

CODORUS VALLEY BANCORP INC
Form 10-Q
August 10, 2011
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UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

x Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934
For the quarterly period ended June 30, 2011

or

o 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: 0-15536

CODORUS VALLEY BANCORP, INC.

(Exact name of registrant as specified in its charter)

Pennsylvania

(State or other jurisdiction of
incorporation or organization)

23-2428543

(I.R.S. Employer
Identification No.)

105 Leader Heights Road, P.O. Box 2887, York, Pennsylvania 17405

(Address of principal executive offices) (Zip code)

717-747-1519

(Registrant's telephone number, including area code)

Not Applicable

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

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 x No o

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Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files).

Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definition of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐

Accelerated filer ☐

Non-accelerated filer ☐

Smaller reporting company ☒

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

Yes ☐ No ☒

APPLICABLE ONLY TO CORPORATE ISSUERS

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date. On August 1, 2011, 4,161,759 shares of common stock, par value \$2.50, were outstanding.

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Codorus Valley Bancorp, Inc.

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Codorus Valley Bancorp, Inc.
Consolidated Balance Sheets
Unaudited

<i>(dollars in thousands, except share and per share data)</i>	June 30, 2011	December 31, 2010
Assets		
Interest bearing deposits with banks	\$ 93	\$ 32,219
Cash and due from banks	11,435	8,050
Federal funds sold	0	3,000
Total cash and cash equivalents	11,528	43,269
Securities, available-for-sale	235,968	222,536
Restricted investment in bank stocks, at cost	3,677	4,067
Loans held for sale	966	4,990
Loans (net of deferred fees of \$723 - 2011 and \$713 - 2010)	680,069	640,849
Less-allowance for loan losses	(8,351)	(7,626)
Net loans	671,718	633,223
Premises and equipment, net	10,633	10,766
Other assets	42,755	38,481
Total assets	\$ 977,245	\$ 957,332
Liabilities		
Deposits		
Noninterest bearing	\$ 71,388	\$ 65,642
Interest bearing	760,815	740,468
Total deposits	832,203	806,110
Short-term borrowings	10,796	6,763
Long-term debt	33,830	51,732
Junior subordinated debt	10,310	10,310
Other liabilities	8,570	5,878
Total liabilities	895,709	880,793
Shareholders' equity		
Preferred stock, par value \$2.50 per share; \$1,000 liquidation preference, 1,000,000 shares authorized; 16,500 shares issued and outstanding - 2011 and 2010	16,061	15,983
Common stock, par value \$2.50 per share; 10,000,000 shares authorized; 4,162,627 shares issued and outstanding - 2011 and 4,131,802 - 2010	10,407	10,330
Additional paid-in capital	37,662	37,290
Retained earnings	12,986	10,798
Accumulated other comprehensive income	4,420	2,138
Total shareholders' equity	81,536	76,539
Total liabilities and shareholders' equity	\$ 977,245	\$ 957,332

See accompanying notes.

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Codorus Valley Bancorp, Inc.
Consolidated Statements of Income
Unaudited

	Three months ended June 30,		Six months ended June 30,	
	2011	2010	2011	2010
<i>(dollars in thousands, except per share data)</i>				
Interest income				
Loans, including fees	\$ 9,600	\$ 9,517	\$ 18,912	\$ 18,647
Investment securities:				
Taxable	1,045	799	1,987	1,628
Tax-exempt	606	583	1,242	1,168
Dividends	2	1	4	4
Other	10	20	25	28
Total interest income	11,263	10,920	22,170	21,475
Interest expense				
Deposits	2,839	2,781	5,674	5,610
Federal funds purchased and other short-term borrowings	25	22	53	42
Long-term and junior subordinated debt	263	429	543	897
Total interest expense	3,127	3,232	6,270	6,549
Net interest income	8,136	7,688	15,900	14,926
Provision for loan losses	550	630	1,225	1,350
Net interest income after provision for loan losses	7,586	7,058	14,675	13,576
Noninterest income				
Trust and investment services fees	383	373	740	719
Income from mutual fund, annuity and insurance sales	241	443	583	762
Service charges on deposit accounts	676	649	1,277	1,211
Income from bank owned life insurance	160	161	325	319
Other income	159	132	300	286
Gains on sales of loans held for sale	120	217	296	361
Gain (loss) on sales of securities	0	108	(25)	108
Total noninterest income	1,739	2,083	3,496	3,766
Noninterest expense				
Personnel	3,433	3,213	6,964	6,419
Occupancy of premises, net	487	493	984	994
Furniture and equipment	422	419	871	859
Postage, stationery and supplies	129	162	269	277
Professional and legal	173	138	275	244
Marketing and advertising	233	223	383	350
FDIC insurance	218	316	562	624
Debit card processing	165	145	319	280
Charitable donations	8	27	235	356
Foreclosed real estate including (gains) losses on sales	606	911	1,091	984
Impaired loan carrying costs	160	387	426	583
Other	898	808	1,591	1,356
Total noninterest expense	6,932	7,242	13,970	13,326
Income before income taxes	2,393	1,899	4,201	4,016
Provision for income taxes	521	274	818	680
Net income	1,872	1,625	3,383	3,336
Preferred stock dividends and discount accretion	246	245	491	490
Net income available to common shareholders	\$ 1,626	\$ 1,380	\$ 2,892	\$ 2,846
Net income per common share, basic	\$ 0.39	\$ 0.34	\$ 0.70	\$ 0.70
Net income per common share, diluted	\$ 0.39	\$ 0.34	\$ 0.69	\$ 0.70

See accompanying notes.

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Codorus Valley Bancorp, Inc.
Consolidated Statements of Cash Flows
Unaudited

		Six months ended June 30, 2010
<i>(dollars in thousands)</i>	2011	
Cash flows from operating activities		
Net income	\$ 3,383	\$ 3,336
Adjustments to reconcile net income to net cash provided by operations:		
Depreciation/amortization	652	689
Net amortization of securities	724	464
Amortization of deferred loan origination fees and costs	(132)	(166)
Amortization of intangible assets	19	20
Provision for loan losses	1,225	1,350
Provision for losses on foreclosed real estate	235	722
Deferred income tax expense (benefit)	(21)	34
Amortization of investment in real estate partnership	291	281
Increase in cash surrender value of life insurance investment	(325)	(319)
Originations of loans held for sale	(16,266)	(21,036)
Proceeds from sales of loans held for sale	20,585	20,994
Net gain on sales of loans held for sale	(296)	(361)
Loss on disposal of premises and equipment	1	8
Net loss (gain) on sales of securities available-for-sale	25	(108)
Gain on sales of held for sale assets	0	(35)
Net gain on sales of foreclosed real estate	(45)	(110)
Stock-based compensation expense	157	

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

Quarter Ended		Nine Months Ended	
September 30,		September 30,	
2016	2015	2016	2015

Revenues				
Clearing and transaction fees	\$704.2	\$715.0	\$2,267.9	\$2,105.0
Market data and information services	101.1	99.5	306.4	300.3
Access and communication fees	23.8	21.6	67.7	64.4
Other	12.6	14.2	40.3	43.3
Total Revenues	841.7	850.3	2,682.3	2,513.0
Expenses				
Compensation and benefits	130.6	136.4	394.2	419.2
Communications	6.9	7.1	19.9	21.3
Technology support services	17.3	15.4	52.4	47.1
Professional fees and outside services	33.5	33.8	104.2	90.6
Amortization of purchased intangibles	24.0	24.9	72.0	74.8
Depreciation and amortization	31.2	32.4	95.5	97.5
Occupancy and building operations	19.6	23.1	65.3	69.4
Licensing and other fee agreements	31.5	33.1	103.3	92.5
Other	21.8	27.7	113.0	81.8
Total Expenses	316.4	333.9	1,019.8	994.2
Operating Income	525.3	516.4	1,662.5	1,518.8
Non-Operating Income (Expense)				
Investment income	36.5	2.5	71.3	26.7
Gains (losses) on derivative investments	—	—	—	(1.8)
Interest and other borrowing costs	(31.1)	(28.3)	(91.9)	(88.5)
Equity in net earnings (losses) of unconsolidated subsidiaries	28.6	26.6	82.4	75.1
Other non-operating income (expense)	(10.5)	(0.8)	(30.9)	(42.0)
Total Non-Operating	23.5	—	30.9	(30.5)
Income before Income Taxes	548.8	516.4	1,693.4	1,488.3
Income tax provision	76.0	156.5	532.7	533.0
Net Income	\$472.8	\$359.9	\$1,160.7	\$955.3
Earnings per Common Share:				
Basic	\$1.40	\$1.07	\$3.44	\$2.84
Diluted	1.39	1.06	3.43	2.83
Weighted Average Number of Common Shares:				
Basic	337,592	336,323	337,299	336,015
Diluted	339,143	338,139	338,834	337,804
See accompanying notes to unaudited consolidated financial statements.				

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CME GROUP INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(in millions)
(unaudited)

	Quarter Ended		Nine Months Ended	
	September 30,		September 30,	
	2016	2015	2016	2015
Net income	\$472.8	\$359.9	\$1,160.7	\$955.3
Other comprehensive income (loss), net of tax:				
Investment securities:				
Net unrealized holding gains (losses) arising during the period	(17.7)	(100.2)	177.7	(91.0)
Reclassification of net (gains) losses on sales included in investment income	(6.3)	2.6	(6.3)	(3.4)
Income tax benefit (expense)	(65.3)	—	(65.9)	1.2
Investment securities, net	(89.3)	(97.6)	105.5	(93.2)
Defined benefit plans:				
Net change in defined benefit plans arising during the period	—	—	3.1	(0.3)
Amortization of net actuarial (gains) losses included in compensation and benefits expense	0.8	0.6	2.4	2.0
Income tax benefit (expense)	(0.3)	(0.2)	(2.1)	(0.6)
Defined benefit plans, net	0.5	0.4	3.4	1.1
Derivative investments:				
Net unrealized holding gains (losses) arising during the period	—	—	—	(4.7)
Ineffectiveness on cash flow hedges included in (gains) losses on derivative investments	—	—	—	1.8
Amortization of effective portion of net (gains) losses on cash flow hedges included in interest expense	(0.3)	(0.3)	(0.9)	(0.9)
Income tax benefit (expense)	0.1	0.1	0.3	1.5
Derivative investments, net	(0.2)	(0.2)	(0.6)	(2.3)
Foreign currency translation:				
Foreign currency translation adjustments	(0.6)	(3.4)	(5.6)	(10.0)
Income tax benefit (expense)	(0.8)	1.1	1.0	3.6
Foreign currency translation, net	(1.4)	(2.3)	(4.6)	(6.4)
Other comprehensive income (loss), net of tax	(90.4)	(99.7)	103.7	(100.8)
Comprehensive Income	\$382.4	\$260.2	\$1,264.4	\$854.5
See accompanying notes to unaudited consolidated financial statements.				

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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 Shareholders' Equity
Balance at December 31, 2015	336,938	3	\$17,725.0	\$2,907.6	\$ (80.8)	\$20,551.8
Net income				1,160.7		1,160.7
Other comprehensive income (loss)					103.7	103.7
Dividends on common stock of \$1.80 per share				(609.7)		(609.7)
Exercise of stock options	434		29.5			29.5
Excess tax benefits from option exercises and restricted stock vesting			10.0			10.0
Vesting of issued restricted Class A common stock	570		(26.8)			(26.8)
Shares issued to Board of Directors	26		2.5			2.5
Shares issued under Employee Stock Purchase Plan	10		0.9			0.9
Stock-based compensation			42.3			42.3
Balance at September 30, 2016	337,978	3	\$17,783.4	\$3,458.6	\$ 22.9	\$21,264.9

See accompanying notes to unaudited consolidated financial statements.

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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 Shareholders' Equity
Balance at December 31, 2014	335,452	3	\$17,600.0	\$3,317.3	\$ 6.2	\$20,923.5
Net income				955.3		955.3
Other comprehensive income (loss)					(100.8)	(100.8)
Dividends on common stock of \$1.50 per share				(500.8)		(500.8)
Tax effect and gain related to purchase of non-controlling interests			9.3			9.3
Exercise of stock options	798		51.8			51.8
Excess tax benefits from option exercises and restricted stock vesting			6.7			6.7
Vesting of issued restricted Class A common stock	450		(16.8)			(16.8)
Shares issued to Board of Directors	26		2.4			2.4
Shares issued under Employee Stock Purchase Plan	10		1.0			1.0
Stock-based compensation			45.2			45.2
Balance at September 30, 2015	336,736	3	\$17,699.6	\$3,771.8	\$ (94.6)	\$21,376.8
See accompanying notes to unaudited consolidated financial statements.						

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

	Nine Months Ended September 30,	
	2016	2015
Cash Flows from Operating Activities		
Net income	\$1,160.7	\$955.3
Adjustments to reconcile net income to net cash provided by operating activities:		
Stock-based compensation	42.3	45.2
Amortization of purchased intangibles	72.0	74.8
Depreciation and amortization	95.5	97.5
Gain on sale of BM&FBOVESPA shares	(6.4)	(3.4)
Debt prepayment costs	—	61.8
Loss on datacenter	27.1	—
Undistributed earnings, net of losses, of unconsolidated subsidiaries	(29.3)	(15.2)
Deferred income taxes	(79.3)	49.8
Change in:		
Accounts receivable	(18.7)	(22.3)
Other current assets	(12.5)	12.4
Other assets	9.5	(18.4)
Accounts payable	5.7	1.3
Income taxes payable	21.3	(70.1)
Other current liabilities	(67.3)	(31.3)
Other liabilities	(14.3)	(0.5)
Other	(0.7)	4.3
Net Cash Provided by Operating Activities	1,205.6	1,141.2
Cash Flows from Investing Activities		
Proceeds from maturities of available-for-sale marketable securities	40.1	29.3
Purchases of available-for-sale marketable securities	(44.9)	(29.3)
Purchases of property, net	(62.9)	(90.3)
Investments in business ventures	(4.9)	(7.0)
Proceeds from sale of business venture	8.8	—
Proceeds from sale of BM&FBOVESPA shares	—	69.0
Settlement of derivative related to debt issuance	—	7.0
Net Cash Used in Investing Activities	(63.8)	(21.3)
Cash Flows from Financing Activities		
Proceeds from debt, net of issuance costs	—	743.7
Repayment of debt	—	(673.0)
Cash dividends	(1,584.3)	(1,174.9)
Proceeds from finance lease obligation	130.0	—
Proceeds from exercise of stock options	29.5	51.8
	10.0	6.7

Excess tax benefits related to employee option exercises and restricted stock vesting		
Settlement of contingent consideration	—	(7.0)
Other	0.9	1.0
Net Cash Used in Financing Activities	(1,413.9)	(1,051.7)
Net change in cash and cash equivalents	(272.1)	68.2
Cash and cash equivalents, beginning of period	1,692.6	1,366.1
Cash and Cash Equivalents, End of Period	\$1,420.5	\$1,434.3
Supplemental Disclosure of Cash Flow Information		
Income taxes paid	\$545.5	\$548.5
Interest paid	84.8	89.1
Non-cash investing activities:		
Accrued proceeds from sale of BM&FBOVESPA shares	20.8	—
See accompanying notes to unaudited consolidated financial statements.		

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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), CME Clearing Europe Limited (CMECE) and CME Europe Limited (CME Europe). CME, CBOT, NYMEX, COMEX, CMECE and CME Europe and their subsidiaries are referred to collectively as “the exchange” in the notes to the consolidated financial statements. The clearing houses include CME Clearing, which is the U.S. clearing house and a division of CME, and CMECE.

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 September 30, 2016 and December 31, 2015 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, 2015, filed with the Securities and Exchange Commission (SEC) on February 26, 2016.

2. Performance Bonds and Guaranty Fund Contributions

Performance Bonds and Guaranty Fund Contributions. At September 30, 2016, performance bonds and guaranty fund contribution assets on the consolidated balance sheets include cash as well as U.S. Treasury securities and U.S. government agency securities with maturity dates of 90 days or less. U.S. Treasury securities and U.S. government agency securities are purchased by CME, at its discretion, using cash collateral. The benefits, including interest earned, and risks of ownership accrue to CME. Interest earned is included in investment income on the consolidated statements of income. These securities are classified as available-for-sale. At September 30, 2016, the amortized cost and fair value of the U.S. Treasury securities were \$4,198.9 million and \$4,199.5 million, respectively. At September 30, 2016, the amortized cost and fair value of the U.S. government securities were both \$3,682.6 million. The U.S. Treasury securities and U.S. government agency securities will mature in the fourth quarter of 2016.

Performance bonds and guaranty fund contribution assets also include overnight reverse repurchase agreements that were purchased by CME, at its discretion, using cash collateral. The fair value of the overnight securities under the reverse repurchase agreements was \$1,052.7 million at September 30, 2016.

CME has been designated as a systemically important financial market utility by the Financial Stability Oversight Council and is authorized to establish and maintain a cash account at the Federal Reserve Bank of Chicago. CME has received approval to establish this account at the Federal Reserve Bank of Chicago for clearing members' proprietary cash balances and is currently operationalizing the account, including testing.

Clearing House Contract Settlement. CME Clearing and CMECE mark-to-market open positions for all futures and options contracts twice a day (once a day for CME's cleared-only credit default swap and interest rate swap contracts). Based on values derived from the mark-to-market process, CME Clearing and CMECE require payments from clearing firms whose positions have lost value and make 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 credit default and interest rate swap contracts would be one half day of changes in fair value of all open positions, before considering the clearing houses' ability to access defaulting clearing firms' collateral deposits. For CME's cleared-only credit default swap and interest rate swap contracts, the maximum exposure related to CME Clearing's guarantee would be one full day of changes in fair value of all open positions, before considering CME Clearing's ability to access defaulting clearing firms' collateral. During the first nine months of 2016, CME Clearing and CMECE transferred an average of approximately \$3.3 billion a day through their clearing systems for settlement from clearing firms whose positions had lost value to clearing firms whose positions had gained value. CME Clearing and CMECE reduce their guarantee exposure through initial and maintenance performance bond requirements and mandatory guaranty fund contributions. The company believes that its guarantee liability is immaterial and therefore has not recorded any liability at September 30, 2016.

3. Property

In March 2016, the company sold its datacenter in the Chicago area for \$130.0 million. At the time of 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 under generally accepted accounting principles due to the company's participation in future revenues and development work, which constitutes continuing involvement in the datacenter. Under the financing method, the assets remain on the consolidated balance sheet throughout the term of the lease and the proceeds of \$130.0 million from the

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transaction are recognized as a finance lease obligation within other liabilities and other current liabilities in the consolidated balance sheet. A portion of the lease payments will be recognized as a reduction of the finance lease obligation and a portion will be recognized as interest expense based on an imputed interest rate. The net cost basis of the property and equipment legally sold was \$153.1 million at the date of the sale. At March 31, 2016, the company wrote down the property and equipment to a fair value of \$130.0 million based on qualitative indications of impairment and a quantitative analysis based on undiscounted cash flows. The company recognized a net loss on the transaction of \$27.1 million through other expenses, which includes the write down to fair value and certain other transaction-related costs. The company recognized a total net loss and expenses of \$28.6 million, which also includes \$1.5 million of legal and other fees incurred. The property and equipment legally sold will continue to be recognized on the consolidated balance sheets and will continue to be depreciated on the consolidated statements of income over the term of the lease.

The lease has an initial lease term ending in March 2031 and contains two consecutive renewal options for five years. Future minimum lease payments under this non-cancellable lease will be payable as follows as of September 30, 2016 (in millions):

Year	
Remainder of 2016	\$4.2
2017	16.7
2018	16.8
2019	16.8
2020	16.9
Thereafter	180.5
Total	\$251.9

4. Intangible Assets

Intangible assets consisted of the following at September 30, 2016 and December 31, 2015:

(in millions)	September 30, 2016			December 31, 2015		
	Assigned Value	Accumulated Amortization	Net Book Value	Assigned Value	Accumulated Amortization	Net Book Value
Amortizable Intangible Assets:						
Clearing firm, market data and other customer relationships	\$2,838.8	\$(825.5)	\$2,013.3	\$2,838.8	\$(754.5)	\$2,084.3
Technology-related intellectual property	29.4	(28.2)	1.2	29.4	(27.2)	2.2
Other	2.4	(1.0)	1.4	2.4	(1.0)	1.4
Total amortizable intangible assets	\$2,870.6	\$(854.7)	\$2,015.9	\$2,870.6	\$(782.7)	\$2,087.9

Indefinite-Lived

Intangible Assets:

Trade names	450.0	450.0
Total intangible assets – other, net	\$2,465.9	\$2,537.9
Trading products ⁽¹⁾	\$17,175.3	\$17,175.3

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 (1) 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.

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Total amortization expense for intangible assets was \$24.0 million and \$24.9 million for the quarters ended September 30, 2016 and 2015, respectively. Total amortization expense for intangible assets was \$72.0 million and \$74.8 million for the nine months ended September 30, 2016 and 2015, respectively. As of September 30, 2016, the future estimated amortization expense related to amortizable intangible assets is expected to be as follows:

(in millions)	Amortization Expense
Remainder of 2016	\$ 24.0
2017	95.5
2018	94.7
2019	94.7
2020	94.7
2021	94.7
Thereafter	1,517.6

5. Long-Term Investments

In September 2016, the company sold approximately 4.0 million shares of BM&FBOVESPA S.A. (BM&FBOVESPA) and recognized a net gain of \$6.4 million within investment income on the consolidated statements of income. As of September 30, 2016, the company owned an approximate 4% interest in BM&FBOVESPA. At September 30, 2016, the fair value and cost basis of the remaining investment in BM&FBOVESPA was \$351.1 million and \$243.9 million, respectively.

6. Debt

In the first quarter of 2016, the company adopted the Financial Accounting Standards Board's (FASB) standards update on changes to the presentation of debt issuance costs. The update requires debt issuance costs related to a recognized debt liability to be presented as a deduction from the carrying value of the debt liability. Previously, debt issuance costs were recognized as deferred charges within other assets in the consolidated balance sheets. The standards update was applied on a retrospective basis, adjusting all prior periods presented, as if the new accounting methodology was in effect during those periods. At December 31, 2015, \$12.1 million of debt issuance costs were reclassified in the consolidated balance sheet from other assets to long-term debt compared with what was previously reported. At September 30, 2016, \$11.4 million of debt issuance costs were deducted from long-term debt. The change in accounting policy has been reflected in the table below.

Long-term debt consisted of the following at September 30, 2016 and December 31, 2015:

(in millions)	September 30, 2016	December 31, 2015
\$750.0 million fixed rate notes due September 2022, stated rate of 3.00% ⁽¹⁾	\$ 745.0	\$ 744.4
\$750.0 million fixed rate notes due March 2025, stated rate of 3.00% ⁽²⁾	744.0	743.4
\$750.0 million fixed rate notes due September 2043, stated rate of 5.30% ⁽³⁾	741.7	741.5
Total long-term debt	\$ 2,230.7	\$ 2,229.3
(1)		

In August 2012, the company entered into 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) In December 2014, the company entered into 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) In August 2012, the company entered into 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%.

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Long-term debt maturities, at par value, were as follows at September 30, 2016:

(in millions)	Par Value
2017	\$ —
2018	—
2019	—
2020	—
2021	—
Thereafter	2,250.0

7. Income Taxes

In the first quarter of 2016, the company adopted the FASB's standards update that simplifies the classification of deferred tax assets and liabilities. The update eliminates the current requirement to present deferred tax assets and liabilities as current and non-current in a classified balance sheet. Instead, all deferred tax assets, along with valuation allowances, and deferred tax liabilities are required to be classified as non-current. Companies are still required to offset deferred tax assets and liabilities for each taxpaying component within a tax jurisdiction. Beginning in the first quarter of 2016, the company adopted this standards update on a prospective basis and classified all deferred tax assets and liabilities as non-current. Prior period deferred tax assets and liabilities were not retrospectively adjusted. A net current deferred tax asset of \$27.9 million was included in other current assets at December 31, 2015. During the first quarter of 2016, net current deferred tax assets of \$27.9 million were reclassified to net long-term liabilities. Total net current deferred tax assets are primarily attributable to stock-based compensation and accrued expenses.

Net long-term deferred tax liabilities were \$7.3 billion and \$7.4 billion at September 30, 2016 and December 31, 2015. Net deferred tax liabilities are principally the result of purchase accounting for intangible assets in our various mergers, including CBOT Holdings, Inc. and NYMEX Holdings, Inc.

Valuation allowances of \$15.3 million and \$122.3 million have been provided on deferred tax assets at September 30, 2016 and December 31, 2015, respectively. At September 30, 2016 and December 31, 2015, valuation allowances were related to certain domestic net operating losses, foreign net operating losses as well as built in capital losses for which we do not believe that we currently meet the more-likely-than-not-threshold for recognition. At September 30, 2016, the company released \$106.3 million of valuation allowance on deferred tax assets relating to built-in losses on its investment in BM&FBOVESPA due to the implementation of a tax strategy to realize additional ordinary income tax losses on recent share sales and the remaining investment in BM&FBOVESPA.

8. Contingencies

Legal and Regulatory Matters. In 2013, the CFTC filed suit against NYMEX and two former employees alleging disclosure of confidential customer information in violation of the Commodity Exchange Act. NYMEX's motion to dismiss was denied in 2014. Based on its investigation to date and advice from legal counsel, the company believes that it has strong factual and legal defenses to the claim.

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.

At December 31, 2015, the company had accrued \$3.5 million for legal and regulatory matters that were probable and estimable. No accrual was required for legal and regulatory matters that were probable and estimable as of September 30, 2016.

Intellectual Property Indemnifications. Certain agreements with customers and other third parties related to accessing the CME 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.

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9. Guarantees

Mutual Offset Agreement. CME and Singapore Exchange Limited (SGX) have a mutual offset agreement with a current term through October 2017. 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 unless either party provides advance notice of their intent to terminate. CME must maintain U.S. Treasury securities or irrevocable, standby letters of credit as collateral for this agreement. At September 30, 2016, CME was contingently liable to SGX on letters of credit totaling \$760.0 million. 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. The company believes that its guarantee liability is immaterial and therefore has not recorded any liability at September 30, 2016.

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 immaterial and therefore has not recorded any liability at September 30, 2016.

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):

(in millions)	Investment Securities	Defined Benefit Plans	Derivative Investments	Foreign Currency Translation	Total
Balance at December 31, 2015	\$ (95.0)	\$ (36.6)	\$ 59.6	\$ (8.8)	\$ (80.8)
Other comprehensive income (loss) before reclassifications and income tax benefit (expense)	177.7	3.1	—	(5.6)	175.2
Amounts reclassified from accumulated other comprehensive income (loss)	(6.3)	2.4	(0.9)	—	(4.8)
Income tax benefit (expense)	(65.9)	(2.1)	0.3	1.0	(66.7)
Net current period other comprehensive income (loss)	105.5	3.4	(0.6)	(4.6)	103.7
Balance at September 30, 2016	\$ 10.5	\$ (33.2)	\$ 59.0	\$ (13.4)	\$ 22.9

(in millions)	Investment Securities	Defined Benefit Plans	Derivative Investments	Foreign Currency Translation	Total
Balance at December 31, 2014	\$ (22.9)	\$ (31.3)	\$ 62.6	\$ (2.2)	\$ 6.2
Other comprehensive income (loss) before reclassifications and income tax benefit (expense)	(91.0)	(0.3)	(4.7)	(10.0)	(106.0)
Amounts reclassified from accumulated other comprehensive income (loss)	(3.4)	2.0	0.9	—	(0.5)
Income tax benefit (expense)	1.2	(0.6)	1.5	3.6	5.7
Net current period other comprehensive income (loss)	(93.2)	1.1	(2.3)	(6.4)	(100.8)
Balance at September 30, 2015	\$ (116.1)	\$ (30.2)	\$ 60.3	\$ (8.6)	\$ (94.6)

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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.

Level 1 assets generally include U.S. Treasury securities, U.S. government agency securities, 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 and equity investments. If quoted prices are not available to determine fair value, the company uses other inputs that are directly observable. Assets included in level 2 generally consist of asset-backed securities. 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.

Financial assets recorded in the consolidated balance sheet as of September 30, 2016 were classified in their entirety based on the lowest level of input that was significant to each asset's fair value measurement. There were no liabilities that were measured at fair value as of September 30, 2016. The following tables present financial instruments measured at fair value on a recurring basis:

	September 30, 2016			
(in millions)	Level 1	Level 2	Level 3	Total
Assets at Fair Value:				
Marketable securities:				
Corporate debt securities	\$22.0	\$ —	\$ —	\$22.0
Mutual funds	60.9	—	—	60.9
Equity securities	0.1	—	—	0.1
Asset-backed securities	—	0.3	—	0.3
Total Marketable Securities	83.0	0.3	—	83.3
Performance bonds and guaranty fund contributions ⁽¹⁾ :				
U.S. Treasury securities	4,199.5	—	—	4,199.5
U.S. government agencies securities	3,682.6	—	—	3,682.6
Equity investments	369.7	—	—	369.7
Total Assets at Fair Value	\$8,334.8	\$ 0.3	\$ —	\$8,335.1

(1) Performance bonds and guaranty fund contributions on the consolidated balance sheet at September 30, 2016 include U.S. Treasury securities and U.S. government agency securities purchased with cash collateral.

There were no transfers of assets or liabilities between level 1, level 2 and level 3 during the first nine months of 2016. There were no level 3 assets valued at fair value on a recurring basis during the first nine months of 2016. The following is a reconciliation of level 3 liabilities valued at fair value on a recurring basis during the first nine months of 2016.

(in millions)	Contingent Consideration
Fair value of liability at December 31, 2015	\$ 0.3
Realized and unrealized (gains) losses:	
Included in other expenses	(0.3)
Fair value of liability at September 30, 2016	\$ —

In the first quarter of 2016, the company sold a datacenter and leased back a portion of the property. Under generally accepted accounting principles, the transaction has been recognized under the financing method instead of recognized as a sale-leaseback arrangement. As a result, the property and equipment legally sold will continue to be recognized on the consolidated balance sheets and was written down to a fair value of \$130.0 million at March 31, 2016. In the second and third quarters of 2016, the

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company also recorded impairment charges totaling \$5.5 million on one of its strategic investments. The fair value of the investment was estimated to be zero at September 30, 2016. Both assessments were based on qualitative indications of impairment and a quantitative analysis of undiscounted cash flows. The fair values of the datacenter and strategic investment are considered level 3 and nonrecurring. There were no other level 3 assets or liabilities valued at fair value on a nonrecurring basis during the first nine months of 2016.

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, which are classified as level 2 under the fair value hierarchy, were estimated using quoted market prices. At September 30, 2016, the fair values were as follows:

(in millions)	Fair Value
\$750.0 million fixed rate notes due September 2022, stated rate of 3.00%	\$ 798.8
\$750.0 million fixed rate notes due March 2025, stated rate of 3.00%	789.8
\$750.0 million fixed rates notes due September 2043, stated rate of 5.30%	971.5

12. Earnings Per Share

Basic earnings per share is computed by dividing net income attributable to the company 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 options, restricted stock and performance share awards were as follows for the periods presented:

	Quarter Ended September 30,		Nine Months Ended September 30,	
(in thousands)	2016	2015	2016	2015
Stock options	311	432	315	432
Restricted stock and performance shares	530	—	530	538
Total	841	432	845	970

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

	Quarter Ended September 30,		Nine Months Ended September 30,	
	2016	2015	2016	2015
Net Income (in millions)	\$472.8	\$359.9	\$1,160.7	\$955.3
Weighted Average Number of Common Shares (in thousands):				
Basic	337,592	336,323	337,299	336,015
Effect of stock options, restricted stock and performance shares	1,551	1,816	1,535	1,789
Diluted	339,143	338,139	338,834	337,804
Earnings per Common Share:				
Basic	\$1.40	\$1.07	\$3.44	\$2.84

Diluted	1.39	1.06	3.43	2.83
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13. Subsequent Events

The company has evaluated subsequent events through the date the financial statements were issued and has determined that there are no subsequent events that require disclosure, except the following:

In October 2016, the company sold approximately 24.0 million shares of BM&FBOVESPA and recognized a net gain of approximately \$42.0 million within investment income on the consolidated statements of income during the fourth quarter. Following the sale, the company owned an approximate 2% interest in BM&FBOVESPA.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL
ITEM 2. 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, 2015.

References in this discussion and analysis to "we," "us" and "our" are to CME Group Inc. (CME Group) and its consolidated subsidiaries, collectively. References to "exchange" are to 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), CME Clearing Europe Limited (CMECE) and CME Europe Limited (CME Europe), collectively, unless otherwise noted. The clearing houses include CME Clearing, which is the U.S. clearing house and a division of CME, and CMECE.

RESULTS OF OPERATIONS**Financial Highlights**

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

	Quarter Ended September 30,			Nine Months Ended September 30,		
(dollars in millions, except per share data)	2016	2015	Change	2016	2015	Change
Total revenues	\$841.7	\$850.3	(1)%	\$2,682.3	\$2,513.0	7 %
Total expenses	316.4	333.9	(5)	1,019.8	994.2	3
Operating margin	62.4 %	60.7 %		62.0 %	60.4 %	%
Non-operating income (expense)	\$23.5	\$—	n.m.	\$30.9	\$(30.5)	n.m.
Effective tax rate	13.8 %	30.3 %		31.5 %	35.8 %	%
Net income	\$472.8	\$359.9	31	\$1,160.7	\$955.3	21
Diluted earnings per common share	1.39	1.06	31	3.43	2.83	21
Cash flows from operating activities				1,205.6	1,141.2	6
n.m. not meaningful						
Revenues						

	Quarter Ended September 30,			Nine Months Ended September 30,		
(dollars in millions)	2016	2015	Change	2016	2015	Change
Clearing and transaction fees	\$704.2	\$715.0	(2)%	\$2,267.9	\$2,105.0	8 %
Market data and information services	101.1	99.5	2	306.4	300.3	2
Access and communication fees	23.8	21.6	10	67.7	64.4	5
Other	12.6	14.2	(11)	40.3	43.3	(7)
Total Revenues	\$841.7	\$850.3	(1)	\$2,682.3	\$2,513.0	7

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 houses 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 interest rate swaps and credit default swaps. The interest rate swaps and credit default swaps are discussed in a later section.

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	Quarter Ended September 30,			Nine Months Ended September 30,		
	2016	2015	Change	2016	2015	Change
Total contract volume (in millions)	916.4	920.6	— %	2,915.2	2,689.1	8 %
Clearing and transaction fees (in millions)	\$687.2	\$698.7	(2)	\$2,222.9	\$2,051.2	8
Average rate per contract	\$0.750	\$0.759	(1)	\$0.763	\$0.763	—
We estimate the following increases (decreases) in clearing and transaction fees based on changes in total contract volumes and changes in average rate per contract for futures and options during the third quarter and first nine months of 2016 when compared with the same periods in 2015.						

(in millions)	Quarter Ended	Nine Months Ended
Increases (decreases) due to changes in total contract volume	\$(3.1)	\$172.4
Decreases due to changes in average rate per contract	(8.4)	(0.7)
Increases (decreases) in clearing and transaction fees	\$(11.5)	\$171.7
Average rate per contract is impacted by our rate structure, including volume-based incentives; product mix; trading venue, and the percentage of volume executed by customers who are members compared with non-member customers. Due to the relationship between average rate per contract and contract volume, the change in clearing and transaction fees attributable to changes in each is only an approximation.		

Contract Volume

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

	Quarter Ended September 30,			Nine Months Ended September 30,		
(amounts in thousands)	2016	2015	Change	2016	2015	Change
Average Daily Volume by Product Line:						
Interest rate	6,791	6,658	2 %	7,255	6,930	5 %
Equity	2,876	3,287	(12)	3,123	2,808	11
Foreign exchange	771	855	(10)	850	903	(6)
Agricultural commodity	1,156	1,266	(9)	1,364	1,287	6
Energy	2,294	1,965	17	2,381	1,949	22
Metal	431	353	22	451	351	29
Aggregate average daily volume	14,319	14,384	—	15,424	14,228	8
Average Daily Volume by Venue:						
Electronic	12,672	12,620	—	13,562	12,444	9
Open outcry	982	1,111	(12)	1,156	1,168	(1)
Privately negotiated	665	653	2	706	616	15
	14,319	14,384	—	15,424	14,228	8

Aggregate average daily
volume

Electronic Volume as a

Percentage of Total	88	%	88	%	88	%	87	%
Volume								

Overall contract volumes remained high in the first half of 2016 but tapered slightly in the third quarter of 2016 as overall market volatility declined slightly compared with previous quarters. We believe global market concerns, considerable uncertainty regarding the Federal Reserve's interest rate policy and the anticipation of the United Kingdom European Union membership referendum contributed to considerable volatility throughout early 2016, which generated overall volume growth in the first nine months of 2016. However, market volatility tapered slightly in the third quarter of 2016 from higher levels in early 2016 as uncertainty and global market concerns subsided.

Crude oil volumes continued to grow throughout the first nine months of 2016 as crude oil market volatility remained high throughout the year. The crude oil markets continued to show considerable uncertainty regarding the direction of future oil prices as global supplies continue to remain high.

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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.

	Quarter Ended September 30,			Nine Months Ended September 30,		
(amounts in thousands)	2016	2015	Change	2016	2015	Change
Eurodollar futures and options:						
Front 8 futures	1,665	1,544	8 %	1,773	1,640	8 %
Back 32 futures	620	692	(10)	647	760	(15)
Options	1,052	959	10	1,200	926	30
U.S. Treasury futures and options:						
10-Year	1,539	1,548	(1)	1,664	1,701	(2)
5-Year	808	829	(3)	862	846	2
Treasury bond	326	362	(10)	342	377	(9)
2-Year	316	346	(9)	324	358	(10)

In the third quarter and first nine months of 2016 when compared with the same periods in 2015, overall interest rate contract volumes increased slightly due to growth in short-term interest rate contracts, including the Eurodollar Front 8 futures and Eurodollar options. We believe this resulted from volatility from the continued uncertainty around changes to the Federal Reserve's interest rate policy in the near-term. Longer-term interest rate contract volumes, including the Back 32 futures and the U.S. Treasury products, declined as participants became more focused on short-term interest rate uncertainty. In addition, electronic Eurodollar options volumes increased in the third quarter and first nine months of 2016 due to our continued investment in system enhancements and client education.

Equity Products

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

	Quarter Ended September 30,			Nine Months Ended September 30,		
(amounts in thousands)	2016	2015	Change	2016	2015	Change
E-mini S&P 500 futures and options	2,347	2,593	(9)%	2,492	2,208	13 %
E-mini NASDAQ 100 futures and options	236	315	(25)	281	274	3

Overall equity contract volume decreased in the third quarter of 2016 when compared with the same period in 2015 due to overall lower market volatility, as measured by the CBOE Volatility Index. Equity price volatility declined in the third quarter compared with previous quarters as interest rate uncertainty and global market concerns subsided. In the third quarter of 2015, we believe the deceleration of the Chinese economy resulted in periods of high volatility within equity markets, which also contributed to a decrease in volume in the third quarter of 2016 when

compared with the same period in 2015. Contract volume increased in the first nine months of 2016 when compared with the same period of 2015 due to periods of higher market volatility throughout early 2016, which we believe were due to continued concern surrounding the Federal Reserve's interest rate policy, uncertainty surrounding the United Kingdom European Union membership referendum and declining global crude oil prices.

Foreign Exchange Products

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

	Quarter Ended September 30,			Nine Months Ended September 30,		
(amounts in thousands)	2016	2015	Change	2016	2015	Change
Euro	184	279	(34)%	225	319	(29)%
Japanese yen	140	162	(14)	159	159	—
British pound	114	101	13	122	112	9
Australian dollar	103	101	1	109	103	6
Canadian dollar	76	79	(4)	82	76	7

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In the third quarter and first nine months of 2016 when compared with the same periods in 2015, overall foreign exchange contract volumes decreased largely due to declines in Euro contract volumes resulting from low volatility. We believe the lower volatility throughout 2016 resulted from a lack of global macroeconomic drivers affecting the Euro. Euro contract volumes were high throughout 2015 due to volatility caused by quantitative easing programs initiated by central banks throughout Europe in early 2015. Japanese yen contract volume decreased in the third quarter of 2016 due to uncertainty within the Japanese markets, which led market participants to seek safe haven currency alternatives.

Agricultural Commodity Products

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

	Quarter Ended September 30,			Nine Months Ended September 30,		
(amounts in thousands)	2016	2015	Change	2016	2015	Change
Corn	374	448	(16)%	452	436	4 %
Soybean	253	266	(5)	333	283	18
Wheat	173	174	—	196	190	3

In the third quarter of 2016 when compared with the same period in 2015, overall agricultural commodity contract volume decreased due to lower price volatility, which we believe resulted from improved weather conditions. Contract volume increased in the first nine months of 2016 when compared with the same period in 2015 due to higher price volatility in the first half of 2016, which we believe was caused by greater uncertainty related to weather conditions and crop production for the 2016 growing season.

Energy Products

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

	Quarter Ended September 30,			Nine Months Ended September 30,		
(amounts in thousands)	2016	2015	Change	2016	2015	Change
WTI crude oil	1,248	1,001	25 %	1,290	1,000	29 %
Natural gas	509	414	23	521	450	16
Refined products	365	323	13	369	327	13
Brent crude oil	81	110	(27)	96	112	(14)

Overall energy contract volumes increased in the third quarter and first nine months of 2016 when compared with the same periods in 2015 largely due to increases in WTI crude oil trading, which we believe resulted from continued price volatility caused by excess global crude oil supplies. In 2016, the overall market shifted more focus on WTI crude oil instead of Brent crude oil because of the marketplace's increased weighting of WTI pricing as a global benchmark price for crude oil. Additionally, natural gas and refined products contract volumes increased largely due to higher price volatility caused by shifts in supply and demand in the

underlying markets.

Metal Products

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

	Quarter Ended September 30,			Nine Months Ended September 30,		
(amounts in thousands)	2016	2015	Change	2016	2015	Change
Gold	255	205	24 %	270	202	34 %
Copper	73	68	7	80	68	17
Silver	80	57	40	78	60	31

We believe the increases in metal contract volumes in the third quarter and first nine months of 2016 when compared with the same periods in 2015 were due to investors using gold and other precious metals as a safe haven investment alternative to the volatile equity markets in early 2016.

Average Rate per Contract

In the third quarter and first nine months of 2016 compared with the same periods in 2015, the average rate per contract remained relatively flat. The impacts from a rate increase in early 2016 were offset by higher volume-based incentives and discounts on our contracts as well as increases in trades executed by members, as a percentage of total trading volume.

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Cleared-only Swap Contracts

Clearing and transaction fees as presented on the consolidated statements of income include revenues for our cleared-only interest rate swap and credit default swap contracts. In the third quarter of 2016 and 2015, clearing and transaction fees generated from these contracts were \$17.0 million and \$16.3 million, respectively. In the first nine months of 2016 and 2015, clearing and transaction fees generated from these contracts were \$45.0 million and \$53.8 million, respectively. The decrease in revenues in the first nine months of 2016 when compared with the same period in 2015 was largely attributable to a reduction in client activity after the first quarter of 2015, as we believe some customers chose alternative products and venues to manage risk.

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 firm represented 13% and one firm represented 10% of our clearing and transaction fees in the first nine months of 2016. 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

Beginning in 2016, the partial fee waivers that existed in 2015 ended, which contributed to an increase in market data and information services revenue in the first nine months of 2016 when compared with the same period in 2015. The increase was partially offset by some rationalization as customer firms transitioned into full-priced offerings, as well as reductions in overall screen counts at member banks.

The two largest resellers of our market data represented approximately 40% of our market data and information services revenue in the first nine months of 2016. 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.

Expenses

	Quarter Ended September 30,			Nine Months Ended September 30,		
(dollars in millions)	2016	2015	Change	2016	2015	Change
Compensation and benefits	\$130.6	\$136.4	(4)%	\$394.2	\$419.2	(6)%
Communications	6.9	7.1	(2)	19.9	21.3	(6)
Technology support services	17.3	15.4	12	52.4	47.1	11
Professional fees and outside services	33.5	33.8	(1)	104.2	90.6	15
Amortization of purchased intangibles	24.0	24.9	(4)	72.0	74.8	(4)
Depreciation and amortization	31.2	32.4	(4)	95.5	97.5	(2)

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Occupancy and building operations	19.6	23.1	(15)	65.3	69.4	(6)
Licensing and other fee agreements	31.5	33.1	(5)	103.3	92.5	12
Other	21.8	27.7	(21)	113.0	81.8	38
Total Expenses	\$316.4	\$333.9	(5)	\$1,019.8	\$994.2	3

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Operating expenses decreased by \$17.5 million in the third quarter of 2016 and increased by \$25.6 million in the first nine months of 2016 when compared with the same periods in 2015. The following table shows the estimated impacts of key factors resulting in the changes in operating expenses:

(dollars in millions)	Quarter Ended, September 30, 2016			Nine Months Ended, September 30, 2016		
	Amount	Change as a Percentage of Total Expense	of Change	Amount	Change as a Percentage of Total Expenses	of Change
Loss on datacenter and related legal fees	\$—	—	%	\$28.6	3	%
Professional fees and outside services	3.4	1		16.5	2	
Licensing and other fee agreements	(1.6)	) —		10.8	1	
Foreign currency exchange rate fluctuation	(6.2)	) (2)	)	10.4	1	
Non-qualified deferred compensation plan	7.0	2		5.4	—	
Rent expense	(3.4)	) (1)	)	(4.3)) —	
Bonus expense	(3.8)	) (1)	)	(4.4)) —	
Real estate taxes and fees	—	—		(10.0)	) (1))
Reorganization costs	(13.6)	) (4)	)	(19.8)	) (2))
Other expenses, net	0.7	—		(7.6)	) (1))
Total increase	\$(17.5)	(5)	)%	\$25.6	3	%

Increases in operating expenses in the third quarter and first nine months of 2016 when compared with the same periods in 2015 were as follows:

In the first quarter of 2016, we sold and leased back our datacenter in the Chicago area. The transaction was recognized under the financing method under generally accepted accounting principles. We recognized total losses and expenses of \$28.6 million, including a net loss on write-down to fair value of the assets and certain other transaction fees of \$27.1 million within other expenses and \$1.5 million of legal and other fees.

Professional fees and outside services expense increased in the first nine months of 2016 largely due to an increase in legal efforts related to our business activities and product offerings as well as an increase in professional fees related to a greater reliance on consultants for security and systems enhancement work.

The increase in licensing and other fee sharing agreements expense in the first nine months of 2016 resulted from higher expense related to revenue sharing agreements for certain equity and energy contracts due to both higher volume and an increase in the license rates for certain equity and energy products.

In the first nine months of 2016, we recognized a net loss of \$16.5 million due to an unfavorable change in exchange rates on foreign cash balances, compared with a net loss of \$6.1 million in the first nine months of 2015. In the third quarter of 2016, we recognized a net loss of \$1.0 million due to an unfavorable change in exchange rates on foreign cash balances, compared with a net loss of \$7.2 million in the third quarter of 2015. Gains and losses from exchange rate fluctuations result when subsidiaries with a U.S. dollar functional currency hold cash as well as certain other monetary assets and liabilities denominated in foreign currencies.

Increases in our non-qualified deferred compensation liability, the impact of which does not affect net income because of an equal and offsetting change in investment

income, contributed to increases in operating expenses.

Decreases in operating expenses in the third quarter and first nine months of 2016 when compared with the same periods in 2015 were as follows:

Rent expense decreased largely due to a reduction in office and data center space during 2016.

Bonus expense decreased due to performance relative to our 2016 cash earnings target when compared with 2015 performance relative to our 2015 cash earnings target.

In the second quarter of 2015, we recognized additional real estate taxes and fees related to the transfer of the ownership of the NYMEX building.

Severance and other costs related to the reorganization announced in October 2014 and the reduction of our trading floors in mid-2015 were recognized in the first quarter of 2015, in addition to a reorganization in the third quarter of 2015. These factors resulted in decreases in compensation and benefits expenses in the third quarter and first nine months of 2016 when compared with the same periods in 2015.

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Non-Operating Income (Expense)

	Quarter Ended September 30,			Nine Months Ended September 30,		
(dollars in millions)	2016	2015	Change	2016	2015	Change
Investment income	\$36.5	\$2.5	n.m.	\$71.3	\$26.7	167 %
Gains (losses) on derivative investments	—	—	—	—	(1.8)	n.m.
Interest and other borrowing costs	(31.1)	(28.3)	10	(91.9)	(88.5)	4
Equity in net earnings (losses) of unconsolidated subsidiaries	28.6	26.6	8	82.4	75.1	10
Other non-operating income (expense)	(10.5)	(0.8)	n.m.	(30.9)	(42.0)	(26)
Total Non-Operating	\$23.5	\$—	n.m.	\$30.9	\$(30.5)	n.m.
n.m. not meaningful						

Investment income increased in the third quarter of 2016 and first nine months of 2016 when compared with the same periods in 2015. Investment income increased largely due to increases in the rate of interest earned from cash performance bond and guaranty fund contributions that are reinvested. Additionally, we recognized higher net gains (losses) on investments, including gains on sales of shares of BM&FBOVESPA S.A. (BM&FBOVESPA) and net gains (losses) on other business ventures, in the third quarter and first nine months of 2016 compared with the same periods in 2015. The increases in investment income were also attributable to increases in net gains on marketable securities related to our non-qualified deferred compensation plan. Gains and losses from securities in the non-qualified deferred compensation plan are offset by an equal amount of compensation and benefits expense. The increases in investment income were partially offset by decreases in dividend income.

The overall increases in interest and other borrowing costs in the third quarter and first nine months of 2016 when compared with the same periods in 2015 were due to increases in commitment fees on line of credit agreements and additional interest expense related to our finance lease obligation related to one of our datacenters. In the first nine months of 2016 when compared with the same period in 2015, the increase in interest and borrowing costs was offset by a decrease in interest and borrowing costs on our outstanding borrowings as follows:

	Quarter Ended September 30,			Nine Months Ended September 30,		
	2016	2015	Change	2016	2015	Change
Weighted average borrowings outstanding (in millions)	\$2,250.0	\$2,250.0	\$ —	\$2,250.0	\$2,283.4	\$(33.4)
Weighted average effective yield	3.71	% 3.71	% — %	3.71	% 3.83	% (0.12)%
Average cost of borrowings ⁽¹⁾	3.91	3.86	0.05	3.91	4.05	(0.14)

Average cost of borrowings includes interest, the effective portion of interest rate (1)hedges, discount accretion and debt issuance costs. Commitment fees on line of credit agreements are not included in the average cost of borrowings.

In March 2015, we issued \$750.0 million 3.0% notes due March 2025. In April 2015, we repurchased the \$612.5 million 4.40% notes due March 2018. These transactions decreased weighted average borrowings outstanding, weighted average effective yield and average cost of borrowings for the first nine months of 2016 when compared with the same period in 2015.

Higher income generated from our S&P/Dow Jones Indices LLC business venture contributed to increases in equity in net earnings (losses) of unconsolidated subsidiaries in the third quarter and first nine months of 2016 when compared with the same periods in 2015.

In April 2015, we repurchased the \$612.5 million fixed rate notes due 2018 and paid a call premium of \$60.5 million. As a result of the transaction, we recognized debt prepayment costs of \$61.8 million in the second quarter of 2015, which included the call premium and was included in other non-operating income (expense). In the first quarter of 2015, we received a termination fee of \$22.5 million, net of the portion paid to outside advisers, related to our proposed acquisition of GFI Group Inc. (GFI Group), which was classified as income within other non-operating income (expense). In the third quarter and first nine months of 2016 when compared with the same periods in 2015, we recognized higher expenses related to the distribution of interest earned on performance bond collateral reinvestment to the clearing firms. This expense is included in other non-operating income (expense).

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Income Tax Provision

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

	2016	2015
Quarter ended September 30	13.8 %	30.3 %
Nine months ended September 30	31.5 %	35.8 %

The overall decreases in the effective tax rates in the third quarter and first nine months of 2016 when compared with the same periods in 2015 were due to implementation of strategies to realize additional income tax benefits from the investment in BM&FBOVESPA stock. In the third quarter of 2016, we also recognized a benefit related to the remeasurement of deferred tax liabilities resulting from our 2015 state income tax filings. The overall decrease in the effective tax rate in the first nine months of 2016 was partially offset by additional tax expense recognized from the remeasurement of tax positions resulting from a state and local income tax law change in the second quarter of 2016.

Liquidity and Capital Resources

Sources and Uses of Cash. Net cash provided by operating activities increased in the first nine months of 2016 when compared with the same period of 2015. The increase in net cash provided by operating activities was largely attributable to higher clearing and transaction fees resulting from an increase in volume. Net cash used in investing activities increased in the first nine months of 2016 when compared with the same period of 2015 due to lower proceeds received from our sales of BM&FBOVESPA shares in the first nine months of 2016 when compared with the same period in 2015. This increase was partially offset by a decrease in purchases of property and equipment in the first nine months of 2016 when compared with the same period in 2015. Cash used in financing activities was higher in the first nine months of 2016 when compared with the same period in 2015. The increase was attributable to higher cash dividends paid in the first nine months of 2016 when compared with the same period in 2015. The increase was partially offset by proceeds from a finance lease obligation related to the sale-leaseback of the datacenter in the first quarter of 2016.

Debt Instruments. The following table summarizes our debt outstanding at September 30, 2016:

(in millions)	Par Value
Fixed rate notes due September 2022, stated rate of 3.00% ⁽¹⁾	\$ 750.0
Fixed rate notes due March 2025, stated rate of 3.00% ⁽²⁾	750.0
Fixed rate notes due September 2043, stated rate of 5.30% ⁽³⁾	750.0

In August 2012, we entered into a forward-starting interest rate swap agreement (1) that modified the interest obligation associated with these notes so that the interest payable effectively became fixed at a rate of 3.32%.

In December 2014, we entered into a forward-starting interest rate swap (2) agreement that modified the interest obligation associated with these notes so that the interest payable effectively became fixed at a rate of 3.11%.

In August 2012, we entered into a forward starting interest rate swap agreement (3) that modified the interest obligation associated with these notes so that the interest payable effectively became fixed at a rate of 4.73%.

We maintain a \$2.3 billion multi-currency revolving senior credit facility with various financial institutions, which matures in March 2020. The proceeds from this facility can be used for general corporate purposes, which includes providing liquidity for our clearing houses 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 December 31, 2014, 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. In March 2016, we sold our datacenter in the Chicago area for \$130.0 million. At the time of the sale, we leased back a portion of the property. Under generally accepted accounting principles, the transaction has been accounted for under the financing method instead of a sale-leaseback arrangement because our participation in future revenues and development work constitute continuing involvement in the datacenter. Under the financing method, the assets remain on the consolidated balance sheet throughout the term of the lease and the proceeds of \$130.0 million from the transaction are recognized as a finance lease obligation within other liabilities and other current liabilities in the consolidated balance sheet. A portion of the lease payments will be recognized as a reduction of the finance lease obligation and a portion will be recognized as interest expense based on an imputed interest rate.

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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 CME Clearing. The facility provides for borrowings of up to \$7.0 billion. We may use the proceeds to provide temporary liquidity in the unlikely event of a clearing firm default, in the event of a liquidity constraint or default by a depository (custodian for our collateral), or 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. CME clearing firm guaranty fund contributions received in the form of cash or U.S. Treasury securities as well as the performance bond assets of a defaulting firm can be used to collateralize the facility. At September 30, 2016, guaranty funds available to collateralize the facility totaled \$6.4 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 \$2.3 billion multi-currency revolving senior credit facility and our 364-day multi-currency revolving secured credit facility for \$7.0 billion do not contain specific covenants that restrict the ability to pay dividends. These documents, however, do contain other customary financial and operating covenants that place restrictions on the operations of the company that could indirectly affect the ability to pay dividends.

At September 30, 2016, we have excess borrowing capacity for general corporate purposes of approximately \$2.3 billion under our multi-currency revolving senior credit facility.

At September 30, 2016, we were in compliance with the various covenant requirements of all our debt facilities.

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

To satisfy our performance bond obligation with Singapore Exchange Limited, we may pledge CME-owned U.S. Treasury securities in lieu of, or in combination with, irrevocable standby letters of credit. At September 30, 2016, the letters of credit totaled \$760.0 million.

The following table summarizes our credit ratings at September 30, 2016:

Rating Agency	Short-Term	Long-Term	Outlook
	Debt Rating	Debt Rating	
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 \$1.4 billion and \$1.7 billion at September 30, 2016 and December 31, 2015, respectively. The balance retained in cash and cash equivalents is a function of anticipated or possible

short-term cash needs, prevailing interest rates, our 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. Our exposure to credit and liquidity risk is minimal given the nature of the investments. Cash that is not available for general corporate purposes because of regulatory requirements or other restrictions is classified as restricted cash and is included in other current assets or other assets in the consolidated balance sheets.

Regulatory Requirements. CME is regulated by the U.S. Commodity Futures Trading Commission (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 DCO under Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act. As a result, CME must comply with the requirements 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.

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Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board (FASB) issued a new standard on revenue recognition that replaces numerous, industry-specific requirements and converges U.S. accounting with International Financial Reporting Standards. The new standard introduces a framework for recognizing revenue that focuses on the transfer of control rather than risks and rewards. The new standard also requires significant additional disclosures about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments, changes in judgments and assets recognized from costs incurred to obtain or fulfill a contract. The new standard was intended to become effective in the first annual period beginning after December 15, 2016, but in August 2015, FASB extended the deadline by one year. This guidance may be adopted using one of two transition methods, which we are still evaluating along with the impact of the new standard on our consolidated financial statements. In January 2016, the FASB issued a standards update that will change how entities measure certain equity investments. It does not change the guidance for classifying and measuring investments in debt securities and loans. Under the new guidance, entities will have to measure many equity investments at fair value and recognize any changes in fair value in net income, unless the investments qualify for a practicability exception. Entities will no longer be able to recognize unrealized holding gains and losses on equity securities classified today as available for sale in other comprehensive income. The update is effective for reporting periods beginning after December 15, 2017. Early adoption is permitted. We are in the process of evaluating the impact of this update on our consolidated financial statements.

In February 2016, the FASB issued a standards update that requires lessees to recognize on the balance sheet the assets and liabilities associated with the rights and obligations created by those leases. The guidance for lessors is largely unchanged from current U.S. GAAP. Under the new guidance, a lessee will be required to recognize assets and liabilities for leases with lease terms of more than 12 months. Consistent with current U.S. GAAP, the recognition, measurement, and presentation of expenses and cash flows arising from a lease by a lessee primarily will depend on its classification as a finance or operating lease. The update is effective for reporting periods beginning after December 15, 2018. Early adoption is permitted. We are in the process of evaluating the impact of this update on our consolidated financial statements.

In March 2016, the FASB issued a standards update that will change certain aspects of accounting for share-based payments to employees. The guidance will require that all income tax effects of awards to be recognized in the income statement when the awards vest or are settled. It will also allow an employer to repurchase more of an employee's shares for tax withholding purposes without triggering liability accounting and to make a policy election to account for forfeitures as they occur. The update is effective for reporting periods beginning after December 15, 2016. Early adoption is permitted. If this guidance is early adopted during an interim period, any adjustments must be reflected as of the beginning of the fiscal year that includes the interim period. We are in the process of evaluating the impact of this update on our consolidated financial statements.

In June 2016, the FASB issued guidance that changes how credit losses are measured for most financial assets measured at amortized cost and certain other

instruments. The standard requires an entity to estimate its lifetime expected credit loss and record an allowance, that when deducted from the amortized cost basis of the financial asset, presents the net amount expected to be collected on the financial asset. This forward-looking expected loss model generally will result in the earlier recognition of allowances for losses. The standard also amends the impairment model for available for sale debt securities and requires entities to determine whether all or a portion of the unrealized loss on an available for sale debt security is a credit loss. Severity and duration of the unrealized loss are no longer permissible factors in concluding whether a credit loss exists. Entities will recognize improvements to estimated credit losses on available for sale debt securities immediately in earnings rather than as interest income over time. The standard is effective for reporting periods beginning after December 15, 2019. The standard's provisions must be applied as a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. Early adoption is permitted for reporting periods beginning in 2019. We are in the process of evaluating the impact of this standard on our consolidated financial statements.

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, 2015. Refer to Item 7A. of CME Group's Annual Report on Form 10-K for the year ended December 31, 2015 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

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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 during the period covered by this quarterly report that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

See "Legal and Regulatory Matters" in Note 8. Contingencies to the Consolidated Financial Statements for updates to CME Group's existing legal proceedings disclosure which is incorporated herein by reference. Note 8. 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, 2016.

ITEM 1A. RISK FACTORS

There have been no material updates to the Risk Factors disclosure included in the company's Annual Report on Form 10-K, filed with the SEC on February 26, 2016. In addition to the other information contained in this Quarterly Report on Form 10-Q, you should carefully consider the factors discussed in our Annual Report on Form 10-K, which are the risks that we believe are material at this time. These risks could materially and adversely affect our business, financial condition and results of operations. These risks and uncertainties are not the only ones facing us. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may also adversely affect our business in the future.

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

(c) 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 (1)	(d) Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs
			Part of Publicly Announced Plans or Programs	Approximate Value)

				(in millions)
July 1 to July 31	—	\$ —	—	\$ —
August 1 to August 31	346	103.32	—	—
September 1 to September 30	152,820	108.98	—	—
Total	153,166	\$ 108.97	—	

Shares purchased consist of an aggregate of 153,166 shares of Class A common (1) stock surrendered in the third quarter of 2016 to satisfy employees' tax obligations upon the vesting of restricted stock.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

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ITEM 6.EXHIBITS

10.1	Amendment No. 1 to Credit Agreement, dated as of August 12, 2016 among Chicago Mercantile Exchange Inc. and Bank of America, N.A., as Administrative Agent.
31.1	Section 302 Certification—Phupinder S. Gill
31.2	Section 302 Certification—John W. Pietrowicz
32.1	Section 906 Certification
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

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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: November 4, 2016 By: /s/ John W. Pietrowicz
Chief Financial Officer & Senior Managing
Director Finance