

**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 March 31, 2021

- 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	Nasdaq

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 April 14, 2021 was as follows: 359,094,042 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.
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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, EBS, TriOptima, and Traiana 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. 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 methods 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 NEX;
- 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, filed with the Securities and Exchange Commission on February 26, 2021 and Item 1A. 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)

	March 31, 2021 (unaudited)	December 31, 2020
Assets		
Current Assets:		
Cash and cash equivalents	\$ 936.4	\$ 1,633.2
Marketable securities	105.2	100.9
Accounts receivable, net of allowance of \$6.0 and \$5.4	547.0	461.3
Assets held for sale	1,447.5	—
Other current assets (includes \$4.5 and \$4.7 in restricted cash)	295.4	306.7
Performance bonds and guaranty fund contributions	123,414.0	86,781.8
Total current assets	126,745.5	89,283.9
Property, net of accumulated depreciation and amortization of \$946.5 and \$961.2	528.6	579.2
Intangible assets—trading products	17,175.3	17,175.3
Intangible assets—other, net	3,716.8	4,865.3
Goodwill	10,534.3	10,798.8
Other assets (includes \$3.1 and \$0.6 in restricted cash)	1,951.6	1,957.1
Total Assets	\$ 160,652.1	\$ 124,659.6
Liabilities and Equity		
Current Liabilities:		
Accounts payable	\$ 51.6	\$ 69.3
Liabilities held for sale	278.8	—
Other current liabilities	478.1	1,346.8
Performance bonds and guaranty fund contributions	123,414.0	86,781.8
Total current liabilities	124,222.5	88,197.9
Long-term debt	3,443.6	3,443.8
Deferred income tax liabilities, net	5,371.9	5,607.0
Other liabilities	1,058.2	1,059.4
Total Liabilities	134,096.2	98,308.1
Shareholders' Equity:		
Preferred stock, \$0.01 par value, 10,000 shares authorized at March 31, 2021 and December 31, 2020; none issued	—	—
Class A common stock, \$0.01 par value, 1,000,000 shares authorized at March 31, 2021 and December 31, 2020; 358,240 and 358,110 shares issued and outstanding as of March 31, 2021 and December 31, 2020, respectively	3.6	3.6
Class B common stock, \$0.01 par value, 3 shares authorized, issued and outstanding as of March 31, 2021 and December 31, 2020	—	—
Additional paid-in capital	21,193.5	21,185.5
Retained earnings	5,247.3	4,995.9
Accumulated other comprehensive income (loss)	83.5	134.9
Total CME Group Shareholders' Equity	26,527.9	26,319.9
Non-controlling interests	28.0	31.6
Total Equity	26,555.9	26,351.5
Total Liabilities and Equity	\$ 160,652.1	\$ 124,659.6

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 March 31,	
	2021	2020
Revenues		
Clearing and transaction fees	\$ 1,007.0	\$ 1,278.8
Market data and information services	144.2	131.5
Other	102.1	111.8
Total Revenues	<u>1,253.3</u>	<u>1,522.1</u>
Expenses		
Compensation and benefits	225.0	207.5
Technology	48.2	47.7
Professional fees and outside services	37.4	41.7
Amortization of purchased intangibles	60.6	77.3
Depreciation and amortization	37.6	35.3
Licensing and other fee agreements	64.7	73.9
Other	54.7	78.8
Total Expenses	<u>528.2</u>	<u>562.2</u>
Operating Income	725.1	959.9
Non-Operating Income (Expense)		
Investment income	30.9	95.9
Interest and other borrowing costs	(41.5)	(40.9)
Equity in net earnings of unconsolidated subsidiaries	56.2	51.2
Other non-operating income (expense)	(18.4)	(76.8)
Total Non-Operating Income (Expense)	<u>27.2</u>	<u>29.4</u>
Income before Income Taxes	752.3	989.3
Income tax provision	177.5	222.5
Net Income	574.8	766.8
Less: net (income) loss attributable to non-controlling interests	(0.4)	(0.6)
Net Income Attributable to CME Group	<u>\$ 574.4</u>	<u>\$ 766.2</u>
Earnings per Common Share Attributable to CME Group:		
Basic	\$ 1.60	\$ 2.14
Diluted	1.60	2.14
Weighted Average Number of Common Shares:		
Basic	358,147	357,524
Diluted	358,817	358,455

See accompanying notes to unaudited consolidated financial statements.

CME GROUP INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(in millions)
(unaudited)

	Quarter Ended March 31,	
	2021	2020
Net income	\$ 574.8	\$ 766.8
Other comprehensive income (loss), net of tax:		
Investment securities:		
Net unrealized holding gains (losses) arising during the period	(1.1)	(0.6)
Income tax benefit (expense)	0.3	0.2
Investment securities, net	(0.8)	(0.4)
Defined benefit plans:		
Net change in defined benefit plans arising during the period	—	(2.0)
Amortization of net actuarial (gains) losses included in compensation and benefits expense	1.1	1.2
Income tax benefit (expense)	(0.3)	0.2
Defined benefit plans, net	0.8	(0.6)
Derivative investments:		
Reclassification of net unrealized (gains) losses to interest expense and other non-operating income (expense)	(0.3)	(1.8)
Income tax benefit (expense)	0.1	0.4
Derivative investments, net	(0.2)	(1.4)
Foreign currency translation:		
Foreign currency translation adjustments	(51.2)	(27.8)
Reclassification of net currency (gains) losses from foreign entities to other expenses	—	0.6
Foreign currency translation, net	(51.2)	(27.2)
Other comprehensive income (loss), net of tax	(51.4)	(29.6)
Comprehensive income	523.4	737.2
Less: comprehensive (income) loss attributable to non-controlling interests	(0.4)	(0.6)
Comprehensive income attributable to CME Group	\$ 523.0	\$ 736.6

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)

	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				574.4		574.4	0.4	574.8
Other comprehensive income (loss)					(51.4)	(51.4)		(51.4)
Dividends on common stock of \$0.90 per share				(323.0)		(323.0)		(323.0)
Purchase of non-controlling interest			(2.2)			(2.2)	(4.0)	(6.2)
Exercise of stock options	31		1.7			1.7		1.7
Vesting of issued restricted Class A common stock	99		(13.1)			(13.1)		(13.1)
Stock-based compensation			21.6			21.6		21.6
Balance at March 31, 2021	358,240	3	\$ 21,197.1	\$ 5,247.3	\$ 83.5	\$ 26,527.9	\$ 28.0	\$ 26,555.9

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

	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, 2019	357,469	3	\$ 21,116.8	\$ 5,008.7	\$ 3.4	\$ 26,128.9	\$ 30.4	\$ 26,159.3
Net income				766.2		766.2	0.6	766.8
Other comprehensive income (loss)					(29.6)	(29.6)		(29.6)
Dividends on common stock of \$0.85 per share				(304.7)		(304.7)		(304.7)
Impact of adoption of accounting standards updates on credit losses				(0.3)		(0.3)		(0.3)
Exercise of stock options	55		3.2			3.2		3.2
Vesting of issued restricted Class A common stock	153		(19.1)			(19.1)		(19.1)
Stock-based compensation			23.1			23.1		23.1
Balance at March 31, 2020	357,677	3	\$ 21,124.0	\$ 5,469.9	\$ (26.2)	\$ 26,567.7	\$ 31.0	\$ 26,598.7

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

	Quarter Ended March 31,	
	2021	2020
Cash Flows from Operating Activities		
Net income	\$ 574.8	\$ 766.8
Adjustments to reconcile net income to net cash provided by operating activities:		
Stock-based compensation	21.6	23.1
Amortization of purchased intangibles	60.6	77.3
Depreciation and amortization	37.6	35.3
Net losses on impaired assets	—	23.1
Net (gain) loss on derivative contracts	—	(1.5)
Net realized and unrealized (gains) on investments	(0.8)	(2.9)
Cash dividends in excess of earnings (undistributed net earnings) of unconsolidated subsidiaries	13.1	(0.2)
Deferred income taxes	(7.8)	(9.7)
Change in:		
Accounts receivable	(146.2)	(309.5)
Other current assets	(30.5)	(14.5)
Other assets	12.3	18.8
Accounts payable	(8.7)	12.4
Income taxes payable	115.7	186.1
Other current liabilities	(32.3)	(22.1)
Other liabilities	(8.6)	(29.5)
Other	1.9	4.1
Net Cash Provided by Operating Activities	602.7	757.1
Cash Flows from Investing Activities		
Proceeds from maturities of available-for-sale marketable securities	2.2	2.2
Purchases of available-for-sale marketable securities	(1.5)	(2.4)
Purchases of property, net	(28.5)	(42.8)
Purchase of non-controlling interest	(6.2)	—
Net Cash Used in Investing Activities	(34.0)	(43.0)
Cash Flows from Financing Activities		
Repayment of commercial paper, net	—	(204.6)
Cash dividends	(1,217.5)	(1,197.6)
Employee taxes paid on restricted stock vesting	(13.1)	(19.1)
Other	(2.6)	7.4
Net Cash Used in Financing Activities	(1,233.2)	(1,413.9)

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

	Quarter Ended March 31,	
	2021	2020
Net change in cash, cash equivalents and restricted cash	\$ (664.5)	\$ (699.8)
Cash, cash equivalents and restricted cash, beginning of period	1,638.5	1,556.6
Cash, Cash Equivalents and Restricted Cash, End of Period	\$ 974.0	\$ 856.8
Reconciliation of cash, cash equivalents and restricted cash:		
Cash and cash equivalents	\$ 936.4	\$ 851.7
Cash classified as assets held for sale	30.0	—
Short-term restricted cash	4.5	4.3
Long-term restricted cash	3.1	0.8
Total	\$ 974.0	\$ 856.8
Supplemental Disclosure of Cash Flow Information		
Income taxes paid	\$ 65.8	\$ 39.0
Interest paid	42.4	42.4

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.

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 normal recurring adjustments considered necessary to present fairly the financial position of the company at March 31, 2021 and December 31, 2020 and the results of operations and cash flows for the periods indicated. Quarterly results are not necessarily indicative of results for any subsequent period.

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, 2020, filed with the Securities and Exchange Commission (SEC) on February 26, 2021.

2. 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 ended March 31, 2021 and 2020:

<i>(in millions)</i>	Quarter Ended March 31,	
	2021	2020
Interest rates	\$ 299.7	\$ 418.3
Equity indexes	198.5	248.2
Foreign exchange	40.5	48.2
Agricultural commodities	120.5	117.7
Energy	158.1	221.8
Metals	58.3	78.8
Cash markets business	115.1	124.4
Interest rate swap	16.3	21.4
Total clearing and transaction fees	1,007.0	1,278.8
Market data and information services	144.2	131.5
Other	102.1	111.8
Total revenues	\$ 1,253.3	\$ 1,522.1
Timing of Revenue Recognition		
Services transferred at a point in time	\$ 945.1	\$ 1,211.2
Services transferred over time	305.2	307.5
One-time charges and miscellaneous revenues	3.0	3.4
Total revenues	\$ 1,253.3	\$ 1,522.1

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 three months ended March 31, 2021 were not materially impacted by any other factors. The balance of contract liabilities was \$62.8 million and \$37.3 million as of March 31, 2021 and December 31, 2020, respectively.

3. Assets and Liabilities Held for Sale

On January 12, 2021, the company announced that it has agreed with IHS Markit to combine their post-trade services into a new joint venture. The new company will perform trade processing and risk mitigation services. The company will contribute its optimization business, which includes Traiana, TriOptima and Reset, to the new joint venture for an equity interest in the new company. The transaction is expected to close in mid-2021, subject to customary antitrust and regulatory approvals and other customary closing conditions.

In January 2021, the net assets that will be contributed to the joint venture were classified as held for sale following approval of the transaction by the company's Board of Directors. The reclassification of the assets and liabilities to held for sale did not have an impact on earnings.

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 March 31, 2021, CME maintained \$111.5 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 quarter of 2021, the clearing house transferred an average of approximately \$4.6 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 March 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

In January 2021, the net assets that will be contributed to a joint venture with IHS Markit were classified as held for sale. As a result, \$1.1 billion of amortizable intangible assets were reclassified to assets held for sale on the consolidated balance sheet. Amortization expense is no longer taken on these intangible assets once reclassified to assets held for sale.

Intangible assets consisted of the following at March 31, 2021 and December 31, 2020:

(in millions)	March 31, 2021				December 31, 2020			
	Assigned Value	Reclassified as Held for Sale	Accumulated Amortization	Net Book Value	Assigned Value	Accumulated Amortization	Net Book Value	
Amortizable Intangible Assets:								
Clearing firm, market data and other customer relationships	\$ 5,822.7	\$ (946.7)	\$ (1,684.0)	\$ 3,192.0	\$ 5,858.0	\$ (1,632.5)	\$ 4,225.5	
Technology-related intellectual property	174.8	(84.3)	(69.6)	20.9	178.4	(68.2)	110.2	
Other	106.4	(23.1)	(29.4)	53.9	106.9	(27.3)	79.6	
Total amortizable intangible assets	\$ 6,103.9	\$ (1,054.1)	\$ (1,783.0)	3,266.8	\$ 6,143.3	\$ (1,728.0)	4,415.3	
Indefinite-Lived Intangible Assets:								
Trade names				450.0			450.0	
Total intangible assets – other, net				\$ 3,716.8			\$ 4,865.3	
Trading products ⁽¹⁾				<u>17,175.3</u>			<u>17,175.3</u>	

- (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.

Total amortization expense for intangible assets was \$60.6 million and \$77.3 million for the quarters ended March 31, 2021 and 2020, respectively.

As of March 31, 2021, the future estimated amortization expense related to amortizable intangible assets is expected to be as follows:

<i>(in millions)</i>	Amortization Expense
Remainder of 2021	\$ 174.8
2022	233.1
2023	231.7
2024	225.0
2025	225.0
2026	225.0
Thereafter	1,952.2

Goodwill activity consisted of the following for the periods ended March 31, 2021 and December 31, 2020:

<i>(in millions)</i>	Balance at December 31, 2020	Reclassified as Held for Sale	Other Activity⁽¹⁾	Balance at March 31, 2021
CBOT Holdings	\$ 5,066.4	\$ —	\$ —	\$ 5,066.4
NYMEX Holdings	2,462.2	—	—	2,462.2
NEX	3,229.8	(246.1)	(18.4)	2,965.3
Other	40.4	—	—	40.4
Total Goodwill	\$ 10,798.8	\$ (246.1)	\$ (18.4)	\$ 10,534.3

<i>(in millions)</i>	Balance at December 31, 2019	Reclassified as Held for Sale	Other Activity⁽¹⁾	Balance at December 31, 2020
CBOT Holdings	\$ 5,066.4	\$ —	\$ —	\$ 5,066.4
NYMEX Holdings	2,462.2	—	—	2,462.2
NEX	3,173.5	—	56.3	3,229.8
Other	40.4	—	—	40.4
Total Goodwill	\$ 10,742.5	\$ —	\$ 56.3	\$ 10,798.8

1) Other activity includes currency translation adjustments.

6. Debt

Long-term debt consisted of the following at March 31, 2021 and December 31, 2020:

<i>(in millions)</i>	March 31, 2021	December 31, 2020
\$750.0 million fixed rate notes due September 2022, stated rate of 3.00% ⁽¹⁾	\$ 748.8	\$ 748.6
€15.0 million fixed rate notes due May 2023, stated rate of 4.30%	17.3	18.1
\$750.0 million fixed rate notes due March 2025, stated rate of 3.00% ⁽²⁾	747.2	747.0
\$500.0 million fixed rate notes due June 2028, stated rate of 3.75%	496.9	496.8
\$750.0 million fixed rate notes due September 2043, stated rate of 5.30% ⁽³⁾	743.1	743.1
\$700.0 million fixed rate notes due June 2048, stated rate of 4.15%	690.3	690.2
Total long-term debt	\$ 3,443.6	\$ 3,443.8

- (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%.
- (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 3.11%.
- (3) 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 March 31, 2021:

<i>(in millions)</i>	Par Value
2022	\$ 750.0
2023	17.6
2024	—
2025	750.0
2026	—
Thereafter	1,950.0

7. 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.

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 March 31, 2021 and December 31, 2020.

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.

8. Leases

The company has operating leases for corporate offices. The operating leases have remaining lease terms of up to 17 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:

<i>(in millions)</i>	Quarter Ended March 31,	
	2021	2020
Operating lease expense:		
Operating lease cost	\$ 16.8	\$ 14.9
Short-term lease cost	0.2	0.2
Total operating lease expense included in other expense	<u>\$ 17.0</u>	<u>\$ 15.1</u>
Finance lease expense:		
Interest expense	\$ 0.8	\$ 0.9
Depreciation expense	2.2	2.2
Total finance lease expense	<u>\$ 3.0</u>	<u>\$ 3.1</u>
Sublease revenue included in other revenue	\$ 2.5	\$ 3.6

Supplemental cash flow information related to leases was as follows:

<i>(in millions)</i>	Quarter Ended March 31,	
	2021	2020
Cash outflows for operating leases	\$ 15.3	\$ 15.9
Cash outflows for finance leases	4.2	4.2

Supplemental balance sheet information related to leases was as follows:

Operating leases

<i>(in millions)</i>	March 31, 2021	December 31, 2020
Operating lease right-of-use assets	\$ 386.5	\$ 390.3
Operating lease liabilities:		
Other current liabilities	\$ 47.3	\$ 44.5
Other liabilities	491.3	492.2
Total operating lease liabilities	<u>\$ 538.6</u>	<u>\$ 536.7</u>
Weighted average remaining lease term (in months)	137	138
Weighted average discount rate	3.9 %	3.9 %

Finance leases

<i>(in millions)</i>	March 31, 2021	December 31, 2020
Finance lease right-of-use assets	\$ 86.7	\$ 88.8
Finance lease liabilities:		
Other current liabilities	\$ 7.7	\$ 7.7
Other liabilities	81.9	83.8
Total finance lease liabilities	<u>\$ 89.6</u>	<u>\$ 91.5</u>
Weighted average remaining lease term (in months)	120	123
Weighted average discount rate	3.5 %	3.5 %

Future minimum lease payments were as follows as of March 31, 2021 for operating and finance leases:

<i>(in millions)</i>	Operating Leases	
Remainder of 2021	\$	49.7
2022		69.7
2023		68.0
2024		61.7
2025		58.8
2026		54.3
Thereafter		306.7
Total lease payments		<u>668.9</u>
Less: imputed interest		(130.3)
Present value of lease liability	\$	<u>538.6</u>
<i>(in millions)</i>	Finance Leases	
Remainder of 2021	\$	12.7
2022		17.1
2023		17.2
2024		17.4
2025		17.5
2026		17.6
Thereafter		76.7
Total lease payments		<u>176.2</u>
Less: imputed interest		(86.6)
Present value of lease liability	\$	<u>89.6</u>

9. 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 March 31, 2021, CME was contingently liable to SGX on letters of credit totaling \$310.0 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 March 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 March 31, 2021.

10. 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, 2020	\$ 1.6	\$ (57.1)	\$ 67.0	\$ 123.4	\$ 134.9
Other comprehensive income (loss) before reclassifications and income tax benefit (expense)	(1.1)	—	—	(51.2)	(52.3)
Amounts reclassified from accumulated other comprehensive income (loss)	—	1.1	(0.3)	—	0.8
Income tax benefit (expense)	0.3	(0.3)	0.1	—	0.1
Net current period other comprehensive income (loss)	(0.8)	0.8	(0.2)	(51.2)	(51.4)
Balance at March 31, 2021	\$ 0.8	\$ (56.3)	\$ 66.8	\$ 72.2	\$ 83.5

<i>(in millions)</i>	Investment Securities	Defined Benefit Plans	Derivative Investments	Foreign Currency Translation	Total
Balance at December 31, 2019	\$ 0.8	\$ (55.1)	\$ 69.0	\$ (11.3)	\$ 3.4
Other comprehensive income (loss) before reclassifications and income tax benefit (expense)	(0.6)	(2.0)	—	(27.8)	(30.4)
Amounts reclassified from accumulated other comprehensive income (loss)	—	1.2	(1.8)	0.6	—
Income tax benefit (expense)	0.2	0.2	0.4	—	0.8
Net current period other comprehensive income (loss)	(0.4)	(0.6)	(1.4)	(27.2)	(29.6)
Balance at March 31, 2020	\$ 0.4	\$ (55.7)	\$ 67.6	\$ (38.5)	\$ (26.2)

11. 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 asset-backed securities and long-term debt notes. Asset-backed securities were measured at fair value based on matrix pricing using prices of similar securities with similar inputs such as maturity dates, interest rates and credit ratings. 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 fixed assets and investments that were impaired or written up in fair value.

Recurring Fair Value Measurements. Financial assets and liabilities recorded at fair value on the consolidated balance sheet as of March 31, 2021 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)	March 31, 2021			
	Level 1	Level 2	Level 3	Total
Assets at Fair Value:				
Marketable securities:				
Corporate debt securities	\$ 17.0	\$ —	\$ —	\$ 17.0
Mutual funds	87.7	—	—	87.7
Equity securities	0.2	—	—	0.2
Asset-backed securities	—	0.3	—	0.3
Total Marketable Securities	104.9	0.3	—	105.2
Total Assets at Fair Value	\$ 104.9	\$ 0.3	\$ —	\$ 105.2

Non-Recurring Fair Value Measurements. The company recognized impairment charges of \$0.5 million related to certain fixed assets. The fair values of these fixed assets were estimated to be zero at March 31, 2021. The company also recognized a net unrealized gain on an investment of \$0.8 million. The fair value of the investment was estimated to be \$9.4 million at March 31, 2021. These assessments were based on quantitative and qualitative indicators of fair value. The fair value measurements of the fixed assets and investment are 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 March 31, 2021, the fair values (in U.S. dollar equivalent) were as follows:

(in millions)	Fair Value	Level
\$750.0 million fixed rate notes due September 2022	\$ 779.4	Level 2
€15.0 million fixed rate notes due May 2023	19.2	Level 2
\$750.0 million fixed rate notes due March 2025	802.8	Level 2
\$500.0 million fixed rate notes due June 2028	557.4	Level 2
\$750.0 million fixed rate notes due September 2043	1,015.3	Level 2
\$700.0 million fixed rate notes due June 2048	845.1	Level 2

12. Earnings Per Share

Basic earnings per share is computed by dividing net income by the weighted average number of shares of all classes of CME Group common stock outstanding for each reporting period. Diluted earnings per share reflects the increase in shares using the treasury stock method to reflect the impact of an equivalent number of shares of common stock if stock options were exercised and restricted stock awards were converted into common stock. Anti-dilutive stock awards were as follows for the periods presented:

<i>(in thousands)</i>	Quarter Ended March 31,	
	2021	2020
Stock awards	154	68
Total	154	68

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

	Quarter Ended March 31,	
	2021	2020
Net Income Attributable to CME Group (in millions)	\$ 574.4	\$ 766.2
Weighted Average Number of Common Shares (in thousands):		
Basic	358,147	357,524
Effect of stock options, restricted stock and performance shares	670	931
Diluted	358,817	358,455
Earnings per Common Share Attributable to CME Group:		
Basic	\$ 1.60	\$ 2.14
Diluted	1.60	2.14

13. 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.

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, 2020.

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.

<i>(dollars in millions, except per share data)</i>	Quarter Ended March 31,		Change
	2021	2020	
Total revenues	\$ 1,253.3	\$ 1,522.1	(18)%
Total expenses	528.2	562.2	(6)
Operating margin	57.9 %	63.1 %	
Non-operating income (expense)	\$ 27.2	\$ 29.4	(7)
Effective tax rate	23.6 %	22.5 %	
Net income attributable to CME Group	\$ 574.4	\$ 766.2	(25)
Diluted earnings per common share attributable to CME Group	1.60	2.14	(25)
Cash flows from operating activities	602.7	757.1	(20)

Revenues

<i>(dollars in millions)</i>	Quarter Ended March 31,		Change
	2021	2020	
Clearing and transaction fees	\$ 1,007.0	\$ 1,278.8	(21)%
Market data and information services	144.2	131.5	10
Other	102.1	111.8	(9)
Total Revenues	\$ 1,253.3	\$ 1,522.1	(18)

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 March 31,		Change
	2021	2020	
Total contract volume (in millions)	1,331.5	1,674.8	(21)%
Clearing and transaction fees (in millions)	\$ 875.6	\$ 1,133.0	(23)
Average rate per contract	\$ 0.658	\$ 0.676	(3)

We estimate the following net changes in clearing and transaction fees based on a change in total contract volume and a change in average rate per contract for futures and options during the first quarter of 2021 when compared with the same period in 2020.

<i>(in millions)</i>	Quarter Ended
Decrease due to change in total contract volume	\$ (225.9)
Decrease due to change in average rate per contract	(31.5)
Net decrease in clearing and transaction fees	\$ (257.4)

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.

<i>(amounts in thousands)</i>	Quarter Ended March 31,		Change
	2021	2020	
Average Daily Volume by Product Line:			
Interest rates	10,349	13,813	(25)%
Equity indexes	6,117	6,498	(6)
Foreign exchange	852	1,079	(21)
Agricultural commodities	1,471	1,506	(2)
Energy	2,363	3,228	(27)
Metals	675	889	(24)
Aggregate average daily volume	21,827	27,013	(19)
Average Daily Volume by Venue:			
CME Globex	20,436	24,582	(17)
Open outcry	678	1,281	(47)
Privately negotiated	713	1,150	(38)
Aggregate average daily volume	21,827	27,013	(19)
Electronic Volume as a Percentage of Total Volume	94 %	91 %	

Overall market volatility declined throughout the first quarter of 2021 following very high volatility in the first quarter of 2020. During the first quarter of 2020, the Federal Reserve made the unexpected decision to lower the federal funds rate due to the economic concerns from the COVID-19 pandemic and announced their intent not to raise them for the foreseeable future. This resulted in significant volatility within the financial and equity markets in the first quarter of 2020 which subsided by the end of 2020. In addition, lower producer price competition within the oil markets combined with lower energy demands during the COVID-19 pandemic resulted in lower market volatility within the energy market during the first quarter of 2021.

Following the Illinois stay at home orders in March 2020, we closed the trading floor in Chicago. We began a limited re-opening of the trading floor in the third quarter of 2020. In May 2021, we announced that only the Eurodollar options pit will remain open. We will not reopen the remaining trading floor pits.

Interest Rate Products

The following table summarizes average daily contract volume for our key interest rate products. Eurodollar Front 8 futures include contracts expiring in two years or less. Eurodollar Back 32 futures include contracts with expirations after two years through ten years.

<i>(amounts in thousands)</i>	Quarter Ended March 31,		Change
	2021	2020	
Eurodollar futures and options:			
Front 8 futures	1,262	2,596	(51)%
Back 32 futures	1,414	892	58
Options	1,106	2,384	(54)
U.S. Treasury futures and options:			
10-Year	2,820	3,191	(12)
5-Year	1,463	1,699	(14)
Treasury Bond	658	638	3
2-Year	502	945	(47)
Federal Funds futures and options	100	501	(80)

In the first quarter 2021, overall interest rate contract volume decreased when compared with the same period in 2020, which we believe resulted from low interest rate volatility. Interest rate volatility decreased following the Federal Reserve's decision to cut interest rates to near zero in early 2020 and its indication that it would not raise interest rates in the foreseeable future in response to the economic impact of the COVID-19 pandemic. The decrease in volume was partially offset by an increase in Back 32 futures volume, which we believe resulted from market participants' expectations for future increases in interest rates within the next few years.

Equity Index Products

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

<i>(amounts in thousands)</i>	Quarter Ended March 31,		Change
	2021	2020	
E-mini S&P 500 futures and options	3,485	4,251	(18)%
E-mini NASDAQ 100 futures and options	1,724	1,293	33
E-mini Russell 2000 futures and options	416	310	34

Equity index contract volume decreased in the first quarter of 2021 when compared with the same period in 2020. Volatility within the broad-based indexes, including the S&P 500, subsided in the first quarter of 2021 following significant equity market volatility in early 2020 resulting from uncertainty surrounding the economic impact of governmental and business actions to combat the COVID-19 pandemic. However, there was an increase in volatility within the narrow-based indexes, which experienced a market repricing in the first quarter of 2021. We believe this increase in volatility contributed to an increase in E-mini NASDAQ 100 and E-mini Russell 2000 contracts. Average daily contract volume in the first quarter 2021 also included Micro-E-mini equity index contract volume of approximately 2.5 million compared to approximately 1.4 million in 2020. Micro-E-mini equity index contracts have a notional size of one-tenth of the traditional E-mini contracts.

Foreign Exchange Products

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

<i>(amounts in thousands)</i>	Quarter Ended March 31,		Change
	2021	2020	
Euro	229	285	(20)%
Australian dollar	120	131	(9)
Japanese yen	112	198	(44)
British Pound	100	133	(25)

In the first quarter of 2021, foreign exchange contract volume decreased when compared with the same period in 2020. Market volatility subsided following very high foreign exchange volatility in the first quarter of 2020 caused by significant uncertainty

surrounding the economic impacts of the governmental and business actions to combat the COVID-19 pandemic. We believe these factors led to the decrease in foreign exchange contract volume.

Agricultural Commodity Products

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

<i>(amounts in thousands)</i>	Quarter Ended March 31,		Change
	2021	2020	
Corn	511	436	17 %
Soybean	328	289	14
Wheat	197	251	(22)

Overall commodity contract volume remained relatively flat in the first quarter of 2021 compared with the same period in 2020. We believe the increase in corn and soybean volume was the result of an increase in demand in commodities from China. The decrease in wheat volume was largely due to low price volatility.

Energy Products

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

<i>(amounts in thousands)</i>	Quarter Ended March 31,		Change
	2021	2020	
WTI crude oil	1,265	1,792	(29)%
Natural gas	569	742	(23)
Refined products	382	497	(23)

Overall energy contract volume decreased in the first quarter when compared with the same period in 2020, which we believe was largely due to a decrease in price volatility. The crude oil market remains less volatile as the market continues to rebalance from a reduction in demand caused by the COVID-19 pandemic.

Metal Products

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

<i>(amounts in thousands)</i>	Quarter Ended March 31,		Change
	2021	2020	
Gold	404	608	(34)%
Silver	128	125	2
Copper	120	121	(1)

In the first quarter 2021, metal contract volume decreased when compared with the same period in 2020. The decrease in gold volume can be attributed to lower overall market volatility. In early 2020, investors were using gold and other precious metals as safe-haven investments in the first quarter of 2020 as a result of uncertainty within other markets caused by the COVID-19 pandemic.

Average Rate per Contract

The average rate per contract decreased in the first quarter 2021 when compared with the same period in 2020. The decrease was largely due to the increase in the micro-E-mini equity index contract volume, which have a lower average rate per contract compared with a standard E-mini contract. Micro-E-mini equity index contracts have a notional size of one-tenth of the traditional E-mini contracts. This decrease was partially offset by the rate impact of higher non-member volume as a percentage of total volume.

Cash Markets Business

Total clearing and transaction fees revenues in the first quarter 2021 include \$115.1 million of transaction fees attributable to the cash markets business compared with \$124.4 million in the first quarter of 2020. This revenue primarily includes BrokerTec Americas LLC's fixed income volume and EBS's foreign exchange volume.

<i>(amounts in millions)</i>	Quarter Ended March 31,		Change
	2021	2020	
BrokerTec U.S.'s fixed income transaction fees	\$ 45.5	\$ 50.3	(10)%
EBS's foreign exchange transaction fees	45.3	52.5	(14)

The related average daily notional value for the first quarter of 2021 were as follows:

<i>(amounts in billions)</i>	Quarter Ended March 31,		Change
	2021	2020	
U.S. Treasury	\$ 136.0	\$ 192.8	(29)%
European Repo (in euros)	287.3	262.6	9
Spot FX	72.7	97.9	(26)

Overall average daily notional value for the cash markets business decreased in the first quarter 2021 when compared with the same period in 2020. The decrease in trading is largely due to lower volatility as the first quarter of 2020 saw high volatility as a result of the uncertainty surrounding the COVID-19 pandemic. In addition, market participants' expectation of potentially low interest rates for an extended period of time contributed to lower volumes in the first quarter of 2021.

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 11% of our clearing and transaction fees in the first quarter of 2021. 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 first quarter of 2021, overall market data and information services revenue increased when compared with the same period in 2020 largely due to price increases for certain products.

The two largest resellers of our market data represented approximately 33% of our market data and information services revenue in the first quarter of 2021. 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 first quarter of 2021, the decrease in other revenue when compared with the same period in 2020 was largely due to a decrease in processing services revenue and custody fees.

Expenses

<i>(dollars in millions)</i>	Quarter Ended March 31,		Change
	2021	2020	
Compensation and benefits	\$ 225.0	\$ 207.5	8 %
Technology	48.2	47.7	1
Professional fees and outside services	37.4	41.7	(10)
Amortization of purchased intangibles	60.6	77.3	(22)
Depreciation and amortization	37.6	35.3	6
Licensing and other fee agreements	64.7	73.9	(12)
Other	54.7	78.8	(31)
Total Expenses	<u>\$ 528.2</u>	<u>\$ 562.2</u>	(6)

Operating expenses decreased by \$34.0 million in the first quarter of 2021 when compared with the same period in 2020. The following table shows the estimated impacts of key factors resulting in the change in operating expenses:

<i>(dollars in millions)</i>	Quarter Ended, March 31, 2021	
	Amount of Change	Change as a Percentage of Total Expenses
Intangible and fixed asset impairments	\$ (22.8)	(4)%
Amortization of purchased intangibles	(16.7)	(3)
Licensing and other fee agreements	(9.2)	(2)
Bonus expense	(8.7)	(1)
Employee severance and restructuring	10.8	2
Non-qualified deferred compensation plans	12.0	2
Other expenses, net	0.6	—
Total decrease	<u>\$ (34.0)</u>	<u>(6)%</u>

Decreases in operating expenses in the first quarter of 2021 when compared with the same period in 2020 were as follows:

- In the first quarter of 2020, we recognized higher impairment charges on certain intangibles and fixed assets due to the disposal of various businesses.
- Amortization of purchased intangibles was lower during the first quarter of 2021, as intangible assets related to CME Group's optimization business were classified as held for sale following approval of the IHS Markit joint venture by the company's Board of Directors. Amortization is no longer taken on intangible assets once they are classified as held for sale.
- A decrease in licensing and other fee agreements expense was due to lower volumes for certain equity products in the first quarter of 2021 compared to the same period in 2020.
- Bonus expense decreased due to performance relative to our 2021 cash earnings target when compared with 2020 performance relative to our 2020 cash earnings target.

Increases in operating expenses in first quarter of 2021 when compared with the same period in 2020 were as follows:

- An increase in our non-qualified deferred compensation liability during the first quarter of 2021, the impact of which does not affect net income because of an equal and offsetting change in investment income, contributed to an increase in compensation and benefits expense.
- Employee severance cost was higher during the first quarter of 2021 due to a higher reduction in workforce compared to the same period in 2020.

Non-Operating Income (Expense)

<i>(dollars in millions)</i>	Quarter Ended March 31,		Change
	2021	2020	
Investment income	\$ 30.9	\$ 95.9	(68)%
Interest and other borrowing costs	(41.5)	(40.9)	1
Equity in net earnings (losses) of unconsolidated subsidiaries	56.2	51.2	10
Other non-operating income (expense)	(18.4)	(76.8)	(76)
Total Non-Operating	\$ 27.2	\$ 29.4	(7)

Investment income. Investment income decreased in the first quarter of 2021 when compared with the same period in 2020, largely due to a decrease in earnings from cash performance bond and guaranty fund contributions that are reinvested. The decrease in earnings resulted from lower rates of interest earned in the cash account at the Federal Reserve Bank of Chicago following significant interest rate cuts in early 2020 by the Federal Reserve despite an increase in average reinvestment balance.

Equity in net earnings (losses) of unconsolidated subsidiaries. In the first quarter of 2021 when compared with the same period of 2020, 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 (losses) of unconsolidated subsidiaries.

Other income (expense). Other expenses decreased in the first quarter of 2021 when compared with the same period in 2020. We recognized lower expenses during the first quarter of 2021 related to a reduction in the distribution of interest earned on performance bond collateral reinvestments to the clearing firms due to lower interest income earned on our reinvestment.

Income Tax Provision

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

	2021	2020
Quarter ended March 31	23.6 %	22.5 %

The overall effective tax rate increased in the first quarter of 2021 when compared with the same period in 2020. The effective tax rate was higher in the first quarter of 2021 due to a benefit recognized in the first quarter of 2020 resulting from the settlement of various tax audits.

Liquidity and Capital Resources

Sources and Uses of Cash. Net cash provided by operating activities decreased in the first quarter of 2021 when compared with the same period in 2020 largely due to a decrease in trading volume. Net cash used in investing activities was lower in the first quarter of 2021 compared with the same period in 2020 largely due to a decrease in purchases of property. Cash used in financing activities was lower in the first quarter of 2021 when compared with the same period in 2020 due to net repayments of commercial paper made in the first quarter of 2020.

Debt Instruments. The following table summarizes our debt outstanding at March 31, 2021:

<i>(in millions)</i>	Par Value
Fixed rate notes due September 2022, stated rate of 3.00% ⁽¹⁾	\$ 750.0
Fixed rate notes due May 2023, stated rate of 4.30%	€ 15.0
Fixed rate notes due March 2025, stated rate of 3.00% ⁽²⁾	\$ 750.0
Fixed rate notes due June 2028, stated rate of 3.75%	\$ 500.0
Fixed rate notes due September 2043, stated rate of 5.30% ⁽³⁾	\$ 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 3.32%.

(2) 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%.

(3) 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 \$2.4 billion multi-currency revolving senior credit facility with various financial institutions, which matures in November 2022. 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 \$3.0 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, 2017, 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 March 31, 2021, guaranty fund contributions available to collateralize the facility totaled \$8.5 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 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 \$2.4 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 March 31, 2021, we have excess borrowing capacity for general corporate purposes of approximately \$2.4 billion under our multi-currency revolving senior credit facility.

At March 31, 2021, we were in compliance with the various financial 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 March 31, 2021, the letters of credit totaled \$310.0 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 March 31, 2021:

Rating Agency	Short-Term Debt Rating	Long-Term Debt Rating	Outlook
Standard & Poor's	A1+	AA-	Stable
Moody's Investors Service	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 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.

Liquidity and Cash Management. Cash and cash equivalents totaled \$0.9 billion and \$1.6 billion at March 31, 2021 and December 31, 2020, 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.

On May 4, 2021, CME Group's board of directors declared a regular quarterly dividend of \$0.90 per share payable on June 25, 2021 to the shareholders of record as of June 10, 2021.

Regulatory Requirements. CME is regulated by the CFTC as a U.S. 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 Dodd-Frank. 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 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 Rule 15c3-3 of the Securities Exchange Act.

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, 2020. Refer to Item 7A. of CME Group's Annual Report on Form 10-K for the year ended December 31, 2020 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 Securities Exchange Act of 1934, as amended (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 March 31, 2021, 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

See "Legal and Regulatory Matters" in Note 7. Contingencies to the Consolidated Financial Statements for updates to CME Group's existing legal proceedings disclosure which is incorporated herein by reference. Note 7. Contingencies includes updates to the legal proceedings disclosed in the company's Annual Report on Form 10-K, filed with the SEC on February 26, 2021.

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, 2020.

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)
January 1 to January 31	236	\$ 183.17	—	\$ —
February 1 to February 28	369	192.67	—	—
March 1 to March 31	62,164	209.06	—	—
Total	62,769		—	

(1) Shares purchased consist of an aggregate of 62,769 shares of Class A common stock surrendered in the first quarter of 2021 to satisfy employees' tax obligations upon the vesting of restricted stock.

ITEM 6. EXHIBITS

10.1	Amendment No. 4 to Credit Agreement and Bank Joinder Agreement, dated as of February 5, 2021, between Chicago Mercantile Exchange, Inc., certain lenders, Bank of America, N.A., as Administrative Agent and Citibank N.A. as Collateral Agent and Collateral Monitoring Agent. The Amended Credit Agreement, as amended as of February 5, 2021, between Chicago Mercantile Exchange Inc., certain lenders, Bank of America, N.A., as Administrative Agent and Citibank N.A. as Collateral Agent and Collateral Monitoring Agent is attached as Annex A to the Amendment.
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 quarter ended March 31, 2021, formatted in Inline XBRL (Extensible 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) Consolidated Statements of Cash Flows and (vi) Notes to Unaudited Consolidated Financial Statements, tagged as blocks of text.
104	The cover page from CME Group Inc.'s Quarterly Report on Form 10-Q for the quarter ended March 31, 2021, formatted in Inline XBRL.

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: May 5, 2021

By: _____ /s/ John W. Pietrowicz
John W. Pietrowicz
Chief Financial Officer & Senior Managing
Director Finance

AMENDMENT NO. 4 TO CREDIT AGREEMENT

This **AMENDMENT NO. 4 TO CREDIT AGREEMENT** (this “*Amendment*”) dated as of February 5, 2021, is among **CHICAGO MERCANTILE EXCHANGE INC.**, a Delaware corporation (the “*Company*”), **BANK OF AMERICA, N.A.**, in its capacity as administrative agent for the Banks (as defined in the Credit Agreement described below) (in such capacity, the “*Administrative Agent*”), **CITIBANK, N.A.**, in its capacity as Collateral Agent (in such capacity, the “*Collateral Agent*”) and in its capacity as Collateral Monitoring Agent (in such capacity, the “*Collateral Monitoring Agent*”), and each of the Banks which are parties hereto. Capitalized terms used in this Amendment not otherwise defined herein shall have the respective meanings given thereto in the Credit Agreement (as herein defined).

WITNESSETH:

WHEREAS, the Company, the Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent and the Banks party thereto entered into that certain Credit Agreement dated as of November 2, 2017, as amended by that certain Amendment No. 1 to Credit Agreement and Bank Joinder Agreement dated as of November 1, 2018, as further amended by that certain Amendment No. 2 to Credit Agreement dated as of May 1, 2019 and as further amended by that certain Amendment No. 3 to Credit Agreement dated as of April 29, 2020 (collectively, the “*Existing Credit Agreement*”; and as hereby further amended and as further amended, modified, supplemented, restated, or amended and restated, the “*Credit Agreement*”);

WHEREAS, the Company has requested, and the Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent and the Banks have agreed to amend (i) the Existing Credit Agreement in such a manner that, upon giving effect to such amendments, the Existing Credit Agreement as so amended would contain the terms, covenants, conditions and other provisions as contained in the form of Credit Agreement set forth as **Annex A** to this Amendment (the “*Consolidated Form Credit Agreement*”) and (ii) the Annexes, Schedules and Exhibits to the Existing Credit Agreement in such a manner that, upon giving effect to such amendments, the Annexes, Schedules and Exhibits to the Existing Credit Agreement as so amended would contain the terms, covenants, conditions and other provisions as contained in the form of the Annexes, Schedules and Exhibits to the Credit Agreement set forth as **Annex B** to this Amendment (the “*Consolidated Form Annexes, Schedules and Exhibits*”) and the Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent and the Banks party hereto are willing to effect such amendments on the terms and conditions contained in this Amendment;

NOW, THEREFORE, in consideration of the premises and further valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties hereto agree as follows:

1. **Amendments to Existing Credit Agreement.**

a. Subject to the terms and conditions set forth herein, the Existing Credit Agreement is hereby amended so that, as amended, it shall read as set forth in, and shall have the terms, covenants, conditions and other provisions of, the Consolidated Form Credit Agreement, the terms, covenants, conditions and other provisions of which Consolidated Form Credit Agreement are hereby incorporated by reference into this Amendment as if fully set forth herein. The Company, the Banks, the Administrative Agent, the Collateral Agent and the Collateral Monitoring Agent acknowledge and agree that each amendment to the Existing Credit Agreement reflected in the Consolidated Form Credit Agreement is and shall be effective as if individually specified in this Amendment (the Company, the Banks, the Administrative Agent, the Collateral Agent and the Collateral Monitoring Agent further acknowledging that amending the Existing Credit Agreement by reference to the Consolidated Form Credit Agreement provides a convenience to such parties to permit the amended terms to be read in full context), and that this Amendment is not a novation of the Existing Credit Agreement or any other Loan Document or of any credit facility provided thereunder or in respect thereof. For ease of review, the original signature pages have been removed from the Consolidated Form Credit Agreement. Notwithstanding that the cover page of the Consolidated Form Credit Agreement is dated “as of November 2, 2017” and Section 5.1 of the Consolidated Form Credit Agreement attached hereto contains those conditions which were applicable to the initial Closing Date of November 2, 2017, the changes to the Existing Credit Agreement effected by this Amendment shall be effective as of the satisfaction or waiver to the conditions to effectiveness set forth in Section 2 of this Amendment.

b. Subject to the terms and conditions set forth herein, the Annexes, Schedules and Exhibits attached to the Existing Credit Agreement are hereby amended so that, as amended, such Annexes, Schedules and Exhibits shall read as set forth in, and shall have the terms, covenants, conditions and other provisions of, the Consolidated Form Annexes, Schedules and Exhibits, the terms, covenants, conditions and other provisions of which Consolidated Form Annexes, Schedules and Exhibits are hereby incorporated by reference into this Amendment as if fully set forth herein. The Company, the Banks, the Administrative Agent, the Collateral Agent and the Collateral Monitoring Agent acknowledge and agree that each amendment to the Annexes, Schedules and Exhibits attached to the Existing Credit Agreement reflected in the Consolidated Form Annexes, Schedules and Exhibits is and shall be effective as if individually specified in this Amendment (the Company, the Banks, the Administrative Agent, the Collateral Agent and the Collateral Monitoring Agent further acknowledging that amending the Annexes, Schedules and Exhibits to the Existing Credit Agreement by reference to the Consolidated Form Annexes, Schedules and Exhibits provides a convenience to such parties to permit the amended terms to be read in full context), and that this Amendment is not a novation of the Existing Credit Agreement or any other Loan Document or of any credit facility provided thereunder or in respect thereof.

2. **Effectiveness; Conditions Precedent.** This Amendment shall become effective at the time (the “***Amendment Effective Date***”) when each of the following conditions has been

satisfied (and the Administrative Agent shall give notice to the Company of the effectiveness of this Amendment):

- a. The Administrative Agent shall have received:
 - (i) counterparts of this Amendment duly executed by the Company, Banks constituting Supermajority Banks, the Administrative Agent, the Collateral Agent and the Collateral Monitoring Agent; and
 - (ii) A fully executed Amendment No. 11 to Security and Pledge Agreement (“**Amendment No. 11 to Security and Pledge Agreement**”) dated the date hereof among the Grantors party thereto and the Collateral Agent.
- b. Each of the conditions to effectiveness set forth in Section 3 of Amendment No. 11 to Security and Pledge Agreement shall have been (or substantially simultaneously with the effectiveness of this Amendment, shall be) satisfied.
- c. The Agents shall have received all fees and other amounts due and payable under the Credit Agreement on or prior to the date hereof (including, without limitation, all such fees due and owing to the Banks), for which invoices have been presented at least two Business Days prior to the Amendment Effective Date, including reimbursement or payment of all out-of-pocket expenses required to be reimbursed or paid by the Company hereunder.
- d. Upon the reasonable request of any Bank made at least ten days prior to the date hereof, the Company shall have provided to such Bank the documentation and other information so requested in connection with applicable “know your customer” and anti-money-laundering rules and regulations, including the USA Patriot Act, in each case at least five days prior to the date hereof.

Without limiting the generality of the provisions of Article X of the Credit Agreement, for purposes of determining compliance with the conditions specified in this Section 2, each Bank that has signed this Amendment shall be deemed to have consented to, approved or accepted or to be satisfied with, each document or other matter required thereunder to be consented to or approved by or acceptable or satisfactory to a Bank unless the Administrative Agent shall have received notice from such Bank prior to the proposed Amendment Effective Date specifying its objection thereto. This Amendment shall constitute a Loan Document.

3. **Representations and Warranties.** In order to induce the Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent and each Bank to enter into this Amendment, the Company represents and warrants to the Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent and each Bank as follows:

- a. At the time of and immediately after giving effect to this Amendment, (i) the representations and warranties of the Company set forth in Article VI of the Credit Agreement shall be true and correct in all material respects (or, in the case of any such representation or warranty already qualified by materiality, in all respects) on and as of the date hereof (except to

the extent that such representations and warranties specifically refer to an earlier date, in which case as of such earlier date) and (ii) no Default or Unmatured Default has occurred and is continuing.

b. This Amendment has been duly executed and delivered by the Company and constitutes a legal, valid and binding obligation of the Company, enforceable against the Company in accordance with its terms, except as enforceability may be limited by bankruptcy, insolvency or similar laws affecting the enforcement of creditors' rights generally and by general principles of equity (whether enforcement is considered in a proceeding at law or in equity).

4. **Entire Agreement.** This Amendment, together with the Credit Agreement, including the Annexes, Schedules and Exhibits thereto, Amendment No. 11 to Security and Pledge Agreement, the Security and Pledge Agreement and the other Loan Documents (collectively, the "**Relevant Documents**"), sets forth the entire understanding and agreement of the parties hereto in relation to the subject matter hereof and supersedes any prior negotiations and agreements among the parties relating to such subject matter. The parties hereto acknowledge and agree to the terms of and the entering into of Amendment No. 11 to Security and Pledge Agreement. No promise, condition, representation or warranty, express or implied, not set forth in the Relevant Documents shall bind any party hereto, and no such party has relied on any such promise, condition, representation or warranty. Each of the parties hereto acknowledges that, except as otherwise expressly stated in the Relevant Documents, no representations, warranties or commitments, express or implied, have been made by any party to any other party in relation to the subject matter hereof or thereof. None of the terms or conditions of this Amendment may be changed, modified, waived or canceled orally or otherwise, except in writing and in accordance with Section 9.2 of the Credit Agreement.

5. **Full Force and Effect of Agreement.** Except as hereby specifically amended, modified or supplemented, the Credit Agreement, including the Annexes, Schedules and Exhibits thereto, is hereby confirmed and ratified in all respects and shall be and remain in full force and effect according to its terms. The execution, delivery and effectiveness of this Amendment shall not, except as expressly provided herein, operate as a waiver of any right, power or remedy of any Bank or any Agent under any of the Loan Documents, nor, except as expressly provided herein, constitute a waiver or amendment of any provision of any of the Loan Documents.

6. **Counterparts.** This Amendment may be executed in any number of counterparts, all of which taken together shall constitute one agreement, and any of the parties hereto may execute this Amendment by signing any such counterpart. Delivery of an executed signature page by facsimile or email shall be effective as delivery of an original executed counterpart hereof.

7. **Governing Law.** This Amendment SHALL BE CONSTRUED IN ACCORDANCE WITH THE LAW OF THE STATE OF NEW YORK. The parties hereto hereby irrevocably submits to the exclusive jurisdiction of any United States federal or New York state court sitting in New York, New York, in any action or proceeding arising out of or relating to this Amendment, and each of the parties hereto hereby irrevocably agrees that all claims in respect of any such action or proceeding may be heard and determined in any such

court. This Amendment shall be further subject to the provisions of Sections 11.4 of the Credit Agreement.

8. **WAIVER OF TRIAL BY JURY.** TO THE EXTENT PERMITTED BY APPLICABLE LAW, EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ALL RIGHT OF TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR IN CONNECTION WITH THIS AMENDMENT OR ANY MATTER ARISING HEREUNDER.

9. **Severability of Provisions.** Any provision of this Amendment held to be invalid, illegal or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such invalidity, illegality or enforceability without affecting the validity, legality and enforceability of the remaining provisions hereof; and the invalidity of a particular provision in a particular jurisdiction shall not invalidate such provision in any other jurisdiction.

10. **References.** All references to the “Credit Agreement” in the Loan Documents (other than the Credit Agreement), and all references to the “Agreement” in the Credit Agreement, shall mean the Existing Credit Agreement, as amended hereby and as further amended, restated, supplemented or otherwise modified from time to time. All references to the “Annexes, Schedules and Exhibits to the Credit Agreement” in the Loan Documents (other than the Credit Agreement) shall mean the Annexes, Schedules and Exhibits to the Existing Credit Agreement, as amended hereby.

11. **Successors and Assigns.** This Amendment shall be binding upon and inure to the benefit of the Company, the Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent, the Banks and their respective successors and assigns to the extent such successors and assigns are permitted as provided in Section 9.2, Section 10.6 and Section 11.1 of the Credit Agreement, in the case of the Company, any Agents, and any Bank, respectively.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be made, executed and delivered by their duly authorized officers as of the day and year first above written.

CHICAGO MERCANTILE EXCHANGE INC.

By: /s/ Sunil Cutinho
Name: Sunil Cutinho
Title: President, CME Clearing

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

BANK OF AMERICA, N.A., as Administrative Agent

By: /s/ Liliana Claar
Name: Liliana Claar
Title: Vice President

BANK OF AMERICA, N.A., as a Bank

By: /s/ Ibrahim Khan
Name: Ibrahim Khan
Title: Credit Officer

BANK OF AMERICA, N.A., CANADA BRANCH

By: /s/ Medina Sales de Andrade
Name: Medina Sales de Andrade
Title: Vice President

CITIBANK, N.A., as Collateral Agent

By: /s/ Jenny Cheng
Name: Jenny Cheng
Title: Senior Trust Officer

CITIBANK, N.A., as Collateral Monitoring Agent

By: /s/ Diana Shapiro
Name: Diana Shapiro
Title: Director

CITIBANK, N.A., as a Bank

By: /s/Ciaran Small
Name: Ciaran Small
Title: Vice President

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

AGRICULTURAL BANK OF CHINA, NEW YORK BRANCH, as a Bank

By: /s/ Nelson Chou

Name: Nelson Chou

Title: Head of Corporate Banking Dept.

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

BANK OF CHINA, CHICAGO BRANCH,
as a Bank

By: /s/ Kai Wu
Name: Kai Wu
Title: SVP

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

BARCLAYS BANK PLC, as a Bank

By: /s/ Arvind Admal

Name: Arvind Admal

Title: Vice President

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

BMO HARRIS BANK N.A., as a Bank

By: /s/ Kathryn Huszagh

Name: Kathryn Huszagh

Title: Vice President

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
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**INDUSTRIAL AND COMMERCIAL BANK OF CHINA LIMITED, NEW
YORK BRANCH,**
as a Bank

By: /s/ Letian Yan
Name: Letian Yan
Title: Relationship Manager

By: /s/ Jeffrey Roth
Name: Jeffrey Roth
Title: Executive Director

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

MUFG BANK, LTD., as a Bank

By: /s/ Jacob Ulevich

Name: Jacob Ulevich

Title: Director

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
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SANTANDER BANK N.A., as a Bank

By: /s/ Jorge Saavedra
Name: Jorge Saavedra
Title: Director

By: /s/ Marko Mandzuka
Name: Marko Mandzuka
Title: Senior Vice President

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

THE BANK OF NOVA SCOTIA, as a Bank

By: /s/ Shanshan Yang

Name: Shanshan Yang

Title: Director

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

**THE TORONTO-DOMINION BANK, NEW
YORK BRANCH, as a Bank**

By: /s/ Brian MacFarlane
Name: Brian MacFarlane
Title: Authorized Signatory

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

U.S. BANK NATIONAL ASSOCIATION, as a Bank

By: /s/ Jenny Maloney

Name: Jenny Maloney

Title: Vice President

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

UNITED OVERSEAS BANK LIMITED, NEW YORK AGENCY, as a Bank

By: /s/ Eriberto De Guzman
Name: Eriberto De Guzman
Title: Managing Director

By: /s/ William Sinsigalli
Name: William Sinsigalli
Title: Executive Director

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
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WELLS FARGO BANK, NATIONAL ASSOCIATION, as a Bank

By: /s/ James Mastroianna

Name: James Mastroianna

Title: Director

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

**CHINA CONSTRUCTION BANK CORPORATION LONDON BRANCH, as a
Bank**

By: /s/ Aimie Lang
Name: Aimie Lang
Title: General Manager

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

DEUTSCHE BANK AG NEW YORK BRANCH, as a Bank

By: /s/ Ming K. Chu

Name: Ming K. Chu

Title: Director

By: /s/ Marko Lukin

Name: Marko Lukin

Title: Vice President

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

JPMORGAN CHASE BANK, N.A., as a Bank

By: /s/ Kortney L. Knight

Name: Kortney L. Knight

Title: Executive Director

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

**LANDESBANK HESSEN-THÜRINGEN GIROZENTRALE, NEW YORK
BRANCH,**
as a Bank

By: /s/ Jesse A. Reid, Jr.
Name: Jesse A. Reid, Jr.
Title: Senior Vice President

By: /s/ S. Shinkarev
Name: Stephanie Shinkarev
Title: Assistant Vice President

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

HSBC BANK USA, NATIONAL ASSOCIATION, as a Bank

By: /s/ James Stovell

Name: James Stovell

Title: Director

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

**BANK OF COMMUNICATIONS CO., LTD., NEW YORK BRANCH, as a
Bank**

By: /s/ Xuetao Wang
Name: Xuetao Wang
Title: Deputy General Manager

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

BNP PARIBAS, as a Bank

By: /s/ David Seaman

Name: David Seaman

Title: Director

By: /s/ Frank Chiofalo

Name: Frank Chiofalo

Title: Vice President

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

CREDIT SUISSE AG, CAYMAN ISLANDS BRANCH, as a Bank

By: /s/ Doreen Barr
Name: Doreen Barr
Title: Authorized Signatory

By: /s/ Andrew Griffin
Name: Andrew Griffin
Title: Authorized Signatory

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

GOLDMAN SACHS BANK USA, as a Bank

By: /s/ Dan Martis

Name: Dan Martis

Title: Authorized Signatory

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

MIZUHO BANK, LTD., as a Bank

By: /s/ Donna DeMagistris

Name: Donna DeMagistris

Title: Authorized Signatory

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

MORGAN STANLEY BANK, N.A., as a Bank

By: /s/ Michelle Choi

Name: Michelle Choi

Title: Executive Director

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

ROYAL BANK OF CANADA, as a Bank

By: /s/ Sergey Skripnichenko

Name: Sergey Skripnichenko

Title: Authorized Signatory

Chicago Mercantile Exchange, Inc.
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SOCIETE GENERALE, as a Bank

By: /s/ Roberto Peralta

Name: Roberta Peralta

Title: _____

Chicago Mercantile Exchange, Inc.
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Signature Page

STANDARD CHARTERED BANK, as a Bank

By: /s/ James Beck

Name: James Beck

Title: Associate Director

Chicago Mercantile Exchange, Inc.
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BROWN BROTHERS HARRIMAN & CO., as a Bank

By: /s/ Ann L. Hobart

Name: Ann L. Hobart

Title: Senior Vice President

Chicago Mercantile Exchange, Inc.
AMENDMENT NO. 4 TO CREDIT AGREEMENT
Signature Page

ANNEX A TO AMENDMENT
Form Consolidated Credit Agreement

ANNEX A TO AMENDMENT

ANNEX B TO AMENDMENT

Annexes, Schedules and Exhibits to Form Consolidated Credit Agreement

ANNEX B TO AMENDMENT

AMENDED CREDIT AGREEMENT

**As amended as of November 1, 2018,
As further amended as of May 1, 2019
As further amended as of April 29, 2020
As further amended as of February 5, 2021**

CREDIT AGREEMENT

Dated as of November 2, 2017

among

CHICAGO MERCANTILE EXCHANGE INC.,

EACH OF THE BANKS FROM TIME TO TIME PARTY HERETO,

BANK OF AMERICA, N.A.,
as Administrative Agent,

CITIBANK, N.A.,
as Collateral Agent and Collateral Monitoring Agent,

and

Barclays Bank PLC, BMO Harris Bank N.A., MUFG Bank, Ltd., Citibank, N.A., Wells Fargo Bank, National Association, Bank of China, CHICAGO Branch, United Overseas Bank Limited, New York Agency, The Bank of Nova Scotia, Santander Bank, N.A., U.S. Bank National Association, Agricultural Bank of China Limited, New York Branch, TD SECURITIES (USA) LLC and INDUSTRIAL AND COMMERCIAL BANK OF CHINA LIMITED, NEW YORK BRANCH,
as Syndication Agents

BOFA SECURITIES, INC., Barclays Bank PLC, BMO Harris Bank N.A., MUFG Bank, Ltd., Citibank, N.A., Wells Fargo Bank, National Association, Bank of China, CHICAGO Branch, United Overseas Bank Limited, New York Agency, The Bank of Nova Scotia, Santander Bank, N.A., U.S. Bank National Association, Agricultural Bank of China Limited, New York Branch, TD SECURITIES (USA) LLC and INDUSTRIAL AND COMMERCIAL BANK OF CHINA LIMITED, NEW YORK BRANCH,
as Joint Lead Arrangers and Joint Bookrunners

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CHICAGO MERCANTILE EXCHANGE INC.

CREDIT AGREEMENT

This CREDIT AGREEMENT, (the “**Agreement**”) dated as of November 2, 2017, is among CHICAGO MERCANTILE EXCHANGE INC., a Delaware corporation (together with its successors and assigns, “**CME**” or the “**Company**”) and a wholly owned subsidiary of CME Group Inc. (together with its successors and assigns, “**Holdings**”), the Banks, BANK OF AMERICA, N.A., as Administrative Agent and CITIBANK, N.A., in its capacity as Collateral Agent and in its capacity as Collateral Monitoring Agent.

In consideration of the mutual agreements herein contained, the parties hereto hereby agree as follows:

ARTICLE I.

DEFINITIONS

The parties hereto agree as follows:

Section 1.1 Definitions. As used in this Agreement:

“**2.7(b) Effective Date**” has the meaning set forth in Section 2.7(b).

“**2.7(b) Notice**” has the meaning set forth in Section 2.7(b).

“**Accelerated Termination Date**” means the effective date of any termination of a Bank’s Applicable Tranche Commitment pursuant to Section 2.12.

“**Accelerated Termination Notice**” has the meaning set forth in Section 2.7(b).

“**Additional Amount**” has the meaning set forth in Section 11.3(a).

“**Additional Applicable Tranche**” means any credit facility that may be created from time to time at the Company’s request and in compliance with the provisions of Section 2.7 (including the consents required thereunder) which such facility shall consist of Loans (and participations in Swingline Loans) in those currencies requested by the Company and approved by each Bank agreeing to participate in such Additional Applicable Tranche, which such currencies will be listed in the Additional Tranche/Currency Confirmation related to such Additional Applicable Tranche.

“**Additional Tranche Commitment**” means, with respect to any Bank, the commitment of such Bank to make Loans and such Bank’s obligation to purchase participations in Swingline Loans in an aggregate principal amount at any one time outstanding not to exceed the amount set forth opposite such Bank’s name under the heading “Additional Tranche Commitment” on any Additional Tranche/Currency Confirmation (and in the currencies indicated for such tranche in such Additional Tranche/Currency Confirmation), or in the Assignment Agreement pursuant to which such Bank shall have assumed Additional Tranche Commitment, as applicable, as such amount may be (a) reduced from time to time pursuant to Section 2.7; (b) reduced or increased from time to time pursuant to assignments by or to such Bank pursuant to Section 2.12, 11.1 or 11.3(h); and (c) increased from time to time pursuant to Section 2.10.

“Additional Tranche/Currency Confirmation” has the meaning set forth in Section 2.7(a).

“Administrative Agent” means Bank of America, N.A., in its capacity as administrative agent for the Banks pursuant to Article X or any successor administrative agent hereunder, together with their respective successors and assigns.

“Administrative Agent’s Office” means, with respect to any Applicable Tranche, the Administrative Agent’s address and, as appropriate, account as set forth on Schedule 13.1 with respect to such Applicable Tranche, or such other address or account with respect to such Applicable Tranche as the Administrative Agent may from time to time notify to the Company and the Banks.

“Administrative Questionnaire” means an Administrative Questionnaire in a form supplied by or reasonably acceptable to the Administrative Agent, which may be amended or supplemented from time to time after the date hereof, including amending in order to change the bank account details of a Bank (which change to bank account details shall not require the consent of other Persons and shall be effective within 5 Business Days or less of delivery of such amendment).

“Advance” means, with respect to an Applicable Tranche, a borrowing hereunder consisting of the aggregate amount of the several Applicable Tranche Revolving Loans made to the Company by the Banks under such Applicable Tranche, or of the several Applicable Tranche Swingline Loans made to the Company by the Applicable Tranche Swingline Banks under such Applicable Tranche, in any case at the same time, in the same currency and having the same Loan Maturity Date.

“Advance Rate” means, with respect to any Eligible Asset, the percentage specified on Annex I hereto applicable to such Eligible Asset based on its asset type and, for some asset types, time to maturity.

“Advance Request” has the meaning set forth in Section 3.1(a).

“Advance Request Confirmation” has the meaning set forth in Section 3.1(a).

“Affected Financial Institution” means (a) any EEA Financial Institution or (b) any UK Financial Institution.

“Affiliate” means, with respect to a specified Person, another Person that directly, or indirectly through one or more intermediaries, Controls or is Controlled by or is under common Control with the Person specified.

“Affiliate Funding Bank” has the meaning set forth in Section 2.1.

“Agent” means the Administrative Agent, the Collateral Agent or the Collateral Monitoring Agent, as the context may require.

“Agent Parties” has the meaning set forth in Section 13.1(d).

“Agent Removal Request” has the meaning set forth in Section 10.6.

“Agents” means the Administrative Agent, the Collateral Agent and the Collateral Monitoring Agent.

“Aggregate Applicable Tranche Commitments” means, with respect to an Applicable Tranche, the Applicable Tranche Commitments of all Banks in such Applicable Tranche, as the same may be increased or reduced from time to time pursuant to the terms of this Agreement. The Aggregate Applicable Tranche Commitments for each Applicable Tranche as of the Amendment No. 3 Effective Date are as set forth on Schedule 1.1.

“Aggregate Commitments” means the Aggregate Applicable Tranche Commitments for all Applicable Tranches of all the Banks, as the same may be increased or reduced from time to time pursuant to the terms of this Agreement. The amount of the Aggregate Commitments as of the Closing Date shall be \$7,000,000,000.00. The amount of the Aggregate Commitments as of the Amendment No. 3 Effective Date shall be \$7,000,000,000.00.

“Agreement” means this Credit Agreement, as amended, restated, supplemented or otherwise modified from time to time.

“Agreement Accounting Principles” means generally accepted principles of accounting in effect at the time of the preparation of the financial statements referred to in Section 6.4, applied in a manner consistent with that used in preparing such statements.

“Agreement Currency” has the meaning set forth in Section 11.15.

“Alternative Currency” means each of the currencies (other than U.S. Dollars) listed in Annex II, under the heading “Currency”.

“Alternative Currency Equivalent” means, at any time, with respect to any amount denominated in U.S. Dollars, the equivalent amount thereof in the applicable Alternative Currency as determined by the Administrative Agent at such time on the basis of the Spot Rate (determined in respect of the most recent Revaluation Date) for the purchase of such Alternative Currency with U.S. Dollars.

“Alternative Currency Rate Loans” means, each of, HIBOR Rate Loans, BBSY Rate Loans, NIBOR Rate Loans, CIBOR Rate Loans, STIBOR Rate Loans, Overnight Libor Rate Loans, Canadian Prime Rate Loans, PRIBOR Rate Loans, TIE Rate Loans, Bank Bill Rate Loans, WIBOR Rate Loans, SIBOR Rate Loans, Loans made using the rate referenced in clause (b) of the definition of Federal Funds Rate and any Loans made under an Additional Applicable Tranche in a currency other than U.S. Dollars.

“Amendment No. 1” means that certain Amendment No. 1 to Credit Agreement and Bank Joinder Agreement, dated as of the Amendment No. 1 Effective Date, among the Company, the Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent and the Banks party thereto.

“Amendment No. 1 Effective Date” means November 1, 2018.

“Amendment No. 2” means that certain Amendment No. 2 to Credit Agreement, dated as of the Amendment No. 2 Effective Date, among the Company, the Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent and the Banks party thereto.

“Amendment No. 2 Effective Date” means May 1, 2019.

“Amendment No. 3” means that certain Amendment No. 3 to Credit Agreement, dated as of the Amendment No. 3 Effective Date, among the Company, the Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent and the Banks party thereto.

“Amendment No. 3 Effective Date” means April 29, 2020.

“Amendment No. 4” means that certain Amendment No. 4 to Credit Agreement, dated as of the Amendment No. 4 Effective Date, among the Company, the Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent and the Banks party thereto.

“Amendment No. 4 Effective Date” means February 5, 2021.

“Applicable AA Funds Delivery Deadline” means, with respect to each applicable currency, the time designated on Annex II under the heading “Deadline for Administrative Agent Submission of Received Bank Loan Proceeds to Borrower” with respect to such applicable currency.

“Applicable Alternative Currency Sublimit” means, with respect to any Alternative Currency, the sublimit indicated for such Alternative Currency on Annex II under the heading “Alternative Currency Sublimit.”

“Applicable Bank” means, with respect to an Applicable Tranche, a Bank with an Applicable Tranche Commitment in such Applicable Tranche or, following termination or expiration of such Applicable Tranche Commitment, a Bank that has Applicable Tranche Revolving Loans outstanding.

“Applicable Bank Funding Deadline” means, with respect to each applicable currency, the time designated on Annex II under the heading “Deadline for Bank Submission of Funds to Administrative Agent” with respect to such applicable currency.

“Applicable Borrower Notice Deadline” means, with respect to each applicable currency, the time designated on Annex II under the column titled “Deadline for Loan Notice Submission by Borrower to Administrative Agent” with respect to such applicable currency.

“Applicable Lender Overnight Rate” means, for any day, (a) with respect to any amount denominated in U.S. Dollars, the Federal Funds Effective Rate and (b) with respect to any amount denominated in an Alternative Currency, the rate of interest per annum at which overnight deposits in the applicable Alternative Currency, in an amount approximately equal to the amount with respect to which such rate is being determined, would be offered for such day by a branch or Affiliate of Bank of America in the applicable offshore interbank market for such currency to major banks in such interbank market.

“Applicable Percentage” means with respect to any Applicable Tranche and each Bank with an Applicable Tranche Commitment thereunder, the percentage of the Aggregate Applicable Tranche Commitments represented by such Bank’s Applicable Tranche Commitment for such Applicable Tranche, subject to adjustment as provided in Section 2.11, provided that, if the Aggregate Applicable Tranche Commitments have terminated or expired, such Applicable Percentage shall be determined based upon the percentage for such Applicable Tranche of the total Applicable Tranche Revolving Loans represented by such Bank’s Applicable Tranche Revolving Loans.

“Applicable Prepayment Time” means, with respect to each applicable currency, the time designated on Annex II under the heading “Applicable Prepayment Time” with respect to such applicable currency.

“Applicable Reference Rate” means with respect to any Loan made in any currency, the rate indicated on Annex II under the heading “Applicable Reference Rate” for such currency.

“Applicable Tranche” means Tranche A, Tranche B, Tranche C, Tranche D, Tranche E, Tranche F, Tranche G, Tranche H, Tranche I or any Additional Applicable Tranche, as the case may be.

“Applicable Tranche Commitment” means, with respect to any Bank, (a) in the case of Tranche A, such Bank’s Tranche A Commitment, (b) in the case of Tranche B, such Bank’s Tranche B Commitment, (c) in the case of Tranche C, such Bank’s Tranche C Commitment, (d) in the case of Tranche D, such Bank’s Tranche D Commitment, (e) in the case of Tranche E, such Bank’s Tranche E Commitment, (f) in the case of Tranche F, such Bank’s Tranche F Commitment, (g) in the case of Tranche G, such Bank’s Tranche G Commitment, (h) in the case of Tranche H, such Bank’s Tranche H Commitment, (i) in the case of Tranche I, such Bank’s Tranche I Commitment and (j) in the case of any Additional Applicable Tranche, such Bank’s respective Additional Applicable Tranche Commitment.

“Applicable Tranche Covering Swingline Loans” has the meaning set forth in Section 3.1(a).

“Applicable Tranche Revolving Loan” means, with respect to any Applicable Tranche, Revolving Loans made under such Applicable Tranche.

“Applicable Tranche Swingline Bank” means, with respect to any Applicable Tranche, each Bank that has agreed in its sole discretion to provide Applicable Tranche Swingline Loans to the Company at the time of the request for such Applicable Tranche Swingline Loans by the Company pursuant to the terms hereof and in an aggregate amount as so consented to by such Bank.

“Applicable Tranche Swingline Exposure” means, at any time, with respect to each Applicable Tranche, the aggregate principal amount of all Applicable Tranche Swingline Loans outstanding under such Applicable Tranche at such time. With respect to each Applicable Tranche, the Applicable Tranche Swingline Exposure of any Bank (if such Bank is an Applicable Tranche Swingline Bank) at any time shall be the sum of (i) the aggregate principal amount of Applicable Tranche Swingline Loans made by such Bank under such Applicable Tranche minus the aggregate principal amount of participating interests acquired and funded in such Applicable Tranche Swingline Bank’s Applicable Tranche Swingline Loans by other Banks under such Applicable Tranche and (ii) the aggregate principal amount of participating interests acquired and funded by such Bank under such Applicable Tranche in Applicable Tranche Swingline Loans of other Applicable Tranche Swingline Banks under such Applicable Tranche.

“Applicable Tranche Swingline Loan” means, with respect to any Applicable Tranche, Swingline Loans made under any Applicable Tranche and shall include each Applicable Tranche Covering Swingline Loan made under such Applicable Tranche.

“Arrangers” means BofA Securities, Inc., in its capacity as joint lead arranger and joint bookrunner, Barclays Bank PLC, in its capacity as joint lead arranger and joint bookrunner, BMO Harris Bank N.A., in its capacity as joint lead arranger and joint bookrunner, MUFG Bank, Ltd., in its capacity as joint lead arranger and joint bookrunner, Citibank, N.A., in its capacity as joint lead arranger and joint bookrunner, Wells Fargo Bank, National Association, in its capacity as joint lead arranger and joint bookrunner, Bank of China, Chicago Branch, in its capacity as joint lead arranger and joint bookrunner, United Overseas Bank Limited, New York Agency, in its capacity as joint lead arranger and joint bookrunner, The Bank of Nova Scotia, in its capacity as joint lead arranger and joint bookrunner, Santander Bank, N.A., in its capacity as joint lead arranger and joint bookrunner, U.S. Bank National Association, in its capacity as joint lead arranger and joint bookrunner, Agricultural Bank of China Limited, New York Branch, in its capacity as joint lead arranger and joint bookrunner, TD Securities

(USA) LLC, in its capacity as joint lead arranger and joint bookrunner and Industrial and Commercial Bank of China Limited, New York Branch, in its capacity as joint lead arranger and joint bookrunner.

“**Article**” means an article of this Agreement unless another document is specifically referenced.

“**Assignees**” has the meaning set forth in [Section 11.1\(c\)](#).

“**Assignment Agreement**” has the meaning set forth in [Section 11.1\(c\)](#).

“**Audit**” has the meaning set forth in [Section 7.6](#).

“**Australian Dollars**” means the lawful currency of Australia.

“**Bail-In Action**” means the exercise of any Write-Down and Conversion Powers by the applicable Resolution Authority in respect of any liability of an Affected Financial Institution.

“**Bail-In Legislation**” means, (a) with respect to any EEA Member Country implementing Article 55 of Directive 2014/59/EU of the European Parliament and of the Council of the European Union, the implementing law, rule, regulation or requirement for such EEA Member Country from time to time which is described in the EU Bail-In Legislation Schedule, and (b) with respect to the United Kingdom, Part I of the United Kingdom Banking Act 2009 (as amended from time to time) and any other law, regulation or rule applicable in the United Kingdom relating to the resolution of unsound or failing banks, investment firms or other financial institutions or their affiliates (other than through liquidation, administration or other insolvency proceedings).

“**Bank Bill Rate**” means, in relation to any Loan in New Zealand Dollars for any day, the rate per annum equal to the Bank Bill Reference Bid Rate or a comparable or successor rate, which rate is approved by the Administrative Agent, as published on the applicable Bloomberg screen page (or such other commercially available source providing such quotations as may be designated by the Administrative Agent from time to time) at or about 10:45 a.m. (Auckland, New Zealand time) on the on such day for overnight deposits and, if any such applicable rate is below zero, the Bank Bill Rate for such day will be deemed to be zero.

“**Bank Bill Rate Loan**” means a Loan that bears interest at a rate based on the Bank Bill Rate. All Bank Bill Rate Loans shall be denominated in New Zealand Dollars.

“**Bank of America**” means Bank of America, N.A. and its successors.

“**Banks**” means the banks and other financial institutions listed on the signature pages of this Agreement or pursuant to any amendment to this Agreement, and their respective successors and assigns and any other Person that becomes a party hereto as a Bank in accordance with [Section 9.2\(b\)](#) or [11.1\(c\)](#).

“**Bank Notice**” has the meaning set for in [Section 3.1\(b\)](#).

“**BBSY Rate**” means, in relation to any Loan in Australian Dollars for any day, a rate per annum equal to the Bank Bill Swap Reference Bid Rate or, if such rate is not available, a comparable or successor rate, which rate is reasonably selected by the Administrative Agent, as published on the applicable Bloomberg screen page (or such other commercially available source providing such quotations as may be designated by the Administrative Agent from time to time) at or about 10:30 a.m. (Melbourne, Australia time) for an amount comparable to the amount of that Loan on such day for

overnight deposits and, if any such applicable rate is below zero, the BBSY Rate for such day will be deemed to be zero; provided, that, after the date hereof and to the extent a comparable or successor rate is reasonably selected by the Administrative Agent (as contemplated above), such selected rate shall be applied in a manner consistent with market practice; provided, further that to the extent such market practice is not administratively feasible for the Administrative Agent, such selected rate shall be applied in a manner as otherwise reasonably determined by the Administrative Agent.

“BBSY Rate Loan” means a Loan that bears interest at a rate based on the BBSY Rate. All BBSY Rate Loans shall be denominated in Australian Dollars.

“Beneficial Ownership Certification” means a certification regarding beneficial ownership required by the Beneficial Ownership Regulation.

“Beneficial Ownership Regulation” means 31 C.F.R. § 1010.230.

“Benefit Plan” means any of (a) an “employee benefit plan” (as defined in ERISA) that is subject to Title I of ERISA, (b) a “plan” as defined in Section 4975 of the Code or (c) any Person whose assets include (for purposes of ERISA Section 3(42) or otherwise for purposes of Title I of ERISA or Section 4975 of the Code) the assets of any such “employee benefit plan” or “plan”.

“Borrower Materials” has the meaning set forth in Section 7.1.

“Borrowing Base” means, at any time, an amount equal to the aggregate Discounted Value of all Collateral included in the Collateral Pool at such time, which Collateral (a) is subject to a perfected Lien in favor of the Collateral Agent for the benefit of the Agents and the Banks pursuant to the Loan Documents and (b) is free and clear of any Lien other than those granted under the Loan Documents or as permitted by Section 7.8; it being understood that, for purposes of calculating the Borrowing Base in respect of a Clearing Member Customer Gold Warrant Advance, prior to the funding of such Clearing Member Customer Gold Warrant Advance, the Discounted Value of the Collateral in the Clearing Member Customer Gold Warrant Advance Deposit Accounts into which such Clearing Member Customer Gold Warrant Advance is to be funded shall be deemed to be equal to the Discounted Value of the Clearing Member Customer Gold Warrants identified in the Collateral Notice delivered in respect of such Clearing Member Customer Gold Warrant Advance.

“Borrowing Date” means a date on which an Advance is made hereunder.

“Bullion Account Bank” has the meaning set forth in the Security and Pledge Agreement.

“Bullion Security Agreement” has the meaning set forth in the Security and Pledge Agreement.

“Business Day” means any day (other than a Saturday, Sunday or other day on which commercial banks are authorized to close under the laws of, or are in fact closed in, the governmental jurisdiction where the Administrative Agent’s Office with respect to obligations hereunder denominated in U.S. Dollars is located) that is:

(a) if such day relates to any interest rate settings as to a Loan denominated in U.S. Dollars described in clause (b) of the definition of “Federal Funds Rate”, a day on which dealings in deposits in U.S. Dollars are conducted by and between banks in the London interbank eurodollar market;

(b) if such day relates to any interest rate settings as to a Loan denominated in Euro, any fundings, disbursements, settlements and payments in Euro in respect of any such a Loan, or any other dealings in Euro to be carried out pursuant to this Agreement in respect of any such a Loan, a TARGET Day and a day on which dealings in deposits in U.S. Dollars are conducted by and between banks in the London interbank eurodollar market;

(c) if such day relates to any interest rate settings as to a Loan denominated in a LIBOR Quoted Specified Alternative Currency, a day on which dealings in deposits in such LIBOR Quoted Specified Alternative Currency are conducted by and between banks in the London interbank market;

(d) if such day relates to any fundings, disbursements, settlements and payments in a LIBOR Quoted Specified Alternative Currency in respect of a Loan denominated in a LIBOR Quoted Specified Alternative Currency or any other dealings in a LIBOR Quoted Specified Alternative Currency are to be carried out pursuant to this Agreement (other than any interest rate settings), a day on which banks are open for foreign exchange business in London;

(e) if such day relates to any fundings, disbursements, settlements and payments in a currency other than U.S. Dollars or a LIBOR Quoted Specified Alternative Currency in respect of a Loan denominated in a currency other than U.S. Dollars or a LIBOR Quoted Specified Alternative Currency or any other dealings in any currency other than U.S. Dollars or a LIBOR Quoted Specified Alternative Currency to be carried out pursuant to this Agreement in respect of any such Loan (other than any interest rate settings), a day on which banks are open for foreign exchange business in the principal financial center of the country of such currency; and

(f) if such day relates to any Market Value or Borrowing Base calculation to be made by the Collateral Monitoring Agent, a day on which the Collateral Agent, Collateral Monitoring Agent and each Custodian is open for business (or such other day as agreed to by the Collateral Agent, Collateral Monitoring Agent and the Company).

“**Canadian Dollars**” means the lawful currency of Canada.

“**Canadian Prime Rate**” means, for any day, the rate of interest per annum (rounded upwards, if necessary, to the next 1/100 of 1%) equal to the greater of (a) the interest rate per annum publicly announced from time to time by the Administrative Agent, acting through its Canada branch, as its reference rate in effect on such day at its principal office in Toronto for determining interest rates applicable to commercial loans denominated in Canadian Dollars and made by it in Canada (each change in such reference rate being effective from and including the date such change is publicly announced as being effective) and (b) the interest rate per annum equal to the sum of (i) the rate that appears on the Bloomberg Screen CDOR Page for Canadian Dollar bankers’ acceptances having a term of one month as of 10:00 am (Toronto time) on the date of determination as reported by the Administrative Agent (and if such screen is not available, any successor or similar service as may be reasonably selected by the Administrative Agent) and (ii) 0.50% per annum, in each case, adjusted automatically with each quoted or published change in such rate, all without the necessity of any notice to the Company or any other Person; provided that if the Canadian Prime Rate shall be less than zero, such rate shall be deemed zero for purposes of this Agreement.

“**Canadian Prime Rate Loan**” means a Loan that bears interest at a rate based on the Canadian Prime Rate. All Canadian Prime Rate Loans shall be denominated in Canadian Dollars.

“**Capitalized Lease Obligation**” means, subject to Section 1.2, at the time any determination thereof is to be made, the amount of the liability in respect of a capital lease that would at such time be required to be capitalized and reflected as a liability on a balance sheet (excluding the footnotes thereto) prepared in accordance with GAAP.

“**CBOT**” means The Chicago Board of Trade, together with its successors and assigns.

“**CBOT Rules**” means the rules of the CBOT and includes any interpretations thereof.

“**Change in Law**” has the meaning set forth in Section 11.8(b).

“**CIBOR Rate**” means, in relation to any Loan in Danish Kroner for any day, a rate per annum equal to the Copenhagen Interbank Offered Rate or, if such rate is not available, a comparable or successor rate, which rate is reasonably selected by the Administrative Agent, as published on the applicable Bloomberg screen page (or such other commercially available source providing such quotations as may be designated by the Administrative Agent from time to time) at or about 11:00 a.m. (Copenhagen, Denmark time) for an amount comparable to the amount of that Loan on such day for overnight deposits and, if any such applicable rate is below zero, the CIBOR Rate for such day will be deemed to be zero; provided, that, after the date hereof and to the extent a comparable or successor rate is reasonably selected by the Administrative Agent (as contemplated above), such selected rate shall be applied in a manner consistent with market practice; provided, further that to the extent such market practice is not administratively feasible for the Administrative Agent, such selected rate shall be applied in a manner as otherwise reasonably determined by the Administrative Agent.

“**CIBOR Rate Loan**” means a Loan that bears interest at a rate based on the CIBOR Rate. All CIBOR Rate Loans shall be denominated in Danish Kroner.

“**Clearing House**” means the department or departments of the Company that reconcile, settle, adjust and clear contracts on the exchange of the Company, CBOT, NYMEX or any other exchange in respect of which the Company has equivalent authority, as the case may be, subject to the Rules.

“**Clearing Member**” means a person specified as such on the CME website (located at the URL <https://www.cmegroup.com/clearing/financial-and-regulatory-surveillance/clearing-firms.html> (or at a replacement URL maintained by CME from time to time)).

“**Clearing Member Collateral Securities Account**” has the meaning set forth in the Security and Pledge Agreement.

“**Clearing Member Customer Collateral Account**” has the meaning set forth in the Security and Pledge Agreement.

“**Clearing Member Customer Gold Warrant**” has the meaning set forth in the Security and Pledge Agreement.

“**Clearing Member Customer Gold Warrant Advance**” has the meaning set forth in Section 3.1(a).

“**Clearing Member Customer Gold Warrant Advance Deposit Account**” has the meaning set forth in the Security and Pledge Agreement.

“**Clearing Member Customer Gold Warrant Advance Deposit Account Collateral**” has the meaning set forth in the Security and Pledge Agreement.

“**Clearing Member Customer Gold Warrant Advance Deposit Account Control Agreement**” has the meaning set forth in the Security and Pledge Agreement.

“**Clearing Member Security**” has the meaning set forth in the Security and Pledge Agreement.

“**Closing Date**” has the meaning set forth in Section 5.1.

“**CME**” has the meaning set forth in the preamble hereto.

“**CME Rules**” means the rules of the Company and includes any interpretations thereof.

“**Code**” means the Internal Revenue Code of 1986.

“**Collateral**” means, collectively, the “Collateral” under and as defined in the Security and Pledge Agreement, the “Security Assets” under and as defined in each of the Bullion Security Agreements, the “Security Assets” under and as defined in each of the FX Security Agreements, and any other “Collateral” or “Security Assets” or words of a similar nature under and as defined in any other Collateral Document.

“**Collateral Agent**” means Citibank, N.A., acting through its Agency and Trust Division, in its capacity as collateral agent for the Agents and Banks pursuant to Article X or any successor collateral agent hereunder, together with its successors and assigns.

“**Collateral Agent’s Office**” means the Collateral Agent’s address set forth on Schedule 13.1 or such other address as the Collateral Agent may from time to time notify to the Administrative Agent, the Company and the Banks.

“**Collateral Documents**” means the Security and Pledge Agreement, each Bullion Security Agreement, each FX Security Agreement, each Control Agreement, each Gold Warrant Collateral Document, and all other agreements and documents entered into by the Company or any Clearing Member in favor of the Collateral Agent for the benefit of the Agents and Banks for the purpose of granting a security interest or effecting the Security and Pledge Agreement, any Bullion Security Agreement, any FX Security Agreement, any Control Agreement or any Gold Warrant Collateral Document, in each case, as the same may be amended, restated, supplemented or otherwise modified from time to time.

“**Collateral Monitoring Agent**” means Citibank, N.A., acting through its Collateral Services Unit, Custody and Fund Services Division, in its capacity as Collateral monitoring and calculation agent for the Agents and Banks pursuant to Section 10.1, or any successor collateral monitoring agent hereunder, together with its successors and assigns.

“**Collateral Monitoring Agent’s Office**” means the Collateral Monitoring Agent’s address set forth on Schedule 13.1 or such other address as the Collateral Monitoring Agent may from time to time notify to the Administrative Agent, the Company and the Banks.

“**Collateral Notice**” has the meaning set forth in Section 3.1(a).

“**Collateral Pool**” has the meaning set forth in the Security and Pledge Agreement.

“**Company**” has the meaning set forth in the preamble hereto.

“**Company Information**” has the meaning set forth in Section 11.11.

“**Company Securities Account**” has the meaning set forth in the Security and Pledge Agreement.

“**Company Security**” has the meaning set forth in the Security and Pledge Agreement.

“**Concentration Policy**” has the meaning set forth in Annex I.

“**Consolidated Tangible Net Worth**” means at any date the consolidated shareholders’ equity of the Company and its consolidated Subsidiaries determined in accordance with Agreement Accounting Principles, less their consolidated Intangible Assets, all determined as of such date. For purposes of this definition “Intangible Assets” means the amount (to the extent reflected in determining such consolidated shareholders’ equity) of (i) all write-ups (other than write-ups resulting from foreign currency translations and write-ups of assets of a going concern business made within twelve months after the acquisition of such business) subsequent to March 31, 2020 in the book value of any asset owned by the Company or a consolidated Subsidiary, (ii) all investments in unconsolidated Subsidiaries and all equity investments in Persons which are not Subsidiaries and (iii) all unamortized debt discount and expense, unamortized deferred charges, goodwill, patents, trademarks, service marks, trade names, copyrights, organization or developmental expenses and other intangible items. In all cases, the value of “Intangible Assets” should be reduced by any associated deferred tax liabilities.

“**Control**” means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of a Person, whether through the ability to exercise voting power, by contract or otherwise. “**Controlling**” and “**Controlled**” have meanings correlative thereto.

“**Control Agreement**” has the meaning set forth in the Security and Pledge Agreement.

“**Controlled Group**” means all members of a controlled group of corporations and all trades or businesses (whether or not incorporated) under common control which, together with the Company, are treated as a single employer under Section 414(b) or 414(c) of the Internal Revenue Code (and Sections 414(m) and (o) of the Internal Revenue Code for purposes of the provisions relating to Section 412 of the Internal Revenue Code.)

“**Corporate Bonds**” means debt securities issued by private and public corporations.

“**Cross-Margining Clearing Organization**” means a clearing organization that has entered into a cross-margining agreement with the Clearing House.

“**Custodian**” has the meaning set forth in the Security and Pledge Agreement.

“**Czech Koruna**” means the lawful currency of the Czech Republic.

“**Danish Kroner**” means the lawful currency of Denmark.

“**Daylight Overdraft**” means an intraday settlement obligation of the Company to a Clearing Member incurred in the ordinary course of business in accordance with the Rules. Any such obligation not settled by the close of business on the date incurred shall then cease to be a Daylight Overdraft.

“Default” means an event described in Article VIII.

“Defaulted Clearing Member” means, as of any time of determination, a Clearing Member that has (i) failed to promptly discharge any obligation to the Company or (ii) become subject to any bankruptcy, reorganization, arrangement, insolvency, moratorium, or liquidation proceedings, or other similar proceedings under U.S. federal or state bankruptcy laws or other applicable law.

“Defaulting Bank” means, subject to Section 2.11(b), any Bank that (a) has failed to (i) fund all or any portion of its Loans as of the time required to be funded by it in accordance with Section 4.1 unless such Bank notifies the Administrative Agent and the Company in writing that such failure is the result of such Bank’s determination that one or more conditions precedent to funding (each of which conditions precedent, together with any applicable default, shall be specifically identified in such writing) has not been satisfied, or (ii) pay to the Administrative Agent, any Applicable Tranche Swingline Bank or any other Bank any other amount required to be paid by it hereunder (including in respect of its participation in Applicable Tranche Swingline Loans) in accordance with Section 2.14, (b) has notified the Company, the Administrative Agent, or any Applicable Tranche Swingline Bank in writing that it does not intend to comply with its funding obligations hereunder, or has made a public statement to that effect (unless such writing or public statement relates to such Bank’s obligation to fund a Loan hereunder and states that such position is based on such Bank’s determination that a condition precedent to funding (which condition precedent, together with any applicable default, shall be specifically identified in such writing or public statement) has not been satisfied), (c) has failed, within three Business Days after written request by the Administrative Agent or the Company, to confirm in writing to the Administrative Agent and the Company that it will comply with its prospective funding obligations hereunder (provided that such Bank shall cease to be a Defaulting Bank pursuant to this clause (c) upon receipt of such written confirmation by the Administrative Agent and the Company), or (d) has, or has a direct or indirect parent company that has, (i) become the subject of a proceeding under the federal bankruptcy code or any other liquidation, conservatorship, bankruptcy, assignment for the benefit of creditors, moratorium, rearrangement, receivership, insolvency, reorganization, or similar debtor relief laws, (ii) had appointed for it a receiver, custodian, conservator, trustee, administrator, assignee for the benefit of creditors or similar Person charged with reorganization or liquidation of its business or assets, including the Federal Deposit Insurance Corporation or any other state or federal regulatory authority acting in such a capacity, or (iii) become the subject of a Bail-in Action; provided that a Bank shall not be a Defaulting Bank solely by virtue of the ownership or acquisition of any equity interest in that Bank or any direct or indirect parent company thereof by a Governmental Authority so long as such ownership interest does not result in or provide such Bank with immunity from the jurisdiction of courts within the United States or from the enforcement of judgments or writs of attachment on its assets or permit such Bank (or such Governmental Authority) to reject, repudiate, disavow or disaffirm any contracts or agreements made with such Bank. Any determination by the Administrative Agent that a Bank is a Defaulting Bank under any one or more of clauses (a) through (d) above, and of the effective date of such status, shall be conclusive and binding absent manifest error, and such Bank shall be deemed to be a Defaulting Bank (subject to Section 2.11(b)) as of the date established therefor by the Administrative Agent in a written notice of such determination, which shall be delivered by the Administrative Agent to the Company, the Applicable Tranche Swingline Banks and each other Bank promptly following such determination.

“Designated Jurisdiction” means any country or territory to the extent that such country or territory itself, or its government, is the subject of any comprehensive Sanction.

“Discounted Value” means, at any time with respect to any Eligible Asset included in the Collateral or any Clearing Member Customer Gold Warrant, the Market Value of such asset determined

by multiplying the Market Value of such asset at the time by the Advance Rate applicable to such Eligible Asset or Clearing Member Customer Gold Warrant.

“**Division**” means the division of the assets, liabilities and/or obligations of a Person (the “**Dividing Person**”) among two or more Persons (whether pursuant to a “plan of division” or similar arrangement), which may or may not include the Dividing Person and pursuant to which the Dividing Person may or may not survive.

“**EEA Financial Institution**” means (a) any credit institution or investment firm established in any EEA Member Country which is subject to the supervision of an EEA Resolution Authority, (b) any entity established in an EEA Member Country which is a parent of an institution described in clause (a) of this definition, or (c) any financial institution established in an EEA Member Country which is a subsidiary of an institution described in clauses (a) or (b) of this definition and is subject to consolidated supervision with its parent.

“**EEA Member Country**” means any of the member states of the European Union, Iceland, Liechtenstein, and Norway.

“**EEA Resolution Authority**” means any public administrative authority or any person entrusted with public administrative authority of any EEA Member Country (including any delegatee) having responsibility for the resolution of any EEA Financial Institution.

“**Eligible Asset**” means any asset which is of a type and, where applicable, has a maturity as listed on Annex I hereto (other than any Clearing Member Customer Gold Warrant), subject, in each case, to the Concentration Policy and Minimum Credit Rating (as applicable).

“**ERISA**” means the Employee Retirement Income Security Act of 1974.

“**EU Bail-In Legislation Schedule**” means the EU Bail-In Legislation Schedule published by the Loan Market Association (or any successor Person), as in effect from time to time.

“**Euro**” and “**EUR**” mean the single currency of the Participating Member States.

“**Excess Availability**” means, as of any date, in the case of an Advance under any Applicable Tranche, the lesser of (i) the excess, if any, of the Aggregate Applicable Tranche Commitments minus the aggregate principal of all outstanding Loans disbursed under such Applicable Tranche to the Company and (ii) the excess, if any, of the Borrowing Base minus the aggregate principal of all outstanding Loans disbursed to the Company.

“**Excess Notice Date**” has the meaning set forth in Section 2.6(d).

“**Excluded Taxes**” means, with respect to any and all payments to any Agent, any Bank or any recipient of any payment to be made by or on account of any obligation of the Company under the Loan Documents, (i) net income Taxes, branch profits Taxes, franchise and excise Taxes (to the extent imposed in lieu of net income Taxes), and all interest, penalties and liabilities with respect thereto, imposed on any Agent or any Bank by the United States of America or any political subdivision thereof, or by the jurisdiction under the laws of which such Agent, Bank or recipient is organized or in which its principal office is located or, in the case of any Bank, in which its applicable lending office is located or by any other jurisdiction as a result of a present or former connection between such Agent, Bank or recipient and the jurisdiction imposing such Tax (other than connections arising from the transactions contemplated by the Loan Documents) and (ii) any U.S. federal withholding Taxes imposed by FATCA.

“Existing Credit Agreement” means the Credit Agreement dated as of November 3, 2016, among the Company, certain lenders parties thereto, Bank of America, N.A., as administrative agent and Deutsche Bank Trust Company Americas, as collateral agent, and the other agents named therein.

“FATCA” means Sections 1471 through 1474 of the Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with), any current or future regulations or official interpretations thereof, any agreements entered into pursuant to Section 1471(b)(1) of the Code and any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement, treaty or convention among Governmental Authorities implementing such sections of the Code.

“Federal Funds Effective Rate” means, for any day, the rate per annum equal to the weighted average of the rates on overnight Federal funds transactions with members of the Federal Reserve System, as published by the Federal Reserve Bank of New York on the Business Day next succeeding such day; provided that (a) if such day is not a Business Day, the Federal Funds Effective Rate for such day shall be such rate on such transactions on the next preceding Business Day as so published on the next succeeding Business Day, and (b) if no such rate is so published on such next succeeding Business Day, the Federal Funds Effective Rate for such day shall be the average rate (rounded upward, if necessary, to a whole multiple of 1/100 of 1%) charged to Bank of America on such day on such transactions as determined by the Administrative Agent, and, if the Federal Funds Effective Rate is below zero, such rate shall be deemed to be zero.

“Federal Funds Rate” means, for any day, a rate per annum equal to the greater of (a) the Federal Funds Effective Rate at the approximate time of the relevant Advance (for the first day of such Advance and until the next Business Day) or 12:00 noon (New York City time) (for each subsequent Business Day until the next Business Day) and (b) one-month LIBOR (as appearing for such first or subsequent Business Day on the applicable Bloomberg Screen at 11:00 a.m., London time (or if not available, such other commercially available source providing quotations of LIBOR as may be designated by the Administrative Agent from time to time), and, if the one-month LIBOR rate is below zero, such rate shall be deemed to be zero; provided, that, after the date hereof and to the extent a comparable or successor rate is reasonably selected by the Administrative Agent for any such rate (as contemplated in the definition of such reference rates), such selected rate shall be applied in a manner consistent with market practice; provided, further that to the extent such market practice is not administratively feasible for the Administrative Agent, such selected rate shall be applied in a manner as otherwise reasonably determined by the Administrative Agent.

“Federal Funds Rate Loan” means a Loan that bears interest at a rate based on the Federal Funds Rate. All Federal Funds Rate Loans shall be denominated in U.S. Dollars.

“Fee Letters” means, individually or collectively as the context may require, (i) that certain letter agreement dated as of February 26, 2019 among the Company, the Administrative Agent and Merrill Lynch, Pierce, Fenner & Smith Incorporated, (ii) that certain letter agreement dated as of September 11, 2018 among the Company, the Administrative Agent and Merrill Lynch, Pierce, Fenner & Smith Incorporated, and (ii) that certain letter agreement dated November 2, 2017, among the Company, the Collateral Monitoring Agent and the Collateral Agent.

“Foreign Bank” has the meaning set forth in Section 11.3(f).

“Funding Affiliate” has the meaning set forth in Section 2.1.

“**FX Account Bank**” has the meaning set forth in the Security and Pledge Agreement.

“**FX Account Collateral**” has the meaning set forth in the Security and Pledge Agreement.

“**FX Security Agreement**” has the meaning set forth in the Security and Pledge Agreement.

“**GAAP**” means generally accepted accounting principles in the United States as in effect from time to time.

“**Gold Bullion**” has the meaning set forth in the Security and Pledge Agreement.

“**Gold Warrants**” has the meaning set forth in the Security and Pledge Agreement.

“**Gold Warrants Issuer**” has the meaning set forth in the Security and Pledge Agreement.

“**Gold Warrant Collateral Document**” has the meaning set forth in the Security and Pledge Agreement.

“**Governmental Authority**” means the government of the United States of America, any other nation or any political subdivision thereof, whether state, provincial or local, and any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government (including any supra-national bodies such as the European Union or the European Central Bank).

“**Grantor**” has the meaning set forth in the Security and Pledge Agreement.

“**Guaranty**” of a Person means any agreement by which such Person assumes, guarantees, endorses, contingently agrees to purchase or provide funds for the payment of, or otherwise becomes liable upon, the obligation of any other Person, or agrees to maintain the net worth or working capital or other financial condition of any other Person or otherwise assures any creditor of such other Person against loss, including, without limitation, any comfort letter, operating agreement or take-or-pay contract and shall include, without limitation, the contingent liability of such Person in connection with any application for a letter of credit; provided that the term “**Guaranty**” shall not include endorsements for collection on deposit in the ordinary course of business.

“**Guaranty Fund Assets**” has the meaning set forth in the Security and Pledge Agreement.

“**Held Funds**” has the meaning specified in Section 3.1(b)(iii).

“**HIBOR Rate**” means, in relation to any Loan in Hong Kong Dollars for any day, a rate per annum equal to the Hong Kong Interbank Offered Rate or, if such rate is not available, a comparable or successor rate, which rate is reasonably selected by the Administrative Agent, as published on the applicable Bloomberg screen page (or such other commercially available source providing such quotations as may be designated by the Administrative Agent from time to time) at or about 11:00 am (Hong Kong time) for an amount comparable to the amount of that Loan on such day for overnight deposits and, if any such applicable rate is below zero, the HIBOR Rate for such day will be deemed to be zero; provided, that, after the date hereof and to the extent a comparable or successor rate is reasonably selected by the Administrative Agent (as contemplated above), such selected rate shall be applied in a manner consistent with market practice; provided, further that to the extent such market practice is not

administratively feasible for the Administrative Agent, such selected rate shall be applied in a manner as otherwise reasonably determined by the Administrative Agent.

“**HIBOR Rate Loan**” means a Loan that bears interest at a rate based on the HIBOR Rate. All HIBOR Rate Loans shall be denominated in Hong Kong Dollars.

“**Holdings**” has the meaning set forth in the preamble hereto.

“**Hong Kong Dollars**” means the lawful currency of Hong Kong.

“**Impacted Tranche**” has the meaning specified in Section 2.12.

“**Increased Cost Notice**” has the meaning set forth in Section 11.8(b).

“**Indebtedness**” of a Person means, without duplication, such Person’s (i) obligations for borrowed money (other than a Daylight Overdraft), (ii) obligations representing the deferred purchase price of property other than accounts payable arising in the ordinary course of such Person’s business on terms customary in the trade, (iii) obligations, whether or not assumed, secured by Liens or payable out of the proceeds or production from property (other than futures and options contracts held in a cross-margin account at the Company) now or hereafter owned or acquired by such Person, (iv) obligations which are evidenced by notes, acceptances, or other instruments, (v) Capitalized Lease Obligations, (vi) obligations for which such Person is obligated pursuant to a Guaranty of Indebtedness (other than the guarantee provided by the Clearing House to Clearing Members in the ordinary course of business for their obligations to one another) and (vii) reimbursement obligations with respect to letters of credit; provided, however, that “**Indebtedness**” shall not include (a) obligations of the Company to a Cross-Margining Clearing Organization arising out of the liquidation of one or more pairs of cross-margin accounts held at the Clearing House and at such Cross-Margining Clearing Organization, (b) obligations of the Company to a pledgee arising out of the liquidation of one or more pairs of cross-margin pledge accounts held at the Clearing House and at a Cross-Margining Clearing Organization and (c) with respect to the transfer of positions and related margin from a suspended Clearing Member to another Clearing Member, obligations of the Company to make a transfer in cash in respect of margin related to such suspended Clearing Member’s positions.

“**Indemnified Amounts**” has the meaning set forth in Section 11.8(a).

“**Indemnified Party**” has the meaning set forth in Section 11.8(a).

“**Indemnified Taxes**” means Taxes other than Excluded Taxes.

“**Judgment Currency**” has the meaning set forth in Section 11.15.

“**LIBOR**” has the meaning specified in the definition of Overnight Libor Rate.

“**LIBOR Screen Rate**” means the LIBOR quote on the applicable screen page the Administrative Agent designates to determine LIBOR (or such other commercially available source providing such quotations as may be designated by the Administrative Agent from time to time).

“**LIBOR Quoted Specified Alternative Currency**” means each of the following currencies: Euro, Sterling, Yen and Swiss Franc and any currency used in an Additional Applicable Tranche whose

Applicable Reference Rate is determined by reference to LIBOR, in each case as long as there is a published LIBOR rate with respect thereto.

“**Lien**” means, with respect to an asset, any security interest, mortgage, pledge, lien, claim, charge, encumbrance, title retention agreement, lessor’s interest under a capitalized lease or analogous instrument, in, of or on such asset.

“**Loan**” means a Revolving Loan or a Swingline Loan.

“**Loan Documents**” means this Agreement, each Note, the Fee Letters, Amendment No. 3 and the Collateral Documents, in each case as amended, restated, supplemented or otherwise modified from time to time.

“**Loan Maturity Date**” has the meaning set forth in Section 2.3(a).

“**Market Value**” means, as to any Eligible Asset or Clearing Member Customer Gold Warrant at any time of determination, the value determined by the Collateral Monitoring Agent (in accordance with Section 1.4) or any other entity (deemed acceptable for such purpose by the Administrative Agent and the Company), as the case may be, in its usual and customary manner by using the most recent closing price (but in no event shall the closing price be earlier than the previous Business Day’s closing price) with respect to such Eligible Asset or Clearing Member Customer Gold Warrant reasonably available to such Person from one or more pricing services selected by such Person in its sole discretion.

“**Material Adverse Effect**” means a material adverse effect on the Company’s financial position or the Company’s ability to perform its obligations in the ordinary course of business as they become due.

“**Member Attorney-in-Fact**” means the Company in its capacity as attorney-in-fact for the Clearing Members pursuant to the power of attorney authorized in CME Rule 817, CBOT Rule 817, NYMEX Rule 817 or any other similar Rule, as applicable.

“**Mexican Pesos**” means the lawful currency of Mexico.

“**Minimum Credit Rating**” has the meaning set forth in Annex I.

“**Money Fund Control Agreement**” has the meaning set forth in the Security and Pledge Agreement.

“**Money Fund Issuer**” has the meaning set forth in the Security and Pledge Agreement.

“**Money Fund Shares**” has the meaning set forth in the Security and Pledge Agreement.

“**Money Gridlock Situation**” means (1) a disruption in the clearing and settlement operations of the Clearing House due to disruptions caused by a default by a depository, temporary problems or delays in obtaining or making settlement payments due to delays, overuse or other similar problems with the Fed Wire or similar money transfer systems or (2) the failure of a Cross-Margining Clearing Organization to approve one or more withdrawals by the Clearing House from a cross-margining bank account held either by the Company and such Cross-Margining Clearing Organization jointly, or by a Clearing Member cross-margining its positions at the Clearing House with its own or an Affiliate’s positions at such Cross-Margining Clearing Organization.

“**Moody’s**” means Moody’s Investors Service, Inc. and any successor thereto.

“**Multiemployer Plan**” means a Plan maintained pursuant to a collective bargaining agreement or any other arrangement to which the Company or any member of the Controlled Group is a party to which more than one employer is or has been obligated to make contributions.

“**Multiple Timeline Currency**” means each of Australian Dollars, Mexican Pesos, New Zealand Dollars and Yen.

“**New Lending Office**” has the meaning set forth in Section 11.3(f).

“**New Zealand Dollars**” means the lawful currency of New Zealand.

“**NIBOR Rate**” means, in relation to any Loan in Norwegian Kroner for any day, a rate per annum equal to the Norwegian Interbank Offered Rate or, if such rate is not available, a comparable or successor rate, which rate is reasonably selected by the Administrative Agent, as published on the applicable Bloomberg screen page (or such other commercially available source providing such quotations as may be designated by the Administrative Agent from time to time) at or about 12:00 p.m. (London time) for an amount comparable to the amount of that Loan on such day for overnight deposits and, if any such applicable rate is below zero, the NIBOR Rate for such day will be deemed to be zero; provided, that, after the date hereof and to the extent a comparable or successor rate is reasonably selected by the Administrative Agent (as contemplated above), such selected rate shall be applied in a manner consistent with market practice; provided, further that to the extent such market practice is not administratively feasible for the Administrative Agent, such selected rate shall be applied in a manner as otherwise reasonably determined by the Administrative Agent.

“**NIBOR Rate Loan**” means a Loan that bears interest at a rate based on the NIBOR Rate. All NIBOR Rate Loans shall be denominated in Norwegian Kroner.

“**Non-Consenting Bank**” has the meaning set forth in Section 2.12.

“**Non-Terminating Bank**” has the meaning set forth in Section 2.7(b).

“**Norwegian Kroner**” means the lawful currency of Norway.

“**Note**” has the meaning set forth in Section 3.5.

“**Notice of Exclusive Control**” has the meaning set forth in the Security and Pledge Agreement.

“**NYMEX**” means New York Mercantile Exchange, Inc., a Delaware corporation, together with its successors and assigns.

“**NYMEX Rules**” means the rules of NYMEX and includes any interpretations thereof.

“**Obligations**” means all unpaid principal of, and accrued and unpaid interest on, the Loans (including, without limitation, interest accruing after the filing of any petition in bankruptcy, or the commencement of any insolvency, reorganization or like proceeding, relating to the Company, whether or not a claim for such interest is allowed in such proceeding), all accrued and unpaid commitment fees and expenses (including attorneys’ and professional advisors’ fees) required to be paid under this Agreement and all other obligations of the Company to any Agent or any Bank, in each case arising under the Loan

Documents whether direct or indirect, absolute or contingent, due or to become due, or now existing or hereafter incurred.

“**OFAC**” has the meaning set forth in Section 11.1(g).

“**Other Taxes**” means any and all present or future stamp or documentary taxes or any other excise or property taxes, charges or similar levies arising from any payment made under any Loan Document or from the execution, delivery or enforcement of, or otherwise with respect to, any Loan Document, including any interest, additions to tax or penalties applicable thereto, excluding however any such taxes imposed with respect to an assignment (other than an assignment made pursuant to Section 11.3(h)).

“**Outstanding Loan Notice**” has the meaning set forth in Section 3.1(b).

“**Overnight Libor Rate**” means, in relation to any Loan in a LIBOR Quoted Specified Alternative Currency for any day, a rate per annum equal to the London Interbank Offered Rate (“LIBOR”) for such currency or, if such rate is not available, a comparable or successor rate which rate is reasonably selected by the Administrative Agent, as published on the applicable Bloomberg screen page (or such other commercially available source providing such quotations as may be designated by the Administrative Agent from time to time) at approximately 11:00 a.m. (London time) for an amount comparable to the amount of that Loan on such day for overnight deposits in the relevant currency, and, if any such applicable rate is below zero, the Overnight Libor Rate for such day will be deemed to be zero; provided, that, after the date hereof and to the extent a comparable or successor rate is reasonably selected by the Administrative Agent (as contemplated above), such selected rate shall be applied in a manner consistent with market practice; provided, further that to the extent such market practice is not administratively feasible for the Administrative Agent, such selected rate shall be applied in a manner as otherwise reasonably determined by the Administrative Agent.

“**Overnight Libor Rate Loan**” means a Loan that bears interest at a rate based on the Overnight Libor Rate. All Overnight Libor Rate Loans shall be denominated in a Libor Quoted Specified Alternative Currency.

“**Participant Register**” has the meaning set forth in Section 11.1(b).

“**Participants**” has the meaning set forth in Section 11.1(b).

“**Participating Member State**” means any member state of the European Union that has the Euro as its lawful currency in accordance with legislation of the European Union relating to Economic and Monetary Union.

“**PBGC**” means the Pension Benefit Guaranty Corporation and its successors and assigns.

“**Performance Bonds**” means the assets made available to the Clearing House by each Clearing Member as security for its obligations to the Clearing House pursuant to CME Rule 820, CBOT Rule 820, NYMEX Rule 820 or any other similar Rule, as applicable.

“**Person**” means any corporation, natural person, firm, joint venture, partnership, limited liability company, trust, unincorporated organization, enterprise, government or any department or agency of any government.

“**Plan**” means an “employee pension benefit plan” (as described in Section 3(2) of ERISA) which is covered by Title IV of ERISA or subject to the minimum funding standards under Section 412 of the Internal Revenue Code as to which the Company or any member of the Controlled Group either, (i) sponsors or has sponsored, (ii) maintains or has maintained, or (iii) contributes to or has or had an obligation to make contributions.

“**Platform**” has the meaning set forth in Section 7.1.

“**Polish Zloty**” means the lawful currency of Poland.

“**PPSA**” has the meaning set forth in the Security and Pledge Agreement.

“**Prepayment Notice Deadline**” means, with respect to each applicable currency, the time designated on Annex II under the column titled “Deadline for Borrower Submission of a Prepayment Notice” with respect to such applicable currency.

“**PRIBOR Rate**” means, in relation to any Loan in Czech Koruna for any day, a rate per annum equal to the Prague Interbank Offered Rate or, if such rate is not available, a comparable or successor rate, which rate is reasonably selected by the Administrative Agent, as published on the applicable Bloomberg screen page (or such other commercially available source providing such quotations as may be designated by the Administrative Agent from time to time) at or about 11:00 am (Prague time) for an amount comparable to the amount of that Loan on such day for overnight deposits and, if any such applicable rate is below zero, the PRIBOR Rate for such day will be deemed to be zero; provided, that, after the date hereof and to the extent a comparable or successor rate is reasonably selected by the Administrative Agent (as contemplated above), such selected rate shall be applied in a manner consistent with market practice; provided, further that to the extent such market practice is not administratively feasible for the Administrative Agent, such selected rate shall be applied in a manner as otherwise reasonably determined by the Administrative Agent.

“**PRIBOR Rate Loan**” means a Loan that bears interest at a rate based on the PRIBOR Rate. All PRIBOR Rate Loans shall be denominated in Czech Koruna.

“**PTE**” means a prohibited transaction class exemption issued by the U.S. Department of Labor, as any such exemption may be amended from time to time

“**Public Bank**” has the meaning specified in Section 7.1.

“**Register**” has the meaning set forth in Section 11.1(d).

“**Regulation U**” means Regulation U of the Board of Governors of the Federal Reserve System from time to time in effect and shall include any successor or other regulation or official interpretation of said Board of Governors relating to the extension of credit by banks for the purpose of purchasing or carrying margin stocks applicable to member banks of the Federal Reserve System.

“**Related Parties**” means, with respect to any specified Person, such Person’s Affiliates and the respective directors, officers, employees, agents, partners and advisors of such Person and such Person’s Affiliates.

“**Relevant Governmental Body**” means the Federal Reserve Board and/or the Federal Reserve Bank of New York, or a committee officially endorsed or convened by the Federal Reserve Board and/or

the Federal Reserve Bank of New York for the purpose of recommending a benchmark rate to replace LIBOR in loan agreements similar to this Agreement.

“**Replacement Bank**” has the meaning set forth in Section 2.12.

“**Reportable Event**” means a reportable event as defined in Section 4043 of ERISA and the regulations issued under such Section, with respect to a Plan, excluding, however, such events as to which the PBGC by regulation waived the requirement of Section 4043(a) of ERISA that it be notified within 30 days of the occurrence of such event (provided that a failure to meet the minimum funding standard of Section 412 of the Internal Revenue Code and of Section 302 of ERISA shall be a reportable event regardless of the issuance of any such waivers in accordance with Section 412(c) of the Internal Revenue Code).

“**Requesting Bank**” has the meaning set forth in Section 2.12.

“**Required Applicable Banks**” means, with respect to any Applicable Tranche, Banks having more than 50% of the aggregate outstanding Applicable Tranche Commitments in such Applicable Tranche or, after the Revolving Credit Termination Date, more than 50% of the aggregate Applicable Tranche Revolving Loans outstanding (including participating interests in Applicable Tranche Swingline Loans) in such Applicable Tranche.

“**Required Banks**” means Banks having more than 50% of the sum of the Aggregate Commitments or, after the Revolving Credit Termination Date, more than 50% of the aggregate Revolving Loans outstanding (including participating interests in Swingline Loans).

“**Resignation Effective Date**” has the meaning set forth in Section 10.6.

“**Resolution Authority**” means an EEA Resolution Authority or, with respect to any UK Financial Institution, a UK Resolution Authority.

“**Responsible Officer**” means each of the Executive Chairman & President, Chief Executive Officer, Chief Financial Officer, Treasurer, Assistant Treasurer, Secretary and Assistant Secretary of CME.

“**Revaluation Date**” means, with respect to any Loan denominated in an Alternative Currency under an Applicable Tranche, each of the following: (i) each date of an Advance denominated in an Alternative Currency, (ii) while a Loan denominated in an Alternative Currency is outstanding on any date upon the request of (A) the Administrative Agent or (B) the Required Applicable Banks with respect to Loans outstanding under any Applicable Tranche and (iii) such additional dates as the Company may reasonably request from time to time.

“**Revolving Credit Termination Date**” means April 28, 2021 or any earlier date on which the Aggregate Commitments are terminated pursuant to this Agreement.

“**Revolving Loan**” has the meaning set forth in Section 2.1. Revolving Loans may be denominated in U.S. Dollars or Alternative Currencies, as the case may be for each Applicable Tranche as indicated on Schedule 1.1.

“**Rules**” means the collective reference to the CME Rules, the CBOT Rules, the NYMEX Rules and the rules of any other exchange which is qualified to clear trades through the Clearing House.

“**S&P**” means Standard & Poor’s Financial Services LLC, a subsidiary of the McGraw-Hill Companies, Inc. and any successor thereto.

“**Sanction(s)**” means any international economic sanction administered or enforced by the United States Government (including without limitation, OFAC), the United Nations Security Council, the European Union, Her Majesty’s Treasury or other relevant sanctions authority.

“**SDN List**” has the meaning set forth in [Section 11.1\(g\)](#).

“**Section**” means a numbered section of this Agreement, unless another document is specifically referenced.

“**Secured Obligations**” has the meaning set forth in the Security and Pledge Agreement.

“**Securities Account**” has the meaning set forth in the Security and Pledge Agreement.

“**Security and Pledge Agreement**” means that certain Security and Pledge Agreement, dated as of November 2, 2017 by and among the Clearing Members party thereto, the Company and the Collateral Agent, as amended, restated, supplemented or otherwise modified from time to time.

“**Security Deposits**” means the assets made available to the Clearing House by a Clearing Member as security for its obligations to the Clearing House pursuant to CME Rule 816, CBOT Rule 816, NYMEX Rule 816 or any other similar Rule.

“**SIBOR Rate**” means, in relation to any Loan in Singapore Dollars for any day, a rate per annum equal to the Singapore Interbank Offered Rate or, if such rate is not available, a comparable or successor rate, which rate is reasonably selected by the Administrative Agent, as published on the applicable Bloomberg screen page (or such other commercially available source providing such quotations as may be designated by the Administrative Agent from time to time) at or about 11:00 am (Singapore time) for an amount comparable to the amount of that Loan on such day for overnight deposits and, if any such applicable rate is below zero, the SIBOR Rate for such day will be deemed to be zero; provided, that, after the date hereof and to the extent a comparable or successor rate is reasonably selected by the Administrative Agent (as contemplated above), such selected rate shall be applied in a manner consistent with market practice; provided, further that to the extent such market practice is not administratively feasible for the Administrative Agent, such selected rate shall be applied in a manner as otherwise reasonably determined by the Administrative Agent.

“**SIBOR Rate Loan**” means a Loan that bears interest at a rate based on the SIBOR Rate. All SIBOR Rate Loans shall be denominated in Singapore Dollars.

“**Singapore Dollars**” means the lawful currency of the Republic of Singapore.

“**Single Employer Plan**” means a Plan maintained by the Company or any member of the Controlled Group for employees of the Company or any member of the Controlled Group.

“**SOFR**” with respect to any day means the secured overnight financing rate published for such day by the Federal Reserve Bank of New York, as the administrator of the benchmark (or a successor administrator) on the Federal Reserve Bank of New York’s website (or any successor source) and, in each case, that has been selected or recommended by the Relevant Governmental Body.

“**SOFR-Based Rate**” means SOFR or Term SOFR.

“**Sovereign Debt**” means any Foreign Sovereign Debt referenced in Annex I.

“**Spot Rate**” for a currency, on any day, means the rate determined (i) by the Administrative Agent, in the case of any Advance or (ii) by the Collateral Monitoring Agent, in the case of any Borrowing Base calculation, to be the rate quoted by the Person acting in such capacity as the spot rate for the purchase by such Person of such currency with another currency on such date, with such rate determined in the respective Agent’s usual and customary manner (including without limitation by obtaining such rate from Bloomberg or other comparable reporting service) and selected by such Agent in its sole discretion (provided that the rate with respect to any Borrowing Base calculation shall not be earlier than the rate determined as of the close of business on the prior Business Day); provided further that the Administrative Agent or Collateral Monitoring Agent, as applicable, may obtain such spot rate from another financial institution designated by the Administrative Agent or Collateral Monitoring Agent, as applicable, if the Person acting in such capacity does not have as of the date of determination a spot buying rate for any such currency.

“**Sterling**” and “**£**” mean the lawful currency of the United Kingdom.

“**STIBOR Rate**” means, in relation to any Loan in Swedish Kronor for any day, a rate per annum equal to the Stockholm Interbank Offered Rate or, if such rate is not available, a comparable or successor rate, which rate is reasonably selected by the Administrative Agent, as published on the applicable Bloomberg screen page (or such other commercially available source providing such quotations as may be designated by the Administrative Agent from time to time) at or about 11:00 a.m. (Stockholm, Sweden time) for an amount comparable to the amount of that Loan on such day for overnight deposits and, if any such applicable rate is below zero, the STIBOR Rate for such day will be deemed to be zero; provided, that, after the date hereof and to the extent a comparable or successor rate is reasonably selected by the Administrative Agent (as contemplated above), such selected rate shall be applied in a manner consistent with market practice; provided, further that to the extent such market practice is not administratively feasible for the Administrative Agent, such selected rate shall be applied in a manner as otherwise reasonably determined by the Administrative Agent.

“**STIBOR Rate Loan**” means a Loan that bears interest at a rate based on the STIBOR Rate. All STIBOR Rate Loans shall be denominated in Swedish Kronor.

“**Subsidiary**” means any corporation, partnership, joint venture, limited liability company or other business entity, more than 50% of the outstanding voting securities or other interests having ordinary voting power for the election of directors or other governing body (other than securities or interests having such power only by reason of the happening of a contingency) of which shall at the time be owned or controlled, directly or indirectly, by the Company or by one or more of its Subsidiaries or by the Company and one or more of its Subsidiaries.

“**Successor Rate**” has the meaning specified in Section 11.8(e).

“**Successor Rate Conforming Changes**” means, with respect to any proposed Successor Rate, any conforming changes to the definition of Federal Funds Rate, timing and frequency of determining rates and making payments of interest and other technical, administrative or operational matters as may be appropriate, in the discretion of the Administrative Agent, in consultation with the Borrower, to reflect the adoption and implementation of such Successor Rate and to permit the administration thereof by the Administrative Agent in a manner substantially consistent with market practice (or, if the Administrative

Agent determines that adoption of any portion of such market practice is not administratively feasible or that no market practice for the administration of such Successor Rate exists, in such other manner of administration as the Administrative Agent, in consultation with the Borrower, determines is reasonably necessary in connection with the administration of this Agreement).

“**Supermajority Banks**” means Banks having more than 75% of the sum of the Aggregate Commitments or, after the Revolving Credit Termination Date, more than 75% of the aggregate Revolving Loans outstanding (including funded participating interests in Swingline Loans).

“**Swedish Kronor**” means the lawful currency of Sweden.

“**Swingline Loan**” has the meaning set forth in [Section 2.1](#).

“**Swiss Francs**” means the lawful currency of Switzerland.

“**TARGET Day**” means any day on which the Trans-European Automated Real-time Gross Settlement Express Transfer (TARGET) payment system (or, if such payment system ceases to be operative, such other payment system (if any) determined by the Administrative Agent to be a suitable replacement) is open for the settlement of payments in Euro.

“**Taxes**” means any and all present or future taxes, levies, imposts, duties, fees, deductions, charges or withholdings (including backup withholding) imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

“**Terminated Bank**” has the meaning set forth in [Section 2.12](#).

“**Terminated Commitment**” has the meaning set forth in [Section 2.7\(b\)](#).

“**Term SOFR**” means the forward-looking term rate for any period that is approximately (as determined by the Administrative Agent) as long as any applicable interest period and that is based on SOFR and that has been selected or recommended by the Relevant Governmental Body, in each case as published on an information service as selected by the Administrative Agent from time to time in its reasonable discretion.

“**Test Draw**” means an Advance made for the purpose of testing communication and draw procedures.

“**TIIE Rate**” means, in relation to any Loan in Mexican Pesos for any day, the rate per annum equal to the Interbanking Equilibrium Interest Rate (“TIIE”), or a comparable or successor rate which rate is reasonably selected by the Administrative Agent, as published by Banco de Mexico in the Federation’s Official Gazette (or such other commercially available source providing such quotations as may be designated by the Administrative Agent from time to time) at or about 2:00 p.m. (Mexico City, Mexico time) for an amount comparable to the amount of that Loan on such day for overnight deposits and, if any such applicable rate is below zero, the TIIE Rate for such day will be deemed to be zero; provided, that, after the date hereof and to the extent a comparable or successor rate is reasonably selected by the Administrative Agent (as contemplated above), such selected rate shall be applied in a manner consistent with market practice; provided, further that to the extent such market practice is not administratively feasible for the Administrative Agent, such selected rate shall be applied in a manner as otherwise reasonably determined by the Administrative Agent.

“TIIE Rate Loan” means a Loan that bears interest at a rate based on the TIIE Rate. All TIIE Rate Loans shall be denominated in Mexican Pesos.

“Tranche A” means the credit facility provided pursuant to Section 2.1 to or for the benefit of the Company by the Banks with a Tranche A Commitment, which such facility shall consist of Loans (and participations in Swingline Loans) in the currencies referenced under the heading “Tranche A” on Schedule 1.1 and shall be in the maximum aggregate amount of the Tranche A Commitments of such Banks, as adjusted from time to time pursuant to the terms hereof.

“Tranche A Commitment” means, with respect to any Bank, the commitment of such Bank to make Loans and such Bank’s obligation to purchase participations in Swingline Loans in an aggregate principal amount at any one time outstanding not to exceed the amount set forth opposite such Bank’s name under the heading “Tranche A” on Schedule 1.1 (and in the currencies indicated for such tranche on Schedule 1.1), or in the Assignment Agreement pursuant to which such Bank shall have assumed its Tranche A Commitment, as applicable, as such amount may be (a) reduced from time to time pursuant to Section 2.7; (b) reduced or increased from time to time pursuant to assignments by or to such Bank pursuant to Section 2.12, 11.1 or 11.3(h); and (c) increased from time to time pursuant to Section 2.10.

“Tranche B” means the credit facility provided pursuant to Section 2.1 to or for the benefit of the Company by the Banks with a Tranche B Commitment, which such facility shall consist of Loans (and participations in Swingline Loans) in the currencies referenced under the heading “Tranche B” on Schedule 1.1 and shall be in the maximum aggregate amount of the Tranche B Commitments of such Banks, as adjusted from time to time pursuant to the terms hereof.

“Tranche B Commitment” means, with respect to any Bank, the commitment of such Bank to make Loans and such Bank’s obligation to purchase participations in Swingline Loans in an aggregate principal amount at any one time outstanding not to exceed the amount set forth opposite such Bank’s name under the heading “Tranche B” on Schedule 1.1 (and in the currencies indicated for such tranche on Schedule 1.1), or in the Assignment Agreement pursuant to which such Bank shall have assumed its Tranche B Commitment, as applicable, as such amount may be (a) reduced from time to time pursuant to Section 2.7; (b) reduced or increased from time to time pursuant to assignments by or to such Bank pursuant to Section 2.12, 11.1 or 11.3(h); and (c) increased from time to time pursuant to Section 2.10.

“Tranche C” means the credit facility provided pursuant to Section 2.1 to or for the benefit of the Company by the Banks with a Tranche C Commitment, which such facility shall consist of Loans (and participations in Swingline Loans) in the currencies referenced under the heading “Tranche C” on Schedule 1.1 and shall be in the maximum aggregate amount of the Tranche C Commitments of such Banks, as adjusted from time to time pursuant to the terms hereof.

“Tranche C Commitment” means, with respect to any Bank, the commitment of such Bank to make Loans and such Bank’s obligation to purchase participations in Swingline Loans in an aggregate principal amount at any one time outstanding not to exceed the amount set forth opposite such Bank’s name under the heading “Tranche C” on Schedule 1.1 (and in the currencies indicated for such tranche on Schedule 1.1), or in the Assignment Agreement pursuant to which such Bank shall have assumed its Tranche C Commitment, as applicable, as such amount may be (a) reduced from time to time pursuant to Section 2.7; (b) reduced or increased from time to time pursuant to assignments by or to such Bank pursuant to Section 2.12, 11.1 or 11.3(h); and (c) increased from time to time pursuant to Section 2.10.

“**Tranche D**” means the credit facility provided pursuant to Section 2.1 to or for the benefit of the Company by the Banks with a Tranche D Commitment, which such facility shall consist of Loans (and participations in Swingline Loans) in the currencies referenced under the heading “Tranche D” on Schedule 1.1 and shall be in the maximum aggregate amount of the Tranche D Commitments of such Banks, as adjusted from time to time pursuant to the terms hereof.

“**Tranche D Commitment**” means, with respect to any Bank, the commitment of such Bank to make Loans and such Bank’s obligation to purchase participations in Swingline Loans in an aggregate principal amount at any one time outstanding not to exceed the amount set forth opposite such Bank’s name under the heading “Tranche D” on Schedule 1.1 (and in the currencies indicated for such tranche on Schedule 1.1), or in the Assignment Agreement pursuant to which such Bank shall have assumed its Tranche D Commitment, as applicable, as such amount may be (a) reduced from time to time pursuant to Section 2.7; (b) reduced or increased from time to time pursuant to assignments by or to such Bank pursuant to Section 2.12, 11.1 or 11.3(h); and (c) increased from time to time pursuant to Section 2.10.

“**Tranche E**” means the credit facility provided pursuant to Section 2.1 to or for the benefit of the Company by the Banks with a Tranche E Commitment, which such facility shall consist of Loans (and participations in Swingline Loans) in the currencies referenced under the heading “Tranche E” on Schedule 1.1 and shall be in the maximum aggregate amount of the Tranche E Commitments of such Banks, as adjusted from time to time pursuant to the terms hereof.

“**Tranche E Commitment**” means, with respect to any Bank, the commitment of such Bank to make Loans and such Bank’s obligation to purchase participations in Swingline Loans in an aggregate principal amount at any one time outstanding not to exceed the amount set forth opposite such Bank’s name under the heading “Tranche E” on Schedule 1.1 (and in the currencies indicated for such tranche on Schedule 1.1), or in the Assignment Agreement pursuant to which such Bank shall have assumed its Tranche E Commitment, as applicable, as such amount may be (a) reduced from time to time pursuant to Section 2.7; (b) reduced or increased from time to time pursuant to assignments by or to such Bank pursuant to Section 2.12, 11.1 or 11.3(h); and (c) increased from time to time pursuant to Section 2.10.

“**Tranche F**” means the credit facility provided pursuant to Section 2.1 to or for the benefit of the Company by the Banks with a Tranche F Commitment, which such facility shall consist of Loans (and participations in Swingline Loans) in the currencies referenced under the heading “Tranche F” on Schedule 1.1 and shall be in the maximum aggregate amount of the Tranche F Commitments of such Banks, as adjusted from time to time pursuant to the terms hereof.

“**Tranche F Commitment**” means, with respect to any Bank, the commitment of such Bank to make Loans and such Bank’s obligation to purchase participations in Swingline Loans in an aggregate principal amount at any one time outstanding not to exceed the amount set forth opposite such Bank’s name under the heading “Tranche F” on Schedule 1.1 (and in the currencies indicated for such tranche on Schedule 1.1), or in the Assignment Agreement pursuant to which such Bank shall have assumed its Tranche F Commitment, as applicable, as such amount may be (a) reduced from time to time pursuant to Section 2.7; (b) reduced or increased from time to time pursuant to assignments by or to such Bank pursuant to Section 2.12, 11.1 or 11.3(h); and (c) increased from time to time pursuant to Section 2.10.

“**Tranche G**” means the credit facility provided pursuant to Section 2.1 to or for the benefit of the Company by the Banks with a Tranche G Commitment, which such facility shall consist of Loans (and participations in Swingline Loans) in the currencies referenced under the heading “Tranche G” on

Schedule 1.1 and shall be in the maximum aggregate amount of the Tranche G Commitments of such Banks, as adjusted from time to time pursuant to the terms hereof.

“Tranche G Commitment” means, with respect to any Bank, the commitment of such Bank to make Loans and such Bank’s obligation to purchase participations in Swingline Loans in an aggregate principal amount at any one time outstanding not to exceed the amount set forth opposite such Bank’s name under the heading “Tranche G” on Schedule 1.1 (and in the currencies indicated for such tranche on Schedule 1.1), or in the Assignment Agreement pursuant to which such Bank shall have assumed its Tranche G Commitment, as applicable, as such amount may be (a) reduced from time to time pursuant to Section 2.7; (b) reduced or increased from time to time pursuant to assignments by or to such Bank pursuant to Section 2.12, 11.1 or 11.3(h); and (c) increased from time to time pursuant to Section 2.10.

“Tranche H” means the credit facility provided pursuant to Section 2.1 to or for the benefit of the Company by the Banks with a Tranche H Commitment, which such facility shall consist of Loans (and participations in Swingline Loans) in the currencies referenced under the heading “Tranche H” on Schedule 1.1 and shall be in the maximum aggregate amount of the Tranche H Commitments of such Banks, as adjusted from time to time pursuant to the terms hereof.

“Tranche H Commitment” means, with respect to any Bank, the commitment of such Bank to make Loans and such Bank’s obligation to purchase participations in Swingline Loans in an aggregate principal amount at any one time outstanding not to exceed the amount set forth opposite such Bank’s name under the heading “Tranche H” on Schedule 1.1 (and in the currencies indicated for such tranche on Schedule 1.1), or in the Assignment Agreement pursuant to which such Bank shall have assumed its Tranche H Commitment, as applicable, as such amount may be (a) reduced from time to time pursuant to Section 2.7; (b) reduced or increased from time to time pursuant to assignments by or to such Bank pursuant to Section 2.12, 11.1 or 11.3(h); and (c) increased from time to time pursuant to Section 2.10.

“Tranche I” means the credit facility provided pursuant to Section 2.1 to or for the benefit of the Company by the Banks with a Tranche I Commitment, which such facility shall consist of Loans (and participations in Swingline Loans) in the currencies referenced under the heading “Tranche I” on Schedule 1.1 and shall be in the maximum aggregate amount of the Tranche I Commitments of such Banks, as adjusted from time to time pursuant to the terms hereof.

“Tranche I Commitment” means, with respect to any Bank, the commitment of such Bank to make Loans and such Bank’s obligation to purchase participations in Swingline Loans in an aggregate principal amount at any one time outstanding not to exceed the amount set forth opposite such Bank’s name under the heading “Tranche I” on Schedule 1.1 (and in the currencies indicated for such tranche on Schedule 1.1), or in the Assignment Agreement pursuant to which such Bank shall have assumed its Tranche I Commitment, as applicable, as such amount may be (a) reduced from time to time pursuant to Section 2.7; (b) reduced or increased from time to time pursuant to assignments by or to such Bank pursuant to Section 2.12, 11.1 or 11.3(h); and (c) increased from time to time pursuant to Section 2.10.

“UCC” has the meaning set forth in the Security and Pledge Agreement.

“UK Financial Institution” means any BRRD Undertaking (as such term is defined under the PRA Rulebook (as amended from time to time) promulgated by the United Kingdom Prudential Regulation Authority) or any person subject to IFPRU 11.6 of the FCA Handbook (as amended from time to time) promulgated by the United Kingdom Financial Conduct Authority, which includes certain credit institutions and investment firms, and certain affiliates of such credit institutions or investment firms.

“UK Resolution Authority” means the Bank of England or any other public administrative authority having responsibility for the resolution of any UK Financial Institution.

“Unfunded Liabilities” means, (i) in the case of Single Employer Plans, the amount (if any) by which the present value of all vested nonforfeitable benefits under such Plan exceeds the fair market value of all Plan assets allocable to such benefits, all determined as of the then most recent valuation date for such Plan, and (ii) in the case of Multiemployer Plans, the withdrawal liability of the Company and Subsidiaries.

“Unmatured Default” means an event which but for the lapse of time or the giving of notice, or both, would constitute a Default.

“US Bank” has the meaning set forth in Section 11.3(e).

“U.S. Dollar Equivalent” means, at any time, (a) with respect to any amount denominated in U.S. Dollars, such amount, and (b) with respect to any amount denominated in any Alternative Currency, the equivalent amount thereof in U.S. Dollars as determined by the Administrative Agent at such time on the basis of the Spot Rate (determined in respect of the most recent Revaluation Date) for the purchase of U.S. Dollars with such Alternative Currency.

“U.S. Dollars” or **“\$”** refers to lawful money of the United States of America.

“USA Patriot Act” means the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001, Pub. L. No. 107-56, 115 Stat. 272 (2001).

“Wholly-Owned Subsidiary” means any Subsidiary all of the outstanding voting securities of which shall at the time be owned or controlled, directly or indirectly, by the Company or one or more Wholly-Owned Subsidiaries, or by the Company and one or more Wholly-Owned Subsidiaries, or any similar business organization which is so owned or controlled.

“WIBOR Rate” means, in relation to any Loan in Polish Zloty for any day, a rate per annum equal to the Warsaw Interbank Offered Rate or, if such rate is not available, a comparable or successor rate, which rate is reasonably selected by the Administrative Agent, as published on the applicable Bloomberg screen page (or such other commercially available source providing such quotations as may be designated by the Administrative Agent from time to time) at or about 11:00 am (Warsaw time) for an amount comparable to the amount of that Loan on such day for overnight deposits and, if any such applicable rate is below zero, the WIBOR Rate for such day will be deemed to be zero; provided, that, after the date hereof and to the extent a comparable or successor rate is reasonably selected by the Administrative Agent (as contemplated above), such selected rate shall be applied in a manner consistent with market practice; provided, further that to the extent such market practice is not administratively feasible for the Administrative Agent, such selected rate shall be applied in a manner as otherwise reasonably determined by the Administrative Agent.

“WIBOR Rate Loan” means a Loan that bears interest at a rate based on the WIBOR Rate. All WIBOR Rate Loans shall be denominated in Polish Zloty.

“Withholding Agent” means the Company or the Administrative Agent.

“Write-Down and Conversion Powers” means, (a) with respect to any EEA Resolution Authority, the write-down and conversion powers of such EEA Resolution Authority from time to time under the Bail-In Legislation for the applicable EEA Member Country, which write-down and conversion powers are described in the EU Bail-In Legislation Schedule and (b) with respect to the United Kingdom, any powers of the applicable Resolution Authority under the Bail-In Legislation to cancel, reduce, modify or change the form of a liability of any UK Financial Institution or any contract or instrument under which that liability arises, to convert all or part of that liability into shares, securities or obligations of that person or any other person, to provide that any such contract or instrument is to have effect as if a right had been exercised under it or to suspend any obligation in respect of that liability or any of the powers under that Bail-In Legislation that are related to or ancillary to any of those powers.

“Yen” and “¥” mean the lawful currency of Japan.

Section 1.2 Other Definitional and Interpretive Provisions. All terms defined in this Agreement shall be equally applicable to both the singular and plural forms of the defined terms. Unless the context otherwise requires, any reference to any law, rule or regulation (including, without limitation, all references to any Rule) or agreement shall be construed as a reference to the same as it may from time to time be amended, modified, supplemented or replaced. Unless the context requires otherwise, any reference herein to any Person shall be construed to include such Person’s successors and assigns. The words “include,” “includes” and “including” shall be deemed to be followed by the phrase “without limitation.” Notwithstanding any other provision contained herein, all computations of amounts and ratios referred to in Section 7.7 shall be made without giving effect to any election under Statement of Financial Accounting Standards 159 (or any other Financial Accounting Standard having a similar result or effect) to value any Indebtedness or other liabilities of the Company at “fair value” as defined therein. Notwithstanding anything in this Agreement or any other Loan Document to the contrary, all obligations of any Person that are or would be characterized as operating lease obligations in accordance with GAAP on the Amendment No. 1 Effective Date (whether or not such operating lease obligations were in effect on such date) shall continue to be (or shall be, in the case of any such obligations not in effect on the Amendment No. 1 Effective Date) accounted for as operating lease obligations (and not as Capitalized Lease Obligations) for all purposes under this Agreement and the other Loan Documents, regardless of any change in GAAP following the Amendment No. 1 Effective Date that would otherwise require such obligations to be treated or recharacterized (on a prospective or retroactive basis or otherwise) as Capitalized Lease Obligations and without giving effect to the implementation of FASB ASU No. 2016-02, Leases (Topic 842). Any reference herein to a merger, transfer, consolidation, amalgamation, consolidation, assignment, sale, disposition or transfer, or similar term, shall be deemed to apply to a division of or by a limited liability company, or an allocation of assets to a series of a limited liability company (or the unwinding of such a division or allocation), as if it were a merger, transfer, consolidation, amalgamation, consolidation, assignment, sale, disposition or transfer, or similar term, as applicable, to, of or with a separate Person. Any division of a limited liability company shall constitute a separate Person hereunder (and each division of any limited liability company that is a Subsidiary, joint venture or any other like term shall also constitute such a Person or entity).

Section 1.3 Exchange Rates.

a. The Administrative Agent shall determine the Spot Rates as of each Revaluation Date to be used for calculating U.S. Dollar Equivalent amounts of Advances denominated in Alternative Currencies. The Collateral Monitoring Agent shall determine the Spot Rates as of each Revaluation Date to be used for calculating U.S. Dollar Equivalent amounts of any Collateral in accordance with Section 1.4(c). The Administrative Agent or the Collateral Monitoring Agent, as applicable, shall communicate such calculations to the Company and the other such Agent (the Collateral Monitoring Agent or the Administrative Agent, as applicable) promptly after such determination of the Spot Rate. Such Spot Rates shall become effective as of such Revaluation Date and shall be the Spot Rates employed in converting any amounts between the applicable currencies until the next Revaluation Date to occur. Except for purposes of financial statements delivered by the Company hereunder or calculating financial covenants hereunder or except as otherwise provided herein, the applicable amount of any currency (other than U.S. Dollars) for purposes hereof shall be such U.S. Dollar Equivalent amount as so determined by the Administrative Agent.

b. Wherever in this Agreement in connection with an Advance denominated in Alternative Currencies or prepayment thereof, an amount, such as a required minimum or multiple amount, is expressed in U.S. Dollars, but such Advance or prepayment thereof is denominated in an Alternative Currency, such amount shall be the relevant Alternative Currency Equivalent of such U.S. Dollar amount (rounded to the nearest unit of such Alternative Currency, with 0.5 of a unit being rounded upward), as determined by the Administrative Agent.

Section 1.4 Collateral Valuation.

a. The Discounted Value of the Collateral shall be monitored by, and all calculations of “Discounted Value” or “Borrowing Base” contemplated by the Loan Documents shall be determined by the Collateral Monitoring Agent; provided that, in making any such determination, the Collateral Monitoring Agent shall be entitled (i) to conclusively rely, without any independent investigation or inquiry, on any respective Custodian’s calculations of Market Value which are provided to the Collateral Monitoring Agent in the manner agreed to by the Collateral Monitoring Agent in the applicable Control Agreement or other applicable Collateral Document and (ii) in the case of any Gold Warrant or Clearing Member Customer Gold Warrant, to conclusively rely, without any independent investigation or inquiry, on a description of the amount and characteristics of gold subject to such Gold Warrant or Clearing Member Customer Gold Warrant, as applicable, or other data provided to the Collateral Monitoring Agent by the applicable Custodian. The Collateral Monitoring Agent shall not be liable for any failure or delay by any Custodian to provide such calculations, so long as the Collateral Monitoring Agent has used its commercially reasonable efforts to cause such Custodian to do so, nor shall the Collateral Monitoring Agent be liable for any errors in any Custodian’s calculations. Upon the request of the Collateral Monitoring Agent, the Company shall use commercially reasonable efforts to assist the Collateral Monitoring Agent in obtaining such calculations from the applicable Custodians. If any Custodian fails or is delayed in providing such calculations, the Collateral Monitoring Agent shall provide such calculations; provided that such Custodian has delivered to the Collateral Monitoring Agent a list of the assets and amounts thereof and other data, in each case, required to be delivered under the terms of the relevant Control Agreement or other applicable Collateral Document (upon which the Collateral Monitoring Agent may conclusively rely, without any independent inquiry or investigation). With respect to any asset, if any Custodian fails to deliver, in accordance with the relevant Control Agreement or other applicable Collateral Document, any information deemed reasonably necessary by the

Collateral Monitoring Agent for the Collateral Monitoring Agent to calculate the Market Value of such asset, the Collateral Monitoring Agent shall value such asset held by such Custodian at zero (0) for purposes of its calculations. The Administrative Agent and Collateral Agent shall be entitled to conclusively rely, without any independent investigation or inquiry, on any such calculations made by the Collateral Monitoring Agent which are provided (either directly or through the Collateral Agent) to the Administrative Agent.

b. On each Borrowing Date, the Collateral Monitoring Agent shall determine the Market Value of the Collateral securing the Loans to be made on such date in accordance with Section 1.4(a). On each subsequent Business Day on which there is an outstanding Advance, the Collateral Monitoring Agent shall determine the Borrowing Base on and as of such date in accordance with Section 1.4(a), and, in each case, shall promptly (and in any event on or before 12:00 noon (New York time on such day)) advise and notify (which may be by telephone, provided that written confirmation thereof shall promptly follow) the Company, the Collateral Agent and the Administrative Agent of each such determination.

c. Each calculation of the Discounted Value of any Collateral denominated in a currency other than U.S. Dollars shall include the U.S. Dollar Equivalent of such Discounted Value. For purposes of determining such U.S. Dollar Equivalent as of any date, the Spot Rates as of the most recent Revaluation Date shall be used to calculate the Market Value of the Collateral Pool as of the date of determination.

Section 1.5 Change of Currency. Each obligation of the Company to make a payment denominated in the national currency unit of any member state of the European Union that adopts the Euro as its lawful currency after the date hereof shall be redenominated into Euro at the time of such adoption. If, in relation to the currency of any such member state, the basis of accrual of interest expressed in this Agreement in respect of that currency shall be inconsistent with any convention or practice in the London interbank market for the basis of accrual of interest in respect of the Euro, such expressed basis shall be replaced by such convention or practice with effect from the date on which such member state adopts the Euro as its lawful currency. Each provision of this Agreement shall be subject to such reasonable changes of construction as the Administrative Agent may from time to time specify to be appropriate to reflect the adoption of the Euro by any member state of the European Union and any relevant market conventions or practices relating to the Euro. Each provision of this Agreement also shall be subject to such reasonable changes of construction as the Administrative Agent may from time to time reasonably determine to be appropriate to reflect a change in currency of any other country and any relevant market conventions or practices relating to the change in currency. The Administrative Agent shall promptly advise the Company of any changes of construction pursuant to the preceding two sentences hereof.

Section 1.6 Interest Rates. The Administrative Agent does not warrant, nor accept responsibility, nor shall the Administrative Agent have any liability with respect to the administration, submission or any other matter related to the rates comprising any "Applicable Reference Rate" or with respect to any rate that is an alternative or replacement for or successor to any of such rate (including, without limitation, any Successor Rate) or the effect of any of the foregoing, or of any Successor Rate Conforming Changes.

ARTICLE II

THE CREDIT

Section 2.1 Revolving Credit Loans.

a. Through and including the Revolving Credit Termination Date, (i) each Bank with an Applicable Tranche Commitment under an Applicable Tranche severally agrees, on the terms and conditions set forth in this Agreement, to make revolving loans under such Applicable Tranche (“**Revolving Loans**”) to the Company from time to time in amounts not to exceed in the aggregate for each such Applicable Tranche at any one time outstanding, the amount of its Applicable Tranche Commitment under such Applicable Tranche and (ii) each Applicable Tranche Swingline Bank severally may, in its sole discretion and on the terms and conditions set forth in this Agreement, make swingline loans under any Applicable Tranche (“**Swingline Loans**”) to the Company from time to time and in such amounts as such Applicable Tranche Swingline Bank shall determine at the time of each request by the Company for a Swingline Loan; provided, however, that no Revolving Loans or Swingline Loans shall be made if, after giving effect thereto, (A) the aggregate outstanding principal of all Loans would exceed the Aggregate Commitments, (B) the aggregate outstanding principal of all Applicable Tranche Revolving Loans with respect to any Applicable Tranche would exceed the Aggregate Applicable Tranche Commitment for such Applicable Tranche, (C) the aggregate outstanding principal amount of all Revolving Loans in an Alternative Currency would exceed the Applicable Alternative Currency Sublimit, or (D) the aggregate outstanding principal of the Loans would exceed the Borrowing Base. Subject to the terms of this Agreement, the Company may borrow, repay and reborrow Revolving Loans and Swingline Loans at any time up to the Revolving Credit Termination Date. For the avoidance of doubt, (x) a Loan can be a Revolving Loan or a Swingline Loan, subject to the terms and conditions set forth in the Loan Documents and (y) the provision of Swingline Loans by any Applicable Tranche Swingline Bank under an Applicable Tranche shall be in addition to, and shall not relieve such Bank from its obligation to make Revolving Loans under such Applicable Tranche ratably in proportion to the amount of its Applicable Tranche Commitment. The obligations of any Bank to make Revolving Loans hereunder shall cease at 5:01 p.m. (New York City time) on the Revolving Credit Termination Date. For the avoidance of doubt, (i) no Bank shall have any obligation to become an Applicable Tranche Swingline Bank and make Swingline Loans, (ii) any determination by an Applicable Tranche Swingline Bank to make a specific Swingline Loan shall not obligate the same Applicable Tranche Swingline Bank to make any other Swingline Loan and (iii) the Company’s ability to request such Swingline Loans shall cease at 5:01 p.m. (New York City time) on the Revolving Credit Termination Date. Notwithstanding anything to the contrary contained herein, any Bank (“**Affiliate Funding Bank**”) may at its option elect to fund any loan through any foreign or domestic branch of such Bank or such Affiliate (“**Funding Affiliate**”) of such Bank (and shall provide notice of any change in funding office to the Administrative Agent by delivering an amended Administrative Questionnaire, which change in funding office shall be effective within 5 Business Days or less of delivery of such amended Administrative Questionnaire). Each party hereto hereby agrees that (i) neither the grant to any Funding Affiliate nor the exercise of any Funding Affiliate of such option shall increase the costs or expenses or otherwise increase or change the obligation of the Company under this Agreement or any of the other Loan Documents, (ii) no Funding Affiliate shall be liable for any indemnity or similar payment obligation under this Agreement for which an Affiliate Funding Bank would be liable, (iii) the Affiliate Funding Bank’s obligations under this Agreement to the other parties to this Agreement shall remain unchanged, (iv) the Affiliate Funding Bank shall remain solely responsible for the performance under this Agreement, (v) the Company and each Agent shall continue to deal solely and directly with such Affiliate Funding Bank in connection with the Affiliate Funding Bank’s rights and obligations under this Agreement (it being acknowledged that the Administrative Agent will forward Bank Notices regarding borrowings of Alternative Currencies directly to Funding Affiliates specifically identified for receipt of such notices in the respective Affiliate Funding Bank’s Administrative Questionnaire) and (vi) the Affiliate Funding Bank shall for all purposes, retain the sole right to enforce this Agreement and to approve any amendment, waiver or other modification of

any provision of any Loan Document. The making of a Revolving Loan or a Swingline Loan under any Applicable Tranche by a Funding Affiliate hereunder shall utilize the Applicable Tranche Commitment of such Affiliate Funding Bank to the same extent, and as if, such Loan were made by such Affiliate Funding Bank.

b. With respect to any Advance requested hereunder to be made in any particular currency (the “**Specified Currency**”) at any time, (x) in the event there are no other outstanding Advances at such time or the only outstandings at such time are in the Specified Currency, the Company shall allocate such Advance across all Applicable Tranches which contain such currency on a pro rata basis based on the amount of Loans available to be made in such currency under each such Applicable Tranche; provided that no such allocation with respect to a Multiple Timeline Currency shall be required to be made to or from Tranche I and (y) in the event there are outstanding Advances in currencies other than the Specified Currency at such time, the Company shall use commercially reasonable efforts to the extent practicable (taking into account the minimum denominations required for Advances and the Company’s need for Loans in Alternative Currencies) to allocate Advances hereunder such that, after giving pro forma effect to each such Advance and any payments thereof, the percentage of unused Applicable Tranche Commitments under each Applicable Tranche relative to the Aggregate Applicable Tranche Commitments are approximately equal; provided that, (1) no such allocation with respect to a Multiple Timeline Currency shall be required to be made to or from Tranche I and (2) the failure to maintain such approximately equal percentages referenced in this clause (y) shall not be a Default or an Unmatured Default hereunder.

Section 2.2 Ratable Loans. Each Advance under an Applicable Tranche shall consist of Revolving Loans made from the several Applicable Banks who have Applicable Tranche Commitments under such Applicable Tranche, ratably in proportion to the amounts of their respective Applicable Tranche Commitments on the date of such Advance, or of Swingline Loans made from the Applicable Tranche Swingline Banks agreeing to make any specific Applicable Tranche Swingline Loans.

Section 2.3 Repayment of Advances.

a. Each Advance under an Applicable Tranche and accrued and unpaid interest thereon shall be due and payable to the Administrative Agent for the account of each Applicable Bank making such Advance thirty-five (35) days after such Advance is made or, if earlier, the Revolving Credit Termination Date (any such date, a “**Loan Maturity Date**”), except in the case of a Test Draw which shall be repaid pursuant to the provisions of Section 7.2 hereof and except as provided in Section 2.4.

b. Each then outstanding Advance and accrued and unpaid interest thereon shall be due and payable on the Revolving Credit Termination Date.

Section 2.4 Reborrowing of Advances. No Applicable Tranche Revolving Loan may be made hereunder to repay any Advance under any Applicable Tranche without the consent of (a) the Required Applicable Banks under the Applicable Tranche from which such Revolving Loan is made and (b) the Required Applicable Banks under the Applicable Tranche to which the repayment is to be made, except that Revolving Loans under an Applicable Tranche may be made to repay any outstanding Swingline Loan under such Applicable Tranche (in which case such Revolving Loans and accrued and unpaid interest thereon shall be due and payable to the Administrative Agent on the original Loan Maturity Date of such Swingline Loan).

Section 2.5 Optional Principal Payments. Provided that the Company gives the Administrative Agent notice of any prepayment, which notice shall be in a form acceptable to the Administrative Agent and shall be delivered no later than the Prepayment Notice Deadline, the Company may prepay, without premium or penalty, all or a portion of any outstanding Advance under any Applicable Tranche at any time on any Business Day; provided further, that interest shall accrue on such amount being prepaid until the next Business Day if such payment is received after the Applicable Prepayment Time on the date of payment. Repayment of principal pursuant to this Section 2.5 shall be accompanied by accrued and unpaid interest thereon.

Section 2.6 Mandatory Principal Payments. (a.) On any day on which the aggregate outstanding principal of the Loans exceeds the Borrowing Base (as determined pursuant to Section 1.4), the Company shall immediately repay Loans in the amount of such excess or pledge to the Collateral Agent, for the benefit of the Banks, additional Collateral in the Collateral Pool under the Collateral Documents as necessary to cure such deficiency, without the necessity of any notice or demand.

b. [Reserved].

c. On any day on which the aggregate outstanding principal of the Loans, taken together, exceeds the Aggregate Commitments, the Company shall repay Loans in the amount of such excess without the necessity of any notice or demand.

d. On any Revaluation Date which is a Business Day on which the U.S. Dollar Equivalent of the aggregate outstanding principal amount of Loans under any Applicable Tranche exceeds the Aggregate Applicable Tranche Commitments then in effect, then, the Company shall repay Revolving Loans under such Applicable Tranche and/or Swingline Loans under such Applicable Tranche, as the Company shall select, in the amount of such excess by (i) 5:45 p.m. (New York City time) on the Business Day the Company receives written notice of such excess from the Administrative Agent (the “**Excess Notice Date**”) if the Company receives notice from the Administrative Agent by 2:00 p.m. (New York City time) on such Excess Notice Date or (ii) on the next Business Day, prior to 11:00 a.m. (New York City time) after the Company receives notice of such excess if the Company receives notices from the Administrative Agent after 2:00 p.m. (New York City time) on such Excess Notice Date.

e. On any Business Day after giving effect to any requested Loan, or on any Business Day when Loans are outstanding, on which the Borrowing Base is less than the sum of (i) 100% of the aggregate principal amount of outstanding Loans denominated in U.S. Dollars as of such day and (ii) 105% of the U.S. Dollar Equivalent of the aggregate principal amount of outstanding Loans denominated in Alternative Currencies as of such day, then, the Company shall, upon written notice from the Administrative Agent, pledge additional Collateral or prepay Loans in any Applicable Tranche at the option of the Company (or do any combination of the foregoing) as necessary to cure such deficiency (or in the event of any such requested Loan, instruct the Administrative Agent to return the proceeds of the requested Loan to the applicable Banks or, in the event such pledge of such additional Collateral is made as of such Business Day, hold such funds in the Administrative Agent’s Office until the time of such pledge).

Repayment of any such excess amount shall be applied first, to prepay outstanding Swingline Loans in the Applicable Tranche selected by the Company, and second, to prepay outstanding Revolving Loans in the Applicable Tranche selected by the Company, in each case in the direct order of their respective maturities and shall be accompanied by accrued and unpaid interest thereon.

Section 2.7 Adjustments of Commitments.

a. Adjustments by the Company. The Company may permanently reduce the Aggregate Applicable Tranche Commitments under any Applicable Tranche, in whole or in part ratably among the Applicable Banks, in proportion to the amounts of their respective Applicable Tranche Commitments at any time upon written notice to the Administrative Agent; provided, however, that, (i) subject to Sections 2.7(b) or 2.12, the amount of the Aggregate Applicable Tranche Commitments may not be reduced below the outstanding principal amount of the Advance(s) under such Applicable Tranche, and (ii) a notice of termination of any Aggregate Applicable Tranche Commitments delivered by the Company may state that such notice is conditioned upon the effectiveness of other credit facilities, in which case such notice may be revoked by the Company (by notice to the Administrative Agent on or prior to the specified effective date) if such condition is not satisfied. The Company may also, with the consent of the Administrative Agent (such consent not to be unreasonably withheld), request that any Bank under an Applicable Tranche (x) convert all or a part of such Bank's Applicable Tranche Commitments under such Applicable Tranche into Applicable Tranche Commitments under (1) a different then existing Applicable Tranche or (2) a new Additional Applicable Tranche requested by the Company or (y) provide for additional currencies under such Applicable Tranche (provided that in the event any requested currency in such Applicable Tranche or Additional Applicable Tranche, as the case may be, is not U.S. Dollars, such currency is a lawful currency that is readily available and freely transferable and convertible into U.S. Dollars), so long as, in any case, there are no outstanding Loans under either impacted Applicable Tranche or Additional Applicable Tranche at the time of such conversion. Each Bank shall notify the Company within five (5) Business Days of receipt of the Company's request, in writing, if and by what amount such Bank is willing, in its sole discretion, to so convert its Applicable Tranche Commitments or add additional currencies under an Applicable Tranche. Notwithstanding the foregoing, anything else provided herein or otherwise, if any Bank shall fail to notify the Company within such five (5) Business Day period, such Bank shall be deemed to have declined such requested conversion or addition. In the case of any Additional Applicable Tranche or additional currencies under an Applicable Tranche, the Administrative Agent shall notify the Company and the Banks of any such Additional Applicable Tranche or additional currencies approved as contemplated hereby and, the Applicable Reference Rate, Applicable AA Funds Delivery Deadline, Applicable Alternative Currency Sublimit, Applicable Bank Funding Deadline, Applicable Borrower Notice Deadline and Applicable Payment Time, which such provisions shall be, in each case, (subject to the consent of the Company and those Banks who have agreed to convert commitments into such Additional Applicable Tranche or add additional currencies) and the currencies to be provided thereunder (any such notice, as "**Additional Tranche/Currency Confirmation**") which such Additional Tranche/Currency Confirmation shall be deemed to modify Annex II with such additional information as applicable.

b. Adjustments by Banks for Accelerated Termination. If any Applicable Tranche Commitment of a Bank hereunder is terminated pursuant to Section 2.12, the Company shall immediately notify the Administrative Agent in writing of such termination ("**Accelerated Termination Notice**") and shall state the amount of such terminating Bank's Applicable Tranche Commitment so terminated ("**Terminated Commitment**") in the Accelerated Termination Notice. The Administrative Agent shall promptly provide a copy of the Accelerated Termination Notice to each remaining Bank (each a "**Non-Terminating Bank**"). Each Non-Terminating Bank shall notify the Company, in writing, on or before the second Business Day after the date the Accelerated Termination Notice is received by such Non-Terminating Bank, if and by what amount such Bank is willing in its sole discretion to increase its Applicable Tranche Commitment (in the case such Bank has an Applicable Tranche Commitment under the Impacted Tranche at such time) or provide for such Applicable Tranche Commitment (in the case such Bank does not already have an Applicable Tranche Commitment under the Impacted Tranche at

such time) (as applicable), which amount shall be equal to all or some portion of the Terminated Commitment (each, a “**2.7(b) Notice**”). Any Non-Terminating Bank that fails to so notify the Company on or before such second Business Day shall be deemed to have declined to increase or provide any such Applicable Tranche Commitment. If offers to increase or provide any such Applicable Tranche Commitments are made by two or more Non-Terminating Banks in an aggregate amount greater than the aggregate amount of the Terminated Commitment, such Non-Terminating Banks and the Company hereby agree that such offers shall be allocated as nearly as possible in proportion to the aggregate amount of such offers, so that the aggregate amount thereof will not exceed the amount of the Terminated Commitment. On or before the third Business Day after the date of the Accelerated Termination Notice, the Company shall notify Administrative Agent and each Non-Terminating Bank of the amount, if any, by which each such Non-Terminating Bank’s Commitment has been increased or provided, which amount shall not exceed the amount of such Non-Terminating Bank’s offer to increase or provide such Applicable Tranche Commitment in such Bank’s 2.7(b) Notice. All increases or provisions of Applicable Tranche Commitments by the Banks under this Section 2.7(b) shall become effective on the terminating Bank’s Accelerated Termination Date or on such later date on which the Company shall notify Administrative Agent and each Non-Terminating Bank of the amount, if any, by which each such Non-Terminating Bank’s Applicable Tranche Commitment has been increased or provided in accordance with this Section 2.7(b) (“**2.7(b) Effective Date**”). The Company shall promptly upon request deliver to each Non-Terminating Bank whose Applicable Tranche Commitment has been increased or provided pursuant to this Section 2.7(b) a new Note reflecting (if requested by such Non-Terminating Bank) such Non-Terminating Bank’s new Applicable Tranche Commitment. Each such Bank whose Applicable Tranche Commitment is terminated as contemplated hereby shall promptly, after repayment to such Bank of all Obligations (other than contingent obligations for which no claim has been made) owing to such Bank on the 2.7(b) Effective Date, return to the Company such Bank’s superseded Note(s), as applicable. Each such Non-Terminating Bank shall make available to the Administrative Agent such amounts with respect to the Applicable Tranche affected by the termination contemplated by this Section in immediately available funds as the Administrative Agent shall determine, for the benefit of the other applicable Banks in the respective Applicable Tranche, as being required in order to cause, after giving effect to such commitment increase, the outstanding Loans (and risk participations in outstanding Swingline Loans) in the respective Applicable Tranche to be held ratably by all Applicable Banks in the respective Applicable Tranche in accordance with their respective Applicable Percentages (as revised by such increase) and the Company shall be deemed to have prepaid and reborrowed the outstanding applicable Loans in the respective Applicable Tranche as of the 2.7(b) Effective Date to the extent necessary to keep the outstanding Loans in the respective Applicable Tranche ratable with any revised Applicable Percentages arising from any nonratable increase in the Applicable Tranche Commitments contemplated hereby.

Section 2.8 Fees.

a. From the Amendment No. 3 Effective Date to and including the Revolving Credit Termination Date, the Company agrees to pay to the Administrative Agent for the ratable account of the Banks in each Applicable Tranche a commitment fee of 10/100 of 1% per annum (on the basis of a year consisting of 360 days and for actual days elapsed) on the daily amount of the excess of (i) the amount of the Aggregate Applicable Tranche Commitments under each such Applicable Tranche over (ii) the aggregate principal amount of all outstanding Loans (excluding any Swingline Loans, provided that in the event the participating interests in all Applicable Tranche Swingline Loans outstanding on such date have been fully funded in accordance with Section 2.14(a), the Applicable Tranche Swingline Exposure of each Applicable Bank under each such Applicable Tranche shall not be excluded from such aggregate principal amount or, in the event that such participating interests are not fully funded, only the participating interests acquired and so partially funded by such Bank in accordance with Section 2.14(a).

in respect of any such outstanding Applicable Tranche Swingline Loans shall not be excluded from such aggregate principal amount), payable in arrears on the last day of each fiscal quarter of the Company hereafter and on the Revolving Credit Termination Date, commencing on the first of such dates to occur after the date hereof.

b. The Company agrees to pay to the Administrative Agent for the ratable account of the Banks the fees in the amounts and at the times set forth on Schedule 2.8.

c. The Company agrees to pay to the Administrative Agent, the Collateral Monitoring Agent and the Collateral Agent, for each of their respective accounts, fees payable in the amounts and at the times separately agreed upon by the Company.

d. All fees payable hereunder shall be paid on the dates due, in immediately available funds, to the Administrative Agent (or the Collateral Agent or Collateral Monitoring Agent, in the case of such fees payable to the Collateral Agent or Collateral Monitoring Agent). The Administrative Agent shall distribute any such payments received by it for the account of the Banks to the Banks in accordance with their respective pro rata shares thereof.

Section 2.9 Collateral.

a. The Obligations of the Company under this Agreement, the Loans and all other Loan Documents shall be secured, in each case, by the Collateral Pool, in accordance with the Collateral Documents.

b. The Company may at any time (including after a Notice of Exclusive Control has been delivered) direct the Collateral Agent, in writing, to permit (and upon such direction, which shall be deemed a certification by the Company that such withdrawal, transfer or replacement is not prohibited hereunder, the Collateral Agent shall permit) the replacement of any Clearing Member Security or Company Security credited to any Securities Account, or any Money Fund Share subject to the Lien of the Collateral Agent, or any FX Account Collateral subject to the Lien of the Collateral Agent, or any Other Deposit Account Collateral subject to the Lien of the Collateral Agent, or any Gold Bullion subject to the Lien of the Collateral Agent pursuant to any Bullion Security Agreement, or any Gold Warrant subject to the Lien of the Collateral Agent, any Clearing Member Customer Gold Warrant Advance Deposit Account subject to the Lien of the Collateral Agent or any Clearing Member Customer Gold Warrant Advance Deposit Account Collateral subject to the Lien of the Collateral Agent, or any other Collateral, as the case may be, with replacement collateral qualifying as Eligible Assets, or withdraw or transfer any Clearing Member Security or Company Security credited to any Securities Account, or any Money Fund Share subject to the Lien of the Collateral Agent, or any FX Account Collateral subject to the Lien of the Collateral Agent, or any Gold Bullion subject to the Lien of the Collateral Agent pursuant to any Bullion Security Agreement, or any Other Deposit Account Collateral subject to the Lien of the Collateral Agent, or any Gold Warrant subject to the Lien of the Collateral Agent, any Clearing Member Customer Gold Warrant Advance Deposit Account subject to the Lien of the Collateral Agent or any Clearing Member Customer Gold Warrant Advance Deposit Account Collateral subject to the Lien of the Collateral Agent or any other Collateral subject to the Lien of the Collateral Agent; provided that:

i. at any time when there are one or more outstanding Advances, after giving effect to any such replacement, transfer or withdrawal, the aggregate principal amount of all the remaining Loans outstanding as of the date of such replacement, transfer or withdrawal shall not exceed the Borrowing Base as of the date of such replacement, transfer or withdrawal

(such Borrowing Base determined by the Company and confirmed to the Company by the Collateral Agent (with the Collateral Agent's determination controlling in the event of any discrepancy));

ii. at any time when (and in addition to any restrictions set forth in clause (i) above) there are one or more outstanding Advances and either (1) a Default shall have occurred and be continuing at such time or (2) an Unmatured Default in respect of Section 8.2 shall have occurred and be continuing at such time, the Company shall not be permitted to withdraw, transfer or replace any of the specified assets (other than (x) Guaranty Fund Assets or (y) Clearing Member Customer Gold Warrant Advance Deposit Account Collateral and Clearing Member Customer Gold Warrant Advance Deposit Accounts, in each case, to the extent provided in any Clearing Member Customer Gold Warrant Advance Deposit Account Control Agreement)) identified in any Collateral Notice as Collateral associated with any Advance outstanding at such time;

iii. at any time when there are no outstanding Advances, the Company shall be permitted to withdraw, transfer or replace any Collateral; and

iv. at any time when (and in addition to any restrictions set forth in clause (i) above) there are one or more outstanding Advances and either a Default in respect of Section 8.2 or an Unmatured Default in respect of Section 8.2 shall have occurred and be continuing, the Company shall not be permitted to withdraw, transfer or replace any Guaranty Fund Assets identified in any Collateral Notice as Collateral associated with any Advance outstanding at such time.

v. In making the confirmations pursuant to Section 2.9(b)(i), the Collateral Agent may conclusively rely without inquiry on the determination of the Borrowing Base as calculated by the Collateral Monitoring Agent and notified to the Collateral Agent.

c. The Company may at any time (including after a Notice of Exclusive Control has been delivered) direct the Collateral Agent to cause any Custodian (or its transfer or servicing agent) having custody over any Clearing Member Customer Collateral Securities Account, any Clearing Member Collateral Securities Account, any Company Securities Account or any Clearing Member Customer Gold Warrant Advance Deposit Account, any FX Account Bank, any Bullion Account Bank, any Gold Warrants Issuer, any Applicable Other Depository or any Money Fund Issuer or its transfer or servicing agent, as the case may be, in writing, to liquidate (and any applicable Custodian or any of their transfer or servicing agents, as the case may be, shall liquidate in market-based transactions as directed, in writing, by the Company) any Clearing Member Security or Company Security credited to any Clearing Member Customer Collateral Securities Account, any Clearing Member Collateral Securities Account or any Company Securities Account, or any FX Account Collateral subject to the Lien of the Collateral Agent, or any Other Deposit Account Collateral subject to the Lien of the Collateral Agent, or any Money Fund Shares subject to the Lien of the Collateral Agent, or any Gold Bullion subject to the Lien of the Collateral Agent pursuant to any Bullion Security Agreement, any Gold Warrant (or gold covered thereby) subject to the Lien of the Collateral Agent, or any Clearing Member Customer Gold Warrant Advance Deposit Account Collateral subject to the Lien of the Collateral Agent, as the case may be, and apply the proceeds thereof and any other amounts credited to any Clearing Member Customer Collateral Securities Account, any Clearing Member Collateral Securities Account, any Clearing Member Customer

FX Account, any Clearing Member FX Account, any Other Deposit Account, any Clearing Member Customer Gold Warrant Advance Deposit Account or credited in respect of such Money Fund Shares to repay any outstanding Loans in the Applicable Tranche; provided that:

i. After giving effect to any such liquidation and repayment described in this clause (c), the aggregate principal amount of the remaining Loans outstanding shall not exceed the Borrowing Base as of the date of such liquidation (such Borrowing Base determined by the Company and confirmed to the Company by the Collateral Agent (with the Collateral Agent's determination controlling in the event of any discrepancy)); provided that if the Administrative Agent determines that the remaining Loans outstanding exceed the Borrowing Base, the Company shall make a prepayment or pledge additional Collateral pursuant to Section 2.6(a) to the extent necessary to cure any such deficiency unless the Administrative Agent otherwise determines that any such liquidation is in the best interests of the Banks, after giving effect to any such liquidation and the repayment of Loans in the Applicable Tranche as directed by the Company pursuant thereto, in which case any such liquidation shall be permitted notwithstanding anything to the contrary in this clause (i);

ii. the Company shall reimburse the Collateral Agent, Collateral Monitoring Agent and any Custodian or any of their transfer or servicing agents, as the case may be, for any and all reasonable costs, internal charges and out-of-pocket expenses paid or incurred by such Person in connection with any such liquidation;

iii. at any time when there are one or more outstanding Advances and either (1) a Default shall have occurred and be continuing at such time or (2) an Unmatured Default in respect of Section 8.2 shall have occurred and be continuing at such time, the Company shall not liquidate any of the specified assets (other than Guaranty Fund Assets) identified in any Collateral Notice as Collateral associated with any Advance that is outstanding at any time while such Default or Unmatured Default exists (unless the Administrative Agent otherwise determines that any such liquidation is in the best interests of the Banks after giving effect to any such liquidation and the application of the proceeds thereof to repay Loans in the Applicable Tranche, in which case any such liquidation shall be permitted notwithstanding anything to the contrary in this clause (iii)); and

iv. at any time when there are one or more outstanding Advances and either a Default in respect of Section 8.2 or an Unmatured Default in respect of Section 8.2 shall have occurred and be continuing, the Company shall not liquidate any Guaranty Fund Assets identified in any Collateral Notice as Collateral associated with any Advance outstanding at such time (unless the Administrative Agent otherwise determines that any such liquidation is in the best interests of the Banks after giving effect to any such liquidation and the application of the proceeds thereof to repay Loans in the Applicable Tranche, in which case any such liquidation shall be permitted notwithstanding anything to the contrary in this clause (iv)).

v. In making the confirmations pursuant to Section 2.9(c)(i), the Collateral Agent may conclusively rely without inquiry on the determination of such Borrowing Base as calculated by the Collateral Monitoring Agent and notified to the Collateral Agent.

d. [Reserved]

e. Upon any replacement, liquidation, transfer or withdrawal of any Clearing Member Security, Company Security, FX Account Collateral, Gold Bullion, Gold Warrant, Other Deposit Account Collateral, Money Fund Shares, Clearing Member Customer Gold Warrant Advance Deposit Account or Clearing Member Customer Gold Warrant Advance Deposit Account Collateral in accordance with the Collateral Documents and pursuant to subsection (b) or (c) above (other than a transfer of any such assets to a securities account or other account that is subject to the Lien of the Collateral Agent pursuant to the Loan Documents which has attached), the Lien of the Collateral Agent on the replaced, liquidated, transferred or withdrawn Clearing Member Security, Company Security, FX Account Collateral, Gold Bullion, Gold Warrants, Other Deposit Account Collateral, Money Fund Shares, any Clearing Member Customer Gold Warrant Advance Deposit Account or Clearing Member Customer Gold Warrant Advance Deposit Account Collateral, as applicable, shall be deemed automatically released without further consent of the Collateral Agent or any Bank.

f. For the avoidance of doubt, at any time when there are no outstanding Advances, the Company shall be permitted to withdraw, transfer, liquidate or replace any Collateral.

g. Any right of the Company to withdraw, replace, transfer or liquidate any Collateral pursuant to this Section 2.9 shall apply to the extent any such Collateral has not been previously sold or liquidated by the Collateral Agent, or accepted by the Collateral Agent in full or partial satisfaction of any Obligations in accordance with the Section 9-620 of the UCC.

Section 2.10 Commitment Increase Option.

a. The Company may, at its option and without the consent of the Banks, at any time after the Amendment No. 3 Effective Date and from time to time thereafter, seek to increase the Aggregate Commitments by up to an aggregate amount of \$3,000,000,000 for all such increases (resulting in maximum Aggregate Commitments of \$10,000,000,000) upon written notice to the Administrative Agent and the Collateral Agent, which notice shall specify the amount of any such increase, the requested Applicable Tranche(s) to be increased and the amount of each such increase within such Applicable Tranche and shall be delivered at a time when no Default or Unmatured Default has occurred and is continuing. The Company may, in its sole discretion, offer the increase in the Aggregate Commitments to existing Banks or to other lenders or entities reasonably acceptable to the Administrative Agent and the Company, and such requested increase may be with respect to any Applicable Tranche(s). No increase in the Aggregate Commitments shall become effective until the existing or new Banks extending a new or increased Applicable Tranche Commitment amount (which such increase shall be determined by each such existing or new Bank in its sole discretion) and the Company shall have delivered to the Administrative Agent a document reasonably satisfactory to the Administrative Agent and the Company pursuant to which any such existing Bank states the amount of its Applicable Tranche Commitment increase (as the case may be), any such new Bank (or new Applicable Bank) states its aggregate Applicable Tranche Commitment amount and agrees to assume and accept the obligations and rights of a Bank hereunder (or under the Applicable Tranche, as the case may be) and the Company accepts such new or increased Applicable Tranche Commitments. The Banks (new or existing) accepting new or increased Applicable Tranche Commitments shall accept an assignment from the existing Banks, and the existing Banks shall make an assignment to the new or existing Banks accepting a new or increased Applicable Tranche Commitment (as the case may be), of a direct interest in each then outstanding Advance under the Applicable Tranche, as applicable, such that, after giving effect thereto, all credit exposure under each Applicable Tranche is held ratably by the Applicable Banks in proportion to their

respective Applicable Tranche Commitments. Assignments pursuant to the preceding sentence shall be made in exchange for the principal amount assigned plus accrued and unpaid interest and accrued and unpaid facility fees. Any such increase of the Aggregate Commitments, respectively shall be subject to receipt by the Administrative Agent from the Company of such supplemental opinions, resolutions, certificates and other documents as the Administrative Agent may reasonably request (including certification that the representations and warranties contained in Article VI are true and correct in all material respects (or, in the case of any such representation or warranty already qualified by materiality, in all respects) as of such applicable date, except for representations and warranties that relate to a specific date, in which case as of such date).

b. In addition to the foregoing, to the extent that the Company has reduced the Aggregate Commitments with respect to any or all of the Banks (including pursuant to Section 2.12), the Company may, from time to time, increase any portion of any such Bank's respective Applicable Tranche Commitment with respect to an Applicable Tranche (and increase the Aggregate Commitments accordingly), with such Bank's written consent in its sole discretion, in an amount up to the amount so reduced, provided that each such Bank shall accept an assignment from the existing Banks, and the existing Banks shall make an assignment to each such Bank of a direct interest in each then outstanding Advance under such Applicable Tranche, such that, after giving effect thereto, all credit exposure hereunder is held ratably by the Banks in proportion to their respective Applicable Tranche Commitments. The documents evidencing any such increase in the Aggregate Commitments shall be in a form reasonably acceptable to the Company and the Administrative Agent.

Section 2.11 Defaulting Banks.

a. Adjustments. Notwithstanding anything to the contrary contained in this Agreement, if any Bank becomes a Defaulting Bank, then, until such time as that Bank is no longer a Defaulting Bank, to the extent permitted by applicable law:

i. Waivers and Amendments. That Defaulting Bank's right to approve or disapprove any amendment, waiver or consent with respect to this Agreement shall be restricted as set forth in Section 9.2.

ii. Reallocation of Payments. Any payment of principal, interest, fees or other amounts received by any Agent for the account of that Defaulting Bank (whether voluntary or mandatory, at maturity, pursuant to Article IX or otherwise, and including any amounts made available to any Agent by that Defaulting Bank pursuant to Section 12.1), shall be applied at such time or times as may be determined by the Administrative Agent as follows: *first*, to the payment of any amounts owing by that Defaulting Bank to any Agent hereunder on a pro rata basis; *second*, to the payment on a pro rata basis of any amounts owing by that Defaulting Bank to each Applicable Tranche Swingline Bank hereunder; *third*, as the Company may request (so long as no Default or Unmatured Default exists), to the funding of any Loan in respect of which that Defaulting Bank has failed to fund its portion thereof as required by this Agreement (such unfunded amounts to be determined by the Administrative Agent, in consultation with the Company); *fourth*, if so determined by the Administrative Agent and the Company, to be held in an interest bearing account and released in order to satisfy obligations of that Defaulting Bank to fund Loans under this Agreement; *fifth*, in the case of a Defaulting Bank under any Applicable Tranche, to the payment of any amounts owing to the other Banks under such Applicable Tranche (including the Applicable Tranche Swingline Banks) as a result of any judgment of a court of

competent jurisdiction obtained by any Bank under such Applicable Tranche (including the Applicable Tranche Swingline Banks) against that Defaulting Bank as a result of that Defaulting Bank's breach of its obligations under this Agreement with respect to such Applicable Tranche; *sixth*, to the payment of any amounts owing to the Company as a result of any judgment of a court of competent jurisdiction obtained by the Company against that Defaulting Bank as a result of that Defaulting Bank's breach of its obligations under this Agreement; and *seventh*, to that Defaulting Bank or as otherwise directed by a court of competent jurisdiction; provided that if (A) such payment is a payment of the principal amount of any Loans under any Applicable Tranche in respect of which that Defaulting Bank has not fully funded its appropriate share and (B) such Loans were made at a time when the conditions set forth in Section 5.2 were satisfied or waived, such payment shall be applied solely to pay the Loans of all non-Defaulting Banks under each such Applicable Tranche on a pro rata basis (and ratably among all such Applicable Tranches computed in accordance with the Defaulting Banks' respective funding deficiencies) prior to being applied to the payment of any Loans of that Defaulting Bank under the Applicable Tranche. Any payments, prepayments or other amounts paid or payable to a Defaulting Bank that are applied (or held) to pay amounts owed by a Defaulting Bank pursuant to this Section 2.11(a)(ii) shall be deemed paid to and redirected by that Defaulting Bank, and each Bank irrevocably consents hereto.

iii. Certain Fees. That Defaulting Bank shall not be entitled to receive any commitment fee pursuant to Section 2.8 for any period during which that Bank is a Defaulting Bank (and the Company shall not be required to pay any such fee that otherwise would have been required to have been paid to that Defaulting Bank).

iv. Reallocation of Applicable Percentages to Reduce Fronting Exposure. During any period in which there is a Defaulting Bank, for purposes of computing the amount of the obligation of each non-Defaulting Bank to acquire, refinance or fund participations in Applicable Tranche Swingline Loans pursuant to Section 2.14, the pro rata portion and "Applicable Percentage" of each non-Defaulting Bank shall be computed from time to time without giving effect to the Applicable Tranche Commitment of that Defaulting Bank with respect to each Applicable Tranche; provided that, (i) each such reallocation shall be given effect if, at the time of any such reallocation, no Default or Unmatured Default exists; and (ii) the aggregate obligation of each non-Defaulting Bank to acquire, refinance or fund participations in the Applicable Tranche Swingline Loans shall not exceed the positive difference, if any, of:

(1) the Applicable Tranche Commitment of that non-Defaulting Bank minus

(2) the sum of (A) the aggregate outstanding amount of the Applicable Tranche Revolving Loans of that Bank plus (B) the aggregate outstanding amount of existing Applicable Tranche Swingline Loans of that Bank under the respective Applicable Tranche minus (C) the aggregate principal amount of participating interests acquired (whether or not funded) in that Bank's existing outstanding Applicable Tranche Swingline Loans by other non-Defaulting Banks minus (D) the aggregate principal amount of participating interests acquired and funded in that Bank's existing outstanding Applicable Tranche Swingline Loans by Defaulting Banks plus (E) the aggregate principal amount of participating

interests acquired (whether or not funded) by that Bank in other existing outstanding Applicable Tranche Swingline Loans of other Banks under that Applicable Tranche.

Subject to Section 11.16, no reallocation hereunder shall constitute a waiver or release of any claim of any party hereunder against a Defaulting Bank arising from that Bank having become a Defaulting Bank, including any claim of a non-Defaulting Bank as a result of such non-Defaulting Bank's increased exposure following such reallocation.

b. Defaulting Bank Cure. If the Company, the Administrative Agent and the Applicable Tranche Swingline Banks agree in writing in their sole discretion that a Defaulting Bank should no longer be deemed to be a Defaulting Bank, the Administrative Agent will so notify the parties hereto, whereupon as of the effective date specified in such notice and subject to any conditions set forth therein, that Bank will, to the extent applicable, purchase that portion of outstanding Loans of the other Banks in each Applicable Tranche participated in by such Defaulting Bank at par or take such other actions as the Administrative Agent may determine to be necessary to cause the Applicable Tranche Revolving Loans and funded and unfunded participations in Applicable Tranche Swingline Loans to be held on a pro rata basis by the Banks in the Applicable Tranche in accordance with their Applicable Percentages (without giving effect to Section 2.11(a) (iv)), whereupon that Bank will cease to be a Defaulting Bank; provided that no adjustments will be made retroactively with respect to fees accrued or payments made by or on behalf of the Company while that Bank was a Defaulting Bank (and the Company shall not be required to pay any such fees or payments to such Bank which were not required to have been paid to such Bank while it was a Defaulting Bank); and provided, further, that except to the extent otherwise expressly agreed by the affected parties, no change hereunder from Defaulting Bank to Bank will constitute a waiver or release of any claim of any party hereunder arising from that Bank's having been a Defaulting Bank.

c. Other Rights and Remedies. The rights and remedies against a Defaulting Bank under this Section 2.11 are in addition to other rights and remedies which the Company may have against such Defaulting Bank with respect to any Funding Default and which the Administrative Agent or any Bank may have against such Defaulting Bank with respect to any Funding Default.

Section 2.12 Removal or Replacement of a Bank. Anything contained herein to the contrary notwithstanding, in the event that: (a) any Bank shall become a Defaulting Bank and such Defaulting Bank shall immediately fail to cure the default as a result of which it has become a Defaulting Bank; (b) in connection with any proposed amendment, modification, termination, waiver or consent with respect to any of the provisions hereof as contemplated by Section 9.2(a), the consent of the Required Banks shall have been obtained but the consent of one or more of the other Banks (each a "**Non-Consenting Bank**") whose consent is required shall not have been obtained or (c) any Bank requests reimbursement for amounts owing pursuant to Section 11.3(a), 11.8(b) or 11.8(c) or (d) if any Bank gives any notice pursuant to Section 11.8(h) indicating its inability to make or maintain Alternative Currency Rate Loans under an Applicable Tranche to which such Bank is then an "Applicable Bank" (each such Bank under clauses (c) and (d) above, a "**Requesting Bank**", and such Applicable Tranche, an "**Impacted Tranche**"); with respect to each such Defaulting Bank, Non-Consenting Bank or Requesting Bank (the "**Terminated Bank**"), the Company may, by giving written notice to the Administrative Agent and any Terminated Bank of its election to do so, (1) elect to cause such Terminated Bank (and such Terminated Bank hereby irrevocably agrees) to assign its outstanding Loans and its Applicable Tranche Commitments (or, in the case of a Requesting Bank under clause (d) above, the outstanding Loans and its Applicable Tranche Commitments under the Impacted Tranche), if any, in full to one or more Assignees

(each a “**Replacement Bank**”) in accordance with applicable law and the provisions of Section 11.1(c) and the Company shall pay the fees, if any, payable thereunder in connection with any such assignment from a Non-Consenting Bank or a Requesting Bank and the Defaulting Bank shall pay the fees, if any, payable thereunder in connection with any such assignment from such Defaulting Bank; provided, (i) (A) on the date of such assignment, the Replacement Bank shall pay to such Terminated Bank the aggregate principal amount of all outstanding Loans and Applicable Tranche Swingline Exposure of the Terminated Bank (or, in the case of a Requesting Bank, under clause (d) above, the aggregate principal amount of all outstanding Loans and Applicable Tranche Swingline Exposure under the Impacted Tranche) and, subject to clauses (B) and (C) hereof, all other Obligations owing to such Terminated Bank under this Agreement, (B) on the date any such fees shall be due as provided in Section 2.8, subject to Section 2.11, the Replacement Bank shall pay all accrued, but theretofore unpaid fees owing to such Terminated Bank (or, in the case of a Requesting Bank, under clause (d) above, the aggregate principal amount of all outstanding Loans and Applicable Tranche Swingline Exposure under the Impacted Tranche), and (C) on the date any accrued interest shall be due as provided in Section 3.3, the Replacement Bank shall pay all accrued, but theretofore unpaid interest owing to such Terminated Bank (or, in the case of a Requesting Bank under clause (d) above, all accrued, but theretofore unpaid interest owing to such Terminated Bank under the Impacted Tranche) and (ii) in the event such Terminated Bank is a Non-Consenting Bank, each Replacement Bank shall consent, at the time of such assignment, to such proposed amendment, modification, termination, waiver or consent or (2) so long as no Applicable Tranche Swingline Loan (or, in the case of a Requesting Bank under clause (d) above, no Applicable Tranche Swingline Loan under the Impacted Tranche) is outstanding in respect of which such Bank may be required to acquire a participating interest pursuant to Section 2.14, elect to terminate such Bank’s Applicable Tranche Commitment and obligations to make Loans and acquire such participating interest in Applicable Tranche Swingline Loans hereunder (or, in the case of a Requesting Bank under clause (d) above, such Bank’s Applicable Tranche Commitment and obligations to make Loans and acquire such participating interest in Applicable Tranche Swingline Loans under the Impacted Tranche), provided that the Company shall send written notice to such Bank specifying a date at least 3 Business Days after the date of such notice on which such Bank’s Applicable Tranche Commitments and obligation to make Loans and acquire participating interests in Applicable Tranche Swingline Loans hereunder (or, in the case of a Requesting Bank under clause (d) above, such Bank’s Applicable Tranche Commitments and obligations to make Loans and acquire such participating interest in Applicable Tranche Swingline Loans, under the Impacted Tranche) shall be terminated. Upon the prepayment of all Obligations owing to any Terminated Bank and the termination of such Terminated Bank’s Applicable Tranche Commitments, if any (other than in the case of a Requesting Bank retaining an Applicable Tranche Commitment after such termination), such Terminated Bank shall no longer constitute a “Bank” for purposes hereof. Notwithstanding anything to the contrary above, each Terminated Bank shall continue to be entitled to the benefits of Sections 2.14, 3.4(b), 4.3, 11.3, 11.8, 12.1(b), 12.1(c), and 12.1(d) (in each case, to the extent such obligations arose prior to the effective date of the Assignment Agreement applicable thereto). Each Bank agrees that if the Company exercises its option hereunder to cause an assignment by such Bank as a Terminated Bank, the Administrative Agent may execute and deliver such documentation as may be required to give effect to an assignment in accordance with Section 11.1(c) on behalf of a Non-Consenting Bank or Terminated Bank and any such documentation so executed by the Administrative Agent shall be effective for purposes of documenting an assignment pursuant to Section 11.1(c).

Section 2.13 [Reserved].

Section 2.14 Participations in Applicable Tranche Swingline Loans.

a. Each Applicable Tranche Swingline Bank shall provide written notice to the Administrative Agent of any outstanding Applicable Tranche Swingline Loan and either (i) in the case of an Applicable Tranche Swingline Loan that is not an Applicable Tranche Covering Swingline Loan, the Applicable Banks in the respective Applicable Tranche shall acquire participating interests in any outstanding Applicable Tranche Swingline Loan pro rata in accordance with their respective Applicable Tranche Commitments and Applicable Percentage thereof or (ii) in the case of an Applicable Tranche Covering Swingline Loan, the Applicable Banks in the respective Applicable Tranche that failed to timely make available the Applicable Tranche Revolving Loans covered by such Applicable Tranche Covering Swingline Loan shall acquire participating interests in such Applicable Tranche Covering Swingline Loan pro rata in accordance with such Applicable Tranche Revolving Loans that such Applicable Bank did not timely make available, in either event, not later than 12:00 noon (New York City time) on the third Business Day following any Business Day on which an Applicable Tranche Swingline Loan is made by such Applicable Tranche Swingline Bank. Promptly upon receipt of such notice, the Administrative Agent will give notice thereof to each Applicable Bank, specifying in such notice such Applicable Bank's share of such Applicable Tranche Swingline Loan. Each Applicable Bank hereby absolutely and unconditionally agrees, upon receipt of notice as provided above, to pay to the Administrative Agent, for the account of the Applicable Tranche Swingline Bank, such Bank's share of such Applicable Tranche Swingline Loan. Each Applicable Bank acknowledges and agrees that its obligation to acquire participating interests in Applicable Tranche Swingline Loans pursuant to this paragraph is absolute and unconditional and shall not be affected by any circumstance whatsoever, including the occurrence and continuance of a Default or reduction or termination of the Applicable Tranche Commitments or the Aggregate Applicable Tranche Commitment, and that each such payment shall be made without any offset, abatement, withholding or reduction whatsoever. Each Applicable Bank shall comply with its obligation under this Section in the same manner as provided in Section 4.1 with respect to Loans made by such Applicable Bank (and Section 4.2 shall apply, mutatis mutandis, to the payment obligations of the Applicable Banks), and the Administrative Agent shall promptly pay to such Applicable Tranche Swingline Bank the amounts so received by it from the Applicable Banks. The Administrative Agent shall notify the Company of any participating interest in any Applicable Tranche Swingline Loan acquired pursuant to this Section. Any amounts received from the Company (or other party on behalf of the Company) in respect of an Applicable Tranche Swingline Loan after receipt by the Applicable Tranche Swingline Bank of the proceeds of a sale of participating interests therein shall be promptly remitted through the Administrative Agent to the Applicable Banks that shall have made their payments pursuant to this Section and to the Applicable Tranche Swingline Bank, as their interests may appear; provided that any such payment so remitted shall be repaid to the Administrative Agent, if and to the extent such payment is required to be refunded to the Company for any reason. The purchase of participating interests in an Applicable Tranche Swingline Loan pursuant to this paragraph shall not relieve the Company of any default in the payment thereof.

ARTICLE III

FUNDING THE CREDITS

Section 3.1 Method of Borrowing.

a. To request an Advance hereunder, the Company shall:

i. give notification by telephone (which notification shall be made on the Borrowing Date, may be made either before or after delivery of the Advance Request referred to in clause (ii) below and shall be subject to Section 3.5(b)) to the Administrative Agent that the Advance Request has been or will be delivered to the Administrative Agent and, if not yet

delivered, the amount of the Advance, the Applicable Tranche and the applicable currency that will be requested in such Advance Request (such telephone notification, the “**Advance Request Confirmation**”),

ii. deliver, by email prior to the Applicable Borrower Notice Deadline:

(A) a notice to the Administrative Agent of such request for Applicable Tranche Revolving Loans or Applicable Tranche Swingline Loans in substantially the form of Exhibit H attached hereto (an “**Advance Request**”), which Advance Request shall be executed by an officer of the Company listed on an incumbency certificate (in substantially the form of Exhibit E hereto, delivered to the Administrative Agent, as updated in writing by the Company from time to time) and delivered to the Administrative Agent’s Office applicable for such Applicable Tranche, and shall specify:

- (1) the aggregate amount of the requested Advance;
- (2) the date of such Advance, which shall be a Business Day;
- (3) the Applicable Tranche under which such Advance is requested;
- (4) whether such Advance is requested as an Applicable Tranche Revolving Loan or Applicable Tranche Swingline Loan;
- (5) the currency of the Loans to be borrowed (if the Company fails to specify a currency in an Advance Request, then the Loan so requested shall be made in U.S. Dollars) (it being understood that a Clearing Member Customer Gold Warrant Advance may only be denominated in U.S. Dollars);
- (6) whether such Advance shall be initially secured by any Clearing Member Customer Gold Warrant Advance Deposit Account or any Clearing Member Customer Gold Warrant Advance Deposit Account Collateral (any such advance, a “**Clearing Member Customer Gold Warrant Advance**”); and
- (7) the location and number of the Company’s account to which funds are to be disbursed, which (x) in the case of an Advance (other than a Clearing Member Customer Gold Warrant Advance) to be made in U.S. Dollars, Canadian Dollars, Euro or Sterling, shall be a deposit account of the Company’s maintained with the Administrative Agent, (y) in the case of an Advance (other than a Clearing Member Customer Gold Warrant Advance) to be made in a currency other than U.S. Dollars, Canadian Dollars, Euro or Sterling, shall be an account maintained with the Administrative Agent or another financial institution or (z) in the case of a Clearing Member Customer Gold Warrant Advance shall be one or more Clearing Member Customer Gold Warrant Advance Deposit Accounts; and

(B) a notice to the Collateral Agent and Collateral Monitoring Agent in substantially the form of Exhibit I attached hereto detailing the Collateral pledged by the Company to secure the requested Advance (a “**Collateral Notice**”), which Collateral Notice shall be executed by an officer of the Company listed on an incumbency certificate (in substantially the form of Exhibit E hereto, delivered to the Collateral Agent and the Collateral Monitoring Agent, as updated in writing by the Company from time to time) and delivered to the Collateral Agent’s Office and the Collateral Monitoring Agent’s Office, and

iii. give separate notification, by telephone, to the Collateral Agent that the Collateral Notice has been delivered to the Collateral Agent. Concurrently with, or shortly following, or in lieu of, its making an Advance Request in respect of Applicable Tranche Revolving Loans, the Company may also make an Advance Request in respect of Applicable Tranche Swingline Loans.

An Advance Request in respect of Swingline Loans shall also specify (1) the Banks being requested to act as an Applicable Tranche Swingline Bank with respect to such Advance and make Applicable Tranche Swingline Loans and the respective amounts thereof, and (2) if such Applicable Tranche Swingline Loans are being requested on the same day as any Applicable Tranche Revolving Loans, whether such Applicable Tranche Swingline Loans are to cover for any Applicable Tranche Revolving Loans not made available to the Administrative Agent in a timely manner (any such Applicable Tranche Swingline Loan, an “**Applicable Tranche Covering Swingline Loan**”) or are simply being requested in addition to such Applicable Tranche Revolving Loans. If any Applicable Tranche Swingline Loans being requested are Applicable Tranche Covering Swingline Loans, the Administrative Agent shall first, use the proceeds of the Applicable Tranche Revolving Loans timely made available to it to fund the requested Advance as provided in Section 3.1(b), and second, fund the remaining portion of the requested Advance, if any, with the proceeds made available to it in respect of one or more Applicable Tranche Covering Swingline Loans, subject to Section 3.1(c). For the avoidance of doubt, the provision of Applicable Tranche Swingline Loans by any Applicable Tranche Swingline Bank shall be in addition to, and shall not relieve such Bank from its obligation to make Applicable Tranche Revolving Loans ratably in proportion to the amount of its Applicable Tranche Commitment.

In the event the Company is unable to submit any such notices via email (due to operational difficulties or otherwise), the Administrative Agent may, to the extent commercially reasonable and following telephone notices by the Company requesting same, agree to accept such notices via other electronic delivery methods.

b. Advance Determination.

i. Immediately as commercially practicable following the delivery of an Advance Request in accordance with Section 3.1(a), the Administrative Agent shall (A) notify each Bank with a commitment under the Applicable Tranche in writing of the Company’s request for an Advance and such Bank’s pro rata share of the Advance (any such notice, a “**Bank Notice**”) (and to the extent the Company has delivered a form FR U-1 in connection with such request, make available to the Banks such form FR U-1 via the Platform or other approved method of delivery) and (B) provide to the Collateral Agent and the Collateral Monitoring Agent (x) a copy of the applicable Advance Request and (y) a notice stating the principal amount of Loans then outstanding under each Applicable Tranche (and before giving effect to such Advance

requested in such Advance Request Confirmation) (any such notice described in clause (y), an “**Outstanding Loan Notice**”).

ii. The Collateral Monitoring Agent shall, within 45 minutes of receipt of the later of the applicable Collateral Notice and the Outstanding Loan Notice, (i) determine the Market Value of (A) the Collateral Pool (which, in the case of a Clearing Member Customer Gold Warrant Advance, shall include the proceeds of the Loans funded pursuant to such Clearing Member Customer Gold Warrant Advance and deposited in one or more Clearing Member Customer Gold Warrant Advance Deposit Accounts), (B) the Borrowing Base and, (C) in the case of a Clearing Member Customer Gold Warrant Advance, the Clearing Member Customer Gold Warrants identified in such Collateral Notice, (ii) notify the Company and the Collateral Agent (by telephone and electronic communication, such as email, at the contact information provided in the Advance Request) and the Administrative Agent (by telephone at the contact information set forth on Schedule 13.1) of the Collateral Monitoring Agent’s determination of the Market Value of the Collateral Pool, the Borrowing Base and, in the case of a Clearing Member Customer Gold Warrant Advance, the Clearing Member Customer Gold Warrants identified in such Collateral Notice, and the Collateral Agent, based solely on information provided by the Collateral Monitoring Agent, upon which it may conclusively rely, will confirm whether the Collateral Pool is sufficient for the Borrowing Base to collateralize the Company’s requested Advance (and, in the case of a Clearing Member Customer Gold Warrant Advance, whether the Discounted Value of the Clearing Member Customer Gold Warrants identified in the applicable Collateral Notice is at least equal to the amount of Loans requested in such Clearing Member Customer Gold Warrant Advance). As soon as practicable, (x) the Collateral Agent shall deliver a copy of the Collateral Notice to the Administrative Agent and (y) the Administrative Agent shall deliver a copy of any such received Collateral Notice to the Banks and further notify the Banks of such determination described above of the Collateral Agent.

iii. Subject to the satisfaction of the applicable conditions precedent set forth in Article V, not later than the Applicable AA Funds Delivery Deadline, the Administrative Agent shall, using the proceeds provided by the Banks pursuant to Section 4.1 for such requested Advance, or any additional proceeds that may be provided on behalf of the Banks by the Administrative Agent as provided in this Agreement, make available to the Company in immediately available funds the requested Advance (or, (1) in the case of an Advance other than a Clearing Member Customer Gold Warrant Advance, if the Collateral Pool is not then sufficient to collateralize the requested Advance as required hereby, the portion thereof that is so collateralized by the Collateral Pool and (2) in the case of a Clearing Member Customer Gold Warrant Advance, if the Discounted Value of the Clearing Member Customer Gold Warrants set forth in the applicable Collateral Notice is less than the amount of the Loans requested in such Clearing Member Customer Gold Warrant Advance, the portion thereof that is equal to the Discounted Value of such Clearing Member Customer Gold Warrants) (x) in the case of an Advance (other than a Clearing Member Customer Gold Warrant Advance) to be made in U.S. Dollars, Canadian Dollars, Euro or Sterling, by depositing such funds into the deposit account of the Company maintained with the Administrative Agent specified in the Advance Request, (y) in the case of an Advance (other than a Clearing Member Customer Gold Warrant Advance) to be made in a currency other than U.S. Dollars, Canadian Dollars, Euro or Sterling (and to the extent

requested by the Company), by wire transfer of such funds to an account of the Company maintained with the Administrative Agent or another financial institution (as specified in the Advance Request) (and for purposes of clause (y) above, the Applicable AA Funds Delivery Deadline shall be determined by the time the Administrative Agent initiates such wire transfer of such funds and not the time received by any such other financial institution) or (z) in the case of a Clearing Member Customer Gold Warrant Advance, by wire transfer of such funds to one or more Clearing Member Customer Gold Warrant Advance Deposit Accounts; provided that, in the event that (1) the Collateral Pool is not sufficient to so collateralize the requested Advance (in the case of an Advance that is not a Clearing Member Customer Gold Warrant Advance) or (2) the Discounted Value of the Clearing Member Customer Gold Warrants in the applicable Collateral Notice is less than the amount of the Loans requested in a Clearing Member Customer Gold Warrant Advance, in each case, the Collateral Agent shall notify the Company and the Administrative Agent thereof and the Company may post additional Collateral to the Collateral Pool within one Business Day of such notice (including, without limitation, by withdrawing any Company Security in accordance with Section 2.9(b) and posting such Company Security as additional Collateral with respect to the Collateral Pool) and upon the posting of such additional Collateral to the Collateral Pool, the Administrative Agent shall make available to the Company a corresponding amount of the funds deposited by the Banks in accordance with Section 4.1. In the event that the Company fails to post sufficient additional Collateral to the Collateral Pool to collateralize the requested Advance as required hereby within one Business Day following such notice from the Collateral Agent of the insufficiency of the Collateral Pool, the Administrative Agent shall return any excess proceeds provided by the Banks to the Banks ratably in accordance with the amounts funded by each Bank. Any funds held by the Administrative Agent during any such period prior to being made as an Advance or returned to the Banks in accordance with this Section 3.1(b)(iii) being referred to herein as “**Held Funds**”.

c. If an Advance Request is made in respect of Applicable Tranche Covering Swingline Loans, (i) the portion thereof made available by any Applicable Tranche Swingline Bank to the Administrative Agent and not required to cover for Applicable Tranche Revolving Loans shall be promptly returned to such Applicable Tranche Swingline Banks on a pro rata basis in accordance with the respective amounts made available by such Applicable Tranche Swingline Banks and (ii) the proceeds of Applicable Tranche Revolving Loans subsequently made available to the Administrative Agent shall be distributed to such Applicable Tranche Swingline Banks as a prepayment of the principal of such Applicable Tranche Covering Swingline Loans, with such distribution to be made to such Applicable Tranche Swingline Banks on such a pro rata basis. Each Applicable Tranche Swingline Bank that makes any Applicable Tranche Covering Swingline Loan which is not made available to the Company and is promptly returned as contemplated above shall be entitled to compensation for such Applicable Tranche Covering Swingline Loan from the Company as determined by such Applicable Tranche Swingline Bank in accordance with its customary practices (provided that any such compensation shall not exceed the interest payable in respect of any Advance under the Applicable Tranche until the next Business Day pursuant to Section 3.3); and any Applicable Tranche Covering Swingline Loan which is made available to the Company shall earn interest, payable by the Company, in accordance with Section 3.3.

Section 3.2 Minimum Amount of Each Advance. Except in the case of a Test Draw, each Advance shall be in the minimum amount of \$5,000,000 (and in integral multiples of \$100,000 if in excess thereof), provided, however, that any Advance may be in the aggregate amount of the Excess Availability, as applicable to such Advance.

Section 3.3 Interest.

a. Prior to its Loan Maturity Date, each Advance shall bear interest at the Applicable Reference Rate plus 1.50% per annum. Held Funds shall bear interest at the Applicable Reference Rate which would have been applicable to such amounts if such amounts had been made available to the Company pursuant to the applicable requested Advance plus 1.50% per annum. Any Advance not paid when due shall bear interest thereafter until paid in full at a rate per annum equal to the Applicable Reference Rate plus 3.50% per annum.

b. Any Obligation other than those described in clause (a) above not paid when due shall bear interest thereafter until paid in full at a rate per annum equal to the Federal Funds Rate plus 3.50% per annum.

Section 3.4 Method of Payment.

a. All payments (including prepayments) of principal, interest, commitment fees and other amounts payable hereunder by the Company shall, subject to Section 11.3, be made without setoff, defense, recoupment or counterclaim in immediately available funds to the Administrative Agent, for the benefit of the Applicable Banks, (A) at any time up to 12:00 noon (New York City time), with respect to principal, interest, commitment fees or such other amounts with respect to Loans denominated in U.S. Dollars or Canadian Dollars, or (B) at any time up to 2:30 pm London time, with respect to principal, interest, commitment fees or such other amounts with respect to Loans denominated in an Alternative Currency (other than Canadian Dollars), in each case on the date when due at the Administrative Agent's Office for the applicable currency. Any amount received after such time on any date shall be deemed to have been received on the next succeeding Business Day for purposes of calculating interest thereon. If any payment hereunder shall be due on a day that is not a Business Day, the date for payment shall be extended to the next succeeding Business Day, and, in the case of any payment accruing interest, interest thereon shall be payable for the period of such extension. All payments hereunder shall be made in lawful money of the United States of America, except that payments of principal and interest in respect of Loans denominated in an Alternative Currency shall be made in such Alternative Currency, subject to Section 11.8(e) or (f) in the event a Loan denominated in an Alternative Currency is converted into a Loan denominated in U.S. Dollars pursuant to such Section.

b. Except with respect to payments made to an Applicable Bank whose Applicable Tranche Commitment is terminated pursuant to Section 2.12, (A) all payments of principal of, and interest on, any Advance under an Applicable Tranche shall be made by the Administrative Agent to the Banks under such Applicable Tranche ratably among such Banks, in proportion to the outstanding principal amount of their respective Loans constituting part of such Advance and (B) all payments of commitment fees and other amounts payable hereunder by the Administrative Agent to the Banks under an Applicable Tranche shall be made to the Banks under such Applicable Tranche ratably among such Banks, in proportion to the amounts thereof owing to them. If at any time insufficient funds are received by and available to the Administrative Agent to pay fully all amounts of principal, interest and fees then due under an Applicable Tranche, such funds shall be applied first, towards payment of all Obligations in respect of Applicable Tranche Swingline Loans under such Applicable Tranche, second, towards payment of interest and fees then due in respect of Applicable Tranche Revolving Loans under such Applicable Tranche, ratably among the parties entitled thereto in accordance with the amounts of interest and fees then due to such parties, and third, towards payment of principal then due in respect of Applicable Tranche Revolving Loans under such Applicable Tranche, ratably among the parties entitled thereto in accordance with the amounts of principal then due to such parties.

Section 3.5 Notes; Telephonic Notices. a. Each Bank shall maintain in accordance with its usual and customary practices an account or accounts evidencing the Loans made by such Bank from time to time, including the amounts of principal and interest payable and paid to such Bank from time to time under this Agreement and the Loans. Any Bank may request that Loans made by it be evidenced by one or more promissory notes (any such promissory note, a “**Note**”), and in such event, the Company shall prepare, execute and deliver to such Bank a Note payable to such Bank or to such Bank and its registered assigns substantially in the form of Exhibit A hereto, as applicable. Each Bank is hereby authorized to record the principal amount of each of its Loans and each repayment on the schedule attached to its applicable Note, as applicable, or in its books and records; provided, however, that the failure to so record shall not affect the Company’s obligations in respect of any Loan. The Administrative Agent shall also maintain accounts in which it will record (i) the amount of each Loan made hereunder and the information with respect to such Loan described in Section 3.1(a)(ii)(A), (ii) the amount of any principal or interest due and payable or to become due and payable from the Company to each Bank hereunder and (iii) the amount of any sum received by the Administrative Agent hereunder from the Company and each Bank’s share thereof. The entries maintained in the accounts maintained by the Banks and the Administrative Agent pursuant to this Section shall be *prima facie* evidence (absent manifest error) of the existence and amounts of the Obligations therein recorded; provided, however, that the failure of the Administrative Agent or any Bank to maintain such accounts or any error therein shall not in any manner affect the obligation of the Company to repay the Loans in accordance with their terms. In the event the records maintained by a Bank conflict with the records maintained by the Administrative Agent, the records maintained by the Administrative Agent shall control.

b. The Company hereby authorizes the Administrative Agent to extend Advances (using the proceeds provided by the Banks pursuant to Section 4.1 and otherwise in accordance with Section 3.1) based on telephonic notices made by any Persons the Administrative Agent in good faith believes to be acting on behalf of the Company.

Section 3.6 Interest Payment Dates; Interest Basis. Interest accrued on each Advance under an Applicable Tranche prior to the applicable Loan Maturity Date shall be payable to the Administrative Agent for the benefit of the Applicable Banks on the date on which such Advance is paid or prepaid, whether due to acceleration or otherwise. Interest accrued on each Advance after its applicable Loan Maturity Date shall be payable on demand. Interest shall be calculated on the basis of (i) in the case of interest in respect of Loans denominated in U.S. Dollars, a year of 360 days for actual days elapsed, (ii) in the case of interest in respect of Loans denominated in Euros, a year of 360 days for actual days elapsed, (iii) in the case of interest in respect of Loans denominated in Canadian Dollars and Sterling, a year of 365 days for actual days elapsed, or as to which market practice differs from the foregoing, in accordance with such market practice, or (iv) in the case of interest in respect of Loans denominated in an Alternative Currency (other than Canadian Dollars, Euros or Sterling) in accordance with market practice for such Alternative Currency. As referenced in the definitions for each Applicable Reference Rate, interest with respect to any Loan shall be determined on each Business Day such Loan is outstanding. Commitment fees shall be calculated on the basis of a year of 360 days for actual days elapsed.

For the purposes of the Interest Act (Canada), (i) whenever a rate of interest or fee rate hereunder is calculated on the basis of a year (the “deemed year”) that contains fewer days than the actual number of days in the calendar year of calculation, such rate of interest or fee rate shall be expressed as a yearly rate by multiplying such rate of interest or fee rate by the actual number of days in the calendar year of calculation and dividing it by the number of days in the deemed year, (ii) the principle of deemed reinvestment of interest shall not apply to any interest calculation hereunder and (iii) the rates of interest stipulated herein are intended to be nominal rates and not effective rates or yields. The Company hereby

irrevocably agrees not to plead or assert, whether by way of defense or otherwise, in any proceeding relating to this Agreement and the other Loan Documents, that the interest payable under this Agreement and the calculation thereof has not been adequately disclosed to it, whether pursuant to section 4 of the Interest Act (Canada) or any other applicable law or legal principle of Canada.

ARTICLE IV

ADMINISTRATIVE AGENT

Section 4.1 Notice to and Payment by the Banks.

a. Promptly following the delivery of any Bank Notice relating to any request for a Revolving Loan under an Applicable Tranche (and in any event, prior to the Applicable Bank Funding Deadline), each Applicable Bank shall deposit in an account designated by the Administrative Agent for such purpose (and notified by the Administrative Agent to the Applicable Banks) in immediately available funds the proceeds of such Applicable Bank's Applicable Percentage of the requested Advance.

b. Promptly following the delivery of any Bank Notice relating to any request for an Applicable Tranche Swingline Loan, each Applicable Tranche Swingline Bank agreeing to fund any such Applicable Tranche Swingline Loan shall (unless the Applicable Tranche Swingline Bank has received notice (by telephone or in writing) from the Administrative Agent or the Collateral Agent (including at the request of any Bank) prior to the Applicable Bank Funding Deadline **plus** an additional thirty (30) minutes which (x) directs such Applicable Tranche Swingline Bank not to make such Swingline Loan as a result of the limitations set forth in the proviso to the first sentence of Section 2.1(a), or (y) notifies such Applicable Tranche Swingline Bank that one or more of the applicable conditions specified in Article V is not then satisfied), subject to the terms and conditions hereof, not later than the Applicable Bank Funding Deadline **plus** an additional forty-five (45) minutes, deposit in the designated account of the Administrative Agent in immediately available funds the agreed upon proceeds of such requested Advance.

Section 4.2 Payment by Banks to the Administrative Agent.

a. Unless the Administrative Agent shall have been notified by a Bank that such Bank does not intend to make available its share of an Advance, the Administrative Agent may assume that such Bank has made or will make such payment and the Administrative Agent may in reliance upon such assumption (but shall not be required to) make available to the Company the proceeds of the Loan to be made by such Bank and, if any Bank has not in fact made such payment to the Administrative Agent, such Bank shall, on demand, pay to the Administrative Agent the amount made available to the Company attributable to such Bank together with interest thereon in respect of each day during the period commencing on the date such amount was made available to the Company and ending on (but excluding) the date such Bank pays such amount to the Administrative Agent at a rate per annum equal to: (i) from the date the related advance was made by the Administrative Agent to the date two (2) Business Days after payment by such Bank is due hereunder, the Applicable Lender Overnight Rate for each such day and (ii) from the date two (2) Business Days after the date such payment is due from such Bank to the date such payment is made by such Bank the Applicable Reference Rate for the Applicable Tranche in effect for each such day plus 1.50%. If such amount is not received from such Bank by the Administrative Agent immediately upon demand, the Company will, on demand, repay to the

Administrative Agent the proceeds of the Loan attributable to such Bank with interest thereon at a rate per annum equal to the interest rate applicable to the relevant Loan.

b. The failure of any Bank to make a payment to the Administrative Agent of the proceeds of the Loan to be made by such Bank shall not relieve any other Bank of its obligation hereunder to make payment to the Administrative Agent of the proceeds of a Loan, but no Bank shall be responsible for the failure of any other Bank to make the payment required to be made by such other Bank.

Section 4.3 Distribution of Payments.

a. Whenever the Administrative Agent receives from, or on behalf of the Company, or any other person or party, a payment of principal, interest or commitment fees or other amount payable hereunder with respect to any of which the applicable Banks are entitled to receive a share, the Administrative Agent shall promptly pay to such Banks, in the currency so received, the amount due each of such Banks as determined pursuant to this Agreement; provided, however, that the amount of such distribution shall be adjusted to the extent that amounts are owed by any Bank to the Administrative Agent or as otherwise provided by Sections 2.14, 3.1(c)(ii), 3.4(b) or 4.2 or subsection (b) hereof. If any payment of principal, interest or commitment fees or other amount payable in connection with the Loans is received from or on behalf of the Company by the Administrative Agent before 12:00 noon (New York City time) in the case of payments denominated in U.S. Dollars or Canadian Dollars or 2:30 p.m. (London time) in the case of payments denominated in Alternative Currencies (other than Canadian Dollars), on any Business Day, the Administrative Agent shall use reasonable efforts to wire transfer the appropriate portion of the same to the applicable Banks that same Business Day, but in any event shall wire the same to each of such Banks before the end of the next Business Day.

b. Unless the Administrative Agent shall have received notice from the Company prior to the date on which any payment is due to the Administrative Agent for the account of the applicable Banks hereunder that the Company will not make such payment, the Administrative Agent may assume that the Company has made such payment on such date in accordance herewith and may (but shall not be required to), in reliance upon such assumption, distribute to the applicable Banks the amount due. In such event, if the Company has not in fact made such payment, then each of the applicable Banks severally agrees to repay to the Administrative Agent forthwith on demand the amount so distributed to such Bank together with interest thereon in respect of each day during the period commencing on the Business Day immediately following the date of such demand and ending on (but excluding) the date of payment to the Administrative Agent, at a rate per annum equal to: (i) from the Business Day immediately following the date of such demand to the date two (2) Business Days after such date, the Applicable Lender Overnight Rate for each such day and (ii) from the date two (2) Business Days after the Business Day immediately following such demand to the date such payment is made by such Bank, the Applicable Reference Rate in effect for each such day plus 1.50%.

Section 4.4 Rescission of Payments by the Company. If all or part of any payment made by the Company to Administrative Agent of principal, interest or commitment fees or other amount payable in connection with the Loans is rescinded or must otherwise be returned for any reason and if Administrative Agent has paid to any of the Banks such Bank's ratable share therein, such Bank shall, upon telephone notice from Administrative Agent, forthwith pay to Administrative Agent (i) on the date of such telephone notice if notice is received by such Bank at or prior to 12:00 noon (New York City time) in the case of payments denominated in U.S. Dollars or Canadian Dollars or 2:30 p.m. (London time) in the case of payments denominated in Alternative Currencies other than Canadian Dollars or (ii) on the next

Business Day if notice is received by Administrative Agent after 12:00 noon, (New York City time), or 2:30 p.m. (London time), as applicable, an amount equal to such Bank's ratable interest in the amount that was rescinded or that must be so returned by Administrative Agent. Administrative Agent shall promptly return to the Company, or to whomever shall be legally entitled thereto pursuant to an order of a court of competent jurisdiction, each such amount (or any lesser amount) that is received from each Bank. Administrative Agent shall have no obligation to the Company for any amount that Administrative Agent paid to any Bank and that is not repaid by such Bank, provided that Administrative Agent did in fact provide such Bank with the notice described above to the effect that such payment was rescinded or must be returned.

ARTICLE V

CONDITIONS PRECEDENT

Section 5.1 Conditions Precedent. This Agreement shall become effective upon the occurrence of each of the following (such date, the "Closing Date"):

- a. The execution and delivery of a counterpart hereto by each party hereto to the Administrative Agent (or its counsel).
- b. The Agents shall have received all fees and other amounts due and payable on or prior to the Closing Date (including, without limitation, all such fees due and owing to the Banks), for which invoices have been presented at least two Business Days prior to the Closing Date, including reimbursement or payment of all out-of-pocket expenses required to be reimbursed or paid by the Company hereunder.
- c. The Administrative Agent shall have received:
 - i. a copy of the certificate of incorporation of the Company certified by the Delaware Secretary of State and certified by a secretary or assistant secretary of the Company to be true and correct as of the date hereof;
 - ii. a copy of the bylaws of the Company certified by a secretary or assistant secretary of the Company to be true and correct as of the date hereof;
 - iii. a certificate of good standing with respect to the Company, certified by the Secretary of State of Delaware;
 - iv. a copy, certified by the secretary or assistant secretary of the Company, of the Company's Board of Directors' resolutions authorizing the execution of the Loan Documents;
 - v. an incumbency certificate, in substantially the form of Exhibit E hereto, executed by the secretary or assistant secretary of the Company, which shall identify by name and title and bear the signature of the officers of the Company authorized to sign the Loan Documents and to make borrowings hereunder, including telephonic borrowings, upon which certificate the Administrative Agent and the Banks shall be entitled to rely until informed of any change in writing by the Company;

vi. a certificate, signed by the (a) chief executive officer of the Company, (b) president of the Company, (c) managing director & president of the Clearing House division of the Company, (d) managing director & chief financial officer of the Company or (e) senior managing director & president of Global Operations, Technology & Risk, or in each case his or her delegate, in substantially the form of Exhibit B hereto. Such certificate may be furnished by the Company by any means set forth in Section 13.1 hereof, and shall be deemed given to the Administrative Agent as provided therein;

vii. a written opinion of the Company's counsel, addressed to the Administrative Agent, the Collateral Agent and the Banks (or upon which the Administrative Agent, the Collateral Agent and the Banks may rely), reasonably acceptable to the Administrative Agent;

viii. the Security and Pledge Agreement, duly executed and delivered by the Grantors and the Collateral Agent;

ix. interim consolidated financial Statements of CME Group Inc. and its subsidiaries and interim consolidated financial statements of the Company and its subsidiaries for each quarterly period of 2016 then available;

x. UCC financing statements for filing in all places required by applicable law to perfect the Liens of the Collateral Agent for the benefit of the Agents and Banks under the Collateral Documents as a first priority Lien as to items of Collateral in which a security interest may be perfected by the filing of financing statements (which such statements will not specifically list any account numbers); and

xi. UCC search results with respect to the Company showing only Liens acceptable to the Administrative Agent.

d. The Administrative Agent (or its counsel) shall have received evidence that the Existing Credit Agreement has been or concurrently with the Closing Date is being terminated and all Liens securing obligations under the Existing Credit Agreement have been or concurrently with the Closing Date are being released.

Without limiting the generality of the provisions of Article X, for purposes of determining compliance with the conditions specified in this Section 5.1, each Bank that has signed this Agreement shall be deemed to have consented to, approved or accepted or to be satisfied with, each document or other matter required thereunder to be consented to or approved by or acceptable or satisfactory to a Bank unless the Administrative Agent shall have received notice from such Bank prior to the proposed Closing Date specifying its objection thereto.

Section 5.2 Each Advance. No Bank shall be required to make any Advance (including the initial Advance), unless on the applicable Borrowing Date immediately after giving effect to the Advance and the contemplated use of the proceeds thereof:

a. There exists no Default or Unmatured Default.

b. The representations and warranties contained in Article VI (other than Section 6.5 and 6.10 (as it relates to clause (a)) are true and correct in all material respects (or, in the case of any such representation or warranty already qualified by materiality, in all respects) as of such Borrowing Date, except for representations and warranties that relate to a specific date, in which case as of such date.

c. An Advance Request with respect to such Advance shall have been delivered to the Administrative Agent in accordance with Section 3.1.

d. A Collateral Notice with respect to such Advance shall have been delivered to the Collateral Agent and the Collateral Monitoring Agent in accordance with Section 3.1.

e. To the extent any Money Fund Share shall be included in the Collateral Pool relating to such Advance, a copy of the Money Fund Control Agreement applicable to each such Money Fund Share shall have been duly executed and delivered to the Administrative Agent by the applicable Grantors, the Collateral Agent, the Collateral Monitoring Agent, the applicable Money Fund Issuer or its transfer or servicing agent and any other appropriate parties required by the Administrative Agent or the Collateral Agent.

f. To the extent any Gold Bullion is included in the Collateral Pool relating to such Advance, a copy of the applicable Bullion Security Agreement relating to such Advance, shall have been duly executed and delivered to the Administrative Agent by the applicable Grantors, the Collateral Monitoring Agent and the Collateral Agent.

g. To the extent any Gold Warrants are included in the Collateral Pool relating to such Advance, UCC and PPSA financing statements which, to the extent required for perfection purposes or otherwise reasonably requested by any Agent, describe such Gold Warrants and the gold they represent, shall have been filed and copies of all other, Gold Warrant Collateral Documents applicable to each such Gold Warrant shall have been duly executed and delivered to the Administrative Agent by the applicable Grantors or, where applicable, filed with applicable Governmental Authorities or other Persons.

h. To the extent any Clearing Member Collateral Securities Account, Clearing Member Customer Collateral Account, Company Securities Account, Clearing Member Customer Gold Warrant Advance Deposit Account or any other Collateral not referenced in clauses (e) through (g) above is included in the Collateral Pool relating to such Advance, a copy of the applicable Control Agreement (or in the case of any Clearing Member FX Account, the applicable FX Security Agreement), shall have been duly executed and delivered to the Administrative Agent by the applicable Grantors, the applicable Custodian, the Collateral Monitoring Agent and the Collateral Agent.

i. To the extent not previously provided under Section 5.1(c)(vii) or this Section 5.2(i), a written opinion(s) of the Company's counsel, addressed to the Administrative Agent, the Collateral Agent and the Banks (upon which the Administrative Agent, the Collateral Agent and the Banks may rely), reasonably acceptable to the Administrative Agent relating to the applicable agreements delivered pursuant to clauses (e), (f), (g) or (h) above shall have been delivered to the Administrative Agent.

j. The aggregate outstanding principal of (i) all Loans disbursed to the Company hereunder, after giving effect to the Loans to be made on such Borrowing Date, does not exceed the Aggregate Commitments, (ii) the aggregate outstanding principal of any Revolving Loan with respect to any Applicable Tranche does not exceed the Aggregate Applicable Tranche Commitments for such

Applicable Tranche, (iii) any Applicable Tranche Loan in an Alternative Currency does not exceed the Applicable Alternative Currency Sublimit for such Alternative Currency, and (iv) all Loans disbursed to the Company hereunder, after giving effect to such Loans, if any, to be made on such Borrowing Date, does not exceed the Borrowing Base as of such date.

k. In the case of a Revolving Loan to be denominated in an Alternative Currency under an Applicable Tranche, there shall not have occurred any change in national or international financial, political or economic conditions or currency exchange rates or exchange controls which in the reasonable opinion of the Required Applicable Banks would make it impracticable for such Applicable Tranche Revolving Loan to be denominated in the relevant Alternative Currency.

l. To the extent the Collateral included in the Collateral Pool constitutes "margin stock" as defined in Regulation U, a form FR U-1, to the extent not previously delivered, shall have been delivered by the Company to the Administrative Agent, and shall have been received by each Bank.

m. To the extent any Clearing Member Customer Gold Warrant Advance Deposit Account or Clearing Member Customer Gold Warrant Advance Deposit Account Collateral is included in the Collateral Pool relating to such Advance, the Company shall have delivered evidence reasonably acceptable to the Administrative Agent that the Company has taken the actions, and received any consents, required under the Rules and the rules of the Commodity Futures Trading Commission to permit it to accept Clearing Member Customer Gold Warrants as collateral under the Company's collateral eligibility guidelines.

The Company's receipt of the proceeds of any Loan hereunder shall constitute a representation and warranty by the Company that the conditions contained in Sections 5.2(a) and (b) have been satisfied.

ARTICLE VI

REPRESENTATIONS AND WARRANTIES

The Company represents and warrants to the Agents and the Banks, as of the Amendment No. 3 Effective Date and (except as otherwise specified herein) to the Banks on the date of each Advance, that:

Section 6.1 Corporate Existence and Standing. Each of the Company and the Subsidiaries is duly organized, validly existing and in good standing under the laws of its jurisdiction of organization and has all requisite authority to conduct its business in each jurisdiction in which its business is conducted and where the failure to have such authority would reasonably be expected to have a Material Adverse Effect.

Section 6.2 Authorization and Validity.

a. The Company has the corporate power and authority to execute and deliver the Loan Documents and to perform its obligations thereunder. The execution and delivery by the Company of the Loan Documents and the performance of its obligations thereunder have been duly authorized by proper corporate proceedings. The Company has duly executed and delivered the Loan Documents, and the Loan Documents constitute legal, valid and binding obligations of the Company, enforceable against the Company in accordance with their terms, except as enforceability may be limited by bankruptcy, insolvency or similar laws affecting the enforcement of creditors' rights generally and by general principles of equity (whether enforcement is considered in a proceeding at law or in equity).

b. The Company has the authority pursuant to CME Rules 816, 817 and 820, CBOT Rules 816, 817 and 820, NYMEX Rules 816, 817 and 820 and any other similar Rules, as applicable, to execute and deliver, as Member Attorney-in-Fact on behalf of the Clearing Members, the Collateral Documents. Pursuant to CME Rule 817, CBOT Rule 817, NYMEX Rule 817 and any other similar Rules, as applicable, the Company has the authority, as Member Attorney-in-Fact on behalf of the Clearing Members, to cause the Security Deposits to be subject to the Lien of the Collateral Documents to secure the Secured Obligations. Pursuant to CME Rule 817, CBOT Rule 817, NYMEX Rule 817 and any other similar Rules, as applicable, the Company has the authority, as Member Attorney-in-Fact on behalf of the Clearing Members, to cause the Performance Bonds of Clearing Members to be subject to the Lien of the Collateral Documents to secure the Secured Obligations (it being understood that only those Security Deposits and Performance Bonds which are Eligible Assets shall be pledged under the Collateral Documents). CME Rules 816, 817, 820 and 913.B, CBOT Rules 816, 817, 820 and 913.B, NYMEX Rules 816, 817, 820 and 913.B and any other similar Rules, as applicable, each as published on the CME website (located at the URL <https://www.cmegroup.com/market-regulation/rulebook.html>) as of the Amendment No. 3 Effective Date have been duly adopted and are in full force and effect.

Section 6.3 Compliance with Laws and Contracts. Neither the execution and delivery by the Company of the Loan Documents, nor the consummation of the transactions therein contemplated, nor compliance with the provisions thereof will violate any law, rule, regulation, order, writ, judgment, injunction, decree or award binding on the Company or any Subsidiary or the Company's or any Subsidiary's organizational or governing documents or the provisions of any material indenture, instrument or agreement to which the Company or any Subsidiary is a party or is subject, or by which it, or its property, is bound, or conflict with or constitute a default thereunder. No order, consent, approval, license, authorization, or validation of, or filing, recording or registration with, or exemption by, any Governmental Authority, or any subdivision thereof, that has not been obtained and in full force and effect is required to authorize, or is required in connection with the execution, delivery and performance of, or the legality, validity, binding effect or enforceability of, any of the Loan Documents as against the Company, except for registration of each Bullion Security Agreement at the Companies Registration Office in England and Wales under The Overseas Companies (Execution of Documents and Registration of Charges) Regulations 2009 and payment of associated fees.

Section 6.4 Financial Statements. The most recent audited consolidated balance sheet and statements of income and cash flows of each of the Company and the Subsidiaries and of Holdings and its subsidiaries (which include the Company and the Subsidiaries) for the fiscal year ended December 31, 2019, in each case, accompanied by an opinion of Ernst & Young LLP, independent public accountants, and the consolidated balance sheet and statements of income and cash flows of each of the Company and the Subsidiaries and of Holdings and its subsidiaries as of and for the period ended on September 30, 2019, certified, in the case of the consolidated financial statements of the Company and the Subsidiaries, by the Company's chief financial officer, copies of which have been heretofore delivered to the Banks and were prepared in accordance with GAAP and fairly present in all material respects in accordance with GAAP the consolidated financial condition and operations of the Company and the Subsidiaries or of Holdings and its subsidiaries, as the case may be, at such dates and the consolidated results of each of their operations for the periods covered thereby, subject to year-end audit adjustments and the absence of footnotes in the case of the statements for the period ended on September 30, 2019.

Section 6.5 Material Adverse Change. As of the Amendment No. 3 Effective Date, no material adverse change in the business, financial condition, or results of operations of the Company and the Subsidiaries has occurred since the date of the audited financial statements referred to in Section 6.4.

Section 6.6 Subsidiaries. Schedule I contains an accurate list of all of the Subsidiaries of the Company existing as of the Amendment No. 3 Effective Date, setting forth their respective jurisdictions of incorporation and the percentage of their respective capital stock or other equity interests owned by the Company or other Subsidiaries. All of the issued and outstanding shares of capital stock or other equity interests of such Subsidiaries have been duly authorized and issued and are fully paid and non-assessable.

Section 6.7 Accuracy of Information. No written information (other than projections, forward-looking statements or other information of a general economic or industry nature, it being understood that projections and forward-looking statements have been prepared by Holdings, the Company or any Subsidiary in good faith), exhibit or report furnished by Holdings, the Company or any Subsidiary to the Administrative Agent, the Collateral Agent or any Bank in connection with the negotiation of the Loan Documents or, in the case of the Company, the performance thereof, taken as a whole, contained any material misstatement of fact or omitted to state a material fact or any fact necessary to make the statements contained therein not materially misleading in light of the circumstances existing at the time furnished.

Section 6.8 Margin Regulations. No proceeds of any Loans will be used (x) to “buy”, “purchase” or “carry” any “margin stock” (each as defined in Regulation U) in violation of Regulation U, or (y) for any purpose that violates the provisions of Regulation T, U or X of the Board of Governors of the Federal Reserve System as now and from time to time hereafter in effect.

Section 6.9 Taxes. The Company and its Subsidiaries have filed all United States federal Tax returns and all other material Tax returns which are required to be filed by any of them and have paid all Taxes shown to be due and payable pursuant to said returns or pursuant to any assessment received by the Company or any such Subsidiary, except such Taxes, if any, (i) as are being contested in good faith and with respect to which adequate reserves required in accordance with GAAP have been set aside on the books of the Company or such Subsidiary, as applicable or (ii) to the extent that the failure to file such Tax returns or pay such Taxes would not result in a Material Adverse Effect. To the best of the Company’s knowledge, no Tax liens have been filed and no claims are being asserted with respect to any such Taxes other than liens for Taxes that (i) are not overdue by more than 30 days or (ii) are being contested in good faith and with respect to which adequate reserves required in accordance with GAAP have been set aside on the books of the Company or such Subsidiary, as applicable.

Section 6.10 Litigation. There is no litigation or proceeding before any Governmental Authority pending or, to the knowledge of any of their officers, threatened, against or affecting the Company or any Subsidiary of the Company which might reasonably be expected to materially adversely affect (a) as of the Amendment No. 3 Effective Date, except as set forth in Schedule II attached hereto, the business, financial condition or results of operations of the Company or (b) the ability of the Company to perform its material obligations under the Loan Documents.

Section 6.11 ERISA. Each Plan complies in all material respects with all applicable requirements of law and regulations, no Reportable Event has occurred with respect to any Plan, neither the Company nor any member of the Controlled Group has withdrawn from any Plan or initiated steps to do so, and no steps have been taken to terminate any Plan. As of the Amendment No. 3 Effective Date, the Company is not and will not be using “plan assets” (within the meaning of 29 CFR § 2510.3-101, as modified by Section 3(42) of ERISA) of one or more Benefit Plans in connection with the Loans or the Commitments.

Section 6.12 Investment Company Status. Neither the Company nor any of its Subsidiaries is an “investment company” as defined in, or subject to regulation under, the Investment Company Act of 1940.

Section 6.13 Registration. The Company is and will remain registered with the Commodity Futures Trading Commission and all other Governmental Authorities, or any subdivision thereof, which require registration and have jurisdiction over the Company.

Section 6.14 OFAC; Beneficial Ownership Regulation. Neither the Company, nor any of its Subsidiaries, nor, to the knowledge of the Company and its Subsidiaries, any director, officer, employee, agent, affiliate or representative thereof, is an individual or entity that is, or is owned or controlled by any individuals or entities that are (i) the target of any Sanctions, or (ii) located, organized or resident in a Designated Jurisdiction. As of the Amendment No. 3 Effective Date, the Company is not a “legal entity customer” under the Beneficial Ownership Regulation.

Section 6.15 Anti-Corruption Laws. The Company and its Subsidiaries have conducted their businesses in material compliance with applicable anti-corruption laws and have instituted and maintained policies and procedures designed to promote and achieve compliance with such laws in all material respects.

ARTICLE VII

COVENANTS

During the term of this Agreement and thereafter as long as any Advances or other Obligations (other than unasserted contingent indemnification obligations not due and payable) remain outstanding hereunder, unless the Required Banks shall otherwise consent in writing:

Section 7.1 Financial Reporting. The Company will maintain, for itself and each Subsidiary, a system of accounting established and administered in order to permit preparation of financial statements in accordance with GAAP, and furnish to the Administrative Agent (and the Administrative Agent will furnish a copy to each Bank):

a. Within 90 days after the close of each of its fiscal years, an unqualified audit report certified by Ernst & Young LLP, independent public accountants, or other independent public accountants of nationally recognized standing, prepared in accordance with GAAP on a consolidated basis for Holdings and its subsidiaries (including the Company), including balance sheets as of the end of such period, and statements of income, changes in shareholders’ equity and cash flows for the year then ended, accompanied by any management letter prepared by said accountants and by a certificate of said accountants in substantially the form of Exhibit C hereto, or if, in the opinion of such accountants, such certificate is not applicable, a description of any Default or Unmatured Default relating to accounting matters that in their opinion exists, stating the nature and status thereof.

b. Within 90 days after the close of each of its fiscal years, for the Company and its Subsidiaries, an audited consolidated balance sheet as at the end of such period and audited consolidated statements of income, changes in shareholders’ equity and cash flow for the year then ended, each (i) prepared in a manner consistent with the preparation of Holdings’ year-end statements and in accordance with GAAP (other than the absence of footnotes) and (ii) accompanied by an opinion of Ernst & Young LLP, independent public accountants, or other independent public accountants of nationally recognized standing.

c. Within 45 days after the close of the first three quarterly periods of each of its fiscal years, for the Company and its Subsidiaries, an unaudited consolidated balance sheet as at the close of each such period and unaudited consolidated statements of income, changes in shareholders' equity and cash flows from the beginning of such fiscal year to the end of such quarter, each prepared in a manner consistent with the preparation of the Company's year-end statements and in accordance with GAAP (other than the absence of footnotes and subject to normal year-end adjustments).

d. Within 45 days after the close of the first three quarterly periods of each of the Company's fiscal years and within 90 days after the close of each of the Company's fiscal years, a report of, as of the end of such applicable quarter or year, as the case may be, (i) current net working capital (used herein as calculated based on current assets minus current liabilities in accordance with GAAP), (ii) the aggregate amount of Security Deposits being held by the Company including a breakdown of the asset types making up such Security Deposits indicating, inter alia, those Security Deposit assets which are Eligible Assets and (iii) the aggregate amount of Performance Bonds of Defaulted Clearing Members being held by the Company including a breakdown of the asset types making up such Performance Bonds indicating, inter alia, those Performance Bond assets which are Eligible Assets.

e. Within the time periods set forth herein for the furnishing of the financial statements required hereunder, a certificate signed by its managing director & chief financial officer or another managing director, in substantially the form of Exhibit D hereto, (i) certifying that, to the knowledge of such officer or director, no Default or Unmatured Default has occurred and is continuing as of the date of such certificate, or if any such Default or Unmatured Default does exist and is continuing, setting forth a description of the nature and status of such Default or Unmatured Default and (ii) showing the calculations set forth in Exhibit D concerning net working capital and Consolidated Tangible Net Worth.

f. Within 90 days after the close of each fiscal year, a statement of the Unfunded Liabilities of each Plan, as of the end of such year, signed by the managing director & chief financial officer of the Company or another managing director, or, in the event there are no Unfunded Liabilities, a certificate signed by its managing director & chief financial officer or another managing director to that effect.

g. As soon as possible and in any event within 10 days after a Responsible Officer of the Company knows that any Reportable Event has occurred with respect to any Plan, a statement, signed by the managing director & chief financial officer of the Company or another managing director, describing said Reportable Event and the action which the Company proposes to take with respect thereto.

h. Promptly following any request therefor, information and documentation reasonably requested by the Administrative Agent or any Bank for purposes of compliance with applicable "know your customer" and anti-money-laundering rules and regulations, including, without limitation, the USA Patriot Act and the Beneficial Ownership Regulation.

i. Such other information (including non-financial information) regarding the business, financial or corporate affairs of the Company and its Subsidiaries as the Administrative Agent may from time to time reasonably request.

Documents required to be delivered pursuant to Section 7.1(a), or (b) or (c) (to the extent any such documents are included in materials otherwise filed with the Securities and Exchange Commission) may be delivered electronically and if so delivered, shall be deemed to have been delivered on the date (i) on

which the Company posts such documents, or provides a link thereto on the Company's website on the Internet at the website address listed in Schedule 13.1; or (ii) on which such documents are posted on the Company's behalf on an Internet or intranet website, if any, to which each Bank and the Administrative Agent have access (whether a commercial, third-party website or whether sponsored by the Administrative Agent); provided that the Company shall deliver paper copies of such documents to the Administrative Agent upon request therefor. Notwithstanding anything contained herein, in every instance the Company shall be required to provide copies (including by telecopy or electronic means) of the certificates required by Section 7.1(e) to the Administrative Agent. Except for such certificates, the Administrative Agent shall have no obligation to request the delivery or to maintain copies of the documents referred to above, and in any event shall have no responsibility to monitor compliance by the Company with any such request for delivery, and each Bank shall be solely responsible for maintaining its copies of such documents. For the avoidance of doubt, documents required to be delivered pursuant to Section 7.1(f), or (g) or (i) may be delivered by electronic mail to the Administrative Agent.

The Company hereby acknowledges that (a) the Agents and/or the Arrangers will make available to the Banks materials and/or information provided by or on behalf of the Company hereunder (collectively, "**Borrower Materials**") by posting the Borrower Materials on Syndtrak, Debt Domain, ClearPar, IntraLinks or another similar electronic system (the "**Platform**") and (b) certain of the Banks (each, a "**Public Bank**") may have personnel who do not wish to receive material non-public information with respect to the Company or its Affiliates, or the respective securities of any of the foregoing, and who may be engaged in investment and other market-related activities with respect to such Persons' securities. The Company hereby agrees that so long as the Company is the issuer of any outstanding debt or equity securities that are registered or issued pursuant to a private offering or is actively contemplating issuing any such securities (w) by its marking Borrower Materials "**PUBLIC**", the Company shall be deemed to have authorized the Agents, the Arrangers and the Banks to treat such Borrower Materials as not containing any material non-public information with respect to the Company or its securities for purposes of United States Federal and state securities laws (provided, however, that to the extent such Borrower Materials constitute Information, they shall be treated as set forth in Section 11.11); (x) all Borrower Materials marked "**PUBLIC**" are permitted to be made available through a portion of the Platform designated "**Public Side Information**"; and (y) the Agents and the Arrangers shall treat any Borrower Materials that are not marked "**PUBLIC**" as being suitable only for posting on a portion of the Platform that is not designated "**Public Side Information**". Notwithstanding the foregoing, the Company shall be under no obligation to mark any Borrower Materials "**PUBLIC**."

Section 7.2 Use of Proceeds.

a. Except in the case of a Test Draw, the Company will only use the proceeds of the Loans:

i. to satisfy any outstanding obligations of any Defaulted Clearing Members to CME, CBOT, NYMEX or any other exchange qualified to clear trades through the Clearing House as provided in the Rules or, with respect to the transfer of positions and related margin from a suspended Clearing Member to another Clearing Member, to make a transfer in cash in respect of margin related to such suspended Clearing Member's positions,

ii. in the event of a liquidity constraint or default by a depository, or

iii. to fulfill the Company's obligations in circumstances where a Money Gridlock Situation that affects the Company's operations exists.

b. Additionally, the Company from time to time may conduct Test Draws which shall be repaid on the Business Day immediately following the Borrowing Date thereof.

c. The Company will not, nor will it permit any Subsidiary to, use any of the proceeds of the Loans to “buy” or “carry” any “margin stock” (each as defined in Regulation U) or for any purpose that violates the provisions of Regulation T, U or X of the Board of the Federal Reserve System as now and from time to time hereafter in effect.

Section 7.3 Notice of Default. The Company will, and will cause each Subsidiary to, give prompt notice in writing to the Administrative Agent of the occurrence of any Default or Unmatured Default of which a Responsible Officer has actual knowledge and of any other development, financial or otherwise, which would reasonably be expected to materially adversely affect its business, properties or affairs or the ability of the Company to repay the Obligations.

Section 7.4 Conduct of Business. The Company will, and will cause each Subsidiary to, carry on and conduct its business in substantially the same manner and in substantially the same fields of enterprise as it is presently conducted, or reasonably similar thereto, or a reasonable extension thereof or ancillary thereto, and the Company will do all things necessary to remain duly organized, validly existing and in good standing as a domestic corporation, limited liability company or other entity in its jurisdiction of organization (in each case, other than pursuant to a merger or consolidation of any Subsidiary with the Company, as permitted under Section 7.13 hereof) and maintain all requisite authority to conduct its business in each jurisdiction in which its business is conducted and where the failure to have such authority would reasonably be expected to have a Material Adverse Effect.

Section 7.5 Compliance with Laws. The Company will, and will cause each Subsidiary to, comply with all laws, rules, regulations, orders, writs, judgments, injunctions, decrees or awards to which it may be subject, except where the failure to so comply would not reasonably be expected to have a Material Adverse Effect.

Section 7.6 Books and Records; Inspection Rights. The Company will, and will cause each of its Subsidiaries to, permit the Administrative Agent and the Collateral Agent or its representatives and agents, to inspect any of the properties, corporate books and financial records of the Company and each Subsidiary, to examine and make copies of the books of accounts and other financial records of the Company and each Subsidiary, and to discuss the affairs, finances and accounts of the Company and each Subsidiary (the foregoing activities, an “**Audit**”) with, and to be advised as to the same by, their respective officers upon reasonable prior notice (unless a Default exists) at such reasonable times and intervals as the Administrative Agent or the Collateral Agent may designate; provided that so long as no Default has occurred and is continuing the Company shall only be responsible for the costs and expenses of one Audit per 12-month period.

Section 7.7 Consolidated Tangible Net Worth. The Company will maintain at all times a Consolidated Tangible Net Worth of not less than \$800,000,000.

Section 7.8 Liens. The Company will not, nor will it permit any Subsidiary to, create or incur any Lien in or on any of the Collateral, except:

a. Liens in favor of the Collateral Agent.

b. Liens in favor of the Company, which Liens are subordinated to the Liens in favor of the Collateral Agent in accordance with Article XV hereof.

c. In the case of any Collateral, Liens arising out of judgments or awards against the Company or any Subsidiary, in an amount of not more than \$5,000,000 in the aggregate, which judgment or award is vacated, discharged, satisfied, paid or stayed or bonded pending appeal within 60 days from the entry thereof; provided that the Company shall have pledged to the Collateral Agent, for the benefit of the Banks, without the necessity of any notice or demand, such additional Collateral under the Collateral Pool under the Collateral Documents having an aggregate Discounted Value necessary to cause the Borrowing Base to be not less than the aggregate principal amount of the Loans then outstanding.

d. Liens for Taxes that are not overdue by more than 30 days or that are being contested in good faith and with respect to which adequate reserves required in accordance with GAAP have been set aside on the books of the Company or such Subsidiary, as applicable.

Section 7.9 Additional Clearing Members. Upon any Person becoming a Clearing Member, no asset of such Clearing Member shall be included in the Collateral Pool until such Clearing Member has executed and delivered (i) a supplement to the Security and Pledge Agreement, substantially in the form of Exhibit A thereto, joining such Clearing Member as a party to the Security and Pledge Agreement, (ii) a supplement to each applicable Control Agreement joining such Clearing Member as a party to such Control Agreement to the extent any assets of such Clearing Member are contained or included in (A) any applicable Clearing Member Collateral Securities Account, (B) any applicable Company Securities Account, (C) any applicable Clearing Member Customer Collateral Securities Account, (D) any applicable Clearing Member Customer FX Account, (E) any applicable Money Fund Shares or (F) any applicable Other Deposit Account, (iii) to the extent that Gold Bullion of such Clearing Member is pledged by such Clearing Member or is contained in any bullion account subject to a Bullion Security Agreement, a deed of accession to each applicable Bullion Security Agreement substantially in the form exhibited thereto or in such other form reasonably acceptable to the Collateral Agent joining such Clearing Member as a party to such Bullion Security Agreement, (iv) to the extent that Gold Warrants of such Clearing Member are pledged by such Clearing Member, any applicable Gold Warrant Collateral Documents shall have been duly executed and delivered to the Collateral Agent by the applicable Grantors or, where applicable, filed with applicable Governmental Authorities or other Persons (including the filing of UCC and PPSA financing statements, to the extent required for perfection purposes or otherwise reasonably requested by any Agent, describing such Clearing Member as the debtor and such Gold Warrants and the gold they represent) and (v) to the extent that any Clearing Member FX Account is pledged by such Clearing Member, a deed of accession to each applicable FX Security Agreement substantially in the form exhibited thereto or in such other form reasonably acceptable to the Collateral Agent joining such Clearing Member as a party to such FX Security Agreement. If any Clearing Member becomes a party to any Loan Document and is a member of an exchange which is qualified to clear trades through the Clearing House other than CME, CBOT or NYMEX, then the Company shall promptly (upon such Person's becoming a Clearing Member) provide notice thereof to the Administrative Agent, along with a copy of an update to the Rules (which it shall be permitted to do for this purpose) to include the relevant Rules of such exchange for purposes of the Loan Documents.

Section 7.10 Rule Changes. The Company will not, without the prior written consent of the Banks, amend, revoke, or rescind any Rule in any manner that would have a materially adverse effect on the Lien granted to the Collateral Agent in the Collateral or the ability of the Collateral Agent to enforce any of its rights under the Collateral Documents. Changes to the Rules may be made that have or could have the effect of decreasing the ability of the Company to pledge any assets (but not decreasing the ability of the Company to continue the pledge of any assets currently included in the Borrowing Base for any outstanding Loans) or limit the purposes for which such assets can be pledged, but any such change shall

not affect any Eligible Asset during the period such asset is pledged as Collateral prior to its withdrawal from the Collateral Pool.

Section 7.11 Taxes. The Company will, and will cause each Subsidiary to, pay when due all Taxes, assessments and governmental charges and levies upon it or its income, profits or property, except those (i) which are being contested in good faith by appropriate proceedings and with respect to which adequate reserves required in accordance with GAAP have been set aside on the books of the Company or such Subsidiary, as applicable, or (ii) as to which the failure to pay would not reasonably be expected to have a Material Adverse Effect.

Section 7.12 Insurance. The Company will, and will cause each Subsidiary to, maintain with financially sound and reputable insurance companies insurance on all their property in such amounts and covering such risks as is consistent with sound business practice in the industry, and the Company will furnish to the Administrative Agent upon request of any Bank information as to the insurance carried. The Administrative Agent shall furnish such information to each Bank.

Section 7.13 Fundamental Changes. The Company will not merge into or consolidate with any other Person (including, in each case, pursuant to a Division), unless the Company is the surviving Person, or liquidate or dissolve.

Section 7.14 Clearing Member Collateral Accounts. (a) Within two (2) Business Days of the date of delivery of any Advance Request, the Company will direct the Collateral Agent to transfer (or otherwise cause to be transferred) the Collateral identified in the Collateral Notice associated with such Advance (other than any Collateral in a Company Securities Account or a Clearing Member Customer Gold Warrant Advance Deposit Account and that portion of the Collateral Pool consisting of Corporate Bonds, Money Fund Shares, Gold Bullion or Gold Warrants) into the Clearing Member Collateral Securities Accounts or (in the case of FX Account Collateral) the Clearing Member FX Accounts and (b) within three (3) Business Days of the date of delivery of any Advance Request, the Company will cause that portion of the Collateral identified in the Collateral Notice associated with such Advance consisting of Corporate Bonds to be transferred into the Clearing Member Collateral Securities Accounts or (in the case of Other Deposit Account Collateral) the Other Clearing Member Collateral Deposit Accounts.

Section 7.15 Sanctions. The Company will not, directly or indirectly, use the proceeds of any Loan, or lend, contribute or otherwise make available such proceeds to any Subsidiary, joint venture partner or other individual or entity, to fund any activities of or business with any individual or entity, or in any Designated Jurisdiction, that, at the time of such funding, is the target of Sanctions, or in any other manner that will result in a violation by any individual or entity (including any individual or entity participating in the transaction, whether as Bank, Arranger, Administrative Agent, Swingline Bank, or otherwise) of Sanctions.

Section 7.16 Anti-Corruption Laws. The Company will, and will cause each Subsidiary to, conduct its businesses in material compliance with applicable anti-corruption laws and maintain policies and procedures designed to promote and achieve compliance with such laws in all material respects. The Company and each Subsidiary will not directly or indirectly use the proceeds of any Advance for any purpose which would breach the United States Foreign Corrupt Practices Act of 1977, the UK Bribery Act 2010, or other similar legislation in other applicable jurisdictions.

ARTICLE VIII

DEFAULTS

The occurrence of any one or more of the following events shall constitute a Default:

Section 8.1 Representations and Warranties. Any representation or warranty made, or deemed made under Section 5.2, by or on behalf of the Company or any Subsidiary to the Agents or the Banks in this Agreement or in any certificate or written information delivered in connection with this Agreement or any other Loan Document shall be materially false as of the date on which made or deemed to have been made.

Section 8.2 Payment Defaults. Nonpayment of the principal of any Loan when due, nonpayment of interest upon any Loan within five days after the same becomes due or nonpayment of any commitment fee or other Obligation under any of the Loan Documents within ten days after the same becomes due.

Section 8.3 Certain Covenant Defaults. (i) Any breach by the Company of any of the terms required to be observed by it under Section 7.1 (other than Section 7.1(g)), which is not remedied within five days after the Company receives written notice from the Administrative Agent; (ii) any breach by the Company of any of the terms required to be observed by it under Section 2.6, 7.2, 7.7, 7.8, 7.10, 7.13, 7.14 or 7.15; or (iii) any material breach by the Company of any of the other terms or provisions required to be observed by it under Article VII which is not remedied within five days after the Company receives written notice from the Administrative Agent.

Section 8.4 Other Covenant Defaults. The breach by the Company (other than a breach which constitutes a Default under Section 8.1, 8.2 or 8.3) of any of the terms or provisions of this Agreement or any other Loan Document to which such Person is a party which is not remedied within thirty days after written notice from the Administrative Agent.

Section 8.5 Other Indebtedness. Failure of the Company or any Subsidiary to pay any principal, premium, or interest when due on or under any Indebtedness (other than Indebtedness under this Agreement) having an aggregate principal amount then outstanding in excess of \$25,000,000 and such failure shall continue after any applicable grace period; or the default by the Company or any Subsidiary in the performance of any term, provision or condition contained in any agreement under which any such Indebtedness was created or is governed, which results in such Indebtedness being accelerated or declared to be due and payable or required to be prepaid, redeemed or defeased (other than by a regularly scheduled repayment, redemption or defeasance or mandatory prepayment, redemption or defeasance) prior to its stated maturity.

Section 8.6 Bankruptcy, etc. The Company or any Subsidiary shall (a) have an order for relief entered with respect to it under the federal bankruptcy code, (b) not pay, or admit in writing its inability to pay, its debts generally as they become due, (c) make an assignment for the benefit of creditors, (d) apply for, seek, consent to, or acquiesce in, the appointment of a receiver, custodian, trustee, examiner, liquidator or similar official for it or any substantial part of its property, (e) institute any proceeding seeking an order for relief under the federal bankruptcy code or seeking to adjudicate it a bankrupt or insolvent, or seeking dissolution, winding up, liquidation, reorganization, arrangement, adjustment or composition of it or its debts under any law relating to bankruptcy, insolvency or reorganization or relief of debtors or fail to file an answer or other pleading denying the material allegations of any such proceeding filed against it, (f) take any corporate action to authorize or effect any of the foregoing actions

set forth in this Section 8.6 or (g) fail to contest in good faith any appointment or proceeding described in Section 8.7.

Section 8.7 Involuntary Bankruptcy, etc. Without the application, approval or consent of the Company or any Subsidiary, a receiver, trustee, examiner, liquidator or similar official shall be appointed for the Company or any Subsidiary or any substantial part of its property, or a proceeding described in Section 8.6(e) shall be instituted against the Company or any Subsidiary and such appointment continues undischarged or such proceeding continues undismissed or unstayed for a period of 45 consecutive days.

Section 8.8 Judgments. The Company or any Subsidiary shall fail to pay, bond or otherwise discharge, within 30 days of the entry thereof, any judgment or order for the payment of money in an amount greater than \$25,000,000 in excess of available insurance coverage (to the extent the insurer has not denied coverage) or available indemnity coverage (to the extent the indemnitor has not denied its obligation to indemnify) and which is not stayed on appeal or otherwise being appropriately contested in good faith.

Section 8.9 Security Interest; Validity. The Collateral Agent, for its benefit, the benefit of the Administrative Agent and the ratable benefit of the Banks, shall not have a valid and perfected first priority security interest in the Collateral (a) other than (i) in connection with any release of Collateral contemplated hereby or by any other Loan Document or (ii) to the extent at any time that such Collateral is not included in the Collateral Pool or not subject to a respective control agreement contemplated by Section 5.2(e), or (h) because such control agreement is not required at such time to be delivered pursuant to Section 5.2(e) or (h) or (b) other than as contemplated by the Security and Pledge Agreement; or the Company shall assert the invalidity of any such security interest or the invalidity or unenforceability of any Collateral Document; or any Collateral Document shall be terminated without the Collateral Agent's written consent except as contemplated by the Security and Pledge Agreement or such Collateral Document.

Section 8.10 CFTC Designation. The Commodity Futures Trading Commission (or its successor) shall revoke or suspend the designation of the Company as a designated contract market under the Commodity Exchange Act.

ARTICLE IX

ACCELERATION, WAIVERS, AMENDMENTS AND REMEDIES

Section 9.1 Acceleration. If any Default described in Section 8.6 or 8.7 occurs, the obligations of the Banks to make Loans hereunder shall automatically terminate and the Obligations shall immediately become due and payable without any election or action on the part of any Bank or the Administrative Agent. If any other Default occurs, and for so long as it is continuing, the Administrative Agent upon the consent of the Required Banks may, or upon the direction of the Required Banks shall, terminate or suspend the Aggregate Commitments of the Banks to make Loans hereunder, or declare the Obligations to be due and payable, or both, whereupon such Obligations shall become immediately due and payable, without presentment, demand, protest or notice of any kind, all of which the Company hereby expressly waives. In addition, at any time after which the Obligations have become due and payable and the obligations of the Banks to make Loans hereunder have terminated in accordance with this Section 9.1, the Collateral Agent may (but without any obligation), with the consent of the Administrative Agent (acting at the direction of the Required Banks), or shall, upon the direction of the Administrative Agent (acting at the direction of the Required Banks), enforce any and all rights and interest created under the Collateral Documents, the UCC or the PPSA, including, without limitation, foreclosing the security

interests created pursuant to the Collateral Documents by any available judicial procedure, and exercise all other rights and remedies of the Collateral Agent otherwise available under any other provision of this Agreement, by operation of law, at equity or otherwise, all of which are hereby expressly preserved and all of which rights shall be cumulative.

Section 9.2 Amendments. Subject to the provisions of Section 11.8(f), Section 11.8(g) and this Section 9.2, the Required Banks or the Administrative Agent (with the written consent of the Required Banks) and, in either case, the Company may, for the purpose of adding or modifying any provisions hereof or of the other Loan Documents, changing in any manner the rights of the Banks or the Company hereunder or thereunder or waiving any Default hereunder or thereunder, enter into agreements supplemental hereto or thereto; provided, however, that:

a. no amendment, waiver or modification of any provision of this Agreement shall (i) (x) change the percentage in the definition of the terms “**Required Banks**” or “**Supermajority Banks**” or any other provision hereof specifying the number or percentage of Banks required to waive, amend or modify any rights hereunder or give any direction or grant any consent hereunder (other than the definition specified in clause (y) of this Section 9.2(a)(i)) without the consent of all of the Banks, or (y) change the percentage in the definition of the term “**Required Applicable Banks**” with respect to an Applicable Tranche without the written consent of each Applicable Bank in such Applicable Tranche, (ii) reduce the principal amount of or extend the scheduled date of payment for any Advance made by any Bank beyond the Revolving Credit Termination Date, or reduce the rate or extend the time of payment of interest thereon without the consent of such Bank, (iii) reduce the rate or extend the time of payment of any commitment fee owed to any Bank without the consent of such Bank, (iv) adjust the amount of the Applicable Tranche Commitment of any Bank except as otherwise permitted herein or postpone the scheduled date of expiration of any Applicable Tranche Commitment of any Bank without the consent of such Bank, (v) amend Section 2.6, 3.4(b) (solely with respect to pro rata treatment of payments to the Banks), 4.3 (solely with respect to pro rata treatment of payments to the Banks), this Section 9.2, or Section 12.1(b) or (c) without the consent of each Bank directly affected thereby, (vi) extend the Revolving Credit Termination Date of any Loan made by any Bank without the consent of such Bank, (vii) permit the Company to assign its rights under this Agreement without the consent of all of the Banks, (viii) subject to clause (c) below, amend the definition of “**Eligible Assets**”, “**Advance Rate**”, “**Concentration Policy**”, “**Minimum Credit Rating**”, “**Borrowing Base**” and “**Discounted Value**”, the provisions of Annex I hereto or Section 5.2(e), (f), (g), (h), (i), (j) or (k) hereto, in each case without the consent of the Supermajority Banks, (ix) release any of the Collateral from the Lien granted pursuant to the Collateral Documents to the extent that on the date of such release the aggregate outstanding principal amount of all Loans exceed, or will immediately after such release exceed, the Borrowing Base, other than as permitted by this Agreement or any other Loan Document (including without limitation Section 2.9 of this Agreement) without the consent of the Supermajority Banks, (x) amend, modify or waive any provision of Section 2.11 or the definition of the term “Defaulting Bank” (or the definition of any component thereof) without the consent of the Required Banks and the Administrative Agent (for the avoidance of doubt, this clause (x) shall be the only clause in this subsection applicable to any such amendment, modification or waiver of Section 2.11 or the definition of the term “Defaulting Bank”), (xi) impose any greater restriction on the ability of any Bank under an Applicable Tranche to assign any of its rights or obligations hereunder without the written consent of the Required Applicable Banks under such Applicable Tranche, (xii) amend or modify the provisions of Annex II without the consent of each Bank committed to fund Loans in the currency being amended or modified adversely affected thereby, or (xiii) affect the rights or duties under this Agreement of the Applicable Banks under an Applicable Tranche (but not the Applicable Banks under a different Applicable Tranche) without the consent of the

Administrative Agent and the Applicable Banks that would be required to consent thereto under this Section if such set of Applicable Banks were the only Banks hereunder at the time;

b. the Company may (i) add one or more new Banks or increase an Applicable Tranche Commitment of an existing Bank, in each case pursuant to Section 2.10 without the consent of any other Bank and (ii) in connection with the removal or replacement of any Bank in accordance with Section 2.12, (A) reduce the Aggregate Applicable Tranche Commitments up to the amount of any Terminated Bank's Applicable Tranche Commitment without the consent of any other Bank and (B) add one or more Replacement Banks in accordance with applicable law and the provisions of Section 11.1(c) without the consent of any Bank other than each such Replacement Bank provided that such Replacement Bank shall have executed an Assignment Agreement in accordance with Section 11.1;

c. subject to the consent of the Administrative Agent (which consent shall not be unreasonably withheld or delayed), the Company may modify the Eligible Assets, Advance Rate, the Concentration Policy, the Minimum Credit Rating, the Borrowing Base, Discounted Value or the provisions of Annex I hereto at any time, without the consent of the Banks, if such modification results in an imposition of a more restrictive definition of Eligible Assets, Advance Rate, Concentration Policy, Minimum Credit Rating, Borrowing Base or Discounted Value or more restrictive provisions of Annex I than as set forth herein as of the Amendment No. 3 Effective Date;

d. the Company may amend, restate, supplement or otherwise modify the Security and Pledge Agreement to the extent permitted by Section 8.5(ii) of the Security and Pledge Agreement, with only the consent of the parties described therein; and

e. except as provided in clause (d) above, subject to the consent of the Collateral Agent (acting at the direction of the Administrative Agent (which direction shall not be unreasonably withheld or delayed), unless the Collateral Agent determines that such amendment, restatement, supplement or modification would impair any right of the Collateral Agent) and so long as any such amendment, restatement, supplement, or modification does not impair the perfection or priority of the Lien of the Collateral Agent on behalf of the Agents and the Banks in the respective Collateral subject to such Collateral Document, the Company may amend, restate, supplement or otherwise modify any Collateral Document pursuant to the terms thereof, in each case, without the consent of the Banks; and

f. subject to the requirements of Section 2.7 (including any Bank consent requirements thereunder), the Company may convert Applicable Tranche Commitments from one Applicable Tranche to a different Applicable Tranche or add additional currencies to an Applicable Tranche without the consent of the Banks;

and, provided further, that (i) no amendment, waiver or consent shall, unless in writing and signed by the Administrative Agent in addition to the Banks required above, affect the rights or duties of the Administrative Agent under this Agreement; (ii) no amendment, waiver or consent shall, unless in writing and signed by the Collateral Agent in addition to the Banks required above, affect the rights or duties of the Collateral Agent under this Agreement; (iii) no amendment, waiver or consent shall, unless in writing and signed by the Collateral Monitoring Agent in addition to the Banks required above, affect the rights or duties of the Collateral Monitoring Agent under this Agreement (iv) no amendment, waiver or consent shall, unless in writing and signed by the respective Applicable Tranche Swingline Bank in addition to the Banks required above, affect the rights or duties of such Applicable Tranche Swingline Bank under this Agreement; and (v) any Fee Letters may be amended, or rights or privileges thereunder waived, in a writing executed only by the respective parties thereto. Notwithstanding anything to the contrary herein,

no Defaulting Bank shall have any right to approve or disapprove any amendment, waiver or consent hereunder, (and any amendment, waiver or consent which by its terms requires the consent of all Banks or each affected Bank may be effected with the consent of the applicable Banks other than Defaulting Banks), except that (x) no Applicable Tranche Commitment of such Defaulting Bank may be increased or extended without the consent of such Bank and (y) any waiver, amendment or modification requiring the consent of all Banks or each affected Bank that by its terms directly affects any Defaulting Bank more adversely than other directly affected Banks shall require the consent of such Defaulting Bank. The Company shall promptly deliver a copy to the Administrative Agent, the Collateral Agent and the Collateral Monitoring Agent of any amendment, waiver or consent which was not required to be executed by the Administrative Agent, the Collateral Agent or the Collateral Monitoring Agent, as applicable, pursuant to this Section.

Section 9.3 Preservation of Rights. No delay or omission of any of the Agents or the Banks to exercise any right under the Loan Documents shall impair such right or be construed to be a waiver of any Default or an acquiescence therein, and the making of a Loan notwithstanding the existence of a Default or the inability of the Company to satisfy the conditions precedent to such Loan shall not constitute any waiver or acquiescence, regardless of whether the Administrative Agent or any Bank may have had notice or knowledge of such Default at the time. Any single or partial exercise of any such right shall not preclude other or further exercise thereof or the exercise of any other right, and no waiver, amendment or other variation of the terms, conditions or provisions of the Loan Documents whatsoever shall be valid unless the same shall be permitted by Section 9.2, and then only in the specific instance and for the purpose for which given. All remedies contained in the Loan Documents or by law afforded shall be cumulative and all shall be available to the Banks until the Obligations have been paid in full and the Aggregate Commitments have been terminated.

ARTICLE X

THE AGENTS

Section 10.1 Appointment and Authority. Each of the Banks appoints Bank of America, N.A. to act on its behalf as the Administrative Agent hereunder and authorizes the Administrative Agent to take such actions on its behalf and to exercise such powers as are delegated to the Administrative Agent by the terms hereof, together with such actions and powers as are reasonably incidental thereto. Each of the Banks and the Administrative Agent appoints Citibank, N.A. to act on its behalf as the Collateral Agent and the Collateral Monitoring Agent hereunder and authorizes the Collateral Agent and the Collateral Monitoring Agent to take such actions on its behalf and to exercise such powers as are delegated to the Collateral Agent and the Collateral Monitoring Agent (respectively) by the terms hereof together with such actions and powers as are reasonably incidental thereto. The provisions of this Article are solely for the benefit of the Agents and the Banks, and the Company shall not have rights as a third party beneficiary of any of such provisions. It is understood and agreed that the use of the term “agent” herein or in any other Loan Documents (or any other similar term) with reference to the Administrative Agent, the Collateral Agent or the Collateral Monitoring Agent is not intended to connote any fiduciary or other implied (or express) obligations arising under agency doctrine of any applicable law. Instead such term is used as a matter of market custom, and is intended to create or reflect only an administrative relationship between contracting parties. Each Bank hereby authorizes the Collateral Agent to execute each of the Collateral Documents on behalf, or for the benefit, of such Bank (the terms of which shall be binding on

such Bank) and to release any lien in any Collateral if such release is provided for in any Loan Document or is otherwise consented to in accordance with Section 9.2.

Section 10.2 Rights as a Bank. The Person serving as an Agent hereunder shall have the same rights and powers in its capacity as a Bank as any other Bank and may exercise the same as though it were not an Agent and the term “Bank” or “Banks” shall, unless otherwise expressly indicated or unless the context otherwise requires, include the Person serving as an Agent hereunder in its capacity as a Bank. Such Person and its Affiliates may accept deposits from, lend money to, act as the financial advisor or in any other advisory capacity for and generally engage in any kind of business with the Company or any Subsidiary or other Affiliate thereof as if such Person were not an Agent hereunder and without any duty to account therefor to the Banks.

Section 10.3 Exculpatory Provisions. No Agent shall have any duties or obligations except those expressly set forth herein or in any other Loan Document to which it is a party and its duties hereunder and thereunder shall be administrative in nature. Without limiting the generality of the foregoing, no Agent:

a. shall be subject to any fiduciary or other implied duties, regardless of whether a Default has occurred and is continuing;

b. shall have any duty to take any discretionary action or exercise any discretionary powers, except discretionary rights and powers expressly contemplated hereby that such Agent is required to exercise as directed in writing (x) in the case of the Collateral Agent or the Collateral Monitoring Agent, by the Administrative Agent (and the Collateral Agent and the Collateral Monitoring Agent shall be fully protected in acting, or in refraining from acting, under the Loan Documents to the extent so directed by the Administrative Agent) and (y) in the case of the Administrative Agent, by the Required Banks (or such other number or percentage of the Banks as shall be expressly provided for herein) (and the Administrative Agent shall be fully protecting in acting including giving directions to any other Agent, or in refraining from acting, under the Loan Documents to the extent so directed by the Required Banks or such other number or percentage of Banks, as applicable); provided that each Agent may refuse to perform any duty or exercise any right or power unless it receives indemnity from the Banks satisfactory to it against the costs, expenses and liabilities which might be incurred by it in performing such duty or exercising such right or power; provided further that no Agent shall be required to take any action that, in its opinion or the opinion of its counsel, may expose such Agent to liability or that is contrary to this Agreement, any Loan Document or applicable law, including for the avoidance of doubt any action that may be in violation of the automatic stay under any Federal, state or foreign bankruptcy, insolvency, receivership, or similar law or that may effect a forfeiture, modification or termination of property of a Defaulting Bank in violation of any Federal, state or foreign bankruptcy, insolvency, receivership, or similar law; and

c. shall, except as expressly set forth herein, have any duty to disclose, or shall be liable for the failure to disclose, any information relating to Holdings, the Company or any of its Affiliates that is communicated to or obtained by the Person serving as an Agent or any of its Affiliates in any capacity.

No Agent shall be liable for any action taken or not taken by it (i) (x) in the case of the Collateral Agent or the Collateral Monitoring Agent, with the consent or at the request of the Administrative Agent and (y) in the case of the Administrative Agent, with the consent or at the request of the Required Banks (or such other number or percentage of the Banks as shall be necessary, or as the

Administrative Agent shall believe in good faith shall be necessary, under the circumstances as provided in Sections 9.2 and Article IX) or (ii) in the absence of its own gross negligence or willful misconduct as determined by a court of competent jurisdiction by final and non-appealable judgment. No Agent shall be deemed to have knowledge of any Default unless and until notice describing such Default is given in writing to such Agent by the Company or a Bank. Without limitation of any other provision of this Article X, if any provision of this Agreement or the other Loan Documents is silent or vague (as determined in the good faith of the applicable Agent), each Agent shall be fully justified in failing or refusing to take any action under this Agreement or the other Loan Documents if it shall not have received (A) in the case of the Collateral Agent or the Collateral Monitoring Agent, the written instruction, advice or concurrence of the Administrative Agent, and (B) in the case of the Administrative Agent, the written instruction, advice or concurrence of the Banks, in each case, as such Agent deems appropriate.

No Agent shall be required to expend or risk any of its own funds or otherwise incur any liability, financial or otherwise, in the performance of any of its duties hereunder or under any other Loan Document to which it is a party, or to take any action that is contrary to this Agreement or applicable law.

No Agent shall be responsible for or have any duty to ascertain or inquire into (i) any statement, warranty or representation made in or in connection with this Agreement, (ii) the contents of any certificate, report or other document delivered hereunder or thereunder or in connection herewith, (iii) the performance or observance of any of the covenants, agreements or other terms or conditions set forth herein or therein or the occurrence of any Default, (iv) the validity, enforceability, effectiveness or genuineness of this Agreement, any other Loan Document or any other agreement, instrument or document, (v) the existence, genuineness, value (other than as expressly provided by Section 1.4 with respect to the Collateral Monitoring Agent and Collateral Agent) or protection of any Collateral, for the legality, effectiveness or sufficiency of any Collateral Document, or for the creation, perfection, priority, sufficiency or protection of any Liens securing the Secured Obligations or (vi) the satisfaction of any condition set forth in Article V or elsewhere herein, other than to confirm receipt of items expressly required to be delivered to such Agent. The Collateral Agent and the Collateral Monitoring Agent are not responsible for validating the absence of liens through lien searches or otherwise.

Upon receipt of any notice of the occurrence of any Default or Unmatured Default described in Section 7.3, the Administrative Agent will promptly provide notice thereof to the Banks (with a copy to the Collateral Agent and the Collateral Monitoring Agent).

For the avoidance of doubt, nothing herein or the other Loan Documents shall require the Collateral Agent to file financing statements or continuation statements, or be responsible for maintaining the security interests purported to be created as described herein (except for the safe custody of any Collateral in its possession and the accounting for moneys actually received by it hereunder or under any other Loan Document to which it is a party or any other payment made to it or by it in connection with the transactions contemplated hereby or thereby).

Section 10.4 Reliance by Agents. Each Agent shall be entitled to rely upon, and shall not incur any liability for relying upon, any notice, request, certificate, consent, statement, instrument, document or other writing (including any electronic message, Internet or intranet website posting or other distribution) believed by it to be genuine and to have been signed, sent or otherwise made by the proper Person. Each Agent also may rely upon any statement made to it orally or by telephone and believed by it to have been made by the proper Person, and shall not incur any liability for relying thereon. In determining compliance with any condition hereunder to the making of a Loan, which by its terms must be fulfilled to

the satisfaction of a Bank, the Administrative Agent may presume that such condition is satisfactory to such Bank unless the Administrative Agent shall have received notice to the contrary from such Bank prior to the making of such Loan. Each Agent may consult with legal counsel (who may be counsel for the Company), independent accountants and other experts selected by it, and shall not be liable for any action taken or not taken by it in accordance with the advice of any such counsel, accountants or experts.

Section 10.5 Delegation of Duties. Each Agent may perform any and all of its duties and exercise its rights and powers hereunder by or through any one or more sub-agents appointed by such Agent. Each Agent and any such sub-agent may perform any and all of its duties and exercise its rights and powers by or through their respective Related Parties. The exculpatory provisions of this Article shall apply to any such sub-agent and to the Related Parties of such Agent and any such sub-agent, and shall apply to their respective activities in connection with the syndication of the credit facilities provided for herein as well as activities as such Agent. No Agent shall be responsible for the negligence or misconduct of any sub-agents except to the extent such Agent acted with bad faith, gross negligence or willful misconduct in the selection of such sub-agents.

Section 10.6 Resignation or Removal of Agents.

a. The Administrative Agent or Citibank, N.A. (in both its capacity as Collateral Monitoring Agent and Collateral Agent) may at any time give notice of its resignation to the Banks and the Company. Further, (i) the Company and the Required Banks may, in the event that an Agent shall become unable to fulfill any of its duties hereunder (as determined by the Company in its reasonable discretion) or upon mutual agreement from time to time request another Bank to act as the “Administrative Agent” or “Collateral Agent” and “Collateral Monitoring Agent”, as applicable, hereunder and (ii) the Company may, in the event that any Applicable Tranche Commitment of a Bank serving as an Agent hereunder has been terminated by the Company as permitted by Section 2.12(a) because such Bank was a Defaulting Bank remove such Bank as an Agent hereunder and request another Bank to act as the “Administrative Agent” or “Collateral Agent” and “Collateral Monitoring Agent”, as applicable, hereunder (in any such case of clauses (i) and (ii), an “**Agent Removal Request**”). Upon receipt of any such notice of resignation, removal or request, the Required Banks shall have the right, with the consent of the Company (not to be unreasonably withheld), to appoint a successor, which shall be a bank or trust company with an office in the United States. If no such successor Agent shall have been so appointed by the Required Banks with such consent of the Company and shall have accepted such appointment within 30 days after the retiring or removed Agent gives notice of its resignation (or such earlier day as shall be agreed by the Company and the Required Banks) or 30 days after such Agent Removal Request (the “**Resignation/Removal Effective Date**”), then the retiring or removed Agent may on behalf of the Banks upon 30 days’ prior written notice to the Company (but shall have no obligation to), appoint a successor Administrative Agent or Collateral Agent or Collateral Monitoring Agent, as applicable, which shall be a bank or trust company having the operational capacity to perform the functions of such Agent hereunder, with an office (or an Affiliate with an office) in the United States and organized under the laws of the United States of America or any state thereof, having a combined capital and surplus of at least \$500,000,000 (or as may otherwise be mutually agreed among the Required Banks and the Company; provided that, if such retiring or removed Agent is unable to locate such a successor Agent having a combined capital and surplus of at least \$500,000,000 within 30 days after giving such notice to the Company, then after the expiration of such 30-day period it may appoint a successor having a combined capital surplus of at least \$50,000,000 and otherwise meeting the requirements of this Section; and provided further that, if the applicable Agent shall notify the Company and such Banks that no qualifying Person has accepted such appointment or if such Agent has elected not to appoint such a successor Agent, then such resignation or removal shall nonetheless become effective in accordance with

such notice on the Resignation/Removal Effective Date and with effect from the Resignation/Removal Effective Date (1) the retiring or removed Agent shall be discharged from its duties and obligations hereunder (except that in the case of any collateral security held by the Collateral Agent on behalf of the Banks under any of the Loan Documents, the retiring or removed Collateral Agent shall continue to hold such collateral security (without any obligation to take action in connection therewith in its capacity as Collateral Agent) until such time as a successor Collateral Agent is appointed) and (2) except for any indemnity payments or other amounts then owed to the retiring or removed Agent, all payments, communications and determinations provided to be made by, to or through such Agent shall instead be made by or to each Bank directly, until such time as a successor Agent is appointed by the Required Banks or such Agent, as applicable (in each case, with the consent of Company, not to be unreasonably withheld), as provided for above in this Section. Upon the acceptance of a successor's appointment as Agent hereunder, such successor shall succeed to and become vested with all of the rights, powers, privileges and duties of the retiring (or retired or removed) Agent (other than any rights to indemnity payments or other amounts owed to the retiring or removed Agent as of the Resignation Effective Date), and the retiring or removed Agent shall be discharged from all of its duties and obligations as such Agent hereunder (if not already discharged therefrom as provided above in this Section). The fees payable by the Company to a successor Agent shall be the same as those payable to its predecessor unless otherwise agreed between the Company and such successor. After an Agent's resignation or removal hereunder, the provisions of this Article and Section 11.8 shall continue in effect for the benefit of such retiring or removed Agent, its sub-agents and their respective Related Parties in respect of any actions taken or omitted to be taken by any of them (i) while the retiring or removed Agent was acting as such Agent and (ii) after such resignation or removal for as long as any of them continues to act in any capacity hereunder or under the other Loan Documents, including (a) acting as collateral agent or otherwise holding any collateral security on behalf of any of the Banks and (b) in respect of any actions taken in connection with transferring the agency to any successor Agent. Nothing in this Section shall constitute a waiver or release by the Company of any claims it may have hereunder or under the other Loan Documents as a result of a Bank becoming a Defaulting Bank.

b. Further, the Company may, at any time, with the consent of the Administrative Agent (not to be unreasonably withheld or delayed) remove the Collateral Agent and Collateral Monitoring Agent and appoint a Bank (with such applicable Bank's consent and which shall be a bank or trust company with an office in the United States of America or any state thereof) as the successor Collateral Agent and Collateral Monitoring Agent, as applicable. Each such successor shall succeed to and become vested with all of the rights, powers, privileges and duties of the removed Collateral Agent and Collateral Monitoring Agent (other than any rights to indemnity payments or other amounts owed to the removed Collateral Agent and Collateral Monitoring Agent as of the date of removal of such Collateral Agent and Collateral Monitoring Agent) and the removed Collateral Agent and Collateral Monitoring Agent shall be discharged from all of its duties and obligations hereunder (except that in the case of any collateral security held by the Collateral Agent on behalf of the Banks under any of the Loan Documents, the removed Collateral Agent shall continue to hold such collateral security until such time as a successor Collateral Agent is appointed).

c. The Administrative Agent hereby agrees to provide the Company from time to time at the Company's request a list (which may be in electronic form) setting out the names of the Banks as of the date of such request, their respective Commitments, and the information on record with the Administrative Agent for delivering notices to the Banks in accordance with Section 13.1(b).

d. In the event of any such resignation by or removal of Bank of America as Agent pursuant to this Section, Bank of America may resign and be discharged of its duties as an Applicable

Tranche Swingline Bank; provided that, Bank of America shall retain all the rights, powers and privileges of an “Applicable Tranche Swingline Bank” provided for hereunder with respect to Applicable Tranche Swingline Loans made by it and outstanding as of the effective date of such resignation, including the right to require the Banks to make Applicable Tranche Revolving Loans or fund risk participations in outstanding Applicable Tranche Swingline Loans pursuant to Section 2.14.

Section 10.7 Non-Reliance on Agents and Other Banks. Each Bank acknowledges that it has, independently and without reliance upon any Agent or any other Bank or any of their Related Parties and based on such documents and information as it has deemed appropriate, made its own credit analysis and decision to enter into this Agreement. Each Bank also acknowledges that it will, independently and without reliance upon any Agent or any other Bank or any of their Related Parties and based on such documents and information as it shall from time to time deem appropriate, continue to make its own decisions in taking or not taking action under or based upon this Agreement, any related agreement or any document furnished hereunder or thereunder.

Section 10.8 No Other Duties, Etc. Anything herein to the contrary notwithstanding, none of the Bookrunners, Arrangers or Syndications Agents or Documentation Agents listed on the cover page hereof shall have any powers, duties or responsibilities under this Agreement, except in its capacity, as applicable, as the Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent or a Bank hereunder. Without limitation of the foregoing, neither the Bookrunners, Arrangers, Syndication Agents or Documentation Agents in their respective capacities as such shall, by reason of this Agreement or any other Loan Document, have any fiduciary relationship in respect of any Bank or the Company.

Section 10.9 Administrative Agent May File Proofs of Claim. In case of the pendency of any proceeding under any Federal, state or foreign bankruptcy, insolvency, receivership, or similar law, or any other judicial proceeding relative to the Company, the Administrative Agent (irrespective of whether the principal of any Loan shall then be due and payable as herein expressed or by declaration or otherwise and irrespective of whether the Administrative Agent shall have made any demand on the Company) shall be entitled and empowered, by intervention in such proceeding or otherwise:

a. to file and prove a claim for the whole amount of the principal and interest owing and unpaid in respect of the Loans and all other obligations hereunder that are owing and unpaid and to file such other documents as may be necessary or advisable in order to have the claims of the Banks and the Agents (including any claim for the reasonable compensation, expenses, disbursements and advances of the Banks, the Administrative Agent, the Collateral Agent, and the Collateral Monitoring Agent and their respective agents and counsel and all other amounts due the Banks, the Administrative Agent, the Collateral Agent, and the Collateral Monitoring Agent under Section 3.3 and Section 11.8) allowed in such judicial proceeding; and

b. to collect and receive any monies or other property payable or deliverable on any such claims and to distribute the same;

and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Bank to make such payments to the Administrative Agent and, in the event that the Administrative Agent shall consent to the making of such payments directly to the Banks, to pay to the Administrative Agent, the Collateral Agent and the Collateral Monitoring Agent any amount due for the reasonable compensation, expenses, disbursements and advances of the Administrative Agent, the Collateral Agent and the Collateral Monitoring Agent and their respective agents and counsel, and any other amounts due to them under Section 3.3 and Section 11.8.

Nothing contained herein shall be deemed to authorize the Administrative Agent to authorize or consent to or accept or adopt on behalf of any Bank any plan of reorganization, arrangement, adjustment or composition affecting the obligations hereunder or the rights of any Bank to authorize the Administrative Agent to vote in respect of the claim of any Bank in any such proceeding.

The Banks hereby irrevocably authorize the Administrative Agent (acting at the direction of the Required Banks), or the Collateral Agent at the direction of the Administrative Agent (acting at the direction of the Required Banks), to credit bid all or any portion of the Obligations (including accepting some or all of the Collateral in satisfaction of some or all of the Secured Obligations pursuant to a deed in lieu of foreclosure or otherwise) and in such manner purchase (either directly or through one or more acquisition vehicles) all or any portion of the Collateral (a) at any sale thereof conducted under the provisions of the bankruptcy code of the United States, including under Sections 363, 1123 or 1129 of the bankruptcy code of the United States, or any similar laws in any other jurisdictions to which the Company is subject, (b) at any other sale or foreclosure or acceptance of collateral in lieu of debt conducted by (or with the consent or at the direction of) the Collateral Agent (whether by judicial action or otherwise) in accordance with any applicable law. In connection with any such credit bid and purchase, the Obligations owed to the Banks shall be entitled to be, and shall be, credit bid on a ratable basis (with Obligations with respect to contingent or unliquidated claims receiving contingent interests in the acquired assets on a ratable basis that would vest upon the liquidation of such claims in an amount proportional to the liquidated portion of the contingent claim amount used in allocating the contingent interests) in the asset or assets so purchased (or in the equity interests or debt instruments of the acquisition vehicle or vehicles that are used to consummate such purchase). In connection with any such bid (i) the Collateral Agent with the consent of the Administrative Agent shall be authorized to (A) form one or more acquisition vehicles to make a bid, (B) to adopt documents providing for the governance of the acquisition vehicle or vehicles (provided that any actions by the Collateral Agent with respect to such acquisition vehicle or vehicles, including any disposition of the assets or equity interests thereof shall be governed, directly or indirectly, by the vote of the Required Banks and the Administrative Agent, irrespective of the termination of this Agreement and without giving effect to the limitations on actions by the Required Banks contained in Section 9.2 of this Agreement), and (C) to assign the relevant Obligations to any such acquisition vehicle pro rata by the Banks, as a result of which each of the Banks shall be deemed to have received a pro rata portion of any equity interests and/or debt instruments issued by such an acquisition vehicle on account of the assignment of the Obligations to be credit bid, all without the need for any Bank or acquisition vehicle to take any further action, and (ii) to the extent that Obligations that are assigned to an acquisition vehicle are not used to acquire Collateral for any reason (as a result of another bid being higher or better, because the amount of Obligations assigned to the acquisition vehicle exceeds the amount of debt credit bid by the acquisition vehicle or otherwise), such Obligations shall automatically be reassigned to the Banks pro rata and the equity interests and/or debt instruments issued by any acquisition vehicle on account of the Obligations that had been assigned to the acquisition vehicle shall automatically be cancelled, without the need for any Banks or any acquisition vehicle to take any further action.

Section 10.10 Reimbursement and Indemnification. The Banks severally agree to reimburse and indemnify each Agent and its Related Parties ratably in proportion to the aggregate amounts of their respective Applicable Tranche Commitments (determined as of the time that the applicable unreimbursed expense or payment is made), to the extent not paid or reimbursed by the Company, and without relieving the Company of the obligation to do so (i) for any amounts for which such Agent, acting in its capacity as Agent, is entitled to reimbursement by the Company hereunder or under any other Loan Document and (ii) for any other reasonable and documented out-of-pocket expenses (including reasonable attorneys' fees, disbursements and time charges of attorneys) incurred by such Agent, in its capacity as Agent and acting on behalf of the Banks, in connection with the administration and enforcement of this Agreement

and the other Loan Documents, provided that in each case of this clause (ii), the Banks shall only be required to reimburse the reasonable fees, disbursements and other charges of one separate counsel for each Agent and, if necessary, one separate local counsel for each Agent in each appropriate jurisdiction (and in the case of different defenses or conflicts of interest (as determined by the affected Agents in their reasonable discretion), additional counsel for the affected Agents taken as a whole), except in each case, for any amounts or expenses that arise as a result of the gross negligence or willful misconduct of such Agent as determined by a final judgment of a court of competent jurisdiction.

Section 10.11 Release of Clearing Members. Subject to Section 8.7 of the Security and Pledge Agreement, the Banks irrevocably authorize the Collateral Agent to, and the Collateral Agent shall, release any Clearing Member from its obligations under the Loan Documents if such Person ceases to be a Clearing Member (which obligations shall be automatically released upon such Person ceasing to be a Clearing Member). Upon request by the Collateral Agent at any time, the Required Banks shall confirm in writing the Collateral Agent's authority to release any Clearing Member from its obligations under the Loan Documents pursuant to this Section 10.11. Subject to Section 8.7 of the Security and Pledge Agreement, the Collateral Agent shall, at the Company's expense, execute and deliver such documents as the Company may reasonably request to release such Person from its obligations under the Loan Documents.

Section 10.12 Rights of Agents. The benefits, privileges and other rights provided to any Agent set forth in this Article X shall apply to (and not be limited by) any other Loan Document.

ARTICLE XI

GENERAL PROVISIONS SECTION

Section 11.1 Successors and Assigns; Participating Interests.

a. The provisions of this Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns, provided that (i) the Company may not assign or otherwise transfer any of its rights or obligations under this Agreement except as provided in Section 9.2 (and any attempted assignment or transfer by the Company shall be null and void) and (ii) no Bank may assign or otherwise transfer any of its rights or obligations under this Agreement except in accordance with this Section 11.1.

b. (i) Any Bank may, in accordance with applicable law, at any time sell to one or more banks, financial institutions or other entities ("**Participants**") participating interests in any Applicable Tranche Revolving Loan owing to such Bank, any Applicable Tranche Commitment of such Bank or any other interest of such Bank hereunder. In the event of any such sale by a Bank of participating interests to a Participant, such Bank's obligations under this Agreement to the other parties to this Agreement shall remain unchanged, such Bank shall remain solely responsible for the performance thereof and the Company and each Agent shall continue to deal solely and directly with such Bank in connection with such Bank's rights and obligations under this Agreement and the other Loan Documents. Any agreement or instrument pursuant to which a Bank sells such a participating interest shall provide that such Bank shall retain the sole right to enforce this Agreement and to approve any amendment, modification or waiver of any provision of this Agreement and in no event shall a Bank that sells a participating interest be obligated to the Participant to take or refrain from taking any action hereunder or under any of the other Loan Documents except that such Bank may agree that it will not, without the consent of such Participant, agree to (A) reduce the principal of, or interest payable on (or reduce the rate of interest applicable to), the Loans of such Bank or any fees or other amounts payable to such Bank

hereunder which, in each case, are related to the participating interest sold to such Participant or, (B) postpone the date fixed for any payment of the principal of, or interest on, the Loans of such Bank or other amounts payable to such Bank hereunder which, in each case, are related to the participating interest sold to such Participant. The Company agrees that each Participant shall be entitled to the benefits of Sections 11.3, 11.8(b) and 11.8(c) to the same extent as if it were a Bank and had acquired its interest by assignment pursuant to subsection (c) of this Section; provided that such Participant (A) agrees to be subject to the provisions of Section 2.12 as if it were an assignee under paragraph (c) of this Section and (B) shall not be entitled to receive any greater payment under Sections 11.3, 11.8(b) and 11.8(c), with respect to any participation, than the Bank from whom it acquired the applicable participation would have been entitled to receive; provided further that a Participant that would be a Foreign Bank if it were a Bank shall not be entitled to the benefits of Section 11.3 unless the Company is notified of the participation sold to such Participant and such Participant agrees, for the benefit of the Company, to comply with Section 11.3 as though it were a Bank.

ii. Each Bank that sells a participation shall, acting solely for this purpose as a non-fiduciary agent of the Company, maintain a register on which it enters the name and address of each Participant and the principal amounts (and stated interest) of each participant's interest in the Loans or other obligations under this Agreement (the "**Participant Register**"); provided that no Bank shall have any obligation to disclose all or any portion of the Participant Register to any Person (including the identity of any Participant or any information relating to a Participant's interest in any Applicable Tranche Commitment, or Loans or its other obligations under any Loan Document) except to the extent that such disclosure is necessary to establish that such Applicable Tranche Commitment, or, Revolving Loan or other obligation is in registered form under Section 5f.103-1(c) of the United States Treasury Regulations. The entries in the Participant Register shall be conclusive absent manifest error, and such Bank shall treat each person whose name is recorded in the Participant Register as the owner of such participation for all purposes of this Agreement notwithstanding any notice to the contrary.

c. Any Bank may (or in accordance with Section 11.3(h) shall), in accordance with applicable law, and with the consent of the Company (such consent not to be unreasonably withheld and, in the absence of notice to the contrary, such consent shall be deemed granted ten (10) days after notice to the Company of any contemplated assignment) and the Administrative Agent (such consent not to be unreasonably withheld or delayed), at any time assign to one or more assignees (all such assignees, collectively, "**Assignees**") all or any part of any of its Applicable Tranche Commitments (and related Applicable Tranche Revolving Loans) or if the Aggregate Applicable Tranche Commitments have been terminated, its Loans under such Applicable Tranche (as the case may be), pursuant to an assignment agreement (an "**Assignment Agreement**"), executed by such Assignee and such Bank and delivered to the Company and each Agent; provided that the consent of the Company (and the consent of the Administrative Agent, solely with respect to clauses (B) and (C)) to any such assignment shall not be required if (A) a Default under any of Sections 8.2, 8.6 or 8.7 has occurred and is continuing, (B) the assignment is by a Bank to an Affiliate of such Bank or another existing Bank or an Affiliate of such other existing Bank which is a bank in the ordinary course of business or (C) the assignment of a security interest or pledge by any Bank of its Loans and its rights hereunder with respect thereto pursuant to Section 11.1(i), below. Upon such execution and delivery of an Assignment Agreement, from and after the effective date as specified therein, (x) the Assignee thereunder shall be a party hereto and shall be bound by the provisions hereto and, to the extent provided in such Assignment Agreement, shall have the rights and obligations of a Bank hereunder, with respect to its Applicable Tranche Commitment as set forth in such Assignment Agreement, and (y) the transferor Bank thereunder shall, to the extent provided in such Assignment Agreement, be released from its obligations under this Agreement with respect to its Applicable Tranche Commitments being assigned (and, in the case of an Assignment Agreement covering

all or the remaining portion of a transferor Bank's rights and obligations under this Agreement, such transferor Bank shall cease to be a party hereto, but shall continue to be entitled to the benefits, and subject to the limitations, of Sections 2.14, 3.4(b), 4.3, 11.3, 11.8, 12.1(b) and 12.1(c) (to the extent such obligations arose prior to the effective date of such Assignment Agreement)). Upon delivery of the Assignment Agreement to the Company and each Agent, the Company, each Agent and the Banks shall treat the Assignee as the owner of the Loans under the Applicable Tranche and the Applicable Tranche Commitment, recorded therein for all purposes of this Agreement. Except in the case of an assignment of the entire remaining amount of the assigning Bank's Applicable Tranche Commitment under an Applicable Tranche or Loans under an Applicable Tranche, the amount of the Applicable Tranche Commitment under an Applicable Tranche or Loans under an Applicable Tranche of the assigning Bank subject to each such assignment (determined as of the date the Assignment Agreement with respect to such assignment is delivered to the Administrative Agent) shall not be less than \$25,000,000 and each continuing assigning Bank shall retain an Applicable Tranche Commitment of not less than \$25,000,000, unless each of the Company and the Administrative Agent otherwise consent, provided that no such consent of the Company shall be required if a Default under any of Sections 8.2, 8.6 or 8.7 has occurred and is continuing. Any assignment or transfer by a Bank that does not comply with this Section 11.1 shall be treated for purposes of this Agreement as a sale by such Bank of a participating interest in such rights and obligations in accordance with subsection 11.1(b).

d. On the effective date specified in any Assignment Agreement, or as soon as possible thereafter, the Company shall, upon request of an Assignee, execute and deliver to such applicable Assignee a new Note payable to such Assignee reflecting the Applicable Tranche Commitment and outstanding Loans under the Applicable Tranche obtained by it pursuant to such Assignment Agreement and, if the transferor Bank has retained an Applicable Tranche Commitment and Loans hereunder, upon request of such transferor Bank, a new Note in exchange for any applicable Note held by the transferor Bank (which existing Note shall be surrendered to the Company) payable to the transferor Bank reflecting the Applicable Tranche Commitment and outstanding Loans thereunder retained by it hereunder. Such new Notes shall be dated the effective date of the Assignment Agreement as specified therein, and (if requested as described above) include reference to the Applicable Tranche Commitment and shall otherwise be in the form of the Note replaced thereby. The Note surrendered by the transferor Bank shall be returned by the transferor Bank to the Company marked "canceled". The Administrative Agent, acting for this purpose as an agent of the Company, shall maintain at one of its offices a copy of each Assignment Agreement delivered to it and a register for the recordation of the names and addresses of the Banks, and the Applicable Tranche Commitment of, and principal amount (and stated interest) of the Loans owing under each Applicable Tranche to, each Bank pursuant to the terms hereof from time to time (the "**Register**"). The entries in the Register shall be conclusive, and the Company, the Administrative Agent and the Banks shall treat each Person whose name is recorded in the Register pursuant to the terms hereof as the owner of its interest therein, as indicated in the Register, for all purposes of this Agreement, notwithstanding notice to the contrary. The Register shall be available for inspection by the Company and any Bank, at any reasonable time and from time to time upon reasonable prior notice.

e. The Company authorizes each Bank to disclose to any Participant or Assignee and any prospective Participant or Assignee any and all financial and other information in such Bank's possession concerning the Company which has been delivered to such Bank by or on behalf of the Company pursuant to this Agreement; provided that such Participant or Assignee or prospective Participant or Assignee agrees to be bound by the confidentiality provisions contained in Section 11.11.

f. If, pursuant to this Section 11.1, any interest in this Agreement or any Loan is transferred to any Assignee which is organized under the laws of any jurisdiction other than the United States or any state thereof, such Assignee, concurrently with the effectiveness of such transfer and becoming a party to this Agreement pursuant to the applicable Assignment Agreement shall, (i) represent to the transferor Bank (for the benefit of the transferor Bank, each Agent and the Company) that under applicable law and treaties then in effect no United States federal Taxes will be required to be withheld by any Agent, the Company or the transferor Bank with respect to any payments to be made to such Assignee hereunder, (ii) furnish to the Company the documentation described in Section 11.3(f), (wherein such Assignee claims entitlement to complete exemption from U.S. federal withholding Tax on all payments hereunder) and (iii) agree to otherwise comply with the terms of Section 11.3(f).

g. Notwithstanding anything to the contrary contained in this Section 11.1 no Bank may assign or sell participating interests, or otherwise syndicate all or any portion of such bank's interests under this Agreement or any other Loan Document (i) to any Person who is (x) listed on the Specially Designated Nationals and Blocked Persons List (the "**SDN List**") maintained by the U.S. Department of Treasury Office of Foreign Assets Control ("**OFAC**") and/or on any other similar list maintained by the OFAC pursuant to any authorizing statute, executive order or regulation or (y) either (A) included within the term "designated national" as defined in the Cuban Assets Control Regulations, 31 C.F.R. Part 515, or (B) designated under Sections 1(a), 1(b), 1(c) or 1(d) of Executive Order No. 13224, 66 Fed. Reg. 49079 (published September 25, 2001) or similarly designated under any related enabling legislation or any other similar executive orders, (ii) in the case of any assignment of an Applicable Tranche Commitment or Loan in any currency to any Person who cannot adhere to the timing of funding requirements set forth in Annex II with respect to such Alternative Currency within such Applicable Tranche, (iii) to the Company or any of the Company's Affiliates or Subsidiaries, (iv) to any Person who is a natural person or a holding company, investment vehicle or trust for, or owned and operated for the primary benefit of a natural Person, (v) to any Person who is a Defaulting Bank or any of its Subsidiaries, or any Person who, upon becoming a Bank hereunder, would constitute any of the foregoing Persons described in this clause (v), or (vi) to any Person unless such Person (other than a natural Person or a holding company, investment vehicle or trust for, or owned and operated for the primary benefit of a natural Person) is engaged in making loans and similar extensions of credit in the ordinary course of its business.

h. The transferor Bank shall pay to the Administrative Agent for its own account a processing and recording fee of \$3,500. Upon its receipt of a duly completed Assignment Agreement executed by an assigning Bank and an Assignee, the Assignee's completed Administrative Questionnaire (unless the assignee shall already be a Bank hereunder), the processing and recordation fee referred to in this subsection 11.1(h) and any written consent to such assignment required by subsection 11.1(c), the Administrative Agent shall accept such Assignment Agreement and record the information contained therein in the Register. No assignment shall be effective for purposes of this Agreement unless it has been recorded in the Register as provided in this subsection 11.1(h).

i. Any Bank may at any time pledge or assign a security interest in all or any portion of its rights under this Agreement to secure obligations of such Bank, including without limitation any pledge or assignment to secure obligations to a Federal Reserve Bank or any other central bank having jurisdiction over such Bank, and this Section shall not apply to any such pledge or assignment of a security interest; provided that no such pledge or assignment of a security interest shall release a Bank from any of its obligations hereunder or substitute any such pledgee or assignee for such Bank as a party hereto.

j. In connection with any assignment of rights and obligations of any Defaulting Bank hereunder, no such assignment shall be effective unless and until, in addition to the other conditions thereto set forth herein, the parties to the assignment shall make such additional payments to the Administrative Agent in an aggregate amount sufficient, upon distribution thereof as appropriate (which may be outright payment, purchases by the assignee of participations or subparticipations, or other compensating actions, including funding, with the consent of the Company and the Administrative Agent, the applicable pro rata share of Loans previously requested but not funded by the Defaulting Bank, to each of which the applicable assignee and assignor hereby irrevocably consent), to (x) pay and satisfy in full all payment liabilities then owed by such Defaulting Bank to any Agent or any Bank hereunder (and interest accrued thereon) and (y) acquire (and fund as appropriate) its full pro rata share of all Loans and participations in Applicable Tranche Swingline Loans in accordance with its Applicable Percentage. Notwithstanding the foregoing, in the event that any assignment of rights and obligations of any Defaulting Bank hereunder shall become effective under applicable law without compliance with the provisions of this paragraph, then the assignee of such interest shall be deemed to be a Defaulting Bank for all purposes of this Agreement until such compliance occurs.

Section 11.2 Survival. All representations and warranties of the Company contained in this Agreement shall survive the making of the Loans herein contemplated. The provisions of Sections 10.10, 11.3, 11.8, 12.1(b) and 12.1(c) and Article X shall survive and remain in full force and effect regardless of the consummation of the transactions contemplated hereby, the repayment of the Loans, the expiration or termination of the Aggregate Commitments, the termination of this Agreement or any provision hereof, or the resignation, replacement or removal of the Administrative Agent.

Section 11.3 Taxes.

a. All payments to any Bank made under any Loan Document shall be made free and clear of, and without deduction for any Taxes, except as required pursuant to applicable law; provided that, subject to the other provisions of this Section 11.3, if the Company shall be required to deduct any Indemnified Taxes or Other Taxes from such payments, then (i) the sum payable shall be increased by the amount (the “**Additional Amount**”) necessary so that after making all required deductions (including deductions applicable to additional sums described in this paragraph) such Bank receives an amount equal to the sum it would have received had no such deductions been made, (ii) the Company shall make such deductions and (iii) the Company shall pay the full amount deducted to the relevant Governmental Authority in accordance with applicable law. In addition, to the extent not paid in accordance with the preceding sentence, the Company shall pay any Other Taxes to the relevant Governmental Authority in accordance with applicable law.

b. Subject to subsections (e) and (g) below, the Company shall indemnify each Bank for Indemnified Taxes and Other Taxes paid by such Bank, provided, however, that the Company shall not be obligated to make payment to any Bank in respect of penalties, interest and other similar liabilities attributable to such Indemnified Taxes or Other Taxes if such penalties, interest or other similar liabilities are reasonably attributable to the gross negligence or willful misconduct of such Bank.

c. If a Bank shall become aware that it is entitled to claim a refund from a Governmental Authority in respect of Indemnified Taxes or Other Taxes paid by the Company pursuant to this Section 11.3, including Indemnified Taxes or Other Taxes as to which it has been indemnified by the Company, or with respect to which the Company has paid Additional Amounts pursuant hereto, it shall promptly notify the Company of the availability of such refund claim and, if such Bank determines in good faith that making a claim for refund will not have a material adverse effect on its Taxes or business operations,

shall, within 30 days after receipt of a request by the Company, make a claim to such Governmental Authority for such refund at the Company's expense. If a Bank receives a refund in respect of any Indemnified Taxes or Other Taxes paid by the Company pursuant hereto, it shall within 30 days from the date of such receipt pay over such refund to the Company (but only to the extent of Indemnified Taxes or Other Taxes paid pursuant to hereto, including indemnity payments made or Additional Amounts paid, by the Company under this Section 11.3 with respect to the Indemnified Taxes or Other Taxes giving rise to such refund), net of all out of pocket expenses of such Bank and without interest (other than interest paid by the relevant Governmental Authority with respect to such refund). This Section shall not be construed to require the Administrative Agent or any Bank to make available its Tax returns (or any other information relating to its Taxes which it deems confidential) to the Company or any other Person.

d. If any Bank is or becomes eligible under any applicable law, regulation, treaty or other rule to a reduced rate of taxation, or a complete exemption from withholding, with respect to Indemnified Taxes or Other Taxes on payments made to it by the Company, such Bank shall, upon the request of the Company or the Administrative Agent, complete and deliver from time to time any certificate, form or other document requested by the Company or the Administrative Agent, the completion and delivery of which are a precondition to obtaining the benefit of such reduced rate or exemption, provided that the taking of such action by such Bank, would not, in the reasonable judgment of such Bank be disadvantageous or prejudicial to such Bank or inconsistent with its internal policies or legal or regulatory restrictions. Subject to the above proviso, for any period with respect to which a Bank has failed to provide any such certificate, form or other document requested by the Company or the Administrative Agent, such Bank shall not be entitled to any payment under this Section 11.3 in respect of any Indemnified Taxes or Other Taxes that would not have been imposed but for such failure.

e. Each Bank organized under the laws of a jurisdiction in the United States, any State thereof or the District of Columbia (each such Bank, a "**US Bank**") shall (i) deliver to the Company and the Administrative Agent, upon execution hereof (or, with respect to Persons becoming Banks hereunder by assignment, upon execution of the relevant assignment agreement), two original copies of United States Internal Revenue Service Form W-9 or any successor form, properly completed and duly executed by such Bank, certifying that such Bank is exempt from United States backup withholding Tax on payments of interest made under the Loan Documents and (ii) thereafter, at each time when it is so reasonably requested in writing by the Company or the Administrative Agent or at such time the Bank becomes aware of the invalidity or obsolescence of a previously delivered form, deliver within a reasonable time two original copies of an updated Form W-9 or any successor form thereto. Notwithstanding the provisions of subsection (a) and (b) above, the Company shall not be required to indemnify a US Bank to the extent the obligation to pay such indemnity payment or Additional Amounts would not have arisen but for a failure by such US Bank to comply with this subsection (e), except to the extent such Bank's assignor (if any) was entitled, at the time of assignment, to receive additional amounts from the Company under this subsection 11.3(e).

f. Each Bank, Agent and other Person receiving payments under this Agreement that is organized under the laws of a jurisdiction other than the United States, any State thereof or the District of Columbia (each such Bank, a "**Foreign Bank**") that is entitled to an exemption from or reduction of withholding Tax under the laws of the jurisdiction in which the Company is located, or any treaty to which such jurisdiction is a party, with respect to payments under the Loan Documents shall deliver to the Company and the Administrative Agent, upon execution hereof (or, with respect to Persons becoming Banks hereunder by assignment, upon execution of the relevant assignment agreement), such properly completed and duly executed documentation prescribed by applicable law or reasonably requested by the Company or the Administrative Agent as will permit such payments to be made without withholding or at

a reduced rate, unless in the good faith opinion of the Foreign Bank such documentation would expose the Foreign Bank to any material adverse consequences or risk or is inconsistent with its internal policies or legal or regulatory restrictions, it being understood that the completion of an Internal Revenue Service Form W-8BEN-E, W-8IMY or W-ECI by a Foreign Bank, as applicable, as of the date of this Agreement, shall not be considered to be inconsistent with such Foreign Bank's internal policies or legal or regulatory restrictions or expose such Foreign Bank to a material adverse consequence. Such documentation shall be delivered by each Foreign Bank on or before the date it becomes a Bank and on or before the date, if any, such Foreign Bank changes its applicable lending office by designating a different lending office with respect to its Loans (a "**New Lending Office**"). In addition, each Foreign Bank shall deliver such forms promptly upon the obsolescence or invalidity of any form previously delivered by such Foreign Bank.

If a payment made to a Bank would be subject to United States federal withholding Tax imposed by FATCA if such Bank were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Code, as applicable), such Bank shall deliver to the Company and the Administrative Agent at the time or times prescribed by applicable law and at such time or times reasonably requested by the Company or the Administrative Agent such documentation prescribed by FATCA or other provisions of applicable law (including as prescribed by Section 1471(b)(3)(C)(i) of the Code) and such additional documentation reasonably requested by the Company or the Administrative Agent as may be necessary for the Company and the Administrative Agent to comply with their obligations under FATCA and to determine that such Bank has complied with its obligations under FATCA or to determine the amount to deduct and withhold from such payment. For purposes of this Section 11.3, the term "FATCA" shall include any amendments made to FATCA after the date of this Agreement and the term "applicable law" includes FATCA.

Each Agent and Bank (and, in the case of a Foreign Bank, its lending office), represents that on the Amendment No. 3 Effective Date, payments made hereunder by the Company to it would not be subject to United States federal withholding Tax.

g. Notwithstanding the provisions of subsection (a) and (b) above, the Company shall not be required to indemnify any Foreign Bank, or to pay any Additional Amounts to any Foreign Bank, in respect of United States federal withholding Tax pursuant to subsection (a) or (b) above, (A) to the extent that the obligation to withhold amounts with respect to United States federal withholding Tax existed on the date such Foreign Bank became a Bank, became a party hereto or otherwise acquired its interest herein or in the case of a Foreign Bank that after becoming a party hereto changes its classification for United States federal income Tax purposes under Section 7701 of the Code, United States federal withholding Tax that exists on the date such change in entity classification is effective, except to the extent that such Bank's assignor (if any) was entitled, at the time of assignment, to receive additional amounts from the Company or such Bank was entitled, immediately prior to such change in entity classification becoming effective, to receive additional amounts from the Company; (B) with respect to a change by such Foreign Bank of the jurisdiction in which it is organized, incorporated, controlled or managed, or in which it is doing business, from the date such Foreign Bank changed such jurisdiction, but only to the extent that such withholding Tax exceeds any withholding Tax that would have been imposed on such Bank had it not changed the jurisdiction in which it is organized, incorporated, controlled or managed, or in which it is doing business; or (C) to the extent that the obligation to pay such indemnity payment or Additional Amounts would not have arisen but for a failure by such Foreign Bank to comply with the provisions of Section 11.3(d) or (f).

h. If any Bank requests compensation under this Section 11.3, or if the Company is required to pay any additional amount to any Governmental Authority for the account of any Bank pursuant to this

Section 11.3, then such Bank shall use reasonable efforts to designate a different lending office for funding or booking its Loans hereunder or to assign its rights and obligations hereunder to another of its offices, branches or Affiliates with the object of avoiding or eliminating the amounts payable pursuant to this Section 11.3, provided that such designation or assignment shall be on such terms that such Bank and its lending office, in such Bank's sole judgment, suffer no economic, legal, regulatory or other disadvantage and would not otherwise be disadvantageous to such Bank. The Company hereby agrees to pay all reasonable costs and expenses incurred by any Bank in connection with any such designation or assignment.

If any Bank requests compensation under this Section 11.3, or if the Company is required to pay any additional amount to any Governmental Authority for the account of any Bank pursuant to this Section 11.3, then the Company may, at its sole expense and effort, upon notice to such Bank, require such Bank to assign and delegate, without recourse, in accordance with and subject to the restrictions contained in Section 11.1, all of such Bank's interests, rights and obligations under this Agreement to one or more assignees that shall assume such obligations (which assignee or assignees may be one or more other Banks); provided that (i) such Bank shall have received payment of an amount equal to the outstanding principal of its Loans, accrued and unpaid interest thereon, accrued and unpaid fees and all other amounts payable to it hereunder from the assignee (to the extent of such outstanding principal and accrued interest and fees) or the Company (in the case of all other amounts) and (ii) such assignment will result in a reduction in such compensation or payments. A Bank shall not be required to make any such assignment and delegation if, prior thereto, as a result of a waiver by such Bank or otherwise, the circumstances entitling the Company to require such assignment and delegation cease to apply.

A certificate of the relevant Bank setting forth the basis for any amounts (and the calculation thereof and methodology in calculating, each in reasonable detail) claimed under this Section 11.3 shall be delivered to the Company and the Administrative Agent and shall be conclusive absent manifest error. Failure or delay on the part of a Bank to demand compensation of any amount under this Section shall not constitute a waiver of such Bank's right to demand such compensation; provided that the Company shall not be required to compensate any such Bank for any amounts claimed under this Section that are incurred more than 90 days prior to the date that such Bank notifies the Company of the circumstances giving rise to such amounts and such Bank's intention to claim compensation therefor; provided, further, that if the circumstances giving rise to such amounts have retroactive effect, then the 90-day period referred to above shall be extended to include the period of retroactive effect thereof.

Each Bank agrees that if any form or certification it previously delivered pursuant to this Section 11.3 expires or becomes obsolete or inaccurate in any respect, it shall update such form or certification or promptly notify the Company and the Administrative Agent in writing of its legal inability to do so.

i. Any payment required to be made by the Company to any Bank under this Section 11.3 shall be deemed an Obligation and be secured by the Collateral.

Section 11.4 Choice of Law; Jurisdiction. THE LOAN DOCUMENTS (OTHER THAN THOSE CONTAINING A CONTRARY EXPRESS CHOICE OF LAW PROVISION) SHALL BE CONSTRUED IN ACCORDANCE WITH THE LAW OF THE STATE OF NEW YORK. The Company and the Banks hereby irrevocably submit to the exclusive jurisdiction of any United States federal or New York state court sitting in New York, New York in any action or proceedings arising out of or relating to any Loan Documents and the Company and the Banks hereby irrevocably agree that all claims in respect of such action or proceeding may be heard and determined in any such court. Each of the parties hereto agrees that a final judgment in any such action or proceeding shall be conclusive and

may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law. Nothing in this Agreement shall affect any right that any Agent or any Bank may otherwise have to bring any action or proceeding relating to this Agreement against the Company or its properties in the courts of any jurisdiction. Each party irrevocably consents to service of process in the manner provided for notices in Section 13.1. Nothing in this Agreement will affect the right of any party to this Agreement to serve process in any other manner permitted by law.

Section 11.5 Headings. Section headings in the Loan Documents are for convenience of reference only, and shall not govern the interpretation of any of the provisions of the Loan Documents.

Section 11.6 Entire Agreement. The Loan Documents embody the entire agreement and understanding among the Company and the Banks and supersede all prior agreements and understandings among the Company and the Banks relating to the subject matter thereof.

Section 11.7 Several Obligations. The respective obligations of the Banks hereunder are several and not joint and no Bank shall be the partner or agent of any other. The failure of any Bank to perform any of its obligations hereunder shall not relieve any other Bank from any of its obligations hereunder.

Section 11.8 Expenses; Indemnification, Increased Costs; Damage Waiver.

a. The Company shall reimburse (i) the Administrative Agent and the Arrangers for any and all reasonable and documented costs and out-of-pocket expenses (including reasonable attorneys' fees and time charges of attorneys) paid or incurred by the Administrative Agent or such Arranger in connection with the syndication of the credit facility provided for herein, (ii) the Administrative Agent for any and all reasonable and documented costs and out-of-pocket expenses (including reasonable attorneys' fees, disbursements and time charges of attorneys) paid or incurred by the Administrative Agent in connection with the preparation and administration of this Agreement and the other Loan Documents or any amendments, modifications or waivers of the provisions hereof or thereof (whether or not the transactions contemplated hereby or thereby shall be consummated), provided that in each case of this clauses (i) and (ii), the Company shall only be required to reimburse the reasonable fees, disbursements and other charges of one counsel for the Administrative Agent and, if necessary, one local counsel in each appropriate jurisdiction, (iii) the Collateral Agent and/or Collateral Monitoring Agent for any and all reasonable and documented costs and out-of-pocket expenses (including reasonable and documented attorneys' fees, disbursements and time charges of attorneys) paid or incurred by the Collateral Agent and/or Collateral Monitoring Agent in connection with its role as Collateral Agent and/or Collateral Monitoring Agent under this Agreement and the other Loan Documents, and any and all reasonable costs and out-of-pocket expenses (including reasonable and documented attorneys' fees, disbursements and time charges of attorneys) paid or incurred by the Collateral Agent and/or Collateral Monitoring Agent in connection with any amendments, modifications or waivers of the provisions hereof or thereof (whether or not the transactions contemplated hereby or thereby shall be consummated), provided that in each case of this clause (iii), the Company shall only be required to reimburse the reasonable fees, disbursements and other charges of one counsel for the Collateral Agent and/or Collateral Monitoring Agent and, if necessary, one local counsel in each appropriate jurisdiction and (iv) each Agent and each Bank for any and all reasonable and documented costs and out-of-pocket expenses (including reasonable attorneys' fees, disbursements and time charges of attorneys) paid or incurred by such Agent or such Bank, as applicable, in connection with the collection, liquidation and enforcement of the Loan Documents and/or the Collateral in connection with a Default which has occurred; provided that in each case of this clause (iv), the Company shall only be required to reimburse the reasonable fees, disbursements and other charges of (x) one counsel for the Administrative Agent and the Banks, collectively, and (y) one counsel

for the Collateral Agent and Collateral Monitoring Agent, collectively, and, in the case of each of (x) and (y), if necessary, one local counsel in each appropriate jurisdiction, and in the case of different defenses or conflict of interest between the Administrative Agent and the Banks (as determined by the Administrative Agent or affected Banks in their reasonable discretion), additional counsel for the Administrative Agent or affected Banks taken as a whole. The Company further agrees to indemnify each Agent, each Bank and each Related Party of any of the foregoing Persons (each an “**Indemnified Party**”) against all losses, claims, damages, penalties, judgments and liabilities which any of them may pay or incur arising out of or relating to this Agreement, the other Loan Documents, the transactions contemplated hereby or thereby or the direct or indirect application or proposed application of the proceeds of any Loan hereunder and to reimburse each Indemnified Party promptly upon demand for all reasonable documented out-of-pocket expenses (including, without limitation, the reasonable documented fees and disbursements of (x) one counsel (selected by the Administrative Agent) to the Administrative Agent and the Banks (and each of their Related Parties), taken as a whole and (y) one counsel to the Collateral Agent and the Collateral Monitoring Agent (and each of their Related Parties), taken as a whole, and in the case of a conflict of interest between the Administrative Agent and the Banks or any Related Party (as determined by the Administrative Agent or affected Banks in their reasonable discretion), one additional counsel to all such affected conflicted Indemnified Parties similarly situated, taken as a whole (and, if reasonably necessary, of one local counsel and one applicable regulatory counsel in each relevant material jurisdiction to the Administrative Agent and the Banks, taken as a whole, and one local counsel and one applicable regulatory counsel in each relevant material jurisdiction to the Collateral Agent and the Collateral Monitoring Agent, taken as a whole)) in connection therewith, including reasonable documented out-of-pocket costs in connection with the preparation of a defense in connection therewith (all of the foregoing being collectively referred to as “**Indemnified Amounts**”), excluding, however, in all of the foregoing instances, Indemnified Amounts (i) found by a court of competent jurisdiction in a final non-appealable judgment to have resulted from the bad faith, gross negligence or willful misconduct on the part of the Indemnified Party seeking indemnification, (ii) consisting of Taxes for which an indemnification is provided or specifically excluded from indemnification pursuant to Section 11.3, (iii) resulting from a material breach by any Bank or any of its Related Parties (excluding, in each case, any Agent) of the obligations of such Indemnified Party under any Loan Document, if the Company has obtained a final, non-appealable judgment in its favor on such claim as determined by a court of competent jurisdiction, (iv) resulting from a willful and material breach by any Agent or any of its Related Parties of the obligations of such Indemnified Party under any Loan Document, if the Company has obtained a final, non-appealable judgment in its favor on such claim as determined by a court of competent jurisdiction or (v) arising out of a claim that does not involve an act or omission of the Company or its Subsidiaries and that is solely among Indemnified Parties (other than disputes involving claims against any Person in its capacity as, or fulfilling its role as, an arranger, swingline lender or administrative, collateral, collateral monitoring or syndication agent or similar role in respect of the Loan Documents).

b. If, after the Amendment No. 3 Effective Date, any law or any governmental rule, regulation, policy, guideline or directive (whether or not having the force of law) is adopted, or there is any change in the interpretation or administration thereof (provided that (i) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines, requirements and directives thereunder, issued in connection therewith or in implementation thereof and (ii) all requests, rules, guidelines, requirements and directives promulgated by the Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States, Canadian or other foreign regulatory authorities, in each case pursuant to Basel III, shall in each case be deemed a change in law if enacted, adopted, issued or implemented after December 10, 2011), or the compliance by any Bank with such (any such event described above, a “**Change in Law**”), which, in any case, affects the amount of capital or liquidity required or expected to be maintained by such Bank or any entity controlling such

Bank, and such Bank reasonably determines the amount of capital or liquidity required is increased by or based upon the existence of this Agreement or any of its Applicable Tranche Commitments hereunder and such increased capital or liquidity results in increased costs to such Bank, then, such Bank shall notify the Company of such fact and shall provide a reasonably detailed description of such increased costs in the notice (“**Increased Cost Notice**”), together with documentation from the relevant regulatory body setting forth such increased capital requirement, and the Company shall, in its sole discretion, determine whether to terminate such Bank’s Applicable Tranche Commitment (as the case may be) in accordance with Section 2.12. The Company will pay to such Bank such additional amount or amounts as will compensate such Bank for any such increase of cost suffered pursuant to this Section 11.8(b). Any payment required to be made by the Company under this Section 11.8(b) shall be deemed an Obligation and be secured by the Collateral.

c. Except with respect to Taxes, which shall be governed solely and exclusively by Section 11.3, if any Change in Law reasonably determined by the applicable Bank to be applicable shall:

i. impose, modify or deem applicable any reserve, special deposit, compulsory loan, insurance charge or similar requirement against assets of, deposits with or for the account of, or credit extended or participated in by, any Bank; or

ii. impose on any Bank, the London interbank market, the Canadian interbank market or any other interbank market applicable to any Applicable Reference Rate, any other condition affecting this Agreement or Alternative Currency Rate Loans made by such Bank or participation therein;

and the result of any of the foregoing shall be to increase the cost to such Bank of making or maintaining any Alternative Currency Rate Loan (or of maintaining its obligation to make any such Alternative Currency Rate Loan) by an amount deemed by such Bank to be material or to reduce the amount of any sum received or receivable by such Bank hereunder (whether of principal, interest or otherwise) by an amount deemed by such Bank to be material, then the Company will pay to such Bank, such additional amount or amounts as will compensate such Bank, subject to Section 2.12, for such additional costs incurred or reduction suffered. Any payment required to be made by the Company under this Section 11.8(c) shall be deemed an Obligation and be secured by the Collateral.

d. If (i) the Administrative Agent determines (which determination shall be conclusive absent manifest error) that, by reason of circumstances affecting the relevant market, (x) adequate and reasonable means do not exist for determining or charging interest rates based upon the Applicable Reference Rate (other than clause (a) of the definition of Federal Funds Rate) with respect to Loans in an Applicable Tranche and (y) the circumstances described in Section 11.8(f)(i) do not apply (in each case with respect to this clause (i), “Impacted Loans”), or (ii) the Administrative Agent is advised by the Banks constituting Required Applicable Banks that, in the good faith determination of such Banks, the Applicable Reference Rate with respect to Loans in an Applicable Tranche other than clause (a) of the definition of Federal Funds Rate will not adequately and fairly reflect the cost to such Banks (or Bank) of making or maintaining their Loans (or its Loan) included in the applicable Advance, then, in each case of clause (i) and clause (ii), the Administrative Agent shall give notice thereof to the Company and the Banks by telephone or telecopy as promptly as practicable thereafter and, until the Administrative Agent notifies the Company and the Banks that the circumstances giving rise to such notice no longer exist, (x) if any Advance Request requests a Loan in an affected Alternative Currency, the Company may revoke such Advance Request or failing that, such Advance shall be made as an Advance in U.S. Dollars, (y) any obligation of any Bank to make or maintain Loans in any affected Alternative Currency shall be

suspended (to the extent of the affected Loans) and (z) in the event of a determination described in the preceding sentence with respect to the LIBOR component of the Federal Funds Rate, the utilization of the LIBOR component in determining the Federal Funds Rate shall be suspended, in each case until the Administrative Agent (in its discretion or upon the instruction of the Required Banks) revokes such notice.

e. Notwithstanding the foregoing, if the Administrative Agent has made the determination described in clause (i) of Section 11.8(d), the Administrative Agent, in consultation with the Company, may establish an alternative interest rate for the Impacted Loans, in which case, such alternative rate of interest shall apply with respect to the Impacted Loans until (i) the Administrative Agent revokes the notice delivered with respect to the Impacted Loans under clause (i) of Section 11.8 or (ii) the Administrative Agent or the Required Applicable Banks notify the Administrative Agent and the Company that such alternative interest rate does not adequately and fairly reflect the cost to such Banks of funding the Impacted Loans. Upon receipt of such notice regarding Section 11.8(d)(i), (d)(ii) or (e):

(A) the Company may revoke any pending request for an Advance of affected Loans (to the extent of the affected Loans) or, failing that, (1) with respect to a pending request for Loans denominated in U.S. Dollars, the Company will be deemed to have converted such request into a request for an Advance of Federal Funds Rate Loans (subject to the foregoing Section 11.8(d)(z)) in the amount specified therein and (2) with respect to Loans denominated in any Alternative Currency, at the election of the Company, such request shall be converted into a request for an Advance of Federal Funds Rate Loans denominated in U.S. Dollars (subject to the foregoing Section 11.8(d)(z)) in the U.S. Dollar Equivalent of the amount specified therein; and

(B) in the case of any outstanding affected Loans, on the date that is three (3) Business Days after Administrative Agent's delivery of such notice to the Company, (1) such Loans will automatically be deemed to be converted to Federal Funds Rate Loans denominated in U.S. Dollars in the U.S. Dollar Equivalent of such Loans (and, promptly following receipt by the Company of notice from the Administrative Agent of the amount of interest accrued on such affected Loans prior to the date of such deemed conversion, the Company shall pay such accrued interest in the applicable Alternative Currency) or (2) if the Company has given notice to the Administrative Agent within such three-Business Day period of the Company's election to repay such affected Loans, the Company shall repay such affected Loans (to the extent outstanding, together with accrued interest, and which such payment of principal and interest shall be made in the applicable Alternative Currency) in full.

f. Notwithstanding anything to the contrary in this Agreement or any other Loan Documents, if the Administrative Agent determines (which determination shall be conclusive absent manifest error), or the Company or Required Applicable Banks notify the Administrative Agent (with, in the case of the Required Applicable Banks, a copy to Company) that the Company or Required Applicable Banks (as applicable) have determined, that:

i. adequate and reasonable means do not exist for ascertaining the Applicable Reference Rate, including, without limitation, because the LIBOR Screen Rate is not available or published on a current basis and such circumstances are unlikely to be temporary; or

ii. the administrator of the LIBOR Screen Rate (or other Applicable Reference Rate) or a Governmental Authority having jurisdiction over the Administrative Agent has made a public statement identifying a specific date after which LIBOR or the LIBOR Screen Rate (or other Applicable Reference Rate) shall no longer be made available, or used for determining the interest rate of loans denominated in the applicable currency, provided that, at the time of such statement, there is no successor administrator that is reasonably satisfactory to the Administrative Agent, that will continue to provide LIBOR (or other Applicable Reference Rate) after such specific date (such specific date, the “Scheduled Unavailability Date”), or

iii. syndicated loans currently being executed, or that include language similar to that contained in this Section 11.8(f), are being executed or amended (as applicable) to incorporate or adopt a new benchmark interest rate to replace LIBOR (or other Applicable Reference Rate),

then, reasonably promptly after such determination by the Administrative Agent or receipt by the Administrative Agent of such notice, as applicable, the Administrative Agent and the Company may amend this Agreement solely for the purpose of replacing LIBOR (or other Applicable Reference Rate) in accordance with this Section 11.8 with (x) (in the case of an amendment to replace LIBOR for U.S. Dollar denominated Loans) one or more SOFR-Based Rates or (y) (in the case of an amendment to replace LIBOR for Loans denominated in U.S. Dollars or an Alternative Currency, or to replace any other Applicable Reference Rate for Loans denominated in an Alternative Currency) another alternate benchmark rate, in each case of clause (x) or (y), giving due consideration to any evolving or then existing convention for similar syndicated credit facilities denominated in such currency for such alternative benchmarks and, in each case, including any mathematical or other adjustments to such benchmark giving due consideration to any evolving or then existing convention for similar syndicated credit facilities denominated in such currency for such benchmarks, which adjustment or method for calculating such adjustment shall be published on an information service as selected by the Administrative Agent from time to time in its reasonable discretion and may be periodically updated (the “Adjustment;” and any such proposed rate, a “Successor Rate”), and any such amendment shall become effective at 5:00 p.m. on the fifth Business Day after the Administrative Agent shall have posted such proposed amendment to all Banks and the Company unless, prior to such time, Banks comprising the Required Applicable Banks have delivered to the Administrative Agent written notice that such Required Applicable Banks (A) in the case of an amendment to replace LIBOR with a rate described in clause (x), object to the Adjustment; or (B) in the case of an amendment to replace LIBOR (or other Applicable Reference Rate) with a rate described in clause (y), object to such amendment; *provided* that for the avoidance of doubt, in the case of clause (A), the Required Applicable Banks shall not be entitled to object to any SOFR-Based Rate contained in any such amendment. Such Successor Rate shall be applied in a manner consistent with market practice; *provided* that to the extent such market practice is not administratively feasible for the Administrative Agent, such Successor Rate shall be applied in a manner as otherwise reasonably determined by the Administrative Agent.

If no Successor Rate has been determined and the circumstances under clause (i) above exist or the Scheduled Unavailability Date has occurred (as applicable), the Administrative Agent will promptly so notify the Company and each Bank. Thereafter, (x) the obligation of the Banks to make or maintain Loans based on LIBOR or other Applicable Reference Rate, as the case may be, shall be suspended, (to the extent of the affected Loans), and (y) in the case of LIBOR, the utilization of the LIBOR component in determining the Federal Funds Rate shall be suspended.

Upon receipt of such notice:

(A) the Company may revoke any pending request for an Advance of affected Loans (to the extent of the affected Loans) or, failing that, (1) with respect to a pending request for Loans denominated in U.S. Dollars, the Company will be deemed to have converted such request into a request for an Advance of Federal Funds Rate Loans (subject to the foregoing clause (y)) in the amount specified therein and (2) with respect to Loans denominated in any Alternative Currency, at the election of the Company, such request shall be converted into a request for an Advance of Federal Funds Rate Loans denominated in U.S. Dollars (subject to the foregoing clause (y)) in the U.S. Dollar Equivalent of the amount specified therein; and

(B) in the case of any outstanding affected Loans, on the date that is three (3) Business Days after Administrative Agent's delivery of such notice to the Company, (1) such Loans will automatically be deemed to be converted to Federal Funds Rate Loans denominated in U.S. Dollars in the U.S. Dollar Equivalent of such Loans (and, promptly following receipt by the Company of notice from the Administrative Agent of the amount of interest accrued on such affected Loans prior to the date of such deemed conversion, the Company shall pay such accrued interest in the applicable Alternative Currency) or (2) if the Company has given notice to the Administrative Agent within such three-Business Day period of the Company's election to repay such affected Loans, the Company shall repay such affected Loans (to the extent outstanding, together with accrued interest, and which such payment of principal and interest shall be made in the applicable Alternative Currency) in full.

Notwithstanding anything else herein, any definition of Successor Rate shall provide that in no event shall such Successor Rate be less than zero for purposes of this Agreement.

g. In connection with the implementation of a Successor Rate, the Administrative Agent will have the right to make Successor Rate Conforming Changes from time to time and, notwithstanding anything to the contrary herein or in any other Loan Document, any amendments implementing such Successor Rate Conforming Changes will become effective without any further action or consent of any other party to this Agreement; provided that, with respect to any such amendment effected, the Administrative Agent shall post each such amendment implementing such Successor Conforming Changes to the Banks reasonably promptly after such amendment becomes effective.

h. If, after the Amendment No. 3 Effective Date, any Bank shall notify the Administrative Agent and the Company that the introduction of or any change in or in the interpretation of any law or regulation makes it unlawful, or any central bank or Governmental Authority asserts that it is unlawful for any Bank or its applicable lending office to make, maintain or fund or charge interest with respect to any Loans denominated in an Alternative Currency, or to charge interest rates based upon an Applicable Reference Rate (other than clause (a) of the definition of "Federal Funds Rate"), any alternative rate adopted pursuant to Section 11.8(e) or any Successor Rate adopted pursuant to Section 11.8(f) (any such Applicable Reference Rate, alternative rate or Successor Rate, as applicable, the "Affected Rate") or any Governmental Authority has imposed material restrictions on the authority of such Bank to purchase or sell, or to take deposits of any Alternative Currency in the applicable interbank market, then, on notice thereof by such Bank to the Company through the Administrative Agent, (i) any obligation of such Bank to make or maintain Loans bearing interest at an Affected Rate (each, an "Affected Rate Loan") in the Alternative Currency shall be suspended, and (ii) if such notice asserts the illegality of such Bank making

or maintaining Federal Funds Rate Loans the interest rate on which is determined by reference to the LIBOR component of the Federal Funds Rate, the interest rate on which Federal Funds Rate Loans of such Bank shall, if necessary to avoid such illegality, be determined by the Administrative Agent without reference to the LIBOR component of the Federal Funds Rate, in each case until such Bank notifies the Administrative Agent and the Company that the circumstances giving rise to such determination no longer exist. Upon receipt of such notice, the Company shall, promptly upon demand from such Bank (with a copy to the Administrative Agent), promptly prepay such Loans if such Bank may not lawfully continue to maintain such Loans (or, in the case of Federal Funds Rate Loans, if necessary to avoid such illegality, the interest rate on such Loans shall be determined by the Administrative Agent without reference to the LIBOR component of the Federal Funds Rate). The Company shall also pay accrued interest on any amount so prepaid.

i. All amounts due under this Section 11.8 shall be payable promptly after written demand therefor; provided that such amounts due pursuant to Section 11.8(b) and (c) shall be comparable (on a proportionate basis and as determined in a commercially reasonable manner) to amounts such Bank charges similarly situated borrowers or account parties (or intends to charge substantially simultaneously) for such additional costs or such losses suffered on loans for borrowers with similar credit facilities. For purposes of clarification, the foregoing shall not require that any Bank seek such charges against all such similarly situated borrowers or account parties prior to making any claim for costs or losses hereunder. Failure or delay on the part of any Bank to demand compensation pursuant to the foregoing Sections 11.8(b) and (c) shall not constitute a waiver of such Bank's right to demand such compensation, provided that the Company shall not be required to compensate a Bank pursuant to the foregoing provisions of this Section for any increased costs incurred or reductions suffered more than 180 days prior to the date that such Bank notifies the Company of the Change in Law giving rise to such increased costs or reductions and of such Bank's intention to claim compensation therefor (except that, if the Change in Law giving rise to such increased costs or reductions is retroactive, then the 180 day period referred to above shall be extended to include the period of retroactive effect thereof).

j. To the extent permitted by applicable law, the Company shall not assert, and hereby waives, any claim against any Indemnified Party, and no Indemnified Party shall assert, and by accepting the benefits of the Agreement waives, any claim against the Company (except to the extent of the Company's indemnity obligations provided above with respect to third party claims (which shall not, in any event include any third party claims by an Indemnified Party, except to the extent such indemnity claim is otherwise permitted pursuant to Section 11.8(a))), in each case, on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) arising out of, in connection with, or as a result of this Agreement or any agreement or instrument contemplated hereby, or the use of the proceeds hereof or thereof.

k. Each Bank shall indemnify the Administrative Agent, within 10 days after demand therefor, for the full amount of any Taxes attributable to such Bank that are payable or paid by the Administrative Agent, and reasonable expenses arising therefrom or with respect thereto, whether or not such Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to any Bank by the Administrative Agent shall be conclusive absent manifest error.

Section 11.9 Accounting. Except as provided to the contrary herein, all accounting terms used herein shall be interpreted and all accounting determinations hereunder shall be made in accordance with GAAP.

Section 11.10 Severability of Provisions. Any provision in any Loan Document that is held to be inoperative, unenforceable, or invalid in any jurisdiction shall, as to that jurisdiction, be inoperative, unenforceable, or invalid without affecting the remaining provisions in that jurisdiction or the operation, enforceability, or validity of that provision in any other jurisdiction, and to this end the provisions of all Loan Documents are declared to be severable.

Section 11.11 Confidentiality. Each of the Banks and each Agent agrees to maintain the confidentiality of the Company Information (as defined below), except that Company Information may be disclosed (a) to such Bank's or Agent's Affiliates and its and its Affiliates' directors, officers, employees and agents, including accountants, legal counsel and other advisors who have a need to know such information (it being understood that the Persons to whom such disclosure is made will be informed of the confidential nature of such Company Information and instructed to keep such Company Information confidential on terms substantially similar to this Section 11.11), (b) to the extent required or demanded by any governmental agency, self-regulatory authority or representative thereof, (c) to the extent required by applicable laws or regulations or by any subpoena or similar legal process or to the extent reasonably required in connection with any litigation relating to this Agreement or the Collateral to which such Bank or such Agent, as applicable, is a party, or for purposes of establishing a "due diligence" defense, (d) subject to an agreement containing provisions substantially the same as those described in this Section 11.11, to (i) any actual or prospective Assignee or Participant or (ii) any actual or prospective counterparty (or its advisors) to any swap, or derivative transaction relating to the Company and its obligations, (e) with the consent of the Company, (f) to the extent such Company Information becomes publicly available other than as a result of a breach of its confidentiality obligations as described in this Section 11.11, (g) to any other party to this Agreement or (h) in connection with the exercise of any remedies hereunder or under any other Loan Document or any action or proceeding relating to this Agreement or any other Loan Document or the enforcement of rights hereunder or thereunder.

As used in this Section, "**Company Information**" means all information received from the Company or any of its Subsidiaries or Affiliates relating to Holdings or any of its subsidiaries (including the Company) or any of their respective Affiliates, or their businesses, other than any such information that is available to any Agent or any Bank, as applicable, on a non-confidential basis prior to disclosure by the Company.

Section 11.12 **WAIVER OF TRIAL BY JURY. TO THE EXTENT PERMITTED BY APPLICABLE LAW, EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES ALL RIGHT OF TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT OR ANY MATTER ARISING HEREUNDER OR THEREUNDER.**

Section 11.13 USA Patriot Act Notification. The following notification is provided to the Company pursuant to Section 326 of the USA Patriot Act:

IMPORTANT INFORMATION ABOUT PROCEDURES FOR OPENING A NEW ACCOUNT. To help the government of the United States of America fight the funding of terrorism and money laundering activities, Federal law requires all financial institutions to obtain, verify, record and update information that identifies each Person that opens an account, including any deposit account, treasury management account, loan, other extension of credit, or other financial services product. Accordingly, when the Company opens an account, the Administrative Agent, the Collateral Agent and the Banks will ask for the Company's name, tax identification number, business address, Beneficial Ownership Certification and other information that will allow the Administrative Agent, the Collateral Agent and the

Banks to identify the Company. The Administrative Agent, the Collateral Agent and the Banks may also ask to see the Company's legal organizational documents or other identifying documents.

Section 11.14 No Advisory or Fiduciary Responsibility. In connection with this Agreement or any promissory note delivered hereunder (including in connection with any amendment, waiver or other modification hereof), the Company acknowledges and agrees, and acknowledges its subsidiaries' understanding, that: (i) (A) the arranging and other services regarding this Agreement provided by the Agents, the Banks and the Arrangers are arm's-length commercial transactions between the Company and its Affiliates, on the one hand, and the Agents, the Banks and the Arrangers, on the other hand, (B) the Company has consulted its own legal, accounting, regulatory and tax advisors to the extent it has deemed appropriate, and (C) the Company is capable of evaluating, and understands and accepts, the terms, risks and conditions of the transactions contemplated hereby; (ii) (A) the Agents, the Banks and the Arrangers each is and has been acting solely as a principal and, except as expressly agreed in writing by the relevant parties, has not been, is not, and will not be acting as an advisor, agent or fiduciary for the Company or any of its Affiliates, or any other Person and (B) neither any Agent, any Bank nor any Arranger has any obligation to the Company or any of its Affiliates with respect to the transactions contemplated hereby except those obligations expressly set forth herein; and (iii) the Agents, the Banks and the Arrangers and their respective Affiliates may be engaged in a broad range of transactions that involve interests that differ from those of the Company and its Affiliates, and neither any Agent, any Bank nor any Arranger has any obligation to disclose any of such interests to the Company or its Affiliates. To the fullest extent permitted by law, the Company hereby waives and releases any claims that it may have against any Agent, any Bank or any Arranger with respect to any breach or alleged breach of agency or fiduciary duty (except for any agency or fiduciary duty obligations expressly agreed in writing by the relevant parties) in connection with this Agreement or any promissory note delivered hereunder.

Section 11.15 Judgment Currency. If, for the purposes of obtaining judgment in any court, it is necessary to convert a sum due hereunder in one currency into another currency, the rate of exchange used shall be that at which in accordance with normal banking procedures the Administrative Agent could purchase the first currency with such other currency on the Business Day preceding that on which final judgment is given. The obligation of the Company in respect of any such sum due from it to any Agent or any Bank hereunder shall, notwithstanding any judgment in a currency (the "**Judgment Currency**") other than that in which such sum is denominated in accordance with the applicable provisions of this Agreement (the "**Agreement Currency**"), be discharged only to the extent that on the Business Day following receipt by the applicable Agent or such Bank, as the case may be, of any sum adjudged to be so due in the Judgment Currency, such Agent or such Bank, as the case may be, may in accordance with normal banking procedures purchase the Agreement Currency with the Judgment Currency. If the amount of the Agreement Currency so purchased is less than the sum originally due to any Agent or any Bank from the Company in the Agreement Currency, the Company agrees, as a separate obligation and notwithstanding any such judgment, to indemnify such Agent or such Bank, as the case may be, against such loss. If the amount of the Agreement Currency so purchased is greater than the sum originally due to any Agent or any Bank in such currency, such Agent or such Bank, as the case may be, agrees to return the amount of any excess to the Company (or to any other Person who may be entitled thereto under applicable law).

Section 11.16 Acknowledgement and Consent to Bail-In of Affected Financial Institutions. Notwithstanding anything to the contrary in any Loan Document or in any other agreement, arrangement or understanding among any party hereto, each such party acknowledges that any liability of any Bank that is an Affected Financial Institution arising under any Loan Document, to the extent such liability is

unsecured, may be subject to the write-down and conversion powers of the applicable Resolution Authority and agrees and consents to, and acknowledges and agrees to be bound by:

- a. the application of any Write-Down and Conversion Powers by the applicable Resolution Authority to any such liabilities arising hereunder which may be payable to it by any Bank that is an Affected Financial Institution; and
- b. the effects of any Bail-in Action on any such liability, including, if applicable:
 - i. a reduction in full or in part or cancellation of any such liability;
 - ii. a conversion of all, or a portion of, such liability into shares or other instruments of ownership in such Affected Financial Institution, its parent undertaking, or a bridge institution that may be issued to it or otherwise conferred on it, and that such shares or other instruments of ownership will be accepted by it in lieu of any rights with respect to any such liability under this Agreement or any other Loan Document; or
 - iii. the variation of the terms of such liability in connection with the exercise of the write-down and conversion powers of the applicable Resolution Authority.

Section 11.17 Bank ERISA Representation.

(a) Each Bank (x) represents and warrants, as of the date such Person became a Bank party hereto, to, and (y) covenants, from the date such Person became a Bank party hereto to the date such Person ceases being a Bank party hereto, for the benefit of, the Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent, each Arranger and their respective Affiliates, and not, for the avoidance of doubt, to or for the benefit of the Company, that at least one of the following is and will be true:

- i. such Bank is not using “plan assets” (within the meaning of Section 3(42) of ERISA or otherwise) of one or more Benefit Plans with respect to such Bank’s entrance into, participation in, administration of and performance of the Loans or the Applicable Tranche Commitments,
- ii. the transaction exemption set forth in one or more PTEs, such as PTE 84-14 (a class exemption for certain transactions determined by independent qualified professional asset managers), PTE 95-60 (a class exemption for certain transactions involving insurance company general accounts), PTE 90-1 (a class exemption for certain transactions involving insurance company pooled separate accounts), PTE 91-38 (a class exemption for certain transactions involving bank collective investment funds) or PTE 96-23 (a class exemption for certain transactions determined by in-house asset managers), is applicable with respect to such Bank’s entrance into, participation in, administration of and performance of the Loans, the Applicable Tranche Commitments and this Agreement,
- iii. (A) such Bank is an investment fund managed by a “Qualified Professional Asset Manager” (within the meaning of Part VI of PTE 84-14), (B) such Qualified Professional Asset Manager made the investment decision on behalf of such Bank to enter into, participate in, administer and perform the Loans, the Applicable Tranche Commitments and this Agreement, (C) the entrance into, participation in, administration of and performance of the Loans, the Applicable Tranche Commitments and this Agreement satisfies the requirements of subsections (b) through (g) of Part I of PTE 84-14 and (D) to the best knowledge of such Bank, the requirements of subsection (a) of Part I of PTE 84-14 are satisfied with

respect to such Bank's entrance into, participation in, administration of and performance of the Loans, the Applicable Tranche Commitments and this Agreement, or

iv. such other representation, warranty and covenant as may be agreed in writing between the Administrative Agent, in its sole discretion, and such Bank.

b. In addition, unless sub-clause (i) in the immediately preceding clause (a) is true with respect to a Bank or such Bank has not provided another representation, warranty and covenant as provided in sub-clause (iv) in the immediately preceding clause (a), such Bank further (x) represents and warrants, as of the date such Person became a Bank party hereto, to, and (y) covenants, from the date such Person became a Bank party hereto to the date such Person ceases being a Bank party hereto, for the benefit of, the Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent, each Arranger and their respective Affiliates, and not, for the avoidance of doubt, to or for the benefit of the Company or any Clearing Member, that none of the Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent, any Arranger or any of their respective Affiliates is a fiduciary with respect to the assets of such Bank involved in such Bank's entrance into, participation in, administration of and performance of the Loans, the Applicable Tranche Commitments and this Agreement (including in connection with the reservation or exercise of any rights by the Administrative Agent, the Collateral Agent or the Collateral Monitoring Agent under this Agreement, any Loan Document or any documents related to hereto or thereto).

Section 11.18 Interest Rate Limitation. Notwithstanding anything to the contrary contained in any Loan Document, the interest paid or agreed to be paid under the Loan Documents shall not exceed the maximum rate of non-usurious interest permitted by applicable law (including without limitation, the Criminal Code (Canada)) (the "Maximum Rate"). If the Administrative Agent or any Bank shall receive interest in an amount that exceeds the Maximum Rate, the excess interest shall be applied to the principal of the Loans or, if it exceeds such unpaid principal, refunded to the Company. In determining whether the interest contracted for, charged, or received by the Administrative Agent or a Bank exceeds the Maximum Rate, such Person may, to the extent permitted by applicable law, (a) characterize any payment that is not principal as an expense, fee, or premium rather than interest, (b) exclude voluntary prepayments and the effects thereof, and (c) amortize, prorate, allocate, and spread in equal or unequal parts the total amount of interest throughout the contemplated term of the Obligations hereunder.

Section 11.19 Acknowledgement Regarding Any Supported QFCs. To the extent that the Loan Documents provide support, through a guarantee or otherwise, for any Swap Contract or any other agreement or instrument that is a QFC (such support, "**QFC Credit Support**", and each such QFC, a "**Supported QFC**"), the parties acknowledge and agree as follows with respect to the resolution power of the Federal Deposit Insurance Corporation under the Federal Deposit Insurance Act and Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act (together with the regulations promulgated thereunder, the "**U.S. Special Resolution Regimes**") in respect of such Supported QFC and QFC Credit Support (with the provisions below applicable notwithstanding that the Loan Documents and any Supported QFC may in fact be stated to be governed by the laws of the State of New York and/or of the United States or any other state of the United States):

In the event a Covered Entity that is party to a Supported QFC (each, a "**Covered Party**") becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer of such Supported QFC and the benefit of such QFC Credit Support (and any interest and obligation in or under such Supported QFC and such QFC Credit Support, and any rights in property securing such Supported QFC or such QFC Credit Support) from such Covered Party will be effective to the same extent as the transfer

would be effective under the U.S. Special Resolution Regime if the Supported QFC and such QFC Credit Support (and any such interest, obligation and rights in property) were governed by the laws of the United States or a state of the United States. In the event a Covered Party or a BHC Act Affiliate of a Covered Party becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under the Loan Documents that might otherwise apply to such Supported QFC or any QFC Credit Support that may be exercised against such Covered Party are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if the Supported QFC and the Loan Documents were governed by the laws of the United States or a state of the United States. Without limitation of the foregoing, it is understood and agreed that rights and remedies of the parties with respect to a Defaulting Bank shall in no event affect the rights of any Covered Party with respect to a Supported QFC or any QFC Credit Support.

As used in this Section 11.19, the following terms have the following meanings:

“**BHC Act Affiliate**” of a party means an “affiliate” (as such term is defined under, and interpreted in accordance with, 12 U.S.C. 1841(k)) of such party.

“**Covered Entity**” means any of the following: (i) a “covered entity” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b); (ii) a “covered bank” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or (iii) a “covered FSI” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b).

“**Default Right**” has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable.

“**QFC**” has the meaning assigned to the term “qualified financial contract” in, and shall be interpreted in accordance with, 12 U.S.C. 5390(c)(8)(D).

“**Swap Contract**” means (a) any and all rate swap transactions, basis swaps, credit derivative transactions, forward rate transactions, commodity swaps, commodity options, forward commodity contracts, equity or equity index swaps or options, bond or bond price or bond index swaps or options or forward bond or forward bond price or forward bond index transactions, interest rate options, forward foreign exchange transactions, cap transactions, floor transactions, collar transactions, currency swap transactions, cross-currency rate swap transactions, currency options, spot contracts, or any other similar transactions or any combination of any of the foregoing (including any options to enter into any of the foregoing), whether or not any such transaction is governed by or subject to any master agreement, and (b) any and all transactions of any kind, and the related confirmations, which are subject to the terms and conditions of, or governed by, any form of master agreement published by the International Swaps and Derivatives Association, Inc., any International Foreign Exchange Master Agreement, or any other master agreement (any such master agreement, together with any related schedules, a “Master Agreement”), including any such obligations or liabilities under any Master Agreement.

ARTICLE XII

SETOFF; RATABLE PAYMENTS

Section 12.1 Setoff; Ratable Payments.

a. In addition to, and without limitation of, any rights of the Banks or Agents under applicable law, if the Company becomes insolvent, however evidenced, or any Default occurs and is continuing, any indebtedness or other obligation owing from any Bank or Agent to the Company (including all account balances, whether provisional or final and whether or not collected or available but excluding (x) any accounts designated as or representing “customer segregated funds” accounts and (y) any accounts pledged to such Bank to secure an overdraft facility to ensure the settlement of foreign currency futures and options contracts traded on the exchange of the Company, CBOT, NYMEX or any other exchange in respect of which the Company has equivalent authority) may be offset and applied toward the payment of the Obligations owing to such Bank or Agent, as the case may be, whether or not the Obligations, or any part thereof, shall then be due.

b. Subject to Section 2.11, if any Bank, whether by setoff or otherwise, has payment made to it upon any Loan under any Applicable Tranche in a greater proportion than that received by any other Bank upon any Loan in such Applicable Tranche constituting a portion of the same Advance, such Bank shall distribute to the Administrative Agent an amount equal to each of the other Banks’ pro rata share in such Applicable Tranche of such payment. Such payment shall be distributed ratably between the Banks in such Applicable Tranche in proportion to each Bank’s respective share of the total Obligations in such Applicable Tranche outstanding under this Agreement. Any payment distributed pursuant to this subsection (b) to the Administrative Agent shall be distributed by the Administrative Agent to the applicable Banks in accordance with the provisions of this Agreement.

c. Subject to Section 2.11, if any Bank, whether in connection with setoff or amounts which might be subject to setoff or otherwise, receives collateral or other protection for any category of its Obligations or such amounts which may be subject to setoff, in any case, in excess of its pro rata share thereof, such Bank agrees, promptly upon demand, to take such action necessary such that all Banks share in the benefits of such collateral ratably in proportion to their Obligations of the same category. In case any such payment is disturbed by legal process, or otherwise, appropriate further adjustments shall be made.

d. The Company agrees that any Participant in a Loan may exercise setoff rights as provided by Section 12.1(a) as though it were a Bank with respect to its participating interest, provided that such Participant has agreed that it shall be subject to Sections 12.1(b) and (c) as though it were a Bank.

ARTICLE XIII

NOTICES

Section 13.1 Notices Generally. Except in the case of notices and other communications expressly permitted to be given by telephone (and except as provided in Section 3.5(b) or subsection (b) below), all notices and other communications provided for herein (and to the extent applicable to any other Loan Document) shall be in writing and shall be delivered by hand or overnight courier service, mailed by certified or registered mail or sent by facsimile or electronic communication as follows, and all notices and other communications expressly permitted hereunder to be given by telephone shall be made to the applicable telephone number, as follows:

a. if to the Company, any Clearing Member, the Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent or an Applicable Tranche Swingline Bank, to the address, facsimile number, electronic mail address or telephone number specified for such Person on Schedule 13.1; and

b. if to any other Bank, to the address, facsimile number, electronic mail address or telephone number specified in its Administrative Questionnaire (including, as appropriate, notices delivered solely to the Person designated by a Bank on its Administrative Questionnaire then in effect for the delivery of notices that may contain material non-public information relating to the Company).

Notices and other communications sent by hand or overnight courier service, or mailed by certified or registered mail, shall be deemed to have been given when received; notices and other communications sent by facsimile shall be deemed to have been given when sent (except that, if not given during the Business Day for the recipient, shall be deemed to have been given at the opening of business on the next Business Day for the recipient). Notices and other communications delivered through electronic communications to the extent provided in subsection (c) below, shall be effective as provided in such subsection (c).

c. Electronic Communications. Notices and other communications to the Banks hereunder may be delivered or furnished by electronic communication (including e-mail and Internet or intranet websites) pursuant to procedures approved by the Administrative Agent, provided that the foregoing shall not apply to notices to any Bank pursuant to Article II and Section 3.1 if such Bank has notified the Administrative Agent that it is incapable of receiving notices under such Article by electronic communication. The Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent any Applicable Tranche Swingline Bank or the Company may each, in its discretion, agree to accept notices and other communications to it hereunder by electronic communications pursuant to procedures approved by it, provided that approval of such procedures may be limited to particular notices or communications.

Unless the Administrative Agent otherwise prescribes, (i) notices and other communications sent to an e-mail address shall be deemed received upon the sender's receipt of an acknowledgement from the intended recipient (such as by the "return receipt requested" function, as available, return e-mail or other written acknowledgement), and (ii) notices or communications posted to an Internet or intranet website shall be deemed received upon the deemed receipt by the intended recipient at its e-mail address as described in the foregoing clause (i) of notification that such notice or communication is available and identifying the website address therefor; provided that, for both clauses (i) and (ii), if such notice, email or other communication is not sent during the Business Day of the recipient, such notice, email or communication shall be deemed to have been sent at the opening of business on the next Business Day for the recipient.

d. The Platform. THE PLATFORM IS PROVIDED "AS IS" AND "AS AVAILABLE." THE AGENT PARTIES (AS DEFINED BELOW) DO NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE BORROWER MATERIALS OR THE ADEQUACY OF THE PLATFORM, AND EXPRESSLY DISCLAIM LIABILITY FOR ERRORS IN OR OMISSIONS FROM THE BORROWER MATERIALS. NO WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OF THIRD PARTY RIGHTS OR FREEDOM FROM VIRUSES OR OTHER CODE DEFECTS, IS MADE BY ANY AGENT PARTY IN CONNECTION WITH THE BORROWER MATERIALS OR THE PLATFORM. In no event shall the Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent or any of their Related Parties (collectively, the "**Agent Parties**") have any liability to the Company, any Bank or any other Person for losses, claims, damages, liabilities or expenses of any kind (whether in tort, contract or otherwise) arising out of the Company's, the Administrative Agent's, the Collateral Agent's or the Collateral Monitoring Agent's transmission of Borrower Materials through the Internet. The Company and each Bank understands that the distribution of materials and other communications through an

electronic medium is not necessarily secure and that there are confidentiality and other risks associated with such distribution and agrees and assumes the risks associated with such electronic distribution.

e. Change of Address, Etc. Each of the Company, the Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent and each Applicable Tranche Swingline Bank may change its address, facsimile or telephone number for notices and other communications hereunder by notice to the other parties hereto. Each other Bank may change its address, facsimile or telephone number for notices and other communications hereunder by notice to the Company, the Administrative Agent, the Collateral Agent, the Collateral Monitoring Agent and the Applicable Tranche Swingline Banks. In addition, each Bank agrees to notify the Administrative Agent from time to time to ensure that the Administrative Agent has on record (i) an effective address, contact name, telephone number, facsimile number and electronic mail address to which notices and other communications may be sent and (ii) accurate wire instructions for such Bank. Furthermore, each Public Bank agrees to cause at least one individual at or on behalf of such Public Bank to at all times have selected the “Private Side Information” or similar designation on the content declaration screen of the Platform in order to enable such Public Bank or its delegate, in accordance with such Public Bank’s compliance procedures and applicable law, including United States Federal and state securities laws, to make reference to Borrower Materials that are not made available through the “Public Side Information” portion of the Platform and that may contain material non-public information with respect to the Company or its securities for purposes of United States Federal or state securities laws.

ARTICLE XIV

COUNTERPARTS

This Agreement shall be effective when it has been executed by the Company, the Agents and the Banks. This Agreement and any document, amendment, approval, consent, information, notice, certificate, request, statement, disclosure or authorization related to this Agreement (each a “Communication”), including Communications required to be in writing, may be in the form of an Electronic Record and may be executed using Electronic Signatures. The Company agrees, on behalf of itself and each Clearing Member, that any Electronic Signature on or associated with any Communication shall be valid and binding on the Company and each Clearing Member, as the case may be, to the same extent as a manual, original signature, and that any Communication entered into by Electronic Signature, will constitute the legal, valid and binding obligation of the Company and each Clearing Member enforceable against such in accordance with the terms thereof to the same extent as if a manually executed original signature was delivered. Any Communication may be executed in as many counterparts as necessary or convenient, including both paper and electronic counterparts, but all such counterparts are one and the same Communication. For the avoidance of doubt, the authorization under this paragraph may include, without limitation, use or acceptance by any Agent or any Bank of a manually signed paper Communication which has been converted into electronic form (such as scanned into PDF format), or an electronically signed Communication converted into another format, for transmission, delivery and/or retention. Each Agent and each Bank may, at its option, create one or more copies of any Communication in the form of an imaged Electronic Record (“Electronic Copy”), which shall be deemed created in the ordinary course of the such Person’s business, and destroy the original paper document. All Communications in the form of an Electronic Record, including an Electronic Copy, shall be considered an original for all purposes, and shall have the same legal effect, validity and enforceability as a paper record. Notwithstanding anything contained herein to the contrary, no Agent is under any obligation to accept an Electronic Signature in any form or in any format unless expressly agreed to by such Agent pursuant to procedures approved by it; provided, further, without limiting the foregoing, (a) to the extent any Agent has agreed to accept such Electronic Signature, each Agent and each of the Banks shall be

entitled to rely on any such Electronic Signature purportedly given by or on behalf of the Company or any Clearing Member without further verification and (b) upon the request of any Agent or any Bank, any Electronic Signature shall be promptly followed by such manually executed counterpart. For purposes hereof, "Electronic Record" and "Electronic Signature" shall have the meanings assigned to them, respectively, by 15 USC §7006, as it may be amended from time to time.

ARTICLE XV

SUBORDINATION

The Company hereby subordinates its Lien on the Collateral to the Lien therein granted to the Collateral Agent pursuant to the Collateral Documents and the Company shall not take any action of any nature whatsoever to enforce its Lien until all of the Obligations have been paid in full and the Aggregate Commitments have been terminated.

[Remainder of page intentionally left blank.]

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 registrant's board of directors (or persons performing the equivalent function):
 - 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: May 5, 2021

/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 registrant's board of directors (or persons performing the equivalent function):
 - 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: May 5, 2021

/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 March 31, 2021 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: May 5, 2021

/s/ John W. Pietrowicz

Name: John W. Pietrowicz

Title: Chief Financial Officer

Dated: May 5, 2021

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.