

CORNING INC /NY
Form 10-Q
October 27, 2016

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

FORM 10-Q

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

For the quarterly period ended September 30, 2016

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: 1-3247

CORNING INCORPORATED

(Exact name of registrant as specified in its charter)

New York
(State or other jurisdiction of incorporation or organization)

16-0393470
(I.R.S. Employer Identification No.)

One Riverfront Plaza, Corning, New York
(Address of principal executive offices)

14831
(Zip Code)

607-974-9000
(Registrant's telephone number, including area code)

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 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 the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

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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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Class	Outstanding as of October 14, 2016
Corning's Common Stock, \$0.50 par value per share	951,225,180 shares

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CORNING INCORPORATED AND SUBSIDIARY COMPANIES
CONSOLIDATED STATEMENTS OF INCOME
(Unaudited; in millions, except per share amounts)

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Net sales	\$ 2,507	\$ 2,272	\$ 6,914	\$ 6,880
Cost of sales	1,466	1,380	4,158	4,084
Gross margin	1,041	892	2,756	2,796
Operating expenses:				
Selling, general and administrative expenses	302	307	1,104	960
Research, development and engineering expenses	187	181	569	561
Amortization of purchased intangibles	17	12	46	40
Restructuring, impairment and other charges			78	
Operating income	535	392	959	1,235
Equity in earnings of affiliated companies	19	39	119	195
Interest income	9	6	21	16
Interest expense	(41)	(38)	(122)	(101)
Translated earnings contract (loss) gain, net	(237)	(149)	(2,295)	42
Gain on realignment of equity investment			2,676	
Other expense, net	(28)	(32)	(70)	(70)
Income before income taxes	257	218	1,288	1,317
Benefit (provision) for income taxes (Note 5)	27	(6)	835	(202)
Net income attributable to Corning Incorporated	\$ 284	\$ 212	\$ 2,123	\$ 1,115
Earnings per common share attributable to Corning Incorporated:				
Basic (Note 6)	\$ 0.27	\$ 0.16	\$ 1.96	\$ 0.84
Diluted (Note 6)	\$ 0.26	\$ 0.15	\$ 1.81	\$ 0.82
Dividends declared per common share (1)	\$ 0.135	\$ 0.12	\$ 0.405	\$ 0.24

(1) The first quarter 2015 dividend was declared on December 3, 2014.

The accompanying notes are an integral part of these consolidated financial statements.

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CORNING INCORPORATED AND SUBSIDIARY COMPANIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited; in millions)

	Three months ended		Nine months ended	
	September 30,		September 30,	
	2016	2015	2016	2015
Net income attributable to Corning Incorporated	\$ 284	\$ 212	\$ 2,123	\$ 1,115
Foreign currency translation adjustments and other	245	(181)	869	(477)
Net unrealized (losses) gains on investments			(3)	1
Unamortized (losses) gains and prior service credits				
(costs) for postretirement benefit plans	(5)	6	260	12
Net unrealized gains (losses) on designated hedges	11	(37)	(30)	(32)
Other comprehensive income (loss), net of tax				
(Note 15)	251	(212)	1,096	(496)
Comprehensive income attributable to Corning				
Incorporated	\$ 535	\$ 0	\$ 3,219	\$ 619

The accompanying notes are an integral part of these consolidated financial statements.

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CORNING INCORPORATED AND SUBSIDIARY COMPANIES
CONSOLIDATED BALANCE SHEETS
(Unaudited; in millions, except share and per share amounts)

	September 30, 2016	December 31, 2015
Assets		
Current assets:		
Cash and cash equivalents	\$ 4,821	\$ 4,500
Short-term investments, at fair value		100
Trade accounts receivable, net of doubtful accounts and allowances - \$62 and \$48	1,645	1,372
Inventories, net of inventory reserves - \$160 and \$146 (Note 8)	1,516	1,385
Other current assets	497	912
Total current assets	8,479	8,269
Investments (Note 9)	352	1,975
Property, plant and equipment, net of accumulated depreciation - \$10,206 and \$9,188	13,293	12,648
Goodwill, net (Note 10)	1,569	1,380
Other intangible assets, net (Note 10)	797	706
Deferred income taxes (Note 5)	3,110	2,056
Other assets	1,209	1,493
Total Assets	\$ 28,809	\$ 28,527
Liabilities and Equity		
Current liabilities:		
Current portion of long-term debt and short-term borrowings (Note 4)	\$ 7	\$ 572
Accounts payable	933	934
Other accrued liabilities (Note 3 and Note 12)	1,354	1,308
Total current liabilities	2,294	2,814
Long-term debt (Note 4)	3,916	3,890
Postretirement benefits other than pensions (Note 11)	708	718
Other liabilities (Note 3 and Note 12)	4,104	2,242
Total liabilities	11,022	9,664
Commitments, contingencies and guarantees (Note 3)		
Shareholders' equity (Note 15):		
Convertible preferred stock, Series A – Par value \$100 per share; Shares authorized 3,100; Shares issued: 2,300	2,300	2,300
Common stock – Par value \$0.50 per share; Shares authorized 3.8 billion; Shares issued: 1,689 million and 1,681 million	844	840
Additional paid-in capital – common stock	13,340	13,352
Retained earnings	15,460	13,832
Treasury stock, at cost; Shares held: 738 million and 551 million	(13,508)	(9,725)

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Accumulated other comprehensive loss	(715)	(1,811)
Total Corning Incorporated shareholders' equity	17,721	18,788
Noncontrolling interests	66	75
Total equity	17,787	18,863
Total Liabilities and Equity	\$ 28,809	\$ 28,527

The accompanying notes are an integral part of these consolidated financial statements.

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CORNING INCORPORATED AND SUBSIDIARY COMPANIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited; in millions)

	Nine months ended September 30,	
	2016	2015
Cash Flows from Operating Activities:		
Net income	\$ 2,123	\$ 1,115
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation	844	842
Amortization of purchased intangibles	46	40
Restructuring, impairment and other charges	78	
Stock compensation charges	33	36
Equity in earnings of affiliated companies	(119)	(195)
Dividends received from affiliated companies	20	143
Deferred tax (benefit) provision	(1,047)	187
Restructuring payments	(10)	(38)
Employee benefit payments less than expense		5
Losses (gains) on foreign currency hedges related to translated earnings	2,295	(42)
Unrealized translation (gains) losses on transactions	(177)	303
Contingent consideration fair value adjustment	(40)	
Gain on realignment of equity investment	(2,676)	
Changes in certain working capital items:		
Trade accounts receivable	(184)	52
Inventories	(69)	(60)
Other current assets	(42)	(204)
Accounts payable and other current liabilities	14	(294)
Other, net	6	(45)
Net cash provided by operating activities	1,095	1,845
Cash Flows from Investing Activities:		
Capital expenditures	(815)	(939)
Acquisitions of business, net of cash acquired	(279)	(531)
Investment in unconsolidated entities	(14)	(33)
Cash received on realignment of equity investment	4,818	
(Payments) proceeds from loan repayments from unconsolidated entities	(10)	6
Short-term investments – acquisitions	(20)	(859)
Short-term investments – liquidations	121	1,046
Realized gains on foreign currency hedges related to translated earnings	146	489
Other, net	9	(1)
Net cash provided by (used in) investing activities	3,956	(822)
Cash Flows from Financing Activities:		
Net repayments of short-term borrowings and current portion of long-term debt	(85)	
Principal payments under capital lease obligations	(1)	(1)
Proceeds from issuance of short-term debt		2

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Proceeds from issuance of long-term debt		745
Payments from issuance of commercial paper	(481)	
Payments from settlement of interest rate swap arrangements		(10)
Proceeds from the exercise of stock options	86	99
Repurchases of common stock for treasury	(3,884)	(1,905)
Dividends paid	(493)	(519)
Net cash used in financing activities	(4,858)	(1,589)
Effect of exchange rates on cash	128	(303)
Net increase (decrease) in cash and cash equivalents	321	(869)
Cash and cash equivalents at beginning of period	4,500	5,309
Cash and cash equivalents at end of period	\$ 4,821	\$ 4,440

The accompanying notes are an integral part of these consolidated financial statements.

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CORNING INCORPORATED AND SUBSIDIARY COMPANIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. Significant Accounting Policies

Basis of Presentation

In these notes, the terms “Corning,” “Company,” “we,” “us,” or “our” mean Corning Incorporated and its subsidiary companies.

The accompanying unaudited consolidated financial statements have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (“SEC”) and in accordance with U.S. Generally Accepted Accounting Principles (“GAAP”) for interim financial information. Certain information and note disclosures normally included in financial statements prepared in accordance with GAAP have been omitted or condensed. These interim consolidated financial statements should be read in conjunction with Corning’s consolidated financial statements and notes thereto included in its Annual Report on Form 10-K for the year ended December 31, 2015 (“2015 Form 10-K”).

The unaudited consolidated financial statements reflect all adjustments which, in the opinion of management, are necessary for a fair statement of the results of operations, financial position and cash flows for the interim periods presented. All such adjustments are of a normal recurring nature. The results for interim periods are not necessarily indicative of results which may be expected for any other interim period or for the full year.

Certain prior year amounts have been reclassified to conform to the current-year presentation. These reclassifications had no impact on our results of operations, financial position, or changes in shareholders’ equity.

New Accounting Standards

In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update No. (“ASU”) 2014-09, Revenue from Contracts with Customers, as a new Topic, Accounting Standards Codification (“ASC”) Topic 606. The new revenue recognition standard provides a five-step analysis of transactions to determine when and how revenue is recognized. The core principle is that a company should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. This ASU originally was effective for annual periods beginning after December 15, 2016, including interim periods within that reporting period. This ASU shall be applied retrospectively to each period presented or as a cumulative-effect adjustment as of the date of adoption.

In August 2015, the FASB issued ASU 2015-14, Revenue from Contracts with Customers (Topic 606), deferring the effective date of ASU 2014-09 by one year. We can elect to adopt the provisions of ASU 2014-09 for annual periods beginning after December 15, 2017, including interim periods within that reporting period. The FASB also agreed to allow entities to choose to adopt the standard as of the original effective date. We are currently assessing the adoption date and potential impact of adopting ASU 2014-09 on our financial statements and related disclosures.

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842), which supersedes all existing guidance on accounting for leases in ASC Topic 840. ASU 2016-02 is intended to provide enhanced transparency and comparability by requiring lessees to record right-of-use assets and corresponding lease liabilities on the balance sheet. ASU 2016-02 will continue to classify leases as either finance or operating, with classification affecting the pattern of expense recognition in the statement of income. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted. ASU 2016-02 is required to be applied with a modified retrospective approach to each prior reporting period presented with various

optional practical expedients. We are currently assessing the adoption date and the potential impact of adopting ASU 2016-02 on our financial statements and related disclosures.

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In March 2016, the FASB issued ASU 2016-09, Compensation—Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. ASU 2016-09 changes how companies account for certain aspects of share-based payment awards to employees, including the accounting for income taxes, forfeitures and statutory tax withholding requirements, as well as classification in the statement of cash flows. ASU 2016-09 is effective for annual periods beginning after December 15, 2016, including interim periods within those annual periods. If an entity early adopts in an interim period, any adjustments should be reflected as of the beginning of the fiscal year that includes that interim period and the entity must adopt all of the amendments from ASU 2016-09 in the same period. We are currently assessing the potential impact of adopting ASU 2016-09 on our financial statements and related disclosures. Corning does not expect adoption of this standard to have a material impact on its consolidated results of operations and financial condition.

In August 2016, the FASB issued ASU 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments. ASU 2016-15 refines how companies classify certain aspects of the cash flow statement in regards to debt prepayment, settlement of debt instruments, contingent consideration payments, proceeds from insurance claims and life insurance policies, distribution from equity method investees, beneficial interests in securitization transactions and separately identifiable cash flows. ASU 2016-15 is effective for annual periods beginning after December 15, 2017, and for interim periods within fiscal years beginning after December 15, 2018. Early adoption is permitted. We are currently assessing the adoption date and the potential impact of adopting ASU 2016-15 on our financial statements and related disclosures.

In October 2016, the FASB issued ASU No. 2016-16, Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory, which reduces the complexity in the accounting standards by allowing the recognition of current and deferred income taxes for an intra-entity asset transfer, other than inventory, when the transfer occurs. Historically, recognition of the income tax consequence was not recognized until the asset was sold to an outside party. This amendment should be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. ASU 2016-16 is effective for annual periods beginning after December 15, 2017, including interim reporting periods within those annual reporting periods. Early adoption is permitted for all entities as of the beginning of an annual reporting period for which financial statements (interim or annual) have not been issued or made available for issuance. We are currently evaluating the impact of ASU 2016-16 on our consolidated financial statements and related disclosures.

2. Restructuring, Impairment and Other Charges

2016 Activity

In the first three quarters of 2016, we recorded charges of \$78 million, pre-tax, for employee related costs, asset disposals, and exit costs associated with some minor restructuring activities in all of the segments, with total cash expenditures estimated to be \$15 million.

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The following table summarizes the restructuring, impairment and other charges for the nine months ended September 30, 2016 (in millions):

	Reserve at January 1, 2016	Net Charges/ Reversals	Non-cash adjustments	Cash payments	Reserve at September 30, 2016
Restructuring:					
Employee related costs	\$ 3	\$ 15	\$ (1)	\$ (9)	\$ 8
Other charges		1		(1)	
Total restructuring activity	\$ 3	\$ 16	\$ (1)	\$ (10)	\$ 8
Disposal of long-lived assets		\$ 62			
Total restructuring, impairment and other charges		\$ 78			

Cash payments for employee-related and exit activity related to the 2016 restructuring activities are expected to be substantially completed in 2016.

The year-to-date cost of these plans for each of our reportable segments was as follows (in millions):

	Employee- related and other charges
Operating segment	
Display Technologies	\$ 4
Optical Communications	6
Environmental Technologies	5
Specialty Materials	12
Life Sciences	3
All Other	40
Corporate	8
Total restructuring, impairment and other charges	\$ 78

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3. Commitments, Contingencies and Guarantees

Asbestos Claims

Corning and PPG Industries, Inc. each owned 50% of the capital stock of Pittsburgh Corning Corporation (“PCC”). PCC filed for Chapter 11 reorganization in 2000 and the Modified Third Amended Plan of Reorganization for PCC (the “Plan”) became effective in April 2016. At December 31, 2015, the Company’s liability under the Plan was estimated to be \$528 million. At September 30, 2016, this estimated liability was \$290 million, due to the Company’s contribution, in the second quarter of 2016, of its equity interests in PCC and Pittsburgh Corning Europe N.V. in the total amount of \$238 million, as required by the Plan. Corning recognized a gain of \$56 million in the second quarter of 2016 in the selling, general and administrative expenses line of the Company’s Consolidated Statements of Income for the difference between the fair value of the asbestos litigation liability and carrying value of the investment. The remaining \$290 million liability is for the fixed series of payments required by the Plan. At September 30, 2016, the total amount of the payments due in years 2018 through 2022 is \$220 million and is classified as a non-current liability. The remaining \$70 million payment due in the second quarter of 2017 is classified as a current liability as it is expected to be made within the next twelve months. Additionally, Corning is a defendant in other cases alleging injuries from asbestos unrelated to PCC (the “non-PCC asbestos claims”) which had been stayed pending the confirmation of the Plan. The stay was lifted on August 25, 2016. Corning previously established a \$150 million reserve for these non-PCC asbestos claims. The estimated reserve represents the undiscounted projection of claims and related legal fees over the next 20 years. The amount may need to be adjusted in future periods as more data becomes available; however, we cannot estimate any lesser or greater liabilities at this time.

A summary of changes of the estimated asbestos litigation liability is as follows (in millions):

	Amended PCC Plan			Total Asbestos
	Equity	Fixed Series	Non-PCC	Litigation Liability
	Interests	of Payments		
Fair Value of Asbestos Litigation Liability as of Dec. 31, 2015	\$ 238	\$ 290	\$ 150	\$ 678
Less: Contribution of PCC & PCE Equity Interests - Carrying Value	182	-	-	182
Gain on Contribution of Equity Interests	56	-	-	56
Asbestos Litigation Liability as of September 30, 2016	\$ -	\$ 290	\$ 150	\$ 440

Non-PCC Asbestos Claims Insurance Litigation

Several of Corning’s insurers have commenced litigation in state courts for a declaration of the rights and obligations of the parties under insurance policies, including rights that may be affected by the potential resolutions described above. Corning has resolved these issues with a majority of its relevant insurers, and is vigorously contesting these cases with the remaining relevant insurers. Management is unable to predict the outcome of the litigation with these remaining insurers.

Other Commitments and Contingencies

We are required, at the time a guarantee is issued, to recognize a liability for the fair value or market value of the obligation it assumes. In the normal course of our business, we do not routinely provide significant third-party guarantees. Generally, any third party guarantees provided by Corning are limited to certain financial guarantees including stand-by letters of credit and performance bonds, and the incurrence of contingent liabilities in the form of purchase price adjustments related to attainment of milestones. When provided, these guarantees have various terms, and none of these guarantees are individually significant.

As of September 30, 2016 and December 31, 2015, contingent guarantees totaled a notional value of \$201 million and \$184 million, respectively. We believe a significant majority of these contingent guarantees will expire without being funded. We also were contingently liable for purchase obligations of \$255 million and \$220 million, at September 30, 2016 and December 31, 2015, respectively.

Product warranty liability accruals were considered insignificant at September 30, 2016 and December 31, 2015.

Corning is a defendant in various lawsuits, including environmental, product-related suits, and is subject to various claims that arise in the normal course of business. In the opinion of management, the likelihood that the ultimate disposition of these matters will have a material adverse effect on Corning's consolidated financial position, liquidity, or results of operations, is remote. Other than certain asbestos related claims, there are no other material loss contingencies related to litigation.

Corning has been named by the Environmental Protection Agency ("the Agency") under the Superfund Act, or by state governments under similar state laws, as a potentially responsible party for 17 active hazardous waste sites. Under the Superfund Act, all parties who may have contributed any waste to a hazardous waste site, identified by the Agency, are jointly and severally liable for the cost of cleanup unless the Agency agrees otherwise. It is Corning's policy to accrue for its estimated liability related to Superfund sites and other environmental liabilities related to property owned by Corning based on expert analysis and continual monitoring by both internal and external consultants. At September 30, 2016 and December 31, 2015, Corning had accrued approximately \$45 million (undiscounted) and \$37 million (undiscounted), respectively, for the estimated liability for environmental cleanup and related litigation. Based upon the information developed to date, management believes that the accrued reserve is a reasonable estimate of the Company's liability and that the risk of an additional loss in an amount materially higher than that accrued is remote.

The ability of certain subsidiaries and affiliated companies to transfer funds is limited by provisions of foreign government regulations, affiliate agreements and certain loan agreements. At September 30, 2016, the amount of equity subject to such restrictions for consolidated subsidiaries and affiliated companies was not significant. While this amount is legally restricted, it does not result in operational difficulties since we have generally permitted subsidiaries to retain a majority of equity to support their growth programs.

4. Debt

Based on borrowing rates currently available to us for loans with similar terms and maturities, the fair value of long-term debt was \$4.3 billion at September 30, 2016 and \$4.1 billion at December 31, 2015, compared to recorded book values of \$3.9 billion at September 30, 2016 and December 31, 2015. The Company measures the fair value of its long-term debt using Level 2 inputs based primarily on current market yields for its existing debt traded in the secondary market.

On July 20, 2016, Corning's Board of Directors approved a \$1 billion increase to our commercial paper program, raising it to \$2 billion. If needed, this program is supported by our \$2 billion revolving credit facility that expires in 2019. Corning did not have outstanding commercial paper at September 30, 2016.

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Debt Issuances

2015

In the second quarter of 2015, we issued \$375 million of 1.50% senior unsecured notes that mature on May 8, 2018 and \$375 million of 2.90% senior unsecured notes that mature on May 15, 2022. We can redeem these debentures at any time, subject to certain stipulations.

5. Income Taxes

Our benefit (provision) for income taxes and the related effective income tax rates were as follows (in millions):

	Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
Benefit (provision) for income taxes	\$ 27	\$ (6)	\$ 835	\$ (202)
Effective tax rate	(10.5%)	2.8%	(64.8%)	15.3%

For the three months ended September 30, 2016, the effective income tax rate differed from the U.S. statutory rate of 35% primarily due to the following benefits:

- Rate differences on income (loss) of consolidated foreign companies, including the benefit of excess foreign tax credits resulting from the inclusion of foreign earnings in U.S. income.

For the nine months ended September 30, 2016, the effective income tax rate differed from the U.S. statutory rate of 35% primarily due to the following benefits:

- Rate differences on income (loss) of consolidated foreign companies, including the benefit of excess foreign tax credits resulting from the inclusion of foreign earnings in U.S. income;
 - The impact of equity in earnings of nonconsolidated affiliates reported in the financials, net of tax; and
- The tax-free nature of the realignment of our equity interest in Dow Corning during the period, as well as the release of the deferred tax liability related to Corning's tax on Dow Corning's undistributed earnings as of the date of the transaction.

For the three and nine months ended September 30, 2015, the effective income tax rate differed from the U.S. statutory rate of 35% primarily due to the following benefits:

- Rate differences on income (loss) of consolidated foreign companies, including the benefit of excess foreign tax credits resulting from the inclusion of high-taxed foreign earnings in U.S. income; and
 - The impact of equity in earnings of nonconsolidated affiliates reported in the financials, net of tax.

Corning continues to indefinitely reinvest substantially all of its foreign earnings, with the exception of an immaterial amount of current earnings that have very low or no tax cost associated with their repatriation. Our current analysis indicates that we have sufficient U.S. liquidity, including borrowing capacity, to fund foreseeable U.S. cash needs without requiring the repatriation of foreign cash. Significant one time or unusual items that may impact our ability or intent to keep our foreign earnings and cash indefinitely reinvested include significant U.S. acquisitions, stock repurchases, shareholder dividends, changes in tax laws, derivative contract settlements or the development of tax planning ideas that allow us to repatriate earnings at minimal or no tax cost, and/or a change in our circumstances or economic conditions that negatively impact our ability to borrow or otherwise fund U.S. needs from existing U.S.

sources. While it remains impracticable to calculate the tax cost of repatriating our total unremitted foreign earnings, such cost could be material to the results of operations of Corning in a particular period.

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While we expect the amount of unrecognized tax benefits to change in the next 12 months, we do not expect the change to have a significant impact on the results of operations or our financial position.

6. Earnings per Common Share

The following table sets forth the computation of basic and diluted earnings per common share (in millions, except per share amounts):

	Three months ended		Nine months ended	
	September 30,		September 30,	
	2016	2015	2016	2015
Net income attributable to Corning Incorporated	\$ 284	\$ 212	\$ 2,123	\$ 1,115
Less: Series A convertible preferred stock dividend	24	24	73	73
Net income available to common stockholders – basic	260	188	2,050	1,042
Plus: Series A convertible preferred stock dividend (1)	24		73	73
Net income available to common stockholders – diluted	\$ 284	\$ 188	\$ 2,123	\$ 1,115
Weighted-average common shares outstanding – basic	978	1,210	1,046	1,241
Effect of dilutive securities:				
Stock options and other dilutive securities	9	8	9	10
Series A convertible preferred stock (1)	115		115	115
Weighted-average common shares outstanding – diluted	1,102	1,218	1,170	1,366
Basic earnings per common share	\$ 0.27	\$ 0.16	\$ 1.96	\$ 0.84
Diluted earnings per common share	\$ 0.26	\$ 0.15	\$ 1.81	\$ 0.82
Antidilutive potential shares excluded from diluted earnings per common share:				
Series A convertible preferred stock (1)		115		
Employee stock options and awards	13	29	18	22
Accelerated share repurchase forward contract	14		14	
Total	27	144	32	22

(1) In the three months ended September 30, 2015, the Series A convertible preferred stock was anti-dilutive and therefore excluded from the calculation of diluted earnings per share.

7. Available-for-Sale Investments

At September 30, 2016 and December 31, 2015, the Company held \$0 million and \$100 million of short-term investments (U.S. government and agency securities), respectively. At September 30, 2016 and December 31, 2015, the Company held long-term investments of \$30 million and \$33 million in asset-backed securities, respectively. The Company's investments in available-for-sale securities are held at fair value with amortized cost of \$33 million and \$37 million at September 30, 2016 and December 31, 2015, respectively.

We have no plans to sell, nor do we believe it is more likely than not that we would be required to sell, the long-term investment asset-backed securities (which are collateralized by mortgages) before recovery of their amortized cost basis. It is possible that a significant degradation in the delinquency or foreclosure rates in the underlying assets could cause further temporary or other-than-temporary impairments in the future.

For the nine months ended September 30, 2016 and 2015, proceeds from sales and maturities of short-term investments totaled approximately \$121 million and \$1.0 billion, respectively.

8. Inventories, Net of Inventory Reserves

Inventories, net of inventory reserves comprise the following (in millions):

	September 30, 2016	December 31, 2015
Finished goods	\$ 636	\$ 633
Work in process	301	264
Raw materials and accessories	278	200
Supplies and packing materials	301	288
Total inventories, net of inventory reserves	\$ 1,516	\$ 1,385

9. Investments

On May 31, 2016, Corning completed the strategic realignment of its equity investment in Dow Corning Corporation (“Dow Corning”) pursuant to the Transaction Agreement announced in December 2015. Under the terms of the Transaction Agreement, Corning exchanged with Dow Corning its 50% stock interest in Dow Corning for 100% of the stock of a newly formed entity, which holds an equity interest in Hemlock Semiconductor Group (“HSG”) and approximately \$4.8 billion in cash.

Prior to realignment, HSG, a wholly owned and consolidated subsidiary of Dow Corning, was an indirect equity investment of Corning. Upon completion of the exchange, Corning now has a direct equity investment in HSG. Because our ownership percentage in HSG did not change as a result of the realignment, the investment in HSG is recorded at its carrying value, which had a negative carrying value of \$383 million at the transaction date. The negative carrying value resulted from a one-time charge to this entity in 2014 for the permanent abandonment of certain assets. Excluding this charge, the entity is profitable and is expected to recover its equity in the near term.

Corning’s financial statements as of September 30, 2016 include the positive impact of the release of a deferred tax liability of \$105 million related to Corning’s tax on Dow Corning’s earnings that were not distributed as of the date of the transaction and a non-taxable gain of \$2,676 million on the realignment. Details of the gain are illustrated below (in millions):

Cash	\$ 4,818
Carrying Value of Dow Corning Equity Investment	(1,560)
Carrying Value of HSG Equity Investment	(383)
Other (1)	(199)
Gain	\$ 2,676

(1) Primarily consists of the release of accumulated other comprehensive income items related to unamortized actuarial losses related to Dow Corning’s pension plan and foreign currency translation gains in the amounts of \$260 million and \$45 million, respectively.

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Investments comprise the following (in millions):

	Ownership interest	September 30, 2016	December 31, 2015
Affiliated companies accounted for by the equity method			
Dow Corning (1)	50%		\$ 1,483
All other (1)	20% to 50%	\$ 285	422
		285	1,905
Other investments		67	70
Subtotal Investment Assets		\$ 352	\$ 1,975
Affiliated companies accounted for by the equity method			
HSG (2)(3)	50%	\$ 343	
Subtotal Investment Liabilities		\$ 343	

(1) Amounts reflect Corning's direct ownership interests in the respective affiliated companies at September 30, 2016 and December 31, 2015. Corning does not control any of such entities.

(2) HSG indirectly holds an 80.5% interest in a HSG operating partnership.

(3) The negative carrying value of the investment in HSG is recorded in Other Liabilities.

10. Goodwill and Other Intangible Assets

The carrying amount of goodwill by segment for the periods ended September 30, 2016 and December 31, 2015 is as follows (in millions):

	Optical Communications	Display Technologies	Specialty Materials	Life Sciences	All Other	Total
Balance at December 31, 2015	\$ 439	\$ 128	\$ 150	\$ 562	\$ 101	\$ 1,380
Acquired goodwill (1)	175					175
Measurement period adjustment (2)	(6)					(6)
Foreign currency translation adjustment	7	5		6	2	20
Balance at September 30, 2016	\$ 615	\$ 133	\$ 150	\$ 568	\$ 103	\$ 1,569

(1) The Company completed an acquisition in the Optical Communications segment during the second quarter of 2016 with a purchase price of \$296 million.

(2) In the third quarter of 2016, minor adjustments were made to the preliminary allocation of the total purchase consideration related to a second quarter acquisition. The allocation is expected to be finalized in the fourth quarter of 2016, and any adjustments are not expected to be material.

Corning's gross goodwill balances for the periods ended September 30, 2016 and December 31, 2015 were \$8.1 billion and \$7.9 billion, respectively. Accumulated impairment losses were \$6.5 billion for the periods ended September 30, 2016 and December 31, 2015, and were generated primarily through goodwill impairments related to the Optical Communications segment.

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Other intangible assets are as follows (in millions):

	September 30, 2016			December 31, 2015		
	Gross	Accumulated amortization	Net	Gross	Accumulated amortization	Net
Amortized intangible assets:						
Patents, trademarks, and trade names	\$ 367	\$ 176	\$ 191	\$ 350	\$ 162	\$ 188
Customer lists and other	744	138	606	621	103	518
Total	\$1,111	\$ 314	\$ 797	\$ 971	\$ 265	\$ 706

Corning's amortized intangible assets are primarily related to the Optical Communications and Life Sciences segments. The net carrying amount of intangible assets increased during the first nine months of 2016, primarily due to acquisitions of \$127 million of other intangible assets and foreign currency translation adjustments of \$11 million, offset by amortization of \$46 million.

Amortization expense related to these intangible assets is estimated to be \$67 million for 2016, \$72 million annually from 2017 to 2018, \$71 million for 2019, and \$66 million annually from 2020 to 2021.

11. Employee Retirement Plans

The following table summarizes the components of net periodic benefit cost for Corning's defined benefit pension and postretirement health care and life insurance plans (in millions):

	Pension benefits				Postretirement benefits			
	Three months ended September 30,		Nine months ended September 30,		Three months ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015	2016	2015	2016	2015
Service cost	\$ 22	\$ 22	\$ 65	\$ 67	\$ 3	\$ 3	\$ 7	\$ 10
Interest cost	31	36	93	109	6	8	19	24
Expected return on plan assets	(41)	(44)	(124)	(133)				
Amortization of net loss						1	(1)	3
Amortization of prior service cost (credit)	1	2	4	5	(1)	(2)	(3)	(5)
Recognition of actuarial loss	26		60	8				
Total pension and postretirement benefit expense	\$ 39	\$ 16	\$ 98	\$ 56	\$ 8	\$ 10	\$ 22	\$ 32

The recognition of actuarial loss in the three months ended September 30, 2016 resulted from small settlements in several of our benefit plans which triggered plan remeasurements. In addition to the settlements occurring in the third quarter of 2016, results in the nine months ended September 30, 2016 also included the impact of the finalization of our 2015 benefit plan valuations.

12. Other Liabilities

Other liabilities follow (in millions):

	September 30, 2016	December 31, 2015
Current liabilities:		
Wages and employee benefits	\$ 472	\$ 491
Income taxes	149	53
Asbestos and other litigation reserves	73	238
Derivative instruments	204	55
Other current liabilities	456	471
Other accrued liabilities	\$ 1,354	\$ 1,308
Non-current liabilities:		
Asbestos and other litigation reserves	\$ 394	\$ 440
Derivative instruments	1,543	88
Investment in Hemlock Semiconductor Group (1)	343	
Defined benefit pension plan liabilities	762	672
Other non-current liabilities	1,062	1,042
Other liabilities	\$ 4,104	\$ 2,242

(1) The negative carrying value resulted from a one-time charge to this entity in 2014 for the permanent abandonment of certain assets.

Asbestos Litigation

Corning and PPG each owned 50% of the capital stock of PCC. Over a period of more than two decades, PCC and several other defendants were named in numerous lawsuits involving claims alleging personal injury from exposure to asbestos. Refer to Note 3 (Commitments, Contingencies and Guarantees) to the consolidated financial statements for additional information on the asbestos litigation.

13. Hedging Activities

Undesignated Hedges

The table below includes a total gross notional value for translated earnings contracts of \$17.6 billion and \$12.0 billion at September 30, 2016 and December 31, 2015, respectively. The translated earnings contracts include purchased and zero-cost collars of \$2.8 billion and \$5.6 billion and average rate forwards of \$14.8 billion and \$6.4 billion at September 30, 2016 and December 31, 2015, respectively. With respect to the purchased and zero-cost collars, the gross notional amount includes the value of both the put and call options. However, due to the nature of the purchased and zero-cost collars, either the put or the call option can be exercised at maturity. The total net notional value of the purchased and zero-cost collars was \$1.4 billion and \$2.9 billion at September 30, 2016 and December 31, 2015, respectively.

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The following tables summarize the notional amounts and respective fair values of Corning's derivative financial instruments on a gross basis for September 30, 2016 and December 31, 2015 (in millions):

	U.S. Dollar		Asset derivatives		Liability derivatives			
	Gross notional amount Sept. 30, 2016	Dec. 31, 2015	Balance sheet location	Fair value Sept. 30, 2016	Dec. 31, 2015	Balance sheet location	Fair value Sept. 30, 2016	Dec. 31, 2015
Derivatives designated as hedging instruments								
Foreign exchange contracts (1)	\$ 527	\$ 782	Other current assets	\$ 1	\$ 5	Other accrued liabilities	\$ (54)	\$ (10)
			Other assets		1	Other liabilities	(12)	(23)
Interest rate contracts	550	550	Other assets	7		Other liabilities		(4)
Derivatives not designated as hedging instruments								
Foreign exchange contracts, other	759	1,095	Other current assets	2	6	Other accrued liabilities	(36)	(12)
Translated earnings contracts	17,595	11,972	Other current assets	66	511	Other accrued liabilities	(114)	(33)
			Other assets	27	472	Other liabilities	(1,531)	(61)
Total derivatives	\$19,431	\$14,399		\$103	\$995		\$(1,747)	\$(143)

(1) Cash flow hedges with a typical duration of 24 months or less.

The following tables summarize the effect of derivative financial instruments on Corning's consolidated financial statements for the three months ended September 30, 2016 and 2015 (in millions):

Effect of designated derivative instruments on the consolidated financial statements
for the three months ended September 30

Derivatives in hedging relationships	Gain/(loss) recognized in other	Location of gain/(loss) reclassified from	Gain/(loss) reclassified from accumulated OCI into
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	comprehensive income (OCI)		accumulated OCI into income (effective)	income (effective) (1)	
	2016	2015		2016	2015
Interest rate hedges			Sales	\$ 1	\$ 4
			Cost of sales	(13)	1
Foreign exchange contracts	\$ 26	\$ (58)			
Total cash flow hedges	\$ 26	\$ (58)		\$ (12)	\$ 5

(1) The amount of hedge ineffectiveness at September 30, 2016 and 2015 was insignificant.

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The following tables summarize the effect of derivative financial instruments on Corning's consolidated financial statements for the nine months ended September 30, 2016 and 2015 (in millions):

Effect of derivative instruments on the consolidated financial statements
for the nine months ended September 30

Derivatives in hedging relationships	Gain/(loss) recognized in other comprehensive income (OCI)		Location of gain/(loss) reclassified from accumulated OCI into income (effective)	Gain/(loss) reclassified from accumulated OCI into income (effective) (1)	
	2016	2015		2016	2015
Interest rate hedges		\$ (7)	Sales Cost of sales	\$ 2 (27)	\$ 14 7
Foreign exchange contracts	\$ (37)	(24)			
Total cash flow hedges	\$ (37)	\$ (31)		\$ (25)	\$ 21

(1) The amount of hedge ineffectiveness at September 30, 2016 and 2015 was insignificant.

The following table summarizes the effect on the consolidated financial statements relating to Corning's derivative financial instruments (in millions):

Undesignated derivatives	Location of gain/(loss) recognized in income	Gain (loss) recognized in income			
		Three months ended September 30,		Nine months ended September 30,	
		2016	2015	2016	2015
Foreign exchange contracts – balance sheet	Foreign currency hedge gain (loss), net	\$ 1	\$ (6)	\$ (27)	\$ 7
Foreign exchange contracts – loans	Foreign currency hedge gain (loss), net	(4)	1	(48)	3
Foreign currency hedges related to translated earnings	Foreign currency hedge gain (loss), net	(237)	(149)	(2,295)	42
Total undesignated		\$ (240)	\$ (154)	\$ (2,370)	\$ 52

14. Fair Value Measurements

Fair value standards under U.S. GAAP define fair value, establish a framework for measuring fair value in applying generally accepted accounting principles, and require disclosures about fair value measurements. The standards also identify two kinds of inputs that are used to determine the fair value of assets and liabilities: observable and unobservable. Observable inputs are based on market data or independent sources while unobservable inputs are based on the Company's own market assumptions. Once inputs have been characterized, the inputs are prioritized into one of three broad levels (provided in the table below) used to measure fair value. Fair value standards apply whenever an entity is measuring fair value under other accounting pronouncements that require or permit fair value measurement and require the use of observable market data when available.

The following tables provide fair value measurement information for the Company's major categories of financial assets and liabilities measured on a recurring basis (in millions):

	Fair value measurements at reporting date using			
	September 30, 2016	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Current assets:				
Other current assets (1)	\$ 68		\$ 68	
Non-current assets:				
Other assets (1)(2)	\$ 350		\$ 64	\$ 286
Current liabilities:				
Other accrued liabilities (1)	\$ 204		\$ 204	
Non-current liabilities:				
Other liabilities (1)	\$ 1,543		\$ 1,543	

(1) Derivative assets and liabilities include foreign exchange forward and zero-cost collar contracts, and interest rate swaps which are measured using observable quoted prices for similar assets and liabilities.

(2) Other assets include asset-backed securities which are measured using observable quoted prices for similar assets and contingent consideration assets or liabilities which are measured by applying an option pricing model using projected future revenue and forecasted foreign exchange rates.

	Fair value measurements at reporting date using			
	December 31, 2015	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Current assets:				
Short-term investments	\$ 100	\$ 100		
Other current assets (1)	\$ 522		\$ 522	
Non-current assets:				
Other assets (1)(2)	\$ 752		\$ 506	\$ 246
Current liabilities:				
Other accrued liabilities (1)	\$ 55		\$ 55	
Non-current liabilities:				
Other liabilities (1)	\$ 98		\$ 88	\$ 10

(1) Derivative assets and liabilities include foreign exchange contracts which are measured using observable quoted prices for similar assets and liabilities.

(2) Other assets include asset-backed securities which are measured using observable quoted prices for similar assets and contingent consideration assets or liabilities which are measured by applying an option pricing model using projected future revenues.

As a result of the acquisition of Samsung Corning Precision Materials in January 2014, the Company has contingent consideration that was measured using unobservable (Level 3) inputs. Changes in the fair value of the contingent consideration in future periods are valued using an option pricing model and are recorded in Corning's results in the period of the change. As of September 30, 2016 and December 31, 2015, the fair value of the potential receipt of the contingent consideration in 2018 was \$286 million and \$246 million, respectively.

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There were no significant financial assets and liabilities measured on a nonrecurring basis during the nine months ended September 30, 2016.

15. Shareholders' Equity

Fixed Rate Cumulative Convertible Preferred Stock, Series A

On January 15, 2014, Corning designated a new series of its preferred stock as Fixed Rate Cumulative Convertible Preferred Stock, Series A, par value \$100 per share, and issued 2,300 shares of Preferred Stock at an issue price of \$1 million per share, for an aggregate issue price of \$2.3 billion. The Preferred Stock is convertible at the option of the holder and the Company upon certain events, at a conversion rate of 50,000 shares of Corning's common stock per one share of Preferred Stock, subject to certain anti-dilution provisions. As of September 30, 2016, the Preferred Stock has not been converted, and none of the anti-dilution provisions have been triggered.

Share Repurchases

On July 28, 2016, Corning entered into an accelerated share repurchase transaction ("ASR") with Morgan Stanley & Co. LLC ("Morgan Stanley") to repurchase \$2 billion of Corning's common stock in two tranches of \$1.5 billion and \$500 million, respectively, each with its own scheduled termination date. The ASR was executed under the \$4 billion share repurchase program authorized on October 26, 2015 (the "2015 Repurchase Program"). Under the ASR, Corning made a \$2 billion aggregate payment to Morgan Stanley on July 28, 2016 and received an initial aggregate delivery of 74.4 million shares of Corning common stock from Morgan Stanley on the same day. Each tranche is subject to acceleration at Morgan Stanley's option during an acceleration period prior to its scheduled termination date. The total number of shares Corning will repurchase under each tranche of the ASR will be based generally upon the average daily volume weighted average price of Corning's common stock during the repurchase period for such tranche, less a discount and subject to adjustments pursuant to the terms and conditions of the ASR. Depending on the circumstances at settlement of each tranche, Morgan Stanley may be required to deliver additional shares of common stock to Corning or Corning may be required either to deliver shares of common stock or to make a cash payment to Morgan Stanley. Final settlement of both tranches of the ASR is scheduled to occur in the fourth quarter of 2016.

In addition to the ASR, during the three and nine months ended September 30, 2016, the Company repurchased 15.3 million and 96 million shares of common stock on the open market for approximately \$340 million and \$1,901 million, respectively, as part of its 2015 Repurchase Program.

Accumulated Other Comprehensive Income

In the three and nine months ended September 30, 2016 and 2015, the primary changes in accumulated other comprehensive income ("AOCI") were related to the foreign currency translation adjustment component and the unamortized actuarial losses component.

A summary of changes in the foreign currency translation adjustment component of AOCI is as follows (in millions):

	Three months ended		Nine months ended	
	September 30,		September 30,	
	2016	2015	2016	2015
Beginning balance	\$ (547)	\$ (877)	\$ (1,171)	\$ (581)
Other comprehensive income (loss)	235	(163)	860	(399)
Equity method affiliates	10	(18)	9	(78)
	245	(181)	869	(477)

Net current-period other comprehensive income
(loss)

Ending balance	\$ (302)	\$ (1,058)	\$ (302)	\$ (1,058)
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In the second quarter of 2016, \$45 million cumulative foreign currency translation gain was released as a result of the realignment of Dow Corning and included in the gain on realignment of equity investment.

In the second quarter of 2016, a \$22 million cumulative foreign currency translation loss was released as a result of the contribution of our investment in PCE to the PCC litigation trust and included in selling, general and administrative expenses.

There were no material tax effects related to foreign currency translation gains and losses for the three months ended September 30, 2016 and 2015, and for the nine months ended September 30, 2015. In the nine months ended September 30, 2016, Corning recorded a tax impact of \$45 million related to foreign currency translation gains and losses.

A summary of changes in the unamortized actuarial gains (losses) component of AOCI is as follows (in millions) (1):

	Three months ended		Nine months ended	
	September 30,		September 30,	
	2016	2015	2016	2015
Beginning balance	\$ (323)	\$ (703)	\$ (588)	\$ (709)
Other comprehensive (loss) income before reclassifications (2)	(31)	(1)	(64)	5
Amounts reclassified from accumulated other comprehensive income (2)	26	1	60	11
Equity method affiliates (3)		6	264	(4)
Net current-period other comprehensive income	(5)	6	260	12
Ending balance	\$ (328)	\$ (697)	\$ (328)	\$ (697)

(1) All amounts are after tax. Amounts in parentheses indicate debits to accumulated other comprehensive income.

(2) Tax effects are not significant.

(3) For the three months ended September 30, 2016, tax effects are not significant. For the nine months ended September 30, 2016, amounts are net of total tax expense of \$19 million. For the three and nine months ended September 30, 2015, tax effects are not significant.

In the second quarter of 2016, a \$260 million cumulative unamortized actuarial loss, net of tax of \$19 million, was released as a result of the realignment of Dow Corning and included in the gain on realignment of equity investment.

In the second quarter of 2016, a \$2 million cumulative unamortized actuarial loss was released as a result of the contribution of our investment in PCE to the PCC litigation trust and included in selling, general and administrative expenses.

16. Share-based Compensation

Stock Compensation Plans

The Company measures and recognizes compensation cost for all share-based payment awards made to employees and directors based on estimated fair values. Fair values for stock options were estimated using a multiple-point Black-Scholes valuation model. Share-based compensation cost was approximately \$10 million and \$11 million for the three months ended September 30, 2016 and 2015, respectively, and approximately \$33 million and \$36 million for the nine months ended September 30, 2016 and 2015, respectively. Amounts for all periods presented included compensation expense for employee stock options and time-based restricted stock and restricted stock units.

Stock Options

Corning's stock option plans provide non-qualified and incentive stock options to purchase authorized but unissued shares, or treasury shares, at the market price on the grant date and generally become exercisable in installments from one to five years from the grant date. The maximum term of non-qualified and incentive stock options is 10 years from the grant date.

The following table summarizes information concerning stock options outstanding including the related transactions under the stock option plans for the nine months ended September 30, 2016:

	Number of Shares (in thousands)	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term in Years	Aggregate Intrinsic Value (in thousands)
Options Outstanding as of December 31, 2015	42,738	\$19.40		
Granted	1,669	19.98		
Exercised	(5,838)	15.63		
Forfeited and Expired	(4,317)	26.02		
Options Outstanding as of September 30, 2016	34,252	19.24	3.96	\$164,226
Options Expected to Vest as of September 30, 2016	34,208	19.23	3.95	164,091
Options Exercisable as of September 30, 2016	29,475	18.99	3.21	150,477

The aggregate intrinsic value (market value of stock less option exercise price) in the preceding table represents the total pretax intrinsic value, based on the Company's closing stock price on September 30, 2016, which would have been received by the option holders had all option holders exercised their "in-the-money" options as of that date.

As of September 30, 2016, there was approximately \$7 million of unrecognized compensation cost related to stock options granted under the plans. The cost is expected to be recognized over a weighted-average period of 1.8 years. Compensation cost related to stock options was approximately \$2 million for the three months ended September 30, 2016 and 2015, respectively, and approximately \$10 million and \$13 million for the nine months ended September 30, 2016 and 2015, respectively.

Proceeds received from the exercise of stock options were \$86 million and \$99 million for the nine months ended September 30, 2016 and 2015, respectively. Proceeds received from the exercise of stock options were included in financing activities on the Company's Consolidated Statements of Cash Flows. The total intrinsic value of options exercised for the nine months ended September 30, 2016 and 2015 was approximately \$36 million and \$46 million, respectively. The income tax benefit realized from share-based compensation was not significant for the three and nine months ended September 30, 2016 and 2015, respectively. Refer to Note 5 (Income Taxes) to the Consolidated Financial Statements.

The following inputs were used for the valuation of option grants under our stock option plans:

	Three months ended September 30,		Nine months ended September 30,			
	2016	2015	2016	2015	2016	2015
Expected volatility	38.6%	44.2%	38.6	43.1%	44.2	44.9%
Weighted-average volatility	38.6%	44.2%	38.6	43.1%	44.2	44.9%
Expected dividends	2.34%	2.67%	2.34	2.94%	1.92	2.67%
Risk-free rate	1.4%	2.0%	1.4	1.6%	1.9	2.0%
Average risk-free rate	1.4%	2.0%	1.4	1.6%	1.9	2.0%
Expected term (in years)	7.4	7.2	7.4	7.4	7.2	7.2
Pre-vesting departure rate	0.6%	0.6%	0.6	0.6%	0.6	0.6%

Expected volatility is based on a blended approach defined as the weighted average of the short-term implied volatility, the most recent volatility for the period equal to the expected term, and the most recent 15-year historical volatility. The expected term assumption is the period of time the options are expected to be outstanding, and is calculated using a combination of historical exercise experience adjusted to reflect the current vesting period of options being valued, and partial life cycles of outstanding options. The risk-free rate assumption is the implied rate for a zero-coupon U.S. Treasury bond with a term equal to the option's expected term.

Incentive Stock Plans

The Corning Incentive Stock Plan permits restricted stock and restricted stock unit grants, either determined by specific performance goals or issued directly, in most instances, subject to the possibility of forfeiture and without cash consideration. Restricted stock and restricted stock units under the Incentive Stock Plan are granted at the closing market price on the grant date, contingently vest over a period of generally one to ten years, and generally have contractual lives of one to ten years. The fair value of each restricted stock grant or restricted stock unit awarded under the Incentive Stock Plan is based on the grant date closing price of the Company's stock.

Time-Based Restricted Stock and Restricted Stock Units:

Time-based restricted stock and restricted stock units are issued by the Company on a discretionary basis, and are payable in shares of the Company's common stock upon vesting. The fair value is based on the closing market price of the Company's stock on the grant date. Compensation cost is recognized over the requisite vesting period and adjusted for actual forfeitures before vesting.

The following table represents a summary of the status of the Company's non-vested time-based restricted stock and restricted stock units as of December 31, 2015, and changes which occurred during the nine months ended September 30, 2016:

	Shares (000's)	Weighted Average Grant-Date Fair Value
Non-vested shares and share units at December 31, 2015	5,242	\$ 17.91
Granted	1,415	20.57
Vested	(1,802)	14.48
Forfeited	(75)	20.78
Non-vested shares and share units at September 30, 2016	4,780	\$ 19.95

As of September 30, 2016, there was approximately \$31 million of unrecognized compensation cost related to non-vested time-based restricted stock and restricted stock units compensation arrangements granted under the Plan. The cost is expected to be recognized over a weighted-average period of 1.9 years. Compensation cost related to time-based restricted stock and restricted stock units was approximately \$8 million and \$9 million for the three months ended September 30, 2016 and 2015, respectively, and approximately \$23 million for the nine months ended September 30, 2016 and 2015, respectively.

17. Reportable Segments

Our reportable segments are as follows:

- Display Technologies – manufactures glass substrates primarily for flat panel liquid crystal displays.
- Optical Communications – manufactures carrier and enterprise network components for the telecommunications industry.
- Environmental Technologies – manufactures ceramic substrates and filters for automotive and diesel emission control applications.
- Specialty Materials – manufactures products that provide more than 150 material formulations for glass, glass ceramics and fluoride crystals to meet demand for unique customer needs.
- Life Sciences – manufactures glass and plastic labware, equipment, media and reagents enabling workflow solutions for scientific applications.

All other segments that do not meet the quantitative threshold for separate reporting have been grouped as “All Other.” This group is primarily comprised of the results of Corning’s Pharmaceutical Technologies business, which consists of a pharmaceutical glass business and a glass tubing business used in the pharmaceutical packaging industry. This segment also includes Corning Precision Materials’ non-LCD business and new product lines and development projects, as well as certain corporate investments such as Eurokera and Keraglass equity affiliates.

We prepared the financial results for our reportable segments on a basis that is consistent with the manner in which we internally disaggregate financial information to assist in making internal operating decisions. We included the earnings of equity affiliates that are closely associated with our reportable segments in the respective segment’s net income. We have allocated certain common expenses among reportable segments differently than we would for stand-alone financial information. Segment net income may not be consistent with measures used by other companies. The accounting policies of our reportable segments are the same as those applied in the consolidated financial statements.

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Reportable Segments (in millions)

	Display Technologies	Optical Communications	Environmental Technologies	Specialty Materials	Life Sciences	All Other	Total
Three months ended September 30, 2016							
Net sales	\$ 902	\$ 795	\$ 264	\$ 295	\$ 214	\$ 37	\$2,507
Depreciation (1)	\$ 152	\$ 41	\$ 32	\$ 26	\$ 14	\$ 12	\$ 277
Amortization of purchased intangibles		\$ 10			\$ 5	\$ 2	\$ 17
Research, development and engineering expenses (2)	\$ 14	\$ 37	\$ 24	\$ 31	\$ 6	\$ 47	\$ 159
Equity in earnings of affiliated companies						\$ (3)	\$ (3)
Income tax (provision) benefit	\$ (98)	\$ (49)	\$ (17)	\$ (21)	\$ (8)	\$ 21	\$ (172)
Net income (loss) (3)	\$ 279	\$ 78	\$ 35	\$ 42	\$ 16	\$ (47)	\$ 403

	Display Technologies	Optical Communications
Three months ended September 30, 2015		
Net sales	\$757	\$
Depreciation (1)	\$147	\$

Cash flows used in investing activities increased by \$277.7 million for the first six months of 2017 compared to the first six months of 2016. The increase was due to \$233.9 million higher capital expenditures and \$48.4 million lower proceeds from the sale of assets, partially offset by \$4.5 million lower capital contributions associated with our equity method investments.

Financing Activities. Cash flows provided by financing activities decreased by \$598.9 million for the first six months of 2017 compared to the first six months of 2016. This decrease was primarily due to \$995.3 million lower net proceeds from the issuance of common stock in 2016, \$68.3 million of repurchases of our common stock in 2017 and \$15.0 million of higher dividend payments related to an increase in the dividend rate and the issuance of common stock in 2016. These decreases were partially offset by \$477.0 million of lower net repayments of debt due to the repayment of the outstanding balance on our revolving credit facility and certain of our senior notes with the proceeds from the issuance of common stock in 2017.

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Information about our capitalization is as follows:

(In thousands)	June 30, 2017	December 2016
Debt	\$1,521,211	\$1,520,531
Stockholders' equity	2,642,031	2,567,667
Total capitalization	\$4,163,242	\$4,088,198
Debt to total capitalization	37	% 37
Cash and cash equivalents	\$516,534	\$498,542

During the six months ended June 30, 2017, we repurchased 3.0 million shares of our common stock at a total cost of \$68.3 million. We also paid dividends of \$32.6 million (\$0.07 per share) on our common stock. In May 2017, the Board of Directors approved an increase in the quarterly dividend on common stock from \$0.02 per share to \$0.05 per share.

Capital and Exploration Expenditures

On an annual basis, we generally fund most of our capital expenditures, excluding any significant property acquisitions, with cash generated from operations, and if required, borrowings under our revolving credit facility. We budget these expenditures based on our projected cash flows for the year.

The following table presents major components of our capital and exploration expenditures:

(In thousands)	Six Months End June 30, 2017	2016
Capital expenditures		
Drilling and facilities	\$310,308	\$157,000
Leasehold acquisitions	91,497	592
Pipeline and gathering	462	775
Other	5,022	3,465
	407,289	162,532
Exploration expenditures	10,157	10,120
Total	\$417,446	\$172,652

For the full year of 2017, we plan to drill approximately 100 gross wells (95.0 net) and complete approximately 100 gross wells (90.0 net), of which 51 gross wells (45.0 net) were drilled but uncompleted in prior years. In 2017, our drilling program includes approximately \$775.0 million in total capital expenditures compared to \$372.5 million in 2016. See "Outlook" for additional information regarding the current year drilling program. We will continue to assess the natural gas and crude oil price environment along with our liquidity position and may increase or decrease our capital expenditures accordingly.

Contractual Obligations

We have various contractual obligations in the normal course of our operations. There have been no material changes to our contractual obligations described under "Transportation and Gathering Agreements," "Drilling Rig Commitments," "Lease Commitments" and "Hydraulic Fracturing Commitments" as disclosed in Note 9 in the Notes to Consolidated Financial Statements and our obligations described under "Contractual Obligations" in Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in our Form 10-Q.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations are based upon our Condensed Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses. See our Form 10-K for further discussion of our critical accounting policies.

Recently Adopted and Recently Issued Accounting Pronouncements
 Refer to Note 1 to the Condensed Consolidated Financial Statements, "Financial Statement Presentation,"
 for a discussion of new accounting pronouncements that affect the Company's

Results of Operations

Second Quarters of 2017 and 2016 Comparison

We reported net income in the second quarter of 2017 of \$21.5 million, or \$0.05 per share, compared to a net loss of \$62.9 million, or \$0.14 per share, in the second quarter of 2016. The increase in net income was primarily due to higher operating revenues, partially offset by higher operating expenses and income tax expense.

Revenue, Price and Volume Variances

Our revenues vary from year to year as a result of changes in commodity prices and production volumes. Below is a discussion of revenue, price and volume variances.

Revenue Variances (In thousands)	Three Months Ended		Variance	
	June 30, 2017	June 30, 2016	Amount	Percent
Natural gas	\$395,328	\$223,232	\$172,096	77%
Crude oil and condensate	44,625	46,156	(1,531)	(3)%
Gain (loss) on derivative instruments	13,805	(27,184)	40,989	151%
Brokered natural gas	4,037	2,596	1,441	56%
Other	2,662	2,016	646	32%
	\$460,457	\$246,816	\$213,641	87%

	Three Months Ended June 30,		Variance		Increase (Decrease) (In thousands)
	2017	2016	Amount	Percent	
Price Variances					
Natural gas	\$2.38	\$1.55	\$0.83	54%	\$ 138,151
Crude oil and condensate	\$44.03	\$40.51	\$3.52	9%	3,533
Total					\$ 141,684
Volume Variances					
Natural gas (Bcf)	166.2	144.3	21.9	15%	\$ 33,945
Crude oil and condensate (Mbbbl)	1,014	1,139	(125)	(11)%	(5,064)
Total					\$ 28,881

Natural Gas Revenue

The increase in natural gas revenues of \$172.1 million was due to higher natural gas prices and production. The increase in production was a result of an increase in our drilling and completion activities in Pennsylvania.

Crude Oil and Condensate Revenue

The decrease in crude oil and condensate revenues of \$1.5 million was due to lower production, partially offset by higher crude oil prices. The decrease in production was a result of natural decline in production, partially offset by and increase in drilling and completion activity in south Texas.

		Impact of Derivative Instruments on Operating Revenue			
		Three Months Ended June 30,			
(In thousands)		2017	2016		
	Cash received (paid) on settlement of derivative instruments				
	Gain (loss) on derivative instruments	\$ 1,204	\$ 11,300		
	Non-cash gain (loss) on derivative instruments				
	Gain (loss) on derivative instruments	12,601	(38,480)		
		\$ 13,805	\$ (27,180)		
		Brokered Natural Gas			
		Three Months Ended June 30,		Variance	Price and Volume Variances
		2017	2016	Amount	Percent
		(In thousands)			
	Brokered Natural Gas Sales				
	Sales price (\$/Mcf)	\$ 3.06	\$ 2.11	\$ 0.95	45 %
	Volume brokered (Mmcf)	x 1,321	x 1,232	89	7 %
	Brokered natural gas (In thousands)	\$ 4,037	\$ 2,596		\$ 1,441
	Brokered Natural Gas Purchases				
	Purchase price (\$/Mcf)	\$ 2.59	\$ 1.64	\$ 0.95	58 %
	Volume brokered (Mmcf)	x 1,321	x 1,232	89	7 %
	Brokered natural gas (In thousands)	\$ 3,419	\$ 2,021		\$ 1,398
	Brokered natural gas margin (In thousands)	\$ 618	\$ 575		\$ 43

(In thousands)	Operating and Other Expenses		Variance	
	Three Months Ended June 30, 2017	2016	Amount	Percentage
Operating and Other Expenses				
Direct operations	\$27,262	\$26,477	\$785	3
Transportation and gathering	120,544	107,560	12,984	12
Brokered natural gas	3,419	2,021	1,398	69
Taxes other than income	8,310	8,973	(663)	(7)
Exploration	3,959	3,738	221	6
Depreciation, depletion and amortization	144,322	147,533	(3,211)	(2)
Impairment of oil and gas properties	68,555	—	68,555	100
General and administrative	23,957	19,945	4,012	20
	\$400,328	\$316,247	\$84,081	27
Earnings (loss) on equity method investments	\$(1,286)	\$(73)	\$(1,213)	1,666
Gain (loss) on sale of assets	(1,403)	(878)	(525)	60
Loss on debt extinguishment	—	4,709	(4,709)	(100)
Interest expense	20,619	21,963	(1,344)	(6)
Other (income) expense	(315)	302	(617)	(204)
Income tax expense (benefit)	15,609	(34,446)	50,055	(145)

Total costs and expenses from operations increased by \$84.1 million, or 27%, in the second quarter

2017 compared to the same period of 2016. The primary reasons for this fluctuation are as follows:

Direct operations increased \$0.8 million largely due to an increase in operating costs primarily driven by higher production, partially offset by improved operational efficiencies.

Transportation and gathering increased \$13.0 million due to higher throughput as a result of higher Marcellus Shale production.

Brokered natural gas increased \$1.4 million. See the preceding table titled "Brokered Natural Gas" for further analysis.

Taxes other than income decreased \$0.7 million primarily due to \$1.7 million lower ad valorem taxes as a result of lower property values primarily in south Texas, partially offset by \$1.1 million higher drilling impact fees as a result of an increase in drilling activity in Pennsylvania. The remaining changes in taxes other than income were not individually significant.

Depreciation, depletion and amortization decreased \$3.2 million, primarily due to lower DD&A of \$28.1 million, partially offset by higher amortization of unproved properties of \$5.0 million in the second quarter of 2017. A \$28.1 million decrease in DD&A was due to a lower DD&A rate of \$0.73 per Mcfe for the second quarter of 2017 compared to \$0.90 per Mcfe for the second quarter of 2016 primarily due to positive reserve revisions and the impairment of oil and gas properties and related pipeline assets in West Virginia and Virginia in 2016. This decrease was partially offset by \$19.1 million higher equivalent production primarily in Pennsylvania for the second quarter of 2017 compared to the second quarter of 2016. The increase in amortization of unproved properties is primarily due to an increase in leasing activity.

Impairment of oil and gas properties was \$68.6 million in the second quarter of 2017 due to the impairment of oil and gas properties and related pipeline assets in West Virginia, Virginia and Ohio associated with the proposed sale of these properties.

General and administrative increased \$4.0 million due to \$2.8 million of higher stock-based compensation expense associated with certain of our market-based performance awards, \$2.3 million of higher employee-related expenses, partially offset by \$2.2 million lower professional services. The remaining changes in other general and administrative expenses were not individually significant.

Earnings (Loss) on Equity Method Investments

The increase in the loss on equity method investments is a result of our proportionate share of net loss from our equity method investments in 2017 compared to 2016.

Loss on Debt Extinguishment

A \$4.7 million extinguishment loss was recognized in the second quarter of 2016 related to the premium paid for the repurchase of a portion of our 6.51% weighted-average senior notes in May 2016 and the write-off of a portion of the associated deferred financing costs due to early repayment.

Interest Expense

Interest expense decreased \$1.3 million due to lower interest charges of \$0.7 million as a result of the repurchase of \$64.0 million of our 6.51% weighted-average senior notes in May 2016 and the repayment of \$20.0 million of our 7.33% weighted-average senior notes in July 2016.

Income Tax Expense (Benefit)

Income tax expense increased \$50.1 million primarily due to higher pretax income and a higher effective tax rate. The effective tax rates for the second quarter of 2017 and 2016 were 42.0% and 35.0%, respectively. The increase in the effective tax rate is primarily due to an increase in the blended statutory tax rate as a result of changes in our state apportionment factors in the states in which we operate and the impact of excess tax benefits and tax deficiencies on shares vesting during the period, a result of the adoption of ASU No. 2016-09 in January 2017, as well as non-recurring discrete items recorded during the second quarter of 2017 versus the second quarter of 2016.

First Six Months of 2017 and 2016 Comparison

We reported net income in the first six months of 2017 of \$127.2 million, or \$0.27 per share, compared to a net loss of \$114.1 million, or \$0.25 per share, in the first six months of 2016. The increase in net income was primarily due to higher operating revenues, partially offset by higher operating expenses and income tax expense.

Revenue, Price and Volume Variances

Our revenues vary from year to year as a result of changes in commodity prices and production volumes. Below is a discussion of revenue, price and volume variances.

Revenue Variances (In thousands)	Six Months Ended		Variance	
	June 30, 2017	June 30, 2016	Amount	Percent
Natural gas	\$828,770	\$450,811	\$377,959	84%
Crude oil and condensate	87,616	76,833	10,783	14%
Gain (loss) on derivative instruments	47,190	(8,190)	55,380	67%
Brokered natural gas	8,732	5,776	2,956	51%
Other	5,994	3,527	2,467	70%
	\$978,302	\$528,757	\$449,545	85%
	Six Months Ended June 30,		Variance	Increase (Decrease)
	2017	2016	Amount	Percent (In thousands)
Price Variances				
Natural gas	\$2.51	\$1.52	\$0.99	65%
Crude oil and condensate	\$45.29	\$34.16	\$11.13	33%
Total				\$349,916
Volume Variances				
Natural gas (Bcf)	330.0	297.4	32.6	11%
Crude oil and condensate (Mbbl)	1,935	2,249	(314)	(14)%
Total				\$38,826

(In thousands)	Operating and Other Expenses			
	Six Months Ended June 30, 2017	2016	Variance Amount	Percentage
Operating and Other Expenses				
Direct operations	\$51,903	\$52,513	\$(610)	(1)%
Transportation and gathering	244,018	217,213	26,805	12%
Brokered natural gas	7,465	4,587	2,878	63%
Taxes other than income	17,368	14,967	2,401	16%
Exploration	10,157	10,121	36	—%
Depreciation, depletion and amortization	279,422	309,420	(29,998)	(10)%
Impairment of oil and gas properties	68,555	—	68,555	100%
General and administrative	47,659	47,817	(158)	(—)%
	\$726,547	\$656,638	\$69,909	11%
Earnings (loss) on equity method investments	\$(2,569)	\$1,935	\$(4,504)	(23)%
Gain (loss) on sale of assets	(1,626)	477	(2,103)	(44)%
Loss on debt extinguishment	—	4,709	(4,709)	(10)%
Interest expense	41,390	46,338	(4,948)	(11)%
Other (income) expense	109	804	(695)	(86)%
Income tax expense (benefit)	78,814	(63,216)	142,030	(22)%

Total costs and expenses from operations increased by \$69.9 million, or 11%, in the first six months

2017 compared to the same period of 2016. The primary reasons for this fluctuation are as follows:

Direct operations decreased \$0.6 million largely due to improved operational efficiencies, cost reductions from service providers and suppliers in 2017 compared to 2016 and the divestiture of certain oil and gas properties in east Texas in February 2016.

Transportation and gathering increased \$26.8 million due to higher throughput as a result of higher Marcellus Shale production and a charge associated with transportation expenses in the Eagle Ford Shale.

Brokered natural gas increased \$2.9 million. See the preceding table titled “Brokered Natural Gas” for further analysis.

Taxes other than income increased \$2.4 million due to \$2.5 million higher production taxes primarily resulting from higher natural gas and crude oil prices and an increase in drilling impact fees of \$2.5 million due to an increase in drilling activity in Pennsylvania. These increases were offset by a decrease of \$2.5 million in ad valorem taxes as a result of lower property values primarily in south Texas.

Exploration increased slightly as a result of higher dry hole costs of \$2.8 million in 2017, partially offset by lower charges related to the release of certain drilling rig contracts in south Texas. In the first six months of 2016, we recorded rig termination charges of \$3.2 million. We recorded no rig termination charges in the first six months of 2017.

Depreciation, depletion and amortization decreased \$30.0 million, primarily due to lower DD&A of \$36.6 million, partially offset by higher amortization of unproved properties of \$6.5 million in 2017. \$65.1 million decrease in DD&A was associated with a lower DD&A rate of \$0.73 per Mcfe for the first six months of 2017 compared to \$0.92 per Mcfe for the first six months of 2016, partially offset by a \$28.5 million increase due to higher equivalent production volumes. The lower DD&A rate was primarily due to positive reserve revisions and the impairment of oil and gas properties and related pipeline assets in West Virginia and Virginia in 2016. The increase in amortization of unproved properties is primarily due to the ongoing evaluation of our unproved properties and an increase in leasing activity.

Impairment of oil and gas properties was \$68.6 million in 2017 due to the impairment of oil and gas properties and related pipeline assets in West Virginia, Virginia and Ohio associated with the proposed sale of these properties.

General and administrative decreased \$0.2 million due to \$5.2 million lower professional services, partially offset by \$0.4 million higher stock-based compensation expense primarily due to changes in price of our common stock and \$3.6 million higher employee-related expenses. The remaining changes in other general and administrative expenses were not individually significant.

Earnings (Loss) on Equity Method Investments

The increase in loss on equity method investments is the result of our proportionate share of net earnings from our equity method investments in 2017 compared to 2016.

Loss on Debt Extinguishment

A \$4.7 million extinguishment loss was recognized in the second quarter of 2016 related to the premium paid for the repurchase of a portion of our 6.51% weighted-average senior notes in May 2016 and the write-off of a portion of the associated deferred financing costs due to early repayment.

Interest Expense

Interest expense decreased \$4.9 million primarily due to a \$2.1 million decrease resulting from the repayment of the outstanding borrowings under our revolving credit facility in March 2016, which remained undrawn through June 30, 2017. Interest expense also decreased \$2.2 million resulting from the repurchase of \$64.0 million of our 6.51% weighted-average senior notes in May 2016 and the repayment of \$20.0 million of our 7.33% weighted-average senior notes in July 2016.

Income Tax Expense (Benefit)

Income tax expense increased \$142.0 million due to higher pretax income and a higher effective tax rate.

The effective tax rates for the first six months of 2017 and 2016 were 38.2% and 35.7%, respectively. The increase in the effective tax rate is primarily due to an increase in the blended state statutory tax rates as a result of changes in our state apportionment factors in the states in which we operate and the impact of excess tax benefits and tax deficiencies on shares vesting during the period as a result of the adoption of ASU No. 2016-09 in January 2017, as well as non-recurring discrete items recorded during the first six months of 2017 versus the first six months of 2016.

Forward-Looking Information

The statements regarding future financial and operating performance and results, strategic pursuits, goals, market prices, future hedging and risk management activities, and other statements that are not historical facts contained in this report are forward-looking statements. The words “expect,” “anticipate,” “estimate,” “believe,” “anticipate,” “intend,” “budget,” “plan,” “forecast,” “target,” “predict,” “may,” and similar expressions are also intended to identify forward-looking statements. Such statements involve risks and uncertainties, including, but not limited to, market factors, market prices (including geographic basis differentials) of natural gas and crude oil, results of future drilling and marketing activity, future production and costs, legislative and regulatory initiatives, electronic, cyber or physical security breaches and other factors detailed herein and in our other Securities and Exchange Commission filings. See “Risk Factors” in Item 1A of the Form 10-K for additional information about these risks and uncertainties.

Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual outcomes may vary materially from those indicated.

ITEM 3. Quantitative and Qualitative Disclosures about Market Risk

Market Risk

Our primary market risk is exposure to natural gas and crude oil prices. Realized prices are market driven by worldwide prices for crude oil and spot market prices for North American natural gas production. Commodity prices can be volatile and unpredictable.

Derivative Instruments and Risk Management Activities

Our risk management strategy is designed to reduce the risk of price volatility for our production in the natural gas and crude oil markets through the use of commodity derivatives. A committee that consists

members of senior management oversees our risk management activities. Our commodity derivatives generally cover a portion of our production and provide only partial price protection by limiting benefit to us of increases in prices, while protecting us in the event of p

can be subject to credit risk in the event of non-performance by third parties are substantially small. Our counterparties are primarily commercial banks and financial service institutions that management believes present minimal credit risk and our derivative contracts are with multiple counterparties to minimize our exposure to any individual counterparty. We perform both quantitative and qualitative assessments of these counterparties based on their credit ratings and credit default swap rates where applicable. We have not incurred any losses related to non-performance risk of our counterparties and we do not anticipate any material impact on our financial results due to non-performance by third parties.

However, we cannot be certain that we will not experience such losses in the future.

The preceding paragraphs contain forward-looking information concerning future production and projected gains and losses, which may be impacted both by production and by changes in the future commodity prices. See “Forward-Looking Information” for further details.

Fair Value of Other Financial Instruments

The estimated fair value of other financial instruments is the amount at which the instrument could be exchanged currently between willing parties. The carrying amount reported in the Condensed Consolidated Balance Sheet for cash and cash equivalents approximates fair value due to the short-term maturities of these instruments.

We use available market data and valuation methodologies to estimate the fair value of debt. The value of debt is the estimated amount we would have to pay a third party to assume the debt, including credit spread for the difference between the issue rate and the period end market rate. The credit spread is our default or repayment risk. The credit spread (premium or discount) is determined by comparing our senior notes and revolving credit facility to new issuances (secured and unsecured) and secondary trades of similar size and credit statistics for both public and private debt. The fair value of all senior notes and the revolving credit facility is based on interest rates currently available to

The carrying amount and fair value of debt is as follows:

	June 30, 2017		December 31, 2016	
(In thousands)	Carrying Amount	Estimated Fair Value	Carrying Amount	Estimated Fair Value
Debt, net	\$1,521,211	\$1,511,291	\$1,520,530	\$1,463,640

ITEM 4. Controls and Procedures

As of June 30, 2017, the Company carried out an evaluation, under the supervision and with the participation of the Company's management, including the Company's Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of the Company's disclosure controls and procedures pursuant to Rules 13a-15 and 15d-15 of the Securities Exchange Act of 1934 (the "Exchange Act"). Based upon that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures are effective, in all material respects, with respect to the recording, processing, summarizing and reporting, within the time periods specified in the Commission's rules and forms, of information required to be disclosed by the Company in

reports that it files or submits under the Exchange Act.

There were no changes in the Company's internal control over financial reporting that occurred during the second quarter of 2017 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

Legal Matters

The information set forth under the heading “Legal Matters” in Note 8 of the Notes to Consolidated Financial Statements included in Item 1 of Part I of this quarterly report is incorporated by reference in response to this item.

Environmental Matters

From time to time we receive notices of violation from governmental and regulatory authorities in areas in which we operate relating to alleged violations of environmental statutes or the rules and regulations promulgated thereunder. While we cannot predict with certainty whether these notices of violation result in fines and/or penalties, if fines and/or penalties are imposed, they may result in monetary sanctions, individually or in the aggregate, in excess of \$100,000.

ITEM 1A. Risk Factors

For additional information about the risk factors that affect us, see Item 1A of Part I of our Annual Report on Form 10-K for the year ended December 31, 2016.

ITEM 2. Unregistered Sales of Equity Securities and Use of Proceeds

Issuer Purchases of Equity Securities

Our Board of Directors has authorized a share repurchase program under which we may purchase shares of common stock in the open market or in negotiated transactions. There is no expiration date associated with the authorization. The shares included in the table below were purchased on the open market and were held as treasury stock as of June 30, 2017.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares That May Yet Be Purchased Under the Plans or Programs
April 2017	—	—	—	10,097
May 2017	750,000	\$ 22.65	750,000	9,347,300
June 2017	2,293,246	\$ 22.33	2,293,246	7,054,000
Total	3,043,246		3,043,246	

Exhibit Number	Description
<u>31.1</u>	<u>302 Certification — Chairman, President and Chief Executive Officer</u>
<u>31.2</u>	<u>302 Certification — Executive Vice President and Chief Financial Officer</u>
<u>32.1</u>	<u>906 Certification.</u>
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 Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

SIGNATURE

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:

CABOT OIL & GAS CORPORATION
(Registrant)

July 28, 2017 By: /s/ DAN O. DINGES

Dan O. Dinges
Chairman, President and Chief Executive Officer
(Principal Executive Officer)

July 28, 2017 By: /s/ SCOTT C. SCHROEDER

Scott C. Schroeder
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

July 28, 2017 By: /s/ TODD M. ROEMER

Todd M. Roemer
Vice President and Controller
(Principal Accounting Officer)