning ascribed in Section 2(j)(1).

(dd) “Futures Sublicense Agreement” shall have the meaning ascribed in Subsection 2(j)(1).

(ee) “GAAP” shall have the meaning ascribed in Appendix 3 Section 1(b).

(ff) “Indexed Contracts” shall mean (1) Futures Contracts, the final settlement price of which is calculated using one or more values of an S&P Stock Index; (2) Options on Futures Contracts; (3) Standardized Option Contracts, the underlying interest of which is the value of an S&P Stock Index; (4) Centrally Cleared Swap Contracts in which one of the cash flows that is exchanged is calculated using one or more values of an S&P Stock Index; (5) Options on Centrally Cleared Swap Contracts; (6) Futures Equivalent Swap Contracts; and (7) Derived Contracts, the final settlement price of which is a third-party index that is derived from the value of an S&P Stock Index and with respect to which S&P has obtained all necessary approvals and authorizations from the owner of such third-party index. Indexed Contracts include, without limitation, S&P ETF Contracts and TRAKRS.

(gg) “Launch” shall mean, with respect to any Contract, the first day that such Contract begins trading on the CME or a CME Affiliate.

(hh) “Licensed Activities” shall mean, with respect to any Contracts, (i) the use of the S&P Stock Indices solely in connection with creating, issuing, listing, trading, settling, clearing, marketing, and promoting the Contracts; and (ii) the use and reference to the S&P Marks in connection with creating, issuing, listing, trading, clearing, marketing, and promoting the Contracts and with making such disclosures about the Contracts as CME deems necessary or desirable under any applicable federal or state laws, rules or regulations or under this Agreement in order to indicate the source of the S&P Stock Indices.

(ii) “Licensor” shall have the meaning ascribed in the Recitals to this Agreement.

(jj) “MHP” shall mean The McGraw-Hill Companies, Inc. and any successor in interest thereof.

(kk) “M&A Transaction” shall have the meaning ascribed in Appendix 3 Subsection 1(b).

(ll) “Operating Agreement” shall mean the Limited Liability Company Agreement of Licensor, to be entered into at the closing of the Transaction pursuant to the Contribution Agreement.

(mm) “Option on Futures Contracts” shall mean an option to purchase or sell Futures Contracts.

(nn) “Option on Swaps” shall mean an option to purchase or sell Swap Contracts.

(oo) “Options Sublicensee” shall have the meaning ascribed in Subsection 2(j)(2).

(pp) “Options Sublicense Agreement” shall have the meaning ascribed in Subsection 2(j)(2).

(qq) “Original Term” shall have the meaning ascribed in Subsection 6(a).

(rr) “S&P” shall mean, except where the context otherwise requires, (i) prior to the assignment contemplated by Section 6(b), S&P FS LLC and (ii) from and after such assignment, Licensor.

(ss) “S&P FS LLC” shall have the meaning ascribed in the Preamble of this Agreement.

(tt) “S&P ETF Contracts” shall mean all Futures Contracts, Option on Futures Contracts, Swap Contracts and Options on Swap Contracts (*i.e.*, excluding Standardized Option Contracts), the final settlement price of which is calculated using one or more values of an S&P Stock Index ETF.

(uu) “S&P-GSCI Indices” shall mean any S&P-GSCI branded commodity indices that are currently maintained, calculated and disseminated by S&P.

(vv) “S&P-GSCI Marks” shall mean the marks identified in Appendix 1 to this Agreement (as updated by the parties from time to time) as S&P-GSCI Marks.

(ww) “S&P Index ETF” means an ETF as to which the sole underlying index is an S&P Stock Index.

(xx) “S&P Marks” shall mean the designations listed in Appendix 1 to this Agreement (as updated by the parties from time to time).

(yy) “S&P Stock Index” or “S&P Stock Indices” shall mean Equity Indices that S&P maintains, calculates and distributes and in which S&P asserts proprietary rights. In addition, the term “S&P Stock Indices” will be deemed to include the S&P-GSCI Indices and any volatility index, variance indicator or buy-write index that use S&P Stock Index values or derived values, including those used as the basis for a license that S&P has previously granted to CBOE under

the terms of Amendment No. 6 to the CBOE/S&P License Agreement, a copy of which Amendment No. 6 has previously been provided to CME. S&P Stock Indices exclude indices that S&P is not authorized or permitted to license for Contracts hereunder as a result of rules imposed by a contributing exchange in its data license with S&P, or any applicable law, rule or regulation imposed by a government entity outside the United States. S&P Stock Indices also exclude the S&P Global 100 Index.

(zz) “Specified Co-branded Index” shall mean an S&P Stock Index existing now or in the future that (i) is co-branded by S&P with a third party, (ii) has been developed and/or is maintained by S&P with a third party, (iii) is subject to restrictions on S&P’s ability to grant a license to CME without such third party’s consent, (iv) is not calculated using proprietary CME data and (v) includes components that are not U.S. stocks as material part of the index.

(aaa) “Standardized Option Contracts” shall mean American-style exercise or European-style exercise put or call options that: (i) are settled in any currency other than U.S. dollars (and not in a foreign currency set to fixed rate of exchange relative to U.S. dollars) or by physical delivery, (ii) have standardized terms, (iii) the underlying interest of which is an S&P Stock Index and (iv) which CME has the authority to trade under its articles, by-laws, and rules.

(bbb) “Sublicensed Futures Contracts” shall have the meaning ascribed in Subsection 2(j)(1).

(ccc) “Sublicensed Futures Equivalent Swap Contract” shall have the meaning ascribed in Section 2(j)(3).

(ddd) “Sublicensed Standardized Option Contracts” shall have the meaning ascribed in Subsection 2(j)(2).

(eee) “Swap Contracts” shall mean “swaps” or “security-based swaps” as defined in the Dodd Frank Wall Street Reform and Consumer Protection Act; and is based on one or more S&P Stock Indices; provided, however, that Swap Contracts exclude Cleared OTC Option Contracts. Swap Contracts include Cleared OTC Swaps; and further providing that no Futures Contract will be deemed a Swap Contract. Futures Equivalent Swap Contracts are a subset of Swap Contracts.

(fff) “Term” shall have the meaning ascribed in Section 6(a).

(ggg) “Transaction” shall have the meaning ascribed in the recitals to this Agreement.

(hhh) “Trigger Date” shall mean the date on which CME’s Parent Aggregate Percentage Interest goes below the Lower Threshold *****. Capitalized terms used in this definition that are not defined herein shall have the meanings ascribed to them in the Operating Agreement or Schedule 9.4(c) thereof, as applicable.

(iii) “2005 Agreement” shall have the meaning ascribed in the recitals to this Agreement.

2. GRANT OF LICENSE.

(a) General. Subject to the terms and conditions of this Agreement, S&P hereby grants to CME and its Affiliates worldwide licenses to use the S&P Stock Indices and the S&P Marks in connection with the Licensed Activities. The parties understand that as of the Commencement Date, neither CME nor any Affiliate of CME is a registered options exchange in the U.S. or in any other jurisdiction, and this Agreement imposes no obligation on CME or a CME Affiliate, contractual or otherwise, to effect any such registration. The foregoing licenses in all cases exclude any Specified Co-Branded Index. S&P shall retain the right to license any Specified Co-branded Index and its associated trademarks to third parties as the basis for any Contracts or other index-based financial products.

(b) Index Value Dissemination Rights. Subject to the terms and conditions of this Agreement, S&P further grants to CME a non-exclusive worldwide license to disseminate, at CME's sole expense, the S&P Stock Indices, in real-time and delayed, solely to CME staff, regulatory agencies, and the CME trading floors. CME shall ensure in this regard that any recipient of the S&P Stock Indices pursuant to the foregoing license will use the S&P Stock Indices data for internal and regulatory purposes only and not for redistribution. Without limiting the foregoing, nothing herein shall permit CME to include the S&P Stock Indices, in real time or delayed, with the dissemination by CME of last sale prices and quotes related to trading on CME. The parties acknowledge that they are currently in negotiations on a new, separate agreement that will authorize CME to act as S&P's agent in the dissemination of real time S&P Stock Indices data.

(c) Limited Licenses. CME acknowledges that (i) the S&P Stock Indices (except for the S&P indices branded as S&P Broad Market Indices (BMI)) are the exclusive property of S&P and S&P has and retains all proprietary rights therein (including, but not limited to, trademarks and copyrights) and (ii) except as contemplated by the last sentence of this Section 2(c), the S&P Marks are the exclusive property of S&P FS LLC and S&P FS LLC has and retains all proprietary rights therein (including, but not limited to, trademarks and copyrights). CME acknowledges that the S&P Stock Indices (except for the S&P BMI) and their compilation and composition and changes therein are in the complete control and discretion of S&P. CME acknowledges that the S&P BMI are the exclusive property of S&P and Citigroup, N.A., that S&P and Citigroup, N.A. have and retain all proprietary rights therein (including, but not limited to, copyrights) and that the S&P BMI and their compilation and composition and changes therein are in the complete control and discretion of S&P and Citigroup, N.A. Except as otherwise specifically provided herein, S&P reserves all rights to the S&P Stock Indices, and S&P FS LLC and Licensor reserve all rights to the S&P Marks, in each case that are not expressly licensed hereunder and this Agreement shall not be construed to transfer to CME any right to, or interest in, the S&P Stock Indices or the S&P Marks, or in any copyright, trademark or proprietary right pertaining thereto. CME acknowledges that S&P FS LLC will (subject to the terms of the

Contribution Agreement) retain ownership of the S&P Marks following the assignment to Licensor contemplated by Section 6(b) and shall license such S&P Marks to Licensor pursuant to the MHP Brand License Agreement (as defined in the Contribution Agreement).

(d) Licensing of Additional S&P Stock Indices. Unless otherwise agreed by the parties in writing, this Agreement shall govern any and all licenses to S&P Stock Indices (whether newly created by S&P or resumed after discontinuation) and S&P Marks granted by S&P to CME during the Term of this Agreement.

(e) Reserved

(f) Restrictions on Indexed Contracts.

(1) S&P shall have the right to approve the settlement methodology, product construction and structure of all novel Standardized Option Contracts and Derived Contracts that are traded by CME hereunder. S&P shall not unreasonably withhold or delay its approval of any such Indexed Contracts.

(2) With respect to Futures Contracts, Swap Contracts, Options on Futures Contracts and Option on Swap Contracts, aside from S&P's limited approval rights provided below, there will be no restrictions placed on how CME structures such Indexed Contracts or how CME offers such Indexed Contracts for trading, except as specifically described below with respect to novel settlement methodology and product construction and certain other types of Futures Contracts and Swap Contracts. For example, CME may structure a Futures Contract based upon a combination of S&P Stock Indices. CME may also offer separate Futures Contracts on different S&P Stock Indices and facilitate spread trading among them through special quoting or pricing mechanisms. For the avoidance of doubt, CME may continue to offer Futures Contracts, Options on Futures Contracts, Swap Contracts, Options on Swap Contracts, and Standardized Options Contracts for trading through any trading or quoting mechanism that CME offers today, including quoting based on volatility, without limitation of any trading or quoting mechanisms that CME may offer in the future.

(3) If a Futures Contract, Option on Futures Contracts, Swap Contract or Option on Swap Contracts developed by CME or a third party uses a novel settlement methodology or novel construction, then:

(a) to the extent that the ultimate settlement value that uses an S&P Stock Index value (the "S&P Settlement Value") constitutes protectable intellectual property, S&P shall own the settlement value, which shall be exclusively licensed to CME under this Agreement.

(b) to the extent that the methodology or product construction is CME's development and constitutes protectable intellectual property, CME shall own the intellectual property rights in the methodology and product construction.

(c) nothing in this Agreement shall give CME the right to license a third party to use the S&P Settlement Value in conjunction with the CME methodology or product construction, nor shall it give S&P the right to license a third party to use the CME methodology or product construction (or the settlement value that results from the use of it).

(d) CME shall obtain S&P's prior approval before Launching a Futures Contract, Swap Contract, Option on Futures Contracts or Option on Swap Contracts that employs a novel settlement methodology or product construction, which approval may only be withheld if S&P reasonably concludes that the proposed Futures Contract, Swap Contract, Option on Futures Contracts or Option on Swap Contracts presents (i) a legal or regulatory risk to S&P FS LLC or Licensors, (ii) a risk of tarnishing S&P FS LLC's or Licensors' business reputation by virtue of its presumed association with a Futures Contract, Swap Contract, Option on Futures Contracts or Option on Swap Contracts including where an S&P Stock Index value might be combined with an index value of a competitor to S&P, or (iii) without limitation of S&P's right of review under Section 10(a) of this Agreement, a risk to S&P FS LLC's or Licensors', as applicable, rights in the S&P Marks that is caused by CME's proposed name for the Futures Contract, Swap Contract, Option on Futures Contracts or Option on Swap Contracts. In addition, with respect to any proposed Futures Contract, Swap Contract, Option on Futures Contracts or Option on Swap Contracts that is calculated using one or more values of an S&P Stock Index in combination with an index or indices of index providers other than S&P, regardless of whether it constitutes a novel settlement methodology or product construction, S&P's prior approval, subject to the same conditions as set forth in this Subsection 2(f)(4), shall be required.

(e) A settlement methodology or product construction shall be considered "novel" for purposes of this section if it is a methodology or construction that was not used in any product listed for trading on a global exchange on or before the Commencement Date and was not subsequently approved by S&P pursuant to the foregoing.

(f) With respect to any new Derived Contract, CME agrees that such third party shall be required, to the extent required by law, to obtain a license or other authorization from S&P to use the relevant S&P Stock Index and S&P Marks in connection with that product before that product may be listed on CME.

(g) CBOE-S&P License.

(i) Notwithstanding Section 2(f), CME will not list for trading Indexed Contracts that are exclusively licensed by S&P to CBOE or an Affiliate of CBOE under Amendment No. 6 to the CBOE/S&P License Agreement during the term of that amendment, including any renewals or extensions of such term, in that CME shall not use the S&P 500 or S&P 100 Indices to derive, maintain, publish, calculate or disseminate a Volatility Index, Variance Indicator or BuyWrite Index (as defined therein), or the S&P Marks, in connection with the creation, issuance, exercise of an investment product of any kind or character whatsoever, including without limitation Futures Contracts, Standardized Option Contracts, Swap Contracts, Options on Futures Contracts or Option on Swap Contracts. The limitations of this Subsection 2(g) shall not apply to the

extent that CME is providing services to CBOE or other party duly licensed by S&P with that party's consent. Notwithstanding anything to the contrary in this Agreement (including Section 2(a)), CME agrees not to dispute and to "grandfather" under this Agreement, the exclusive rights that S&P granted to CBOE relating to the listing of certain futures products that use the S&P 500 index as described in Amendment No. 6 to the S&P-CBOE license provided to CME. In consideration for this, S&P agrees to pay CME *****. Notwithstanding anything to the contrary in this Agreement (including Section 2(a)), CME relinquishes any claim to list Indexed Contracts that use an S&P 500 variance, volatility or buy-write index to the extent that such products are granted exclusively to CBOE under its S&P license during the term of that license, including any renewals or extensions thereof. For the avoidance of doubt, this protection of CBOE's rights does not limit the pricing or quoting mechanisms through which CME offers allowed Indexed Contracts for trading, including, without limitation, quoting based on volatility. The rights grandfathered to CBOE are non-transferable by S&P. Those rights shall revert to CME upon the expiration or termination of the grant to CBOE to the extent that those rights are otherwise granted to CME in this Agreement. Notwithstanding anything to the contrary in this Agreement (including Section 2(a)), CME agrees to make no claim that this Agreement grants CME the right to list Indexed Contracts that use an Affiliate of CBOE's proprietary indices, such as the VIX, or any other proprietary indices of a third party (other than co-branded indices that are expressly within the scope of the licenses granted under this Agreement).

(ii) *****.

(h) Reserved.

(i) Composite Marks. S&P hereby grants CME the right to combine its "CME," "CME Group," and "CME E-mini" marks (and such other marks as S&P may approve from time to time, such approval not to be unreasonably withheld or delayed) with the S&P Marks to form composite marks. Such composite marks shall only be used in connection with Licensed Activities. None of S&P FS LLC, Licensor or CME shall register or apply to register such composite marks in any jurisdiction without the other party's prior written consent. CME's use of any S&P Marks in a composite mark shall inure to the benefit of S&P FS LLC and Licensor and CME shall obtain no rights in such S&P Marks as a result of such use.

(j) Sublicenses.

(1) Subject to this Section 2(j), S&P hereby grants CME the right to sublicense CME's rights pursuant to Section 2(a) to any third-party exchange or other organized trading facility that is located outside the United States ("Futures Sublicensee") in connection with Futures Sublicensee's creating, issuing, listing, trading, clearing, marketing and/or promoting Indexed Contracts that are Futures Contracts, Options on Futures Contracts, Swap Contracts or Options on Swap Contracts ("Sublicensed Futures Contracts") and with making such disclosure about Sublicensed Futures Contracts as Futures Sublicensee deems necessary or desirable in order to indicate the source of the S&P Stock Indices. The terms of any sublicense granted by CME hereunder shall be set forth in a sublicense agreement among S&P, CME and the Futures

Sublicensee that is reasonably acceptable to S&P and CME (a “Futures Sublicense Agreement”), provided that CME shall (A) provide S&P with a complete copy of any such Futures Sublicense Agreement once executed by all parties thereto, (B) S&P may elect not to enter into any Futures Sublicense Agreement in its sole discretion and (C) to the extent not specified therein, advise S&P in writing of the fees payable by such Futures Sublicensee to CME in respect thereof. CME shall solely determine the fees payable by each Futures Sublicensee in respect of each Futures Sublicense Agreement, provided that in connection with each such Futures Sublicense Agreement, CME shall use commercially reasonable efforts to achieve commercially reasonable financial terms in favor of CME and S&P therein. CME shall use commercially reasonable efforts to collect all amounts due from each Futures Sublicensee under the applicable Futures Sublicense Agreement. Upon termination of this Agreement for any reason, all Futures Sublicense Agreements shall terminate unless otherwise agreed in writing by S&P and the Futures Sublicensee.

(2) Subject to this Section 2(j), S&P hereby further grants CME the exclusive right to sublicense CME’s rights pursuant to Section 2(a) to any third-party exchange or other organized trading facility (“Options Sublicensee”) in connection with Options Sublicensee’s creating, issuing, listing, trading, clearing, marketing and/or promoting Standardized Option Contracts (“Sublicensed Standardized Option Contracts”) and with making such disclosure about Sublicensed Standardized Option Futures Contracts as Options Sublicensee deems necessary or desirable in order to indicate the source of the S&P Stock Indices. The terms of any sublicense granted by CME hereunder shall be set forth in a sublicense agreement among S&P, CME and the Options Sublicensee that is reasonably acceptable to S&P and CME (an “Options Sublicense Agreement”), provided that CME shall (A) provide S&P with a complete copy of any such Options Sublicense Agreement once executed by all parties thereto, (B) S&P may elect not to enter into any Options Sublicense Agreement in its sole discretion and (C) to the extent not specified therein, advise S&P in writing of the fees payable by such Options Sublicensee to CME in respect thereof. CME shall solely determine the fees payable by each Options Sublicensee in respect of each Options Sublicense Agreement, provided that in connection with each such Options Sublicense Agreement, CME shall use commercially reasonable efforts to achieve commercially reasonable financial terms in favor of CME and S&P therein. CME shall use commercially reasonable efforts to collect all amounts due from each Options Sublicensee under the applicable Options Sublicense Agreement. Upon termination of this Agreement for any reason, all Options Sublicense Agreements shall terminate unless otherwise agreed in writing by S&P and the Options Sublicensee. For avoidance of doubt, nothing herein shall prevent S&P from entering into license agreements directly with any third-party options exchange in connection with the use of the S&P Stock Indices as the underlying interest in Standardized Option Contracts, in lieu of entering into a three-party Options Sublicense Agreement with CME.

(3) Subject to this Section 2(j), S&P hereby grants CME the right to sublicense CME’s rights pursuant to Section 2(a) to any Competitive Market (“Futures Equivalent Swap Contracts Sublicensee”) in connection with Futures Equivalent Swap Contracts Sublicensee’s

creating, issuing, listing, trading, clearing, marketing, and/or promoting Futures Equivalent Swap Contracts and related Options on Swap Contracts (together, “Sublicensed Futures Equivalent Swap Contracts”) and with making such disclosure about Sublicensed Futures Equivalent Swap Contracts as Futures Equivalent Swap Contracts Sublicensee deems necessary or desirable in order to indicate the source of the S&P Stock Indices; provided, however, that CME may grant such a sublicense only if required to do so by a law, regulator agency rule or regulation. The terms of any sublicense granted by CME hereunder shall be set forth in a sublicense agreement among S&P, CME and the Futures Equivalent Swap Contracts Sublicensee that is reasonably acceptable to S&P and CME (a “Futures Equivalent Swap Contracts Sublicense Agreement”), provided that CME shall (A) provide S&P with a complete copy of any such Futures Equivalent Swap Contracts Sublicense Agreement once executed by all parties thereto, (B) S&P may elect not to enter into any Futures Equivalent Swap Contracts Sublicense Agreement in its sole discretion and (C) to the extent not specified therein, advise S&P in writing of the fees payable by such Futures Equivalent Swap Contracts Sublicensee to CME in respect thereof. CME shall use commercially reasonable efforts to collect all amounts due from each Futures Equivalent Swap Contracts Sublicensee under the applicable Futures Equivalent Swap Contracts Sublicense Agreement. Upon termination of this Agreement for any reason, all Futures Equivalent Swap Contracts Sublicense Agreements shall terminate unless otherwise agreed in writing by S&P and the Futures Sublicensee. In the event that CME grants a license to a third party under this Section 2(j)(3) then: (1) if the terms of the sublicense include license fees that are more favorable for Futures Equivalent Swap Contracts than those that are payable by CME hereunder, then the fees payable by CME hereunder in relation to Futures Equivalent Swap Contracts shall be adjusted to be no less favorable to CME than those provided to the third party, and Appendix 3 hereof shall be amended accordingly and (2) the fees collected from such Futures Equivalent Swap Contracts Sublicensee shall not become part of the Equity Index Complex Revenues but rather CME shall pay S&P ***** the amount CME actually collects from all such third parties for Futures Equivalent Swap Contracts.

(4) Subject to this Section 2(j) and Section 11(c), S&P and CME agree that S&P may grant a license to any Competitive Market (“Futures Equivalent Swap Contracts Licensee”) in connection with Futures Equivalent Swap Contracts Licensee’s creating, issuing, listing, trading, clearing, marketing, and/or promoting Futures Equivalent Products and related Options on Futures Equivalent Swap Contracts (together, “Licensed Futures Equivalent Swap Contracts”) and with making such disclosure about Licensed Futures Equivalent Swap Contracts as Futures Equivalent Swap Contracts Licensee deems necessary or desirable in order to indicate the source of the S&P Stock Indices; provided, however, that except as otherwise provided in Section 11(c), S&P may grant such a license only if: 1. there is a threat of litigation concerning the need for or the scope of an intellectual property license required to, as applicable, create, issue, list, trade, or clear Futures Equivalent Swap Contracts, 2. such threat of litigation is in S&P’s reasonable judgment after consultation with CME, significant and credible, it being understood that a statement by a third party of a desire to create, issue, list, trade, or clear Futures Equivalent Swap Contracts without a license from S&P is by itself insufficient to be deemed significant and

credible for this purpose, and 3. the risk of loss of intellectual property rights from an adverse ruling in such a litigation is believed in S&P's reasonable judgment to be significant. The cost of any litigation by S&P under this Section 2(j)(4) shall be borne entirely by S&P. The terms of any such license granted by S&P hereunder shall be set forth in a license agreement between S&P and the Futures Equivalent Swap Contracts Licensee (a "Futures Equivalent Swap Contracts License Agreement"), provided that S&P shall (A) provide CME with prompt notice that S&P has begun license negotiations and updates on the status of the negotiations, (B) provide CME with a complete copy of any such Futures Equivalent Swap Contracts License Agreement once executed by the parties thereto, and (C) advise CME in writing of the fees payable by such Futures Equivalent Swap Contracts Licensee to S&P in respect thereof. S&P shall solely determine the fees payable by each Futures Equivalent Swap Contracts Licensee in respect of each Futures Equivalent Swap Contracts License Agreement. S&P shall use commercially reasonable efforts to collect all amounts due from each Futures Equivalent Swap Contracts Licensee under the applicable Futures Equivalent Swap Contracts License Agreement. ****. For avoidance of doubt, the granting by S&P of a license to a Futures Equivalent Swap Contracts Licensee pursuant to and in accordance with this paragraph shall not be deemed a violation of S&P's obligations under Subsection 11(b).

3. EXCLUSIVITY.

(a) Licensed Indices. Subject to and except as otherwise provided in this Agreement, the license for the S&P Stock Indices granted pursuant to Subsection (2)(a) shall be exclusive for (i) Futures Contracts, Options on Futures Contracts with respect to all Licensed Activities and (ii) Futures Equivalent Swap Contracts and Options on Futures Equivalent Swap Contracts with respect to all Licensed Activities, beginning on the Commencement Date and ending on the date that is one (1) year prior to the end of the Term of this Agreement. All other licenses granted by S&P pursuant to this Agreement shall be non-exclusive with respect to Indexed Contracts other than Futures Contracts, Options on Futures Contracts, Futures Equivalent Swap Contracts and Options on Futures Equivalent Swap Contracts authorized hereunder for the Term of this Agreement.

(b) S&P 500 Index. For Futures Contracts and Options on Futures Contracts, CME's exclusive rights to the S&P 500 Index will automatically extend through the date that is one (1) year prior to the end of the Term of this Agreement and will be non-exclusive for the last year of the Term of this Agreement.

(c) Non-S&P 500 Index. For any S&P Stock Index other than the S&P 500 Index including an index family, for which CME lists Futures Contracts or Options on Futures Contracts, CME's rights to such an index or index family shall be exclusive during the first three (3) years after the initial listing thereof and shall continue for each year thereafter so long as the average daily volume ("ADV") of the Indexed Contracts over the six (6) months immediately

preceding the first day of such year based on such an index or index family is at least ***** (it being understood that if ADV as of the first day of any year as so measured is less than *****, CME's rights shall thereafter be non-exclusive whether or not ADV as so measured as of the first day of any later year is at least *****). For purposes of this Section 3(c), certain S&P Stock Indices shall be treated as a family such that the exclusivity of the indices is based on the aggregate ADV of all Indexed Contracts listed on the indices within that family. For illustration purposes, such index families shall include the growth & value index family; sector index including the emerging markets, carbon & ESG, property and the Shariah indices families; and geographic indices like global, Middle East & Africa, European, Japanese, Australian, Canadian, and Asian index families. S&P shall make any final determinations as to what constitutes an index family, in its reasonable discretion.

(d) Swap ADV. For purposes of calculating ADV in this Section 3, Swap Contracts and Options on Swaps shall be considered as follows: 1. if with respect to any S&P Stock Index, both Futures Contracts and Swap Contracts are executed or cleared by CME then the ADV equivalent for the Swap Contracts and Options on Swaps is the notional value of the Swap Contracts and Options on Swaps executed or cleared in that month shall be divided by the value at the end of the month of the Futures Contract whose notional value is closest to \$***** and that is based on the same S&P Stock Index, 2. if no Futures Contract is offered that is based on the same S&P Stock Index then the ADV equivalent for such Swap Contracts and Options on Swaps is the notional value that is executed or cleared divided by ***** dollars (\$*****).

(e) Loss of Exclusivity. If CME's license to any S&P Stock Index or index family with respect to Futures Contracts or Options on Futures Contracts is or becomes non-exclusive, S&P may license such S&P Stock Index or index family to one or more other exchanges, provided that (a) if S&P wishes the license to another exchange for the relevant S&P Stock Index to be exclusive, exclusivity will only take effect on the first date that, measured over the course of the six (6) months immediately preceding such date, the ADV on such other exchange of the Indexed Contracts based on the relevant S&P Stock Index or index family is at least *****, and such exclusive license will continue for each year thereafter so long as the ADV on such other exchange of the Indexed Contracts over the six (6) months immediately preceding the first day of such year based on the relevant S&P Stock Index or index family is at least ***** (it being understood that if ADV as of the first day of any year as so measured is less than *****, such other exchange's rights shall thereafter be non-exclusive whether or not ADV as so measured as of the first day of any later year is at least *****) and (b) CME's license for the relevant S&P Stock Index or index family will continue on a non-exclusive basis until such time, if any, that the other exchange's license becomes exclusive as provided above, it being understood that, following the date such license becomes exclusive, CME will be permitted to orderly wind down any open interest in Futures Contracts, Centrally Cleared Swap Contracts, Options on Futures Contracts and Option on Centrally Cleared Swap Contracts that are outstanding; provided that such wind-down period shall not extend for more than thirty-six (36) months. With respect to any S&P

Stock Index or index family that S&P licenses to another exchange on an exclusive basis in accordance with the preceding sentence, CME's license to such S&P Stock Index or index family will be suspended accordingly while such other exchange continues to meet the applicable ADV requirements for exclusivity and with respect to any S&P Stock Index or index family that S&P licenses to another exchange on a non-exclusive basis in accordance with the preceding sentence, CME's license hereunder will become non-exclusive with respect to such S&P Stock Index or index family.

4. RIGHT OF FIRST REFUSAL ON NEW S&P STOCK INDICES.

(a) During the Term of this Agreement, CME shall have a right of first refusal on licenses to base Indexed Contracts on any stock index or S&P-GSCI branded commodity index not licensed hereunder as of the Commencement Date and which is not a Specified Co-branded Index. Prior to offering any such license to any other party as the basis for Indexed Contracts, S&P shall first request that CME list Indexed Contracts on such new index. Upon such request, such new index shall become subject to the provisions of Subsection 3(c) and (d) as if CME had in fact begun listing Indexed Contracts on such new index as of the date of CME's receipt of such request (whether or not CME actually did so).

5. LICENSE FEES.

(a) CME shall pay S&P the License Fees as set forth in Appendix 3 hereto. License Fees shall be due and payable as of the first day of the calendar quarter in which the closing of the Transaction occurs. CME's obligation to pay license fees under this Agreement shall not be affected even if (i) a court of competent jurisdiction determines that S&P may not prevent a Competitive Market from trading, settling or clearing Indexed Contracts without a license and such determination has not been overturned after exhaustion of all avenues of appeal; (ii) a regulatory body or court of competent jurisdiction issues a ruling or otherwise determines that the exclusivity provisions of this Agreement (*i.e.*, pertaining to the use of the S&P Stock Indices as the basis for Futures Contracts or Option on Futures Contracts) violate any applicable law, rule or regulation, such that S&P is directed to grant licenses to one or more Competitive Markets to use the S&P Stock Indices as the basis for Futures Contracts or Option on Futures Contracts, and such ruling or other determination has not been overturned after exhaustion of all avenues of appeal; or (iii) there is otherwise a diminution or loss of recognized intellectual property rights in the S&P Stock Indices. CME irrevocably and unconditionally waives any ability it may have under law or equity or otherwise to claim that its obligation to pay license fees to S&P under this Agreement is reduced or eliminated due to the lack of enforceability of the licenses granted by S&P to CME hereunder or for any other reason, and S&P shall not have any liability hereunder as a result of any occurrence described in clauses (i) through (iii). CME acknowledges that the foregoing serves as a substantial inducement to S&P FS LLC to enter into

this Agreement and for Licensor to accept the assignment contemplated by Section 6(b) and for S&P FS LLC and Licensor to effect the Transaction.

(b) *****

6. TERM; ASSIGNMENT BY S&P FS LLC TO LICENSOR.

(a) Term. The term of this Agreement (the “Term”) shall commence on the date on which this Agreement is entered into, which shall be the date of the closing of the Transaction (the “Commencement Date”). Subject to the proviso below, such Term shall continue in full force and effect until (and shall terminate upon) the later of (a) December 31, 2017 or (b) the date that is one (1) year after the Trigger Date occurs (the “Original Term”), unless terminated earlier in accordance with Section 7 hereof; provided, however, that:

(1) if the Trigger Date occurs within ten (10) years of the Commencement Date, then Licensor shall have the option to extend the Term for up to ten (10) additional years following the last day of the Original Term.

(2) if under the terms of the Operating Agreement, (x) MHP exercises its MHP Special Call or its Drag-Along Right or (y) CME exercises its Tag-Along Right in connection with a Transfer by MHP of Membership Interests in Licensor and as a result the Trigger Date occurs, then CME shall have the option to extend the Original Term for up to ten (10) additional years following the last day of the Original Term;

(3) if CME exercises its CME Special Put under the Operating Agreement in connection with a Supermajority Approval Termination, then CME shall have the option to extend the Original Term for up to five (5) additional years following the last day of the Original Term; and

(4) if the Trigger Date occurs as a result of a requirement of law or a non-appealable order of a government regulatory authority prohibiting CME and/or its Affiliates from owning that amount, then CME shall have the option to extend the Original Term for up to ten (10) additional years following the last day of the Original Term.

Capitalized terms used in this Section 6(a) that are not defined herein shall have the meanings ascribed to them in the Operating Agreement.

(b) Assignment by S&P FS LLC to Licensor. Immediately after the execution and delivery of this Agreement, all of S&P FS LLC’s rights and obligations under this Agreement shall automatically be assigned and transferred to Licensor (other than the rights or obligations that are expressly contemplated by the terms of this Agreement to remain with S&P FS LLC after such time), whereupon S&P FS LLC shall be released from all obligations so assigned or

transferred (it being understood that S&P FS LLC shall remain a party to this Agreement following such assignment and shall retain its rights and obligations not so assigned or transferred to Licensor).

7. **TERMINATION.** Except for a termination upon the end of the Original Term (for the avoidance of doubt, without limiting the provisions of Section 6(a) providing for extension of the Term), this Agreement may be terminated only as set forth below in this Section 7:

(a) **Material Breach.** In the case of a material breach of any of the terms or conditions of this Agreement by either Licensor/S&P FS LLC, on the one hand, or CME, on the other hand, the other party may terminate this Agreement by giving thirty (30) days prior written notice to the non-breaching party of its intent to terminate, which notice shall specify the nature of the alleged breach, and such notice shall be effective on the date specified therein for such termination unless the breaching party shall correct such breach within thirty (30) days of receipt of such notice, provided that if the breach is incapable of cure within the thirty-day period and the breaching party is diligently and continuously making efforts to remedy the breach, then the Agreement shall not terminate unless the breach is not cured within ninety (90) days of receipt of such notice.

(b) **Discontinuation of an S&P Stock Index.** S&P or any third-party index provider, as the case may be, shall have the right in its sole discretion to cease compilation and publication of any of the S&P Stock Indices without liability hereunder and, upon prompt written notice to CME of such discontinuance and subject to Section 8 hereof, to terminate the license granted hereunder as to such discontinued S&P Stock Index and the associated S&P Marks; provided, however, that S&P shall use its commercially reasonable efforts to give CME at least one (1) year prior written notice of such discontinuation and further provided, however, that all Indexed Contracts that use the discontinued S&P Stock Index which are open and listed for trading on the date of such notice of termination was provided to CME, may nevertheless continue to be traded until such Indexed Contracts either expire and are no longer listed for trading or until thirty-six (36) months after such notice, whichever occurs first, except for the Derived Contracts known as BXY TRAKRS Contracts, which shall continue to trade until such BXY TRAKRS Contracts expire and are no longer listed for trading or until sixty (60) months following the date of such notice of termination, whichever occurs first. CME's obligations to include the revenues associated with respect to any Indexed Contract licensed pursuant to this Agreement and that use the discontinued S&P Stock Index in the calculation of Equity Index Complex Revenue shall terminate effective on the date on which the license for the discontinued S&P Stock Index is effectively terminated by S&P.

(c) **Cessation of Trading in or De-Listing of an S&P ETF.** S&P shall inform CME in writing if S&P becomes aware of any pending cessation of trading in, or de-listing of, an S&P ETF. S&P shall have no other obligations to CME under this Agreement in connection with the

cessation of trading in, or de-listing of, an S&P ETF. CME understands that during the Term of this Agreement, one or more of the S&P Index ETFs may be de-listed or otherwise cease trading and in such event, S&P shall have no liability to CME arising out of such de-listing or cessation. CME acknowledges that the de-listing of, or cessation in trading in, an S&P Index ETF can and will affect CME's ability to continue to create, issue, list, trade, clear, market, and promote the associated S&P ETF Contracts.

(d) Bankruptcy. In the case of any filing for bankruptcy, dissolution or liquidation of Licensor, CME may terminate this Agreement immediately upon written notice to S&P FS LLC and Licensor. In the case of any filing for bankruptcy, dissolution or liquidation of CME, Licensor may terminate this Agreement immediately upon written notice to CME.

8. CME SUBSTITUTE INDEX AND CONTRACTS.

(a) CME's Rights Upon Discontinuation of an S&P Stock Index. Excluding with respect to S&P ETF Contracts, if S&P discontinues compilation and publication of any S&P Stock Index licensed to CME under this Agreement, CME shall have the following rights:

(1) S&P shall, for the purpose of enabling CME, if CME chooses, to compile and make use of its own substitute index ("CME Substitute Index") with respect to any discontinued S&P Stock Index, provide CME with a continuing non-exclusive and royalty-free worldwide license to use the list of companies, shares outstanding and divisors for such discontinued S&P Stock Index as of the Index discontinuation date. S&P shall have no further obligations to CME with respect to such discontinued S&P Stock Index or any Indexed Contract based upon such Index after furnishing CME with the aforesaid information.

(2) As of the relevant Index discontinuation date, CME shall not trade any Indexed Contracts based upon the discontinued S&P Stock Index except as provided in Section 7(b) of this Agreement and as follows: Upon receipt of any notice of index discontinuation by S&P hereunder as provided in Section 7(b), CME may elect, by written notice to S&P, to redesignate the discontinued S&P Stock Index as a CME Substitute Index and continue to trade Indexed Contracts ("CME Substitute Contracts") based upon such CME Substitute Index, except that, from the date of such notice of election until the Index discontinuation date of such S&P Stock Index, such CME Substitute Index shall be described in a manner to clearly differentiate it from the discontinued S&P Stock Index. CME shall have no obligation to make any payment of fees to S&P with respect to the trading of CME Substitute Contracts that occurs after the Index discontinuation date. After such election, CME may promote CME Substitute Contracts based upon the CME Substitute Index provided that the S&P Marks are not utilized by CME in connection therewith and CME prominently disclaims any relationship with S&P FS LLC and Licensor with respect to the CME Substitute Contracts.

(b) Discontinuation of Trademark Licenses. If CME's license to use any S&P Stock Index terminates because of the termination of this Agreement, or for any reason other than S&P's discontinuation of its compilation and publication, then CME shall not use the name "Standard & Poor's" or "S&P" in connection with the promotion or trading of any additional Indexed Contracts that use such S&P Stock Index; provided, however, that Indexed Contracts that use such S&P Stock Index, which are listed for trading on the date of termination, may be traded using the relevant S&P Marks until expiration or for 36 months after the date of termination, whichever occurs first, except as may be otherwise required by law or rule of a governing entity. Following such termination, if CME elects to trade CME Substitute Contracts on a CME Substitute Index, it may make information references only to such S&P Stock Index, provided that CME disclaims any relationship with S&P FS LLC and Licensor in connection therewith. The foregoing shall nevertheless depend on the fact that S&P shall continue to compile and publish such S&P Stock Index in which event S&P shall disseminate such Index to CME in the same fashion as is currently being done, except that CME shall bear any incremental costs incurred by S&P at any time in providing such service.

(c) S&P BMI Series. If at any time during the Term of this Agreement, Citigroup, N.A. for any reason ceases participating in the compilation and publication of the S&P BMI series, thereby preventing S&P from continuing to license them to CME hereunder, S&P covenants and agrees that it shall, without interruption, itself compile and publish substantially similar substitute indices for CME's use under the terms of this Agreement, and S&P shall have no other obligations, and no liability, to CME hereunder arising out of Citigroup, N.A. ceasing to participate in the compilation and publication of the S&P BMI series. In such event, the parties agree that such substitute indices shall replace the S&P BMI series under this Agreement, and that CME's use of the S&P BMI series shall cease. It is understood that the licensing of any such substitute indices shall be evidenced by a written amendment to this Agreement, executed by S&P and CME.

9. S&P OBLIGATIONS.

(a) Regulatory Approvals or Investigations. S&P shall reasonably assist CME in connection with the preparation of factual materials for presentation to the CFTC, or any other governmental entity, in connection with any application by CME for approval to trade any of the Indexed Contracts licensed hereunder, or any investigations or hearings regarding any such Indexed Contracts.

(b) Calculation and Dissemination of Index Values. S&P or its agent shall compute and, in a manner reasonably satisfactory to CME, disseminate to CME, the value of each of the S&P Stock Indices at a mutually agreeable frequency. The foregoing shall be at S&P's expense, except that S&P shall not be obligated to pay for any hardware, software, communications or

similar expenses associated with the receipt by CME of S&P Stock Index values. S&P, or its agent, shall provide CME each trading day with respect to each S&P Stock Index licensed to CME hereunder a special opening quotation for use in settling Indexed Contracts that use such S&P Stock Index as well as the percentage of underlying stocks that have opened trading that day in the primary market or that have resumed trading after a trading halt in the primary market.

(c) Third Party Trademarks and Intellectual Property. CME acknowledges that certain designations used in the names of the S&P ETFs (e.g., “iShares”) and other intellectual property rights embodied therein belong to third parties. No rights to use trademarks or other intellectual property belonging to third parties, with the exception of the S&P BMI series, are conveyed by this Agreement. S&P shall reasonably cooperate with CME in acquiring such rights to the extent such rights are necessary for CME to create, market, trade, clear or promote S&P ETF Contracts, however, CME is solely responsible for securing all necessary licenses to use third- party trademarks and intellectual property.

(d) Swap Licensing. Nothing in this Agreement shall prevent S&P from granting a license to a third party to trade Bilateral Swap Contracts.

10. CME’s OBLIGATIONS.

(a) General. CME shall use its commercially reasonable efforts to protect the goodwill and reputation of S&P FS LLC and Licensor and of the S&P Marks in connection with their use under this Agreement. CME shall maintain high standards of fairness and truthfulness in, and shall allow S&P, upon its request, to review and approve all CME advertisements, brochures, promotional and informational materials relating to or referring to the S&P Stock Indices or the Indexed Contracts. S&P shall safeguard the confidentiality of any promotional or informational materials furnished by CME for S&P’s review, as provided for in Section 12(b) hereof.

(b) Compliance with Applicable Laws. CME shall use its commercially reasonable efforts to comply with the federal commodities laws and the rules thereunder insofar as those laws and rules relate to the Indexed Contracts licensed hereunder. CME shall take all necessary steps to ensure that the trading of the Indexed Contracts is carried out in accordance with high ethical and legal standards. S&P shall have no obligation or liability in connection therewith.

(c) CME Rulebook Disclaimers. CME shall use and disseminate the S&P Stock Indices and the S&P Marks only in compliance with the terms and conditions of this Agreement to ensure that S&P FS LLC’s and Licensor’s rights in the S&P Stock Indices and the S&P Marks, as applicable, are in no way diminished or jeopardized and CME shall use its commercially reasonable efforts to ensure that the public is in no way confused or misled as to such rights. CME shall include the limitation on liability and disclaimers set forth in Appendix 2 (“CME Disclaimers”) to this Agreement in its rules, and take any other action necessary to ensure that its

members trading in Indexed Contracts are aware of the disclaimers and aware of, and subject to, the limitation on liability set forth in Appendix 2.

(d) Cross-Margining Program. CME will use its commercially reasonable efforts to include the Futures Contracts and Option on Futures Contracts in CME's existing cross-margining program with the Options Clearing Corporation unless CME reasonably determines in any case that such cross-margining program is not appropriate.

(e) Regulatory Approvals. CME shall promptly file for and use its commercially reasonable efforts to obtain and maintain any regulatory approval for the trading of Indexed Contracts that is required during the Term of this Agreement.

(f) CME Warranties. The CME represents and warrants to S&P that (1) the execution and performance of this Agreement by the CME will not conflict with, or result in a breach or violation of, any other agreement (written or oral) or instrument to which CME is party or by which it is bound, and (2) this Agreement has been duly authorized, executed and delivered by CME and constitutes a valid and legally binding obligation of CME, enforceable in accordance with its terms.

(g) Equity Index Complex Revenues. CME acknowledges that the license fees payable to S&P hereunder are premised on an ongoing, long-term commitment by CME to the success of its equity index business. Accordingly, CME agrees to use commercially reasonable efforts during the Term of this Agreement to maximize Equity Index Complex Profits to the same extent as it would were S&P not entitled to a share of CME's Equity Index Complex Profits hereunder, subject in all cases to any restrictions that are imposed on CME by law, rule or regulation.

(h) Listing of New Indexed Contracts. In addition to its obligations under Section 2(f), CME shall promptly inform S&P in advance of each proposed listing by CME of any Indexed Contract that is not listed on CME as of the Commencement Date. This obligation does not apply to the listing of new contract months (expirations).

(i) Swaps Report. CME shall provide to S&P a quarterly report within thirty (30) days of the end of each calendar quarter. The format and contents of such report shall be in CME's sole discretion but it shall at a minimum include the number of Swap Contracts that were cleared by CME and its Affiliates during the quarter.

11. PROTECTION OF VALUE OF LICENSE.

(a) Trademark Registrations. During the Term of this Agreement, S&P FS LLC shall use its commercially reasonable efforts to maintain in full force and effect U.S. federal registrations of "Standard & Poor's[®]," "S&P[®]" and "S&P 500[®]." CME shall reasonably cooperate with S&P

FS LLC and/or Licensor, as applicable, at S&P's expense, in the maintenance of such rights and registrations and shall do such acts and execute such instruments as are reasonably necessary and appropriate for such purposes.

(b) Unlicensed Use of S&P Stock Indices or S&P Marks. Subject to Section 11(c), during the Term of this Agreement: (i) S&P shall have an ongoing obligation to use commercially reasonable efforts to protect the value of the rights licensed hereunder consistent with S&P FS LLC's current intellectual property protection practices as of the Commencement Date, including through (A) initiation of litigation in its discretion against Competitive Markets in response to material intellectual property challenges, (B) enforcement efforts against Competitive Markets reasonably requested by CME with respect to its exclusive rights under this Agreement and (C) good faith consideration of enforcement efforts requested by CME with respect to its other rights under this Agreement; and (ii) S&P shall enter into licenses with CFD providers and other non-material users of the S&P Stock Indices that are licensed exclusively pursuant to this Agreement only if (x) such licenses do not materially impair the value of the exclusive rights licensed to CME pursuant to this Agreement, (y) S&P has consulted with CME regarding such licenses and (z) such licenses are not for a term (or renewed with the effect being a term) exceeding ***** years without the consent of CME. Notwithstanding anything to the contrary, subject to clauses (i)(B) and (C) of the preceding sentence, S&P shall have sole control over all litigation with third parties relating to intellectual property licensed pursuant to this Agreement, provided that CME will have the right to participate in such litigation at its own expense.

The costs of any litigation brought by S&P under this Section 11(b) shall be borne entirely by S&P. CME may, in its sole discretion, join any such litigation in order to protect its rights, including seeking monetary damages. S&P will continue to have sole control over such litigation at its option where CME voluntarily joins a lawsuit initiated by S&P. However, CME shall have sole control over its own decisions as a party to any causes of action separately initiated by CME, even if subsequently joined with a lawsuit initiated by S&P; provided, however, that in no event will CME be permitted to initiate a separate litigation challenging the unlicensed use of the S&P Stock Indices and/or S&P Marks unless S&P has first elected not to initiate litigation in response to such unlicensed use as contemplated under this Section 11(b). To the extent any litigation involves the S&P Marks, Licensor shall be responsible for engaging S&P FS LLC as a party to the extent necessary.

(c) Unlicensed Use by Entities Other Than a Competitive Market or in Relation to Trading or Execution of Futures Equivalent Swap Contracts. If (i) an entity that is not a Competitive Market lists for trading an unlicensed product in violation of CME's exclusive rights (*i.e.*, with respect to Futures Contracts or Option on Futures Contracts) or (ii) a swap execution facility or other trading platform lists for trading Futures Equivalent Swap Contracts in violation of CME's exclusive rights hereunder, S&P shall use commercially reasonable efforts to prevent such

unlicensed use. *****. Unlicensed or licensed use as provided above by an entity that is not a Competitive Market, or is a swap execution facility or other trading platform in connection with Futures Equivalent Swap Contracts, will not be deemed a breach of S&P's obligations under this Agreement. *****.

12. PROPRIETARY RIGHTS.

(a) Security Measures. CME acknowledges that the S&P Stock Indices, including the S&P BMI series, are valuable assets of, and are selected, coordinated, arranged and prepared solely by S&P, and S&P and Citigroup, N.A., respectively, through the application of methods and standards of judgment used and developed through the expenditure of considerable work, time and money. CME agrees that it will take such security measures as are reasonably necessary in order to prevent any unauthorized use of the information provided to it concerning the selection, coordination, arrangement and preparation of the S&P Stock Indices, including the S&P BMI series.

(b) Obligations of Confidentiality. Each of S&P FS LLC, Licensor and CME shall treat as confidential, and shall not disclose or transmit to any third party: (1) any documentation or other materials that are marked as "Confidential and Proprietary" by the providing party; or (2) the terms of this Agreement ("Confidential Information"). Confidential Information as described in clause (1) of the preceding sentence shall not include: (A) any information that is available to the public or to the receiving party hereunder from sources other than the providing party (provided that such source is not subject to a confidentiality agreement with regard to such information); or (B) any information that is independently developed by the receiving party without use of or reference to information from the providing party. Notwithstanding the foregoing, a party may reveal Confidential Information to any regulatory agency or court of competent jurisdiction if such information to be disclosed is: (i) approved for disclosure in writing by the providing party; or (ii) required by law, regulatory agency or court order to be disclosed by the receiving party, provided, however, that if permitted by law, prior written notice of such required disclosure shall be given to the providing party and further provided, however, that the receiving party shall cooperate with the providing party to limit the extent of such disclosure.

13. REPRESENTATIONS, WARRANTIES, DISCLAIMERS.

(a) Rights to Grant Licenses. S&P represents and warrants that S&P is the owner of, or has the right to license CME to use, the S&P Stock Indices and S&P Marks, as provided herein.

(b) Responsibilities for Errors and Omissions. S&P shall promptly correct, or instruct its agent to correct, any errors made in S&P's computations of the S&P Stock Indices that are

brought to S&P's attention by CME or any other party; provided, however, that nothing in this Section 13 shall give CME the right to exercise any judgment or require any changes with respect to S&P's method of composing, calculating or determining the S&P Stock Indices; and, further provided, however, that nothing in this Section 13(b) shall be deemed to modify the other provisions of this Section 13.

(c) Limitation of Liability. S&P shall obtain information for inclusion in or for use in the calculation of the S&P Stock Indices from sources that S&P considers reliable, but S&P accepts no responsibility for, and shall have no liability for, any errors, omissions or interruptions therein. S&P does not guarantee the accuracy and/or the completeness of the S&P Stock Indices or any data included therein in connection with the trading of the Indexed Contracts, or any other use. S&P makes no warranty, express or implied, as to results to be obtained by any person or any entity from the use of the S&P Stock Indices or any data included therein. S&P makes no express or implied warranties and expressly disclaims all warranties of merchantability or fitness for a particular purpose or use with respect to the S&P Stock Indices or any data included therein.

(d) No Special Damages. Except for claims arising out of or relating to willful misconduct, fraud, breach of confidentiality and amounts payable to third parties pursuant to a party's indemnification obligations, no party shall have any liability for lost profits or indirect, punitive, special, or consequential damages (including lost profits) arising out of this Agreement, even if notified of the possibility of such damages.

(e) Limitation on Damages. Except for claims arising out of or relating to willful misconduct, fraud, breach of confidentiality and indemnification obligations, or use by CME or an Affiliate of CME of the S&P Stock Indices and/or S&P Marks in breach of Sections 2 or 3 of this Agreement, and without diminishing the disclaimers and limitations set forth in this Section 13, in no event shall the cumulative liability of S&P FS LLC and Licensor to CME exceed the license fees actually paid to S&P hereunder over the one-year period preceding the date on which S&P FS LLC or Licensor, as applicable, is found liable to CME, and in no event shall the cumulative liability of CME to S&P exceed the license fees actually paid or payable to S&P hereunder over the one-year period preceding the date on which CME is found liable to S&P (provided that any liability for unpaid license fees shall not be subject to or count towards this limitation on CME's liability). The parties agree that these limitations on liability are reasonable under the circumstances.

14. INDEMNIFICATION.

(a) CME's Indemnification of S&P. Except as provided in Subsection (b) below, CME shall indemnify and hold harmless S&P FS LLC, Licensor, their respective Affiliates and their respective officers, directors, employees and agents against any and all judgments, damages,

costs or losses of any kind (including reasonable attorneys' and experts' fees) as a result of any third-party claim, action, or proceeding that arises out of or relates to: (1) CME's performance of its obligations or exercise of its rights under this Agreement; or (2) any Indexed Contracts that are created, issued, listed, traded, settled or cleared by CME or its Affiliates; provided, however, that S&P notifies CME promptly of any such claim, action or proceeding. CME shall periodically reimburse S&P FS LLC and Licensor for their expenses incurred under this Section 14 as requested by S&P. Each of S&P FS LLC and Licensor shall have the right, at its own expense, to participate in the defense of any claim, action or proceeding against which it is indemnified hereunder; provided, however, it shall have no right to control the defense, consent or judgment, or agree to settle any such claim, action or proceeding without the written consent of CME without waiving the indemnity hereunder. CME, in the defense of any such claim, action or proceeding, except with the written consent of S&P, shall not agree to the entry of any judgment or enter into any settlement which either does not include, as an unconditional term, the grant by the claimant to S&P FS LLC and Licensor of a release of all liabilities in respect of such claims or which otherwise adversely affects the rights of S&P FS LLC or Licensor.

(b) Exclusion from CME's Indemnification Obligation. CME's indemnification obligations under Subsection (a) above shall not apply to: (1) willful misconduct, fraud, breach of confidentiality of any of S&P's officers, directors, employees, or agents; (2) ***** in the S&P Stock Indices or any data included therein originated by S&P; or (3) any breach by S&P of its representations, warranties, or agreements made in this Agreement.

(c) S&P's Indemnification of CME. Except as provided in Subsection (d) below, S&P shall indemnify and hold harmless CME, its Affiliates and their officers, directors, employees and agents against any and all judgments, damages, costs or losses of any kind (including reasonable attorneys' and experts' fees) as a result of any claim, action, or proceeding that arises out of or relates to: (1) a breach by S&P of its representations, warranties and agreements hereunder; or (2) the willful or intentional misconduct of any of S&P's officers, directors, employees, or agents; provided, however, that CME notifies S&P promptly of any such claim, action or proceeding. S&P shall periodically reimburse CME for its expenses incurred under this Section 14 as requested by CME. CME shall have the right, at its own expense, to participate in the defense of any claim, action or proceeding against which it is indemnified hereunder; provided, however, it shall have no right to control the defense, consent or judgment, or agree to settle any such claim, action or proceeding without the written consent of S&P without waiving the indemnity hereunder. S&P, in the defense of any such claim, action or proceeding, except with the written consent of CME, shall not agree to entry of any judgment or enter into any settlement which either does not include, as an unconditional term, the grant by the claimant to CME of a release of all liabilities in respect of such claims or which otherwise adversely affects the rights of CME.

(d) Exclusion from S&P's Indemnification Obligation. S&P's indemnification obligations under Subsection (a) above shall not apply to: (1) willful misconduct, fraud, breach of confidentiality of any of CME's officers, directors, employees, or agents; or (2) any breach by CME of its representations, warranties, or agreements made in this Agreement.

15. FORCE MAJEURE.

None of S&P FS LLC, Licensor or CME shall bear responsibility or liability for any losses arising out of any delay in or interruptions of their respective performance of their nonmonetary obligations under this Agreement due to any act of God, act of governmental authority or act of public enemy or due to war, the outbreak or escalation of hostilities, riot, fire, flood, civil commotion, insurrection, labor difficulty (including, without limitation, any strike, or other work stoppage or slow down), severe or adverse weather conditions, power failure, communications line failure, or other similar cause beyond the reasonable control of the party so affected.

16. INJUNCTIVE RELIEF.

In the event of a material breach by S&P FS LLC, Licensor or CME of provisions of this Agreement relating to the Confidential Information of another party, the parties acknowledge and agree that damages would be an inadequate remedy and that the non-breaching party shall be entitled to preliminary and permanent injunctive relief to preserve such confidentiality or limit improper disclosure of such Confidential Information, but nothing herein shall preclude the non-breaching party from pursuing any other action or remedy for any breach or threatened breach of this Agreement. In the event of a material breach by CME of provisions of this Agreement relating to dissemination of the S&P Stock Indices or the unauthorized use of the S&P Stock Indices or S&P Marks, CME acknowledges and agrees that damages would be an inadequate remedy to S&P FS LLC and Licensor and that S&P FS LLC and Licensor shall be entitled to preliminary and permanent injunctive relief to enforce the provisions hereof, but nothing herein shall preclude S&P FS LLC or Licensor from pursuing any other action or remedy for any breach or threatened breach of this Agreement. All remedies hereunder shall be cumulative.

17. GENERAL PROVISIONS.

(a) Assignment and Delegation. This Agreement is solely and exclusively between the parties hereto and, except as contemplated under Section 6(b), shall not be assigned or transferred (whether by operation of law or otherwise), nor shall any duty hereunder be delegated, by either Licensor/S&P FS LLC or CME, without the prior written consent of the other party, and any attempt to so assign or transfer this Agreement or delegate any duty hereunder without such written consent shall be null and void. This Agreement shall be valid and binding on the parties hereto and their successors and permitted assigns.

(b) Entire Agreement; Effect on 2005 Agreement. This Agreement, the Contribution Agreement and the other Transaction Documents (as such term is defined in the Contribution Agreement) constitute the entire agreement of the parties hereto with respect to the subject matter of this Agreement. Effective on the Commencement Date, this Agreement shall supersede and replace the 2005 Agreement and all other previous agreements between the parties, if any, with respect to the subject matter of this Agreement (other than the Contribution Agreement and the other Transaction Documents (as such term is defined in the Contribution Agreement)); provided, however, that Appendix 7 of the 2005 Agreement and its related provisions will remain in full force and effect until superseded and replaced by the separate agreement between the parties that is referred to in Subsection 2(b). There are no oral or written collateral representations, agreements, or understandings with respect to the subject matter of this Agreement except as provided herein or in the Contribution Agreement or the other Transaction Documents (as such term is defined in the Contribution Agreement).

(c) Non-Waiver and Amendments. No waiver, modification, or amendment of any of the terms and conditions hereof shall be valid or binding, unless such waiver, modification, or amendment is in writing and signed by a duly authorized officer of each of the parties hereto.

(d) Effect of Breach. No breach, default or threatened breach or default of this Agreement by S&P FS LLC or Licensor shall relieve CME of its obligations under this Agreement with respect to the protection of the property or proprietary nature of any property which is the subject matter of this Agreement.

(e) Notices. All notices and other communications under this Agreement shall be: (1) in writing; (2) delivered by hand, by registered or certified mail, return receipt requested, or by facsimile transmission to the address or facsimile number set forth below or such address or facsimile number as any party shall specify by a written notice to the other; and (3) deemed given upon receipt.

Notice to S&P FS LLC or Licensor:

McGraw-Hill Financial
55 Water Street
New York, New York 10041
Attention: President
Facsimile No: (212) 438-1245

With a copy to:

The McGraw-Hill Companies
1221 Avenue of the Americas
New York, NY 10020
Attention: General Counsel
Facsimile No: (212) 512-4827

Notice to CME:

Chicago Mercantile Exchange
20 South Wacker Drive
Chicago, IL 60606
Attention: CEO
Facsimile No: (312) 930-3207

With a copy to:

Chicago Mercantile Exchange
20 South Wacker Drive
Chicago, Illinois 60606
Attention: General Counsel
Facsimile No: (312) 930-3323

(f) Governing Law. This Agreement shall be interpreted, construed and enforced in accordance with the laws of the State of New York.

(g) Choice of Jurisdiction. Each party agrees that in connection with any legal action or proceeding arising with respect to this Agreement, such action or proceeding shall be brought only in the United States District Court for the Southern District of New York or in the Supreme Court of the State of New York in and for the First Judicial Department, and each party agrees to submit to the jurisdiction of those courts and venue in those courts and to waive any claim that either court is an inconvenient forum.

(h) Survival. Section 12, Section 13 and Section 14 shall survive the termination of this Agreement.

(i) Interpretation. Captions, headings and titles contained in this Agreement and the Schedules attached hereto are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement or the Schedules. When a reference is made in this Agreement to Articles, Sections or Schedules, such reference shall be to an Article or Section of or Schedule to this Agreement unless otherwise indicated. Whenever the words “include,” “includes” or “including” are used in this Agreement, they shall be deemed to be followed by the words “without limitation.” The words “herein,” “hereof,” “hereunder” and words of similar import shall be deemed to refer to this Agreement as a whole, including the Schedules hereto, and not to any particular provision of this Agreement. Any pronoun shall include the corresponding masculine, feminine and neuter forms. The term “primarily” includes “exclusively” unless the context otherwise requires.

(j) No Third-Party Beneficiaries. The provisions of this Agreement are solely for the benefit of CME, Licensor and S&P FS LLC and are not intended to, and do not create, any rights or causes of actions on behalf of any third party.

[Signature page follows.]

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed as of the date first set forth above.

STANDARD & POOR’S FINANCIAL SERVICES LLC

BY /s/ Del Johnson

Name: Del Johnson

Title: Chief Financial Officer, S&P Indices

Date: June 29, 2012

CHICAGO MERCANTILE EXCHANGE INC.

BY /s/Kathleen M. Cronin

Name: Kathleen M. Cronin

Title: Senior Managing Director

Date: June 29, 2012

Table of Appendices

1. S&P Marks
2. CME Disclaimers
3. License Fees
4. S&P Stock Index Fees

Appendix 1. S&P Marks

The S&P Marks collectively covered by and referred to in this Agreement are the following (Specified Co-branded Indices in *italics and underlined*):

Standard & Poor's
S&P
S&P 100
S&P 1000
S&P 1000 Growth and Value
S&P 1000 Pure Growth and Pure Value
S&P 500
S&P 500 130/30 Strategy
S&P 500 2x Inverse Daily
S&P 500 2x Leverage Daily
S&P 500 Dividend Aristocrats
S&P 500 Dividend Aristocrats Risk Control Indices
S&P 500 Dividend Index
S&P 500 Gold Hedged Index
S&P 500 Growth and Value
S&P 500 High Beta
S&P 500 High Quality Rankings Index
S&P 500 Inverse Daily
S&P 500 Low Quality Rankings Index
S&P 500 Oil Hedged Index
S&P 500 Pure Growth and Pure Value
S&P 500 Risk Control Indices
S&P 500 Shariah
S&P 700
S&P 900
S&P 900 Growth and Value
S&P 900 Pure Growth and Pure Value

A
S&P Access Africa
S&P Access Africa Risk Control
S&P Africa 40
S&P Africa 40 Risk Control Index
S&P Africa Frontier
S&P Africa Frontier Shariah
S&P Agribusiness North America
S&P All STARS
S&P Alpha Control 3 Strategy Index
S&P Asia 50
S&P Asia 50 Risk Control Indices
S&P Asia Alternative Energy
S&P Asia Infrastructure
S&P Asia Infrastructure Daily Risk Control Indices
S&P Asia Pacific BMI
S&P Asia Pacific Emerging
S&P Asia Pacific Select REIT 40
S&P Asia Property 40

S&P Asia Water

S&P/ASX 100

S&P/ASX 20

S&P/ASX 200

S&P/ASX 200 Risk Control Indices

S&P/ASX 200 VIX

S&P/ASX 300

S&P/ASX 300 Metals & Mining

S&P/ASX 50

S&P/ASX All Australian 200

S&P/ASX All Australian 50

S&P/ASX All Ordinaries

S&P/ASX All Ordinaries Gold

S&P/ASX Dividend Opportunities

S&P/ASX Emerging Companies

S&P/ASX Industrials and Resources

S&P/ASX Infrastructure

S&P/ASX MidCap 50

S&P/ASX Small Ordinaries

B

S&P Balanced Equity and Bond Index Series

S&P BMI Country Shariah

S&P BMI Global Sector Shariah

S&P BMI Regional Shariah

S&P Brazil ADR Index

S&P BRIC 40

S&P BRIC 40 Risk Control Indices

S&P BRIC Shariah

S&P BRICT Daily Risk Control Indices

S&P/Businessweek Global Innovation

C

S&P China & Hong Kong BMI

S&P China Ex A-B-Shares BMI

S&P CIVETS 60

S&P CNX 500 Shariah

S&P CNX Nifty

S&P CNX Nifty Futures

S&P CNX Nifty Shariah

S&P Commodity Producers Index Series

S&P Completion Index

S&P Composite 1500

S&P Composite 1500 Growth and Value

S&P Composite 1500 Pure Growth and Pure Value

S&P Consumer Finance Index

S&P/CITIC 100

S&P/CITIC 200

S&P/CITIC 300

S&P/CITIC 50

S&P/CITIC China 30

S&P/CITIC China A-Share Dividend Opportunities

S&P/CITIC China Style

S&P/CITIC SmallCap

D

S&P Developed BMI
S&P Developed BMI Shariah
S&P Developed LargeMidCap Shariah
S&P Developed Pan Asia Ex-Japan BMI
S&P Developed Property
S&P Developed REIT
S&P Developed SmallCap Shariah
S&P Dynamic Asset Exchange Index Series
S&P Dynamic Futures Index
S&P Dynamic Multi Asset Strategy

E

S&P EMEA BMI
S&P Emerging Asia Consumer Index
S&P Emerging BMI
S&P Emerging Markets Dividend Opportunities
S&P Emerging Markets Infrastructure Daily Risk Control Indices
S&P Emerging Markets Infrastructure Index
S&P Emerging Markets Shariah
S&P Equal Weight Index
S&P ESG India
S&P Ethical Pan Asia Select Dividend Opportunities Index
S&P Euro
S&P Euro 75
S&P Euro Plus
S&P Europe 350
S&P Europe 350 Daily Risk Control Indices
S&P Europe 350 Dividend Aristocrats
S&P Europe 350 Shariah
S&P Europe BMI
S&P Europe Dividend Opportunities
S&P Europe Select Plus Custom Index
S&P Europe STARS
S&P Extended Frontier 150

S&P/EGX ESG

F

S&P Factor Index Series
S&P Frontier BMI

G

S&P GCC
S&P GCC 40
S&P GCC Shariah
S&P Global 1200
S&P Global Agribusiness Composite
S&P Global Agribusiness Index
S&P Global Alternative Energy
S&P Global BMI
S&P Global BMI Shariah

S&P Global Challengers 40
 S&P Global Challengers Pan Asia Ex-China
 S&P Global Clean Energy
 S&P Global Clean Energy Daily Risk Control Indices
 S&P Global Consumer Enterprises Index
 S&P Global Dividend Opportunities
 S&P Global Eco Index
 S&P Global Gold
 S&P Global Healthcare Shariah
 S&P Global Infrastructure
 S&P Global Infrastructure Risk Control Indices
 S&P Global Infrastructure Shariah
 S&P Global Luxury Index
 S&P Global Natural Resources Daily Risk Control Indices
 S&P Global Natural Resources Index
 S&P Global Nuclear Energy
 S&P Global Oil Index
 S&P Global Property
 S&P Global Property 40 Index
 S&P Global Property Shariah
 S&P Global REIT
 S&P Global Timber and Forestry
 S&P Global Water Index
 S&P Greater China Ex-Taiwan-Listed
 S&P GSCI
 S&P GSCI Agriculture Capped Component
 S&P GSCI Agriculture Enhanced Select Index
 S&P GSCI All Metals
 S&P GSCI Capped Indices
 S&P GSCI Covered Call Select Index
 S&P GSCI Crude Oil Covered Call Index
 S&P GSCI Dynamic Roll Index
 S&P GSCI Enhanced
 S&P GSCI Equal Weight Select Index

H

S&P Harel Sector Indices
S&P/Hawkamah ESG Pan Arab Index
 S&P High Yield Dividend Aristocrats
S&P/HKEx GEM
S&P/HKEx LargeCap
 S&P Hong Kong-Listed China BMI

I

S&P/IFCI Asia
 S&P/IFCI Carbon Efficient
 S&P/IFCI EMEA
 S&P/IFCI Europe
 S&P/IFCI LargeMidCap Shariah
 S&P/IFCI Latin America
 S&P India Select
 S&P International Dividend Opportunities
 S&P International Preferred Stock Index

J

S&P Japan 500
S&P Japan 500 Shariah
S&P Japan Eco Index
S&P Japan Emerging Stock (JES) 100
S&P Japan MidCap 100
S&P Japan Regional Index - Tokai
S&P Japan SmallCap 250

K

S&P Korea Corporate Group Index Series
S&P/KRX Asia 100 Index
S&P/KRX Exchanges

L

S&P LargeMidCap Commodity & Resources
S&P Latin America 40
S&P Latin America 40 Risk Control Indices
S&P Latin America BMI
S&P Listed Private Equity Index
S&P Long-Only Merger Arbitrage Index

M

S&P MATRIX Target Risk
S&P MidCap 400
S&P MidCap 400 Growth and Value
S&P MidCap 400 Pure Growth and Pure Value
S&P MILA 40

N

S&P Next Emerging 40
S&P Next Emerging 40 Risk Control Indices
S&P Nigeria Select
S&P Nordic LargeCap Risk Control Indices
S&P North American Sector Indices
S&P North American Technology Indices

O

S&P Overseas China 10

P

S&P Pan Africa
S&P Pan Africa Shariah
S&P Pan Arab
S&P Pan Arab Shariah
S&P Pan Asia BMI
S&P Pan Asia Dividend Aristocrats
S&P Pan Asia Dividend Opportunities
S&P Pan Asia Ex-Japan & Taiwan BMI
S&P Pan Asia Select Dividend Opportunities Index
S&P Pan Asia Shariah

R

S&P RC 2 (Risk Control 2) Index Series
S&P Russia 10

S

S&P Saudi Arabia
S&P Select Frontier
S&P Select Industry Indices
S&P Select Sector Indices
S&P SmallCap 600
S&P SmallCap 600 Capped Sector Indices
S&P SmallCap 600 Growth and Value
S&P SmallCap 600 Pure Growth and Pure Value
S&P Southeast Asia 40
S&P Southeast Asia 40 Risk Control Indices
S&P/StanChart Greater China Index

T

S&P Target Date
S&P Target Risk
S&P Total Market Index
S&P/TOPIX 150
S&P/TOPIX 150 Shariah
S&P/TSX 60
S&P/TSX 60 130/30 Strategy Index
S&P/TSX 60 Capped
S&P/TSX 60 Equal Weight Index
S&P/TSX 60 Shariah
S&P/TSX 60 VIX
S&P/TSX Canadian Dividend Aristocrats
S&P/TSX Capped Composite
S&P/TSX Capped Energy Trust
S&P/TSX Capped REIT
S&P/TSX Clean Technology
S&P/TSX Completion
S&P/TSX Composite
S&P/TSX Composite Dividend Index
S&P/TSX Equal Weight Diversified Banks Index
S&P/TSX Equal Weight Global Base Metals
S&P/TSX Equal Weight Oil & Gas Index
S&P/TSX Equity
S&P/TSX Equity Completion
S&P/TSX Equity Income Index
S&P/TSX Equity SmallCap
S&P/TSX Global Base Metals
S&P/TSX Global Gold
S&P/TSX Global Mining
S&P/TSX Income Trust
S&P/TSX MegaCap
S&P/TSX North American Preferred Stock Index
S&P/TSX Preferred Share
S&P/TSX SmallCap
S&P/TSX Venture 30 Index

S&P/TSX Venture Composite
S&P/TSX Venture Select
TOPIX Risk Control Indices

U

S&P U.S. Carbon Efficient
S&P U.S. Preferred Stock
S&P U.S. Select Plus Custom Index
S&P U.S. STARS
S&P United Kingdom
S&P US REIT

V

S&P Vietnam 10

W

S&P World Property Shariah

X

S&P X-Alpha EUR Excess Return Strategy Index
S&P X-Alpha EUR Total Return Strategy Index
S&P X-Alpha USD Excess Return Strategy Index
S&P X-Alpha USD Total Return Strategy Index

Appendix 2. CME Disclaimers

1. Limitation of S&P's Liability

Rule _____. S&P/Dow Jones Indices LLC ("S&P") licenses the Exchange to use various S&P stock indices ("S&P Stock Indices") in connection with the trading of futures contracts and options on futures contracts based upon such indices. S&P and its affiliates (including Standard & Poor's Financial Services LLC) shall have no liability for any damages, claims, losses or expenses caused by any errors or delays in calculating or disseminating the S&P Stock Indices.

2. S&P Disclaimer

Rule . S&P/Dow Jones Indices LLC ("S&P") and its affiliates (including Standard & Poor's Financial Services LLC) do not guarantee the accuracy and/or completeness of the S&P Stock Indices or any data included therein. S&P and its affiliates make no warranty, express or implied, as to the results to be obtained by any person or any entity from the use of the S&P Stock Indices or any data included therein in connection with the trading of futures contracts, options on futures contracts or any other use. S&P and its affiliates make no express or implied warranties, and expressly disclaims all warranties of merchantability or fitness for a particular purpose or use with respect to the S&P Stock Indices or any data included therein. Without limiting any of the foregoing, in no event shall S&P or any of its affiliates have any liability for any special, punitive, indirect, or consequential damages (including lost profits), even if notified of the possibility of such damages.

3. S&P ETF Contracts Disclaimer

Rule . S&P/Dow Jones Indices LLC ("S&P") and its affiliates (including Standard & Poor's Financial Services LLC) do not guarantee the accuracy and/or completeness of the S&P Stock Indices or any data included therein. S&P and its affiliates make no warranty, express or implied, as to the results to be obtained by any person or any entity from the use of the S&P Index ETFs or any data included therein in connection with the trading of futures contracts, options on futures contracts or any other use. S&P and its affiliates make no express or implied warranties, and expressly disclaims all warranties of merchantability or fitness for a particular purpose or use with respect to the S&P Index ETFs or any data included therein. Without limiting any of the foregoing, in no event shall S&P or any of its affiliates have any liability for any special, punitive, indirect, or consequential damages (including lost profits), even if notified of the possibility of such damages.

Appendix 3. License Fees

1. License Fee.

(a) CME shall pay to S&P quarterly in arrears within forty-five (45) days after the end of each calendar quarter, in accordance with the terms and conditions of this Appendix 3, the applicable percentage of CME's Equity Index Complex Profits as set forth in Table 1 (below); provided, however, that (i) if CME makes an acquisition pursuant to an M&A Transaction (as defined in Subsection 1(b)) S&P and CME shall negotiate in good faith to adjust such percentages so as to effect as closely as possible the economic value obtained by S&P under this Agreement prior to giving effect to such transaction (which adjustments shall take effect from the closing of any such transaction), and (ii) if CME (A) divests or otherwise transfers all or any portion of its equity complex pursuant to an M&A Transaction or (B) engages in any corporate reorganization of its equity complex (including without limitation any "spin-off" or similar transaction), which in either case has the immediate effect of reducing Equity Index Complex Revenue, S&P and CME shall negotiate in good faith to adjust such percentages so as to effect as closely as possible the economic value obtained by S&P under this Agreement prior to giving effect to such transaction (which adjustments shall take effect from the closing of any such transaction). With respect to any retroactive adjustments of the applicable percentage as set forth in Table 1 pursuant to the foregoing, amounts payable or reimbursable by one party to the other shall accrue interest at the Prime Rate as of the date of the closing of the relevant transaction, plus *****%. For the avoidance of doubt, none of the adjustments set forth in this Section 1(a) shall be made for M&A Transactions, corporate reorganizations or other transactions by CME, which do not immediately increase or decrease, Equity Index Complex Revenue. In the event S&P and CME do not reach agreement on an adjustment to the percentage of Equity Index Complex Profits to be paid to S&P hereunder within six (6) months of the date of closing of the relevant M&A Transaction or corporate reorganization, either S&P or CME shall have the right to use the dispute resolution process set forth in Section 14.10 of the Operating Agreement in order to resolve the matter.

Calendar Quarters in Calendar Year	Percentage
2011	*****
2012	*****
2013	*****
2014	*****
2015	*****
2016	*****
2017	*****
2018	*****
2019 and all subsequent years	*****

Table 1

(b) CME's "Equity Index Complex Profits" for any full calendar quarter during the Term of this Agreement (including the calendar quarter in which the closing of the Transaction occurs) will be equal to ***** determined in accordance with U.S. generally accepted accounting principles on a basis consistently applied by CME ("GAAP"); subject to the provisions of Section 6.2(c) of the Limited Liability Company Agreement; *****. With respect to the calendar quarter in which this Agreement is terminated, CME shall pay a prorated portion of the fee payable in respect of such calendar quarter.

2. Annual Net Revenue Floor. Notwithstanding Appendix 3, Section (1) and subject to Appendix 3, Section (3), for any calendar year in which CME's Equity Index Complex Revenue is less than \$***** (as adjusted pursuant to the next sentence, the "Annual Net Revenue Floor"), the license fees payable by CME to S&P hereunder shall be ***** and will remain at ***** until such time, if any, that CME's Equity Index Complex Revenue for a calendar year exceeds the Annual Net Revenue Floor in such year. Each year beginning in 2012, the Annual Net Revenue Floor will be increased or decreased, as applicable, *****.

3. Minimum License Fee. With respect to any calendar year after 2017 in which the license fees paid to S&P hereunder are less than \$*****, CME will remit to S&P the difference between such license fees and \$***** within ninety (90) days of the end of the calendar year; provided, however, that CME will have no such obligation if S&P has suffered a material loss or erosion of intellectual property protection for the S&P Stock Indices or CME has suffered a material loss of its exclusive rights under this Agreement.

4. Audit Rights. During the Term of this Agreement and for a period of one (1) year after its termination, S&P shall have the right, during normal business hours and upon reasonable notice to CME, to audit on a confidential basis the relevant books and records of CME to determine that the license fees, and other amounts payable hereunder, have been accurately calculated; provided that no more than one such audit may be performed in any Fiscal Year. The costs of such audit shall be borne by S&P unless it has been underpaid by five percent (5%) or more in a calendar quarter; in such case, the costs of the audit shall be paid by CME.

**CME GROUP INC.
THIRD AMENDED AND RESTATED OMNIBUS STOCK PLAN
(Effective May 4, 2022)**

**ARTICLE 1
EFFECTIVE DATE AND PURPOSE**

1.1 *Effective Date.* The Plan was originally adopted as the Chicago Mercantile Exchange Omnibus Stock Plan effective as of February 7, 2000, and was amended and restated from time to time thereafter and is hereby further amended and restated as of May 4, 2022 (the “**Effective Date**”).

1.2 *Purpose of the Plan.* The Plan is intended to further the growth and profitability of the Company by increasing incentives and encouraging Share ownership on the part of Employees of the Company and its Subsidiaries.

**ARTICLE 2
DEFINITIONS**

The following words and phrases shall have the following meanings unless a different meaning is plainly required by the context:

2.1 “1934 Act” means the Securities Exchange Act of 1934, as amended. Reference to a specific section of the 1934 Act or regulation thereunder shall include such section or regulation, any valid regulation promulgated under such section, and any comparable provision of any future legislation or regulation amending, supplementing or superseding such section or regulation.

2.2 “Affiliate” means any corporation or any other entity (including, but not limited to, partnerships and joint ventures) controlled by the Company.

2.3 “Award” means, individually or collectively, a grant under the Plan of Non-Qualified Stock Options, Incentive Stock Options, SARs, Stock Awards, Performance Shares, Restricted Stock Units or Performance Stock Units.

2.4 “Award Agreement” means the written or electronic agreement or notice setting forth the terms and conditions applicable to an Award.

2.5 “Board” means the Board of Directors of the Company.

2.6 “Bonus Stock” means Shares under a Stock Award which are not subject to a Period of Restriction.

2.7 “Cause” means, except as otherwise specified in a particular Award Agreement or in an employment or similar agreement in effect between the Company or an Affiliate and an Employee (which definition shall govern if in effect), (a) the willful and continued failure (other than a failure resulting from the Participant’s Disability) to substantially perform the duties assigned by the Company, (b) the willful engaging in conduct which is demonstrably injurious to the Company, monetarily or otherwise, including conduct that, in the

reasonable judgment of the Company, does not conform to the standard of the Company's executives or employees, (c) any act of dishonesty, commission of a felony, or (d) a significant violation of any statutory or common law duty of loyalty to the Company; provided, however, that following a Change of Control, "Cause" means, except as otherwise specified in a particular Award Agreement or in an employment or similar agreement in effect between the Company or an Affiliate and an Employee (which definition shall govern if in effect), (a) the willful and continued failure (other than a failure resulting from the Participant's Disability) to substantially perform the duties assigned by the Company, (b) the willful engaging in conduct which is demonstrably injurious to the Company, monetarily or otherwise, including conduct that does not conform to the standard of the Company's executives or employees, (c) any act of dishonesty, commission of a felony, or (d) a significant violation of any statutory or common law duty of loyalty to the Company.

2.8 "Change of Control" means, the occurrence of any of the following events:

(a) The acquisition by any individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the 1934 Act) (a **"Person"**) of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the 1934 Act) of 50% or more of either (1) the then outstanding Class A Shares (the **"Outstanding Class A Common Stock"**) or (2) the combined voting power of the then-outstanding voting securities of the Company entitled to vote generally in the election of directors (the **"Outstanding Company Voting Securities"**); provided, however, that for purposes of this paragraph (a) the following acquisitions shall not constitute, or be deemed to cause, a Change of Control: (i) any increase in such percentage ownership of a Person to 50% or more resulting solely from any acquisition of shares directly from the Company or any acquisition of shares by the Company; provided, that any subsequent acquisitions of shares by such Person that would add, in the aggregate, 1% or more (measured as of the date of each such subsequent acquisition) to such Person's beneficial ownership of Outstanding Class A Common Stock or Outstanding Company Voting Securities shall be deemed to constitute a Change of Control, (ii) any acquisition by any employee benefit plan (or related trust) sponsored or maintained by the Company or any Affiliate; or (iii) any acquisition by any corporation pursuant to a transaction which complies with clauses (1), (2) and (3) of paragraph (c) below or (iv) any acquisition by an underwriter holding securities for an offering of such securities; or

(b) Individuals who, as of the Effective Date, constitute the Board (the **"Incumbent Board"**) cease for any reason to constitute at least a majority of the Board; provided, however, that any individual becoming a Director subsequent to the date hereof whose election, or nomination for election, was approved by a vote of at least a majority of the Directors then comprising the Incumbent Board shall be considered as though such individual were a member of the Incumbent Board, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of an actual or threatened election contest with respect to the election or removal of Directors or other actual or threatened solicitation of proxies or consents, by or on behalf of a Person other than the Board; or

(c) Consummation of a reorganization, merger or consolidation or sale or other disposition of all or substantially all of the assets of the Company (a **"Business Combination"**), in each case, unless, following such Business Combination, (1) all or substantially all of the individuals and entities who were

the beneficial owners, respectively, of the then Outstanding Class A Common Stock and Outstanding Company Voting Securities, immediately prior to such Business Combination beneficially own, directly or indirectly, more than 50% of, respectively, the then-outstanding shares of common stock and the combined voting power of the then-outstanding voting securities entitled to vote generally in the election of directors, as the case may be, of the corporation resulting from such Business Combination (including, without limitation, a corporation which as a result of such transaction owns the Company or all or substantially all of the Company's assets either directly or through one or more subsidiaries) in substantially the same proportions as their ownership, immediately prior to such Business Combination, of the Outstanding Class A Common Stock and Outstanding Company Voting Securities, as the case may be, (2) no Person (excluding any corporation resulting from such Business Combination or any employee benefit plan (or related trust) of the Company or of such corporation resulting from such Business Combination) beneficially owns, directly or indirectly, 50% or more of, respectively, the then-outstanding shares of common stock of the corporation resulting from such Business Combination or the combined voting power of the then-outstanding voting securities of such corporation except to the extent that such ownership existed prior to the Business Combination and (3) individuals who were on the Incumbent Board continue to constitute at least a majority of the members of the board of directors of the corporation resulting from the Business Combination; provided, however, that any individual becoming a Director subsequent to the date hereof whose election, or nomination for election, was approved by a vote of at least a majority of the Directors then comprising the Incumbent Board shall be considered as though such individual were a member of the Incumbent Board, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents, by or on behalf of a Person other than the Board; or (d) Approval by the stockholders of the Company of a complete liquidation or dissolution of the Company.

Notwithstanding the foregoing, with respect to an Award that is subject to Section 409A of the Code (and to the extent necessary to comply with Section 409A of the Code) a Change of Control shall not be deemed to occur unless it qualifies as a change in ownership or effective control of the Company for purposes of Section 409A of the Code.

2.9 “Class A Shares” means shares of the Company's Class A common stock, \$.01 par value.

2.10 “Code” means the Internal Revenue Code of 1986, as amended. Reference to a specific section of the Code or regulation thereunder shall include such section or regulation, any valid regulation promulgated thereunder, and any comparable provision of any future legislation or regulation amending, supplementing or superseding such section or regulation.

2.11 “Committee” means the Compensation Committee of the Board of Directors appointed (pursuant to Section 3.1) to administer the Plan.

2.12 “Company” means CME Group Inc. (formerly Chicago Mercantile Exchange Holdings Inc.), a Delaware corporation, or any successor thereto.

2.13 “Director” means any individual who is a member of the Board.

2.14 “Disability” means disability as determined pursuant to the long-term disability plan or policy of the Company or its Subsidiaries in effect at the time of such disability and applicable to a Participant (or if there is no such plan or policy, then as reasonably determined by the Committee, subject to applicable law).

2.15 “Dividend Equivalent Right” means the right to receive an amount as set forth in Section 10.13, which is determined by multiplying the number of Shares subject to the applicable Award by the per-Share cash dividend, or the per-Share Fair Market Value (as determined by the Committee) of any dividend in consideration other than cash, paid by the Company on Shares.

2.16 “Employee” means an employee of the Company, its subsidiaries, or an Affiliate designated by the Board or the Committee (collectively “an Employer”). “Employee” does not include an individual who is not contemporaneously classified as an Employee for purposes of an Employer’s payroll system. In the event any such individual is reclassified as an Employee for any purpose, including, without limitation, any government agency or as a result of any private lawsuit, action, or administrative proceeding, such individual will, notwithstanding such reclassification, remain ineligible for participation hereunder and will not be considered an Employee for purposes of this Plan. In addition to and not in derogation of the foregoing, the exclusive means for an individual who is not contemporaneously classified as an Employee of an Employer on an Employer’s payroll system to become eligible to participate in this Plan is through an amendment to this Plan which specifically renders such individual eligible for participation hereunder.

2.17 “Exercise Price” means the price at which a Share subject to an Option may be purchased pursuant to the exercise of the Option or the base price at which an SAR may be exercised with respect to a Share, as applicable.

2.18 “Fair Market Value” means, except as may otherwise be determined by the Committee (in a manner which complies with applicable tax and accounting standards), (i) the closing sales price per Share on such date, as reported by the Composite Transactions reporting system or if not so reported, as reported by the NASDAQ Global Select Market or (ii) in the event the Shares are not traded on such date, the closing price per Share, as so reported on the immediately preceding date on which trading occurred, or if not so reported, as reported by any national securities exchange on which the Shares are listed.

2.19 “Fiscal Year” means the fiscal year of the Company.

2.20 “Grant Date” means, with respect to an Award, the date that the Award is granted.

2.21 “Incentive Stock Option” means an Option that is designated as an Incentive Stock Option and is intended by the Committee to meet the requirements of Section 422 of the Code.

2.22 “Non-Qualified Stock Option” means an Option that is not an Incentive Stock Option.

2.23 “Option” means an option to purchase Shares which is granted by the Committee pursuant to Article 5.

2.24 “Participant” means an individual with respect to whom an Award has been granted and remains outstanding.

2.25 “Performance Goals” means such criteria and objectives as may be established by the Committee, which shall be satisfied or met (i) as a condition to the exercisability of all or a portion of an Option or SAR, (ii) as a condition to the grant of an Award, or (iii) during the applicable Performance Period or Period of Restriction, as a condition to the Participant’s receipt of the Shares subject to a Restricted Stock Award, the receipt of Shares, cash or any combination thereof subject to a Performance Stock Unit Award or, in the case of a Performance Share Award, of the Shares subject to such Award and/or the payment with respect to such Award.

2.26 “Performance Period” means the period designated by the Committee during which the Performance Goals applicable to an Award shall be measured.

2.27 “Performance Share” means a right, contingent upon the attainment of specified Performance Goals within a specified Performance Period, to receive one Share, which may be Restricted Stock, or in lieu of all or a portion thereof, the Fair Market Value of such Share in cash.

2.28 “Performance Stock Unit” means the right to receive cash or shares in the future subject to the satisfaction of performance targets, which may include Performance Goals.

2.29 “Period of Restriction” means the period during which Restricted Stock is subject to forfeiture and/or restrictions on transferability.

2.30 “Plan” means this CME Group Inc. Third Amended and Restated Omnibus Stock Plan, as set forth in this instrument and as hereafter amended from time to time.

2.31 “Restricted Stock Unit” means the right to receive cash or shares in the future subject to the satisfaction of conditions related to continued employment or service.

2.32 “Restricted Stock” means Shares under a Stock Award which are subject to a Period of Restriction.

2.33 “Retirement” means a Participant’s Termination of Service (other than for Cause) on or after attaining his or her “normal retirement date” as defined in the Pension Plan for Employees of Chicago Mercantile Exchange Inc. (whether or not such Participant participates in such plan).

2.34 “Rule 16b-3” means Rule 16b-3 promulgated under the 1934 Act, as amended, and any future regulation amending, supplementing or superseding such regulation.

2.35 “Share” means a share of any class, and of any series within a class, of the Company's common stock.

2.36 “Stock Appreciation Right” or “SAR” means an Award, granted alone, in reference to or in tandem with a related Option, which pursuant to Article 6 is designated by the Committee as an SAR.

2.37 “Stock Award” means an Award of Restricted Stock or Bonus Stock.

2.38 “Ten Percent Holder” means an Employee (together with persons whose stock ownership is attributed to the Employee pursuant to Section 424(d) of the Code) who, at the time an Option is granted, owns stock representing more than ten percent of the voting power of all classes of stock of the Company (or of any parent or subsidiary as defined in Section 424 of the Code).

2.39 “Termination of Service” means a “separation from service” within the meaning of Section 409A of the Code. For this purpose, a Termination of Service includes, but not by way of limitation, a termination by resignation, discharge with or without Cause, death, Disability, or Retirement, but excludes any such termination where there is a simultaneous reemployment by the Company or an Affiliate.

ARTICLE 3 ADMINISTRATION

3.1 The Committee. The Plan shall be administered by the Committee. The Committee shall consist of not less than two (2) Directors. The members of the Committee shall be appointed from time to time by, and serve at the pleasure of, the Board. It is intended that each member of the Committee shall qualify as (a) a “non-employee director” under Rule 16b-3, and (b) an “independent director” under the listing standards applicable to the Company. If it is later determined that one or more members of the Committee do not so qualify, actions taken by the Committee prior to such determination shall be valid despite such failure to qualify.

3.2 Authority and Action of the Committee. It shall be the duty of the Committee to administer the Plan in accordance with the Plan's provisions. The Committee shall have all powers and discretion necessary or appropriate to administer the Plan and to control its operation, including, but not limited to, the power to

- (a) determine which Employees shall be eligible to receive Awards and to grant Awards,
- (b) prescribe the form, amount, timing and other terms and conditions of each Award,
- (c) interpret the Plan and the Award Agreements,
- (d) adopt such procedures as it deems necessary or appropriate to permit participation in the Plan by eligible Employees,
- (e) adopt such rules as it deems necessary or appropriate for the administration, interpretation and application of the Plan, and

(f) interpret, amend or revoke any such procedures or rules.

A majority of the Committee shall constitute a quorum. The acts of the Committee shall be either (i) acts of a majority of the members of the Committee present at any meeting at which a quorum is present or (ii) acts approved in writing by all of the members of the Committee without a meeting.

3.3 Delegation by the Committee. The Committee, in its sole discretion and on such terms and conditions as it may provide, may, consistent with law, delegate all or any part of its authority and powers under the Plan to one or more Directors and/or officers of the Company; provided, however, that the Committee may not delegate its authority or power with respect to any officer of the Company with regard to the selection for participation in this Plan of an officer or other person subject to Section 16 of the 1934 Act or decisions concerning the timing, pricing or amount of an award to such an officer or person. Provided that any such authorization shall set forth the total number of Shares and/or Awards such Director(s) and/or officer(s) may grant, and the Director(s) and/or officer(s) shall report periodically to the Committee regarding the nature and scope of the Awards granted pursuant to the authority delegated.

3.4 Decisions Binding. All determinations, decisions and interpretations by the Committee, the Board, and any delegate of the Committee pursuant to the provisions of the Plan shall be final, conclusive, and binding on all persons, and shall be given the maximum deference permitted by law.

ARTICLE 4

SHARES SUBJECT TO THE PLAN

4.1 Number of Shares. Subject to adjustment as provided in Section 4.3, 40,229,875 Shares shall be available for grants of Awards under the Plan. The maximum number of Shares with respect to which Awards may be granted during any Fiscal Year to any person shall be 1,250,000, subject to adjustment as provided in Section 4.3. The maximum number of shares which may be granted under the Plan pursuant to Incentive Stock Options is 1,000,000. Shares awarded under the Plan may be either authorized but unissued Shares, authorized and issued Shares reacquired and held as treasury Shares or a combination thereof.

4.2 Share Usage and Lapsed Awards. To the extent that Shares subject to an outstanding Option (except to the extent Shares are issued or delivered by the Company in connection with the exercise of a tandem SAR) or other Award are not issued or delivered by reason of the expiration, cancellation, forfeiture or other termination of such Award or by reason of the delivery or withholding of Shares to pay all or a portion of the exercise price of an Award, if any, or to satisfy all or a portion of the tax withholding obligations relating to an Award, then such Shares shall again be available under this Plan.

4.3 Adjustments in Awards and Authorized Shares. In the event of any merger, reorganization, consolidation, recapitalization, liquidation, stock dividend, extraordinary cash dividend, split-up, Share combination, or other similar change in the corporate structure of the Company affecting the Shares, the Committee shall adjust the number, class and series of securities available under the Plan, the number,

class, series and purchase price of securities subject to outstanding Awards, and the numerical limits of Section 4.1 in such manner as the Committee in its sole discretion shall determine to be appropriate to prevent the dilution or diminution of such Awards. If any such adjustment would result in a fractional security being (a) available under this Plan, such fractional security shall be disregarded, or (b) subject to an outstanding Award under this Plan, the Company shall pay the holder of such Award, in connection with the first vesting, exercise or settlement of such Award in whole or in part occurring after such adjustment, an amount in cash determined by multiplying (i) the fraction of such security (rounded to the nearest hundredth) by (ii) the excess, if any, of (A) the Fair Market Value on the vesting, exercise or settlement date over (B) the Exercise Price, if any, of such Award, provided that such payment may be accomplished in compliance with the provisions of Section 409A of the Code.

ARTICLE 5

STOCK OPTIONS

5.1 *Grant of Options.* Subject to the provisions of the Plan, Options may be granted to such Employees at such times, and subject to such terms and conditions, as determined by the Committee in its sole discretion. An Award of Options may include Incentive Stock Options, Non-Qualified Stock Options, or a combination thereof; provided, that no Awards of Options shall be granted more than ten years after the date this amendment and restatement of the Plan is approved by the Company's stockholders.

5.2 *Award Agreement.* Each Option shall be evidenced by an Award Agreement that shall specify the Exercise Price, the expiration date of the Option, the number, class and, if applicable, series of Shares to which the Option pertains (provided that Incentive Stock Options may be granted only with respect to Class A Shares), any conditions to the exercise of all or a portion of the Option, and such other terms and conditions as the Committee, in its discretion, shall determine. The Award Agreement pertaining to an Option shall designate such Option as an Incentive Stock Option or a Non-Qualified Stock Option. Notwithstanding any such designation, to the extent that the aggregate Fair Market Value (determined as of the Grant Date) of Shares with respect to which Options designated as Incentive Stock Options are exercisable for the first time by a Participant during any calendar year (under this Plan or any other plan of the Company, or any parent or subsidiary as defined in Section 424 of the Code) exceeds the amount established by the Code, such Options shall constitute Non-Qualified Stock Options. For purposes of the preceding sentence, Incentive Stock Options shall be taken into account in the order in which they are granted.

5.3 *Exercise Price.* Subject to the provisions of this Section 5.3, the Exercise Price with respect to Shares subject to an Option shall be determined by the Committee in its sole discretion.

5.3.1. *Non-Qualified Stock Options.* In the case of a Non-Qualified Stock Option, the Exercise Price may be equal to or greater than one hundred percent (100%) of the Fair Market Value of a Share on the Grant Date, as shall be determined by the Committee in its sole discretion.

5.3.2. Incentive Stock Options. In the case of an Incentive Stock Option, the Exercise Price shall be not less than one hundred percent (100%) of the Fair Market Value of a Share on the Grant Date; provided, however, that the Exercise Price with respect to a Ten Percent Shareholder shall not be less than one hundred-ten percent (110%) of the Fair Market Value of a Share on the Grant Date.

5.4 Expiration of Options.

5.4.1. Expiration Dates. Each Option shall terminate not later than the expiration date specified in the Award Agreement pertaining to such Option; provided, however, that the expiration date shall not be later than the tenth anniversary of its Grant Date and the expiration date with respect to an Incentive Stock Option granted to a Ten Percent Holder shall not be later than the fifth anniversary of its Grant Date.

5.4.2. Termination of Service. Unless otherwise specified in the Award Agreement pertaining to an Option or provided by the Committee, each Option granted to a Participant shall terminate no later than the first to occur of the following events:

- (a) The expiration of ninety (90) days from the date of the Participant's Termination of Service for any reason other than the Participant's death, Disability, Retirement or Termination of Service for Cause;
- (b) The expiration of one (1) year from the date of the Participant's Termination of Service by reason of the Participant's Disability or Retirement (provided, that the portion of any Incentive Stock Option exercised more than three months after such Termination of Service shall be deemed a Non-Qualified Option);
- (c) The date of the Participant's Termination of Service for Cause; or
- (d) The expiration date specified in the Award Agreement pertaining to such Option.

5.4.3. Death of Employee. Unless otherwise specified in the Award Agreement pertaining to an Option, if a Participant to whom an Option has been granted dies while an Employee but prior to the expiration, cancellation, forfeiture or other termination of such Option, such Option shall become exercisable in full upon the Participant's death and shall be exercisable thereafter until the earlier of (a) the expiration of one (1) year after the date of death, or (b) the expiration date specified in the Award Agreement pertaining to such Option.

5.5 Exercisability of Options. Subject to Section 5.4, Options granted under the Plan shall be exercisable at such times, and shall be subject to such restrictions and conditions, as the Committee shall determine in its sole discretion. After an Option is granted, the Committee, in its sole discretion, may accelerate the exercisability of the Option.

5.6 Method of Exercise. Options shall be exercised by the Participant's delivery of a written notice of exercise to the Secretary of the Company (or its designee), setting forth the number of Shares with respect to which the Option is to be exercised, accompanied by full payment of the Exercise Price with respect to

each such Share. The Exercise Price shall be payable to the Company in full in cash or its equivalent (including, but not limited to, by means of, a broker-assisted cashless exercise). The Committee, in its sole discretion, also may permit exercise (a) by tendering previously acquired Shares having an aggregate Fair Market Value at the time of exercise equal to the aggregate Exercise Price of the Shares with respect to which the Option is to be exercised, or (b) by any other means which the Committee, in its sole discretion, determines to both provide legal consideration for the Shares, and to be consistent with the purposes of the Plan.

As soon as practicable after receipt of a written notification of exercise and full payment for the Shares with respect to which the Option is exercised, the Company shall deliver to the Participant Shares (which may be in book entry or certificate form) for such Shares with respect to which the Option is exercised.

5.7 Restrictions on Share Transferability. The Committee may impose such restrictions on any Shares acquired pursuant to the exercise of an Option as it may deem advisable, including, but not limited to, restrictions related to applicable Federal securities laws, the requirements of any national securities exchange or system upon which Shares are then listed or traded, or any blue sky or state securities laws.

ARTICLE 6

STOCK APPRECIATION RIGHTS

6.1 Grant of SARs. Subject to the provisions of the Plan, SARs may be granted to such Employees at such times, and subject to such terms and conditions, as shall be determined by the Committee in its sole discretion; provided, that any tandem SAR related to an Incentive Stock Option shall be granted at the same time that such Incentive Stock Option is granted.

6.2 Exercise Price and Other Terms. The Committee, subject to the provisions of the Plan, shall have complete discretion to determine the terms and conditions of SARs granted under the Plan; provided, however, that SARs may be granted only with respect to Class A Shares. Without limiting the foregoing, the Exercise Price with respect to Shares subject to an SAR may be equal to or greater than one hundred percent (100%) of the Fair Market Value of a Share on the Grant Date, as shall be determined by the Committee in its sole discretion; provided, that the Exercise Price with respect to Shares subject to a tandem SAR shall be the same as the Exercise Price with respect to the Shares subject to the related Option.

6.3 SAR Agreement. Each SAR grant shall be evidenced by an Award Agreement that shall specify the Exercise Price, the term of the SAR, the conditions of exercise, and such other terms and conditions as the Committee, in its sole discretion, shall determine.

6.4 Expiration of SARs

6.4.1. Expiration Dates. Each SAR shall terminate not later than as of the expiration date specified in the Award Agreement pertaining to such SAR; provided, however, that the expiration date with respect to a tandem SAR shall not be later than expiration date of the related Option.

6.4.2. Termination of Service. Unless otherwise specified in the Award Agreement pertaining to an SAR, each SAR granted to a Participant shall terminate no later than the first to occur of the following events:

- (a) The expiration of ninety (90) days from the date of the Participant's Termination of Service for any reason other than the Participant's death, Disability, Retirement or Termination of Service for Cause;
- (b) The expiration of one (1) year from the date of the Participant's Termination of Service by reason of the Participant's Disability or Retirement;
- (c) The date of the Participant's Termination of Service for Cause; or
- (d) The expiration date specified in the Award Agreement pertaining to such SAR.

6.4.3. Death of Employee. Unless otherwise specified in the Award Agreement pertaining to an SAR, if a Participant to whom an SAR has been granted dies while an Employee but prior to the expiration, cancellation, forfeiture or other termination of such SAR, such SAR shall become exercisable in full upon the Participant's death and shall be exercisable thereafter until the earlier of (a) the expiration of one (1) year after the date of death, or (b) the expiration date specified in the Award Agreement pertaining to such SAR.

6.5 Payment of SAR Amount. An SAR may be exercised (a) by the Participant's delivery of a written notice of exercise to the Secretary of the Company (or its designee) setting forth the number of whole SARs which are being exercised, (b) in the case of a tandem SAR, by surrendering to the Company any Options which are cancelled by reason of the exercise of such SAR, and (c) by executing such documents as the Company may reasonably request. Upon exercise of an SAR, the Participant shall be entitled to receive payment from the Company in an amount determined by multiplying:

- (i) The amount by which the Fair Market Value of a Share on the date of exercise exceeds the Exercise Price specified in the Award Agreement pertaining to such SAR; times
- (ii) The number of Shares with respect to which the SAR is exercised.

6.6 Payment Upon Exercise of SAR. Unless otherwise specified in the Award Agreement pertaining to an SAR, payment to a Participant upon the exercise of the SAR may be made, as determined by the Committee in its sole discretion, either (a) in cash, (b) in Shares with a Fair Market Value equal to the amount of the payment or (c) in a combination thereof.

ARTICLE 7

STOCK AWARDS

7.1 *Grant of Stock Awards.* Subject to the provisions of the Plan, Stock Awards may be granted to such Employees at such times, and subject to such terms and conditions, as determined by the Committee in its sole discretion; provided, however, that Stock Awards may be granted only with respect to Class A Shares. The Award Agreement pertaining to a Stock Award shall specify whether it is a Restricted Stock Award or a Bonus Stock Award.

7.2 *Stock Award Agreement.* Each Stock Award shall be evidenced by an Award Agreement that shall specify the number of Shares granted, any price to be paid for the Shares, the Performance Goals (if any) and Period of Restriction applicable to a Restricted Stock Award and such other terms and conditions as the Committee, in its sole discretion, shall determine. Bonus Stock Awards are not required to be subject to any Period of Restriction.

7.3 *Transferability/Delivery of Shares.* Shares subject to an Award of Restricted Stock may not be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated during a Period of Restriction. During the Period of Restriction, a Restricted Stock Award may be registered in the holder's name or a nominee name at the discretion of the Company and may bear a legend as described in Section 7.4.3. Unless the Committee determines otherwise, Shares of Restricted Stock shall be held by the Company as escrow agent during the applicable Period of Restriction, together with stock powers or other instruments of assignment (including a power of attorney), each endorsed in blank with a guarantee of signature if deemed necessary or appropriate by the Company, which would permit transfer to the Company of all or a portion of the Shares subject to the Restricted Stock Award in the event such Award is forfeited in whole or in part. Upon the grant of a Bonus Stock Award, subject to the

Company's right to require payment of any taxes, the Company shall deliver to Participant the requisite number of Shares (which may be in book entry or certificate form).

7.4 *Other Restrictions.* The Committee, in its sole discretion, may impose such other restrictions on Shares subject to an Award of Restricted Stock as it may deem advisable or appropriate, in accordance with this Section 7.4.

7.4.1. *General Restrictions.* The Committee may set restrictions based upon the achievement of specific performance objectives (Company-wide, business unit or individual), applicable federal or state securities laws, or any other basis determined by the Committee in its discretion.

7.4.2. *Reserved.*

7.4.3. *Legend on Certificates.* The Committee, in its discretion, may legend the certificates representing Restricted Stock during the Period of Restriction to give appropriate notice of such restrictions. For

example, the Committee may determine that some or all certificates representing Shares of Restricted Stock shall bear the following legend:

“The sale or other transfer of the shares of stock represented by this certificate, whether voluntary, involuntary, or by operation of law, is subject to certain restrictions on transfer as set forth in the CME Group Inc. Third Amended and Restated Omnibus Stock Plan (the “Plan”) and in an Award Agreement (as defined by the Plan). A copy of the Plan and such Award Agreement may be obtained from the Secretary of CME Group Inc.”

7.5 Removal of Restrictions. Shares of Restricted Stock covered by a Restricted Stock Award made under the Plan shall be released from escrow as soon as practicable after the termination of the Period of Restriction (and the satisfaction or attainment of any applicable Performance Goals) and, subject to the Company’s right to require payment of any taxes, the Company shall deliver to Participant the requisite number of Shares (which may be in book entry or certificate form).

7.6 Voting Rights. During the Period of Restriction, Participants holding Shares of Restricted Stock granted hereunder may exercise full voting rights with respect to those Shares, unless otherwise provided in the Award Agreement.

7.7 Return of Restricted Stock to Company. On the date set forth in the Award Agreement, the Restricted Stock for which restrictions have not lapsed shall revert to the Company and again shall become available for Awards under the Plan.

7.8 Termination of Service.

7.9.1. Disability and Death. Unless otherwise specified in the Award Agreement pertaining to a Restricted Stock Award granted to a Participant, upon the Participant’s Termination of Service by reason of Disability or death, the Period of Restriction shall terminate as of such date, and all Performance Goals shall be deemed to have been satisfied at the target level.

7.9.2. Other Termination of Service. Unless otherwise specified in the Award Agreement pertaining to a Restricted Stock Award granted to a Participant, upon the Participant’s Termination of Service for any reason other than Disability or death, the portion of such Award which is subject to a Period of Restriction on such date shall be forfeited by the Participant and canceled by the Company.

ARTICLE 8

PERFORMANCE SHARE AWARDS

8.1 Performance Share Awards. Subject to the provisions of the Plan, Performance Share Awards may be granted to such Employees at such times, and subject to such terms and conditions, as determined by the Committee in its sole discretion; provided, however, that Performance Share Awards may be granted only with respect to Class A Shares.

8.2 Terms of Performance Share Award Agreement.

8.2.1. Number of Performance Shares and Performance Goals. The Award Agreement pertaining to a Performance Share Award shall specify the number of Performance Shares subject to the Award and the Performance Goals and the Performance Period.

8.2.2. Vesting and Forfeiture. The Award Agreement pertaining to a Performance Share Award shall specify, in the Committee's discretion and subject to the terms of the Plan, for the vesting of such Award if specified Performance Goals are satisfied or met during the Performance Period, and for the forfeiture of all or a portion of such Award if specified Performance Goals are not satisfied or met during the Performance Period.

8.2.3. Settlement of Vested Performance Share Awards. The Award Agreement pertaining to a Performance Share Award (i) shall specify whether such Award may be settled in Shares (including Shares of Restricted Stock) or cash or a combination thereof and (ii) may specify whether the holder thereof shall be entitled to receive, on a deferred basis, Dividend Equivalent Rights. If a Performance Share Award is settled in Shares of Restricted Stock, a certificate or certificates or book entry record representing such Restricted Stock shall be issued, and the Participant shall have such rights of a stockholder of the Company as determined pursuant to Section 7.6 and 10.13. Prior to the settlement of a Performance Share Award in Shares, including Restricted Stock, the Participant shall have no rights as a stockholder of the Company with respect to the Shares subject to such Award. Unless otherwise provided in an Award Agreement, Performance Share Awards are intended to qualify as short term deferrals for purposes of Section 409A of the Code. Accordingly, settlement of a Performance Share Award shall occur no later than March 15 of the year following the year in which the Performance Goals applicable to such Performance Share Awards are attained, as determined by the Compensation Committee prior to such date, or are deemed to have been attained pursuant to Section 8.3.1. Notwithstanding any provision herein to the contrary, to the extent necessary to avoid adverse tax consequences to a Participant who is a "specified employee" under Section 409A of the Code, settlement of a Performance Share Award shall not be made until after the expiration of the six-month period commencing on the Participant's Termination of Service.

8.3 Termination of Service.

8.3.1. Disability and Death. Unless otherwise specified in the Award Agreement pertaining to a Performance Share Award granted to a Participant, upon the Participant's Termination of Service by reason of Disability or death, all Performance Goals shall be deemed to have been satisfied at the target level with respect to such Performance Share Award.

8.3.2. Other Termination of Service. Unless otherwise specified in the Award Agreement pertaining to a Performance Share Award granted to a Participant, upon the Participant's Termination of Service for any reason other than Disability or death, the portion of such Award which is subject to outstanding Performance Goals on such date shall be forfeited by the Participant and canceled by the Company.

ARTICLE 9
RESTRICTED STOCK UNIT AND PERFORMANCE STOCK UNIT AWARDS

9.1 *Grant of Restricted Stock Unit and Performance Stock Unit Awards.* Subject to the provisions of the Plan, Restricted Stock Unit and Performance Stock Unit Awards may be granted to such Employees at such times, and subject to such terms and conditions, as determined by the Committee in its sole discretion; provided, however, that Performance Stock Unit Awards may be granted only with respect to Class A Shares.

9.2 *Terms of Restricted Stock Unit and Performance Stock Unit Award Agreement.*

9.2.1. *Number of Shares and Performance Goals.* The Award Agreement pertaining to a Restricted Stock Unit or Performance Stock Unit Award shall specify the number of Shares subject to the Award and, in the case of Performance Stock Units, the performance metrics (which may include Performance Goals) and the Performance Period.

9.2.2. *Vesting and Forfeiture.* The Award Agreement pertaining to a Restricted Stock Unit or Performance Stock Unit Award shall specify, in the Committee's discretion and subject to the terms of the Plan, for the vesting of such Award if the Participant's employment or service continues for a specified period (in the case of a Restricted Stock Unit) or if specified Performance Goals are satisfied or met during the Performance Period (with respect to a Performance Stock Unit), and for the forfeiture of all or a portion of such Award if specified vesting criteria are not satisfied or met.

9.2.3. *Settlement of Vested Restricted Stock Unit or Performance Stock Unit Award.* The Award Agreement pertaining to a Restricted Stock Unit or Performance Stock Unit Award (i) shall specify whether such Award may be settled in Shares or cash or a combination thereof and (ii) may specify whether the holder thereof shall be entitled to receive, on a deferred basis, Dividend Equivalent Rights. Prior to the settlement of a Restricted Stock Unit or Performance Stock Unit Award in Shares, the Participant shall have no rights as a stockholder of the Company with respect to the Shares subject to such Award. Settlement of a Performance Stock Unit Award shall occur within 30 days after the date the Performance Goals underlying such Award have been attained. Notwithstanding any provision herein to the contrary, to the extent necessary to avoid adverse tax consequences to a Participant who is a "specified employee" under Section 409A of the Code, settlement of a Restricted Stock Unit or Performance Stock Unit Award shall not be made until after the expiration of the six-month period commencing on the Participant's Termination of Service.

9.3 *Termination of Service.* The treatment of Restricted Stock Unit or Performance Stock Unit Awards upon the Participant's Termination of Service shall be set forth in the applicable Award Agreement. If such treatment is not set forth in the applicable Award Agreement, upon the Participant's Termination of Service

for any reason, the portion of such Award which is unvested on such date shall be forfeited by the Participant and canceled by the Company.

ARTICLE 10 MISCELLANEOUS

10.1 No Effect on Employment or Service. Nothing in the Plan shall interfere with or limit in any way the right of the Company to terminate any Participant's employment or service at any time, with or without cause. For purposes of the Plan, transfer of employment of a Participant between the Company and any one of its Affiliates (or between Affiliates) shall not be deemed a Termination of Service. Employment with the Company and Affiliates is on an at-will basis only.

10.2 Participation. No Employee shall have the right to be selected to receive an Award under this Plan, or, having been so selected, to be selected to receive a future Award.

10.3 Indemnification. Each person who is or shall have been a member of the Committee, or of the Board, shall be indemnified and held harmless by the Company against and from (a) any loss, cost, liability, or expense that may be imposed upon or reasonably incurred by him or her in connection with or resulting from any claim, action, suit, or proceeding to which he or she may be a party or in which he or she may be involved by reason of any good faith action taken or good faith failure to act under the Plan or any Award Agreement, and (b) from any and all amounts paid by him or her in settlement thereof, with the Company's approval, or paid by him or her in satisfaction of any judgment in any such claim, action, suit, or proceeding against him or her, provided he or she shall give the Company an opportunity, at its own expense, to handle and defend the same before he or she undertakes to handle and defend it on his or her own behalf.

The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such persons may be entitled under the Company's Certificate of Incorporation or Bylaws, by contract, as a matter of law, or otherwise, or under any power that the Company may have to indemnify them or hold them harmless.

10.4 Successors. All obligations of the Company under the Plan, with respect to Awards granted hereunder, shall be binding on any successor to the Company, whether the existence of such successor is the result of a direct or indirect purchase, merger, consolidation or otherwise, of all or substantially all of the business or assets of the Company.

10.5 Beneficiary Designations. A Participant under the Plan may name a beneficiary or beneficiaries to whom any vested but unpaid Award shall be paid in the event of the Participant's death. For purposes of this section, a beneficiary may include a designated trust having as its primary beneficiary a family member of a Participant. Each such designation shall revoke all prior designations by the Participant and shall be effective only if given in a form and manner acceptable to the Committee. In the absence of any such designation, any vested benefits remaining unpaid at the Participant's death shall be paid to the

Participant's estate and, subject to the terms of the Plan and of the applicable Award Agreement, any unexercised vested Award may be exercised by the administrator or executor of the Participant's estate.

10.6 Nontransferability of Awards. Unless otherwise determined by the Committee with respect to an Award other than an Incentive Stock Option, no Award granted under the Plan may be sold, transferred, pledged, assigned, or otherwise alienated or hypothecated, other than by will, by the laws of descent and distribution, or to the limited extent provided in Section 10.5. Notwithstanding the foregoing, no Award may be transferred for value (within the meaning of the General Instructions to Form S-8 promulgated under the Securities Act of 1933, as amended) prior to vesting and settlement of the Award. All rights with respect to an Award granted to a Participant shall be available during his or her lifetime only to the Participant and may be exercised only by the Participant or the Participant's legal representative.

10.7 No Rights as Stockholder. Except to the limited extent provided in Sections 7.6 and 7.7, no Participant (nor any beneficiary) shall have any of the rights or privileges of a stockholder of the Company with respect to any Shares issuable pursuant to an Award (or exercise thereof), unless and until certificates representing such Shares shall have been issued, recorded on the records of the Company or its transfer agents or registrars, and delivered to the Participant (or beneficiary). Any delivery of Shares hereunder may be in book entry or certificate form, as determined by the Committee or its delegate, in its discretion.

10.8 Withholding Requirements. Prior to the delivery of any Shares or cash pursuant to an Award (or exercise thereof), the Company shall have the power and the right to deduct (including, but not limited to, deduction through a broker-assisted cashless exercise) or withhold, or require a Participant to remit to the Company, an amount sufficient to satisfy federal, state, local and foreign taxes (including, but not limited to, the Participant's FICA and SDI obligations) required to be withheld with respect to such Award (or exercise thereof). Notwithstanding any contrary provision of the Plan, if a Participant fails to remit to the Company such withholding amount within the time period specified by the Committee (in its discretion), the Participant's Award may, in the Committee's discretion, be forfeited and in such case the Participant shall not receive any of the Shares subject to such Award.

10.9 Withholding Arrangements. The Committee, in its sole discretion and pursuant to such procedures as it may specify from time to time, may permit or require a Participant to satisfy all or part of the minimum tax withholding obligations in connection with an Award by (a) having the Company withhold otherwise deliverable Shares, or (b) delivering to the Company already-owned Shares having a Fair Market Value equal to the amount required to be withheld.

10.10 Deferrals. The Committee, in its sole discretion, may permit a Participant to defer receipt of the payment of cash or the delivery of Shares that would otherwise be delivered to a Participant under the Plan. Any such deferral elections shall be subject to such rules and procedures as shall be determined by the Committee in its sole discretion and shall be done in a manner expected not to result in taxation under Section 409A of the Code. Notwithstanding the foregoing, neither the Company nor the Committee shall

have any liability to any person in the event Code Section 409A applies to any Award in a manner that results in adverse tax consequences for the Participant or any of his beneficiaries or transferees.

10.11 Change of Control. (a)(1) Notwithstanding any provision in this Plan or any Award Agreement, in the event of a Change of Control pursuant to paragraphs (c) or (d) of Section 2.8 in connection with which the holders of Shares receive shares of common stock that are registered under Section 12 of the 1934 Act, (i) all outstanding Options and SARs shall immediately become exercisable in full, (ii) the Period of Restriction applicable to any outstanding Restricted Stock Award shall lapse, (iii) the Performance Period applicable to any outstanding Performance Share shall lapse, (iv) the Performance Goals applicable to any outstanding award shall be deemed to be satisfied at the greater of actual performance at the time of the Change of Control or the target level and (v) there shall be substituted for each Share available under this Plan, whether or not then subject to an outstanding award, the number and class of shares into which each outstanding Share shall be converted pursuant to such Change of Control. In the event of any such substitution, the purchase price per share in the case of an Option and the base price in the case of an SAR shall be appropriately adjusted by the Committee (whose determination shall be final, binding and conclusive), such adjustments to be made in the case of outstanding Options and SARs without an increase in the aggregate purchase price or base price.

(2) Notwithstanding any provision in this Plan or any Award Agreement, in the event of a Change of Control pursuant to paragraph (a) or (b) of Section 2.8, or in the event of a Change of Control pursuant to paragraph (c) or (d) of Section 2.8 in connection with which the holders of Shares receive consideration other than shares of common stock that are registered under Section 12 of the 1934 Act, each outstanding Award shall be surrendered to the Company by the holder thereof, and each such Award shall immediately be canceled by the Company, and the holder shall receive, within ten days of the occurrence of a Change of Control (or such later date as may be required for compliance with Section 409A of the Code), a cash payment from the Company in an amount equal to (i) in the case of an Option, the number of Shares then subject to such Option, multiplied by the excess, if any, of the Fair Market Value of a Share on the date of occurrence of the Change of Control, over the purchase price per Share subject to the Option, (ii) in the case of an SAR other than a tandem SAR, the number of Shares then subject to such SAR, multiplied by the excess, if any, of the Fair Market Value of a Share on the date of occurrence of the Change of Control, over the base price of the SAR, (iii) in the case of a Restricted Stock Award or Performance Share Award, the number of Shares or the number of Performance Shares, as the case may be, then subject to such Award, multiplied by the greater of (A) the highest per Share price offered to stockholders of the Company in any transaction whereby the Change of Control takes place or (B) the Fair Market Value of a Share on the date of occurrence of the Change of Control. Notwithstanding the foregoing, in the event of a Change in Control that does not constitute a “change in control event” as defined for purposes of Section 409A of the Code, the payment with respect to Performance Shares described in clause (iii) of the preceding sentence shall not be paid until the time prescribed in Section 8.2.3 or 9.2.3, as applicable.

In the event of a Change of Control, each tandem SAR shall be surrendered by the holder thereof and shall be canceled simultaneously with the cancellation of the related Option. The Company may, but is not required to, cooperate with any person who is subject to Section 16 of the Exchange Act to assure that any cash payment in accordance with the foregoing to such person is made in compliance with Section 16 and the rules and regulations thereunder.

10.12 Restrictions on Shares. Each Award made hereunder shall be subject to the requirement that if at any time the Company determines that the listing, registration or qualification of the Shares subject to such Award upon any securities exchange or under any law, or the consent or approval of any governmental body, or the taking of any other action is necessary or desirable as a condition of, or in connection with, the exercise or settlement of such Award or the delivery of Shares thereunder, such Award shall not be exercised or settled and such Shares shall not be delivered unless such listing, registration, qualification, consent, approval or other action shall have been effected or obtained, free of any conditions not acceptable to the Company. The Company may require that certificates evidencing shares delivered pursuant to any Award made hereunder bear a legend indicating that the sale, transfer or other disposition thereof by the holder is prohibited except in compliance with the Securities Act of 1933, as amended, and the rules and regulations thereunder.

10.13 Dividend Equivalent Rights. Any Participant selected by the Committee may be granted Dividend Equivalent Rights based on the dividends declared on Shares that are subject to any Award, to be credited as of dividend payment dates, during the period between the date the Award is granted and the date the Award is exercised, vests or expires, as determined by the Committee. Such Dividend Equivalent Rights shall be converted to cash or additional Shares by such formula and at such time and subject to such limitations as may be determined by the Committee. Notwithstanding the foregoing, if any Award for which Dividend Equivalent Rights have been granted has its vesting or grant dependent upon the achievement of one or more Performance Measures, then the Dividend Equivalent Rights shall accrue and only be paid to the extent the Award becomes vested. Under no circumstances may Dividend Equivalent Rights be granted for any Option or SAR.

10.14 No Representations or Warranties Regarding Tax Affect. Notwithstanding any provision of the Plan to the contrary, the Company and its Affiliates, the Board and the Committee neither represent nor warrant the tax treatment under any federal, state, local or foreign laws and regulations thereunder (individually and collectively referred to as the “**Tax Laws**”) of any Award granted or any amounts paid to any Participant under the Plan including, but not limited to, when and to what extent such Awards or amounts may be subject to tax, penalties and interest under the Tax Laws.

ARTICLE 11

AMENDMENT, TERMINATION AND DURATION

11.1 Amendment, Suspension or Termination. The Board, in its sole discretion, may amend, suspend or terminate the Plan, or any part thereof, at any time and for any reason, subject to any requirement of

stockholder approval required by applicable law, rule or regulation, including Section 422 of the Code; provided, however, that notwithstanding any other provision of the Plan or any Award Agreement, without stockholder approval, no such amendment, alternation, suspension, discontinuation or termination shall be made that, absent such stockholder approval:

- violates the rules or regulations of any securities listing exchange applicable to the Company;
- increases the number of shares authorized under the Plan as specified in Section 4.1 of the Plan (other than pursuant to adjustments made under Article 4);
- permits the Award of Options or SARs at a price less than 100% of the Fair Market Value of a Share on the date of grant of such Option or SAR;
- permits the repricing of Options or SARs, as prohibited by Article 12 of the Plan; or
- expands the classes or categories of persons eligible to receive Awards under the Plan.

The amendment, suspension or termination of the Plan shall not, without the consent of the Participant, alter or impair any rights or obligations under any Award theretofore granted to such Participant. No Award may be granted during any period of suspension or after termination of the Plan.

11.2 Duration of the Plan. The Plan shall, subject to Section 11.1 (regarding the Board's right to amend or terminate the Plan), terminate on May 4, 2032, unless earlier terminated by the Board. The termination of the Plan shall not affect any Awards granted prior to the termination of the Plan.

ARTICLE 12

PROHIBITION ON REPRICING; RECOUPMENT

12.1 Prohibition on Repricing. Except as provided in Section 4.3 of the Plan, no Option or SAR may be amended to reduce its initial exercise or grant price and no Option or SAR shall be cancelled in exchange for cash, other Awards or replaced with Options or SARs having a lower exercise or grant price, without the approval of the stockholders of the Company.

12.2 Recoupment. Awards under the Plan shall be subject to any recoupment or "claw-back" policy adopted by the Company and in effect from time to time or as may be required under applicable law.

ARTICLE 13

LEGAL CONSTRUCTION

13.1 Gender and Number. Except where otherwise indicated by the context, any masculine term used herein also shall include the feminine; the plural shall include the singular and the singular shall include the plural.

13.2 Severability. In the event any provision of the Plan shall be held illegal or invalid for any reason, the illegality or invalidity shall not affect the remaining parts of the Plan, and the Plan shall be construed and enforced as if the illegal or invalid provision had not been included.

13.3 Requirements of Law. The granting of Awards and the issuance of Shares under the Plan shall be subject to all applicable laws, rules and regulations, and to such approvals by any governmental agencies or national securities exchanges as may be required.

13.4 Section 409A. The Plan is intended to comply with Section 409A of the Code and the interpretative guidance thereunder and shall at all times be interpreted and administered in accordance with such intent. To the extent that any provision of the Plan violates Section 409A, such provision shall be automatically reformed, if possible, to comply with Section 409A or stricken from the Plan. If an operational failure occurs with respect to Section 409A requirements, any affected Participant shall fully cooperate with the Company to correct the failure, to the extent possible, in accordance with any correction procedure established by the Internal Revenue Service. No provision of the Plan shall be interpreted to transfer any liability for a failure to comply with Section 409A from a Participant or any other individual to the Company.

13.5 Governing Law. The Plan and all Award Agreements shall be construed in accordance with and governed by the laws of the State of Delaware, but without regard to its conflict of law provisions.

13.6 Captions. Captions are provided herein for convenience only, and shall not serve as a basis for interpretation or construction of the Plan.

CERTIFICATION

I, Terrence A. Duffy, certify that:

1. I have reviewed this report on Form 10-Q of CME Group Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: August 3, 2022

/s/ Terrence A. Duffy

Name: Terrence A. Duffy

Title: Chief Executive Officer

CERTIFICATION

I, John W. Pietrowicz, certify that:

1. I have reviewed this report on Form 10-Q of CME Group Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: August 3, 2022

/s/ John W. Pietrowicz

Name: John W. Pietrowicz

Title: Chief Financial Officer

**Certification of CEO and CFO Pursuant to
18 U.S.C. Section 1350,
as Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Quarterly Report on Form 10-Q of CME Group Inc. (the "Company") for the quarter ended June 30, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), Terrence A. Duffy, as Chief Executive Officer of the Company, and John W. Pietrowicz, as Chief Financial Officer of the Company, each hereby certifies, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to the best of his knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Terrence A. Duffy

Name: Terrence A. Duffy

Title: Chief Executive Officer

Dated: August 3, 2022

/s/ John W. Pietrowicz

Name: John W. Pietrowicz

Title: Chief Financial Officer

Dated: August 3, 2022

This certification accompanies the Report pursuant to § 906 of the Sarbanes-Oxley Act of 2002 and shall not, except to the extent required by the Sarbanes-Oxley Act of 2002, be deemed filed by the Company for purposes of §18 of the Securities Exchange Act of 1934, as amended.

A signed original of this written statement required by § 906 of the Sarbanes-Oxley Act of 2002 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.