Owens Corning
Form 10-Q
October 24, 2018
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-Q
(Mark One)
þ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended September 30, 2018
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: 1-33100
Owens Corning
(Exact name of registrant as specified in its charter)

Delaware	43-2109021
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
One Owens Corning Parkway, Toledo, OH	43659
(Address of principal executive offices)	(Zip Code)

(419) 248-8000
(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 þ No ¨
Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).
Yes þ No ¨
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act. (Check one):
Large accelerated filer þ Accelerated filer ¨
Non-accelerated filer ¨ Smaller reporting company ¨
Emerging growth company ¨
If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ¨
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).
Yes ¨ No þ
As of October 16, 2018, 109,319,759 shares of registrant’s common stock, par value $0.01 per share, were outstanding.

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PART I
ITEM 1. FINANCIAL STATEMENTS
OWENS CORNING AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF EARNINGS
(unaudited)
(in millions, except per share amounts)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
NET SALES	$1,818	$1,703	$5,333	$4,778
COST OF SALES	1,370	1,280	4,112	3,605
Gross margin	448	423	1,221	1,173
OPERATING EXPENSES				
Marketing and administrative expenses	159	159	531	456
Science and technology expenses	21	22	66	64
Other expenses, net	13	19	39	43
Total operating expenses	193	200	636	563
OPERATING INCOME	255	223	585	610
Non-operating (income) expense	(4)	(4)	(11)	23
EARNINGS BEFORE INTEREST AND TAXES	259	227	596	587
Interest expense, net	31	28	92	81
Loss on extinguishment of debt	—	71	—	71
EARNINGS BEFORE TAXES	228	128	504	435
Income tax expense	67	32	127	142
Equity in net earnings / (loss) of affiliates	1	—	(1)	—
NET EARNINGS	162	96	376	293
Net earnings attributable to noncontrolling interests	1	—	2	—
NET EARNINGS ATTRIBUTABLE TO OWENS CORNING	$161	$96	$374	$293
EARNINGS PER COMMON SHARE ATTRIBUTABLE TO OWENS CORNING COMMON STOCKHOLDERS				
Basic	$1.46	$0.86	$3.38	$2.63
Diluted	$1.45	$0.85	$3.35	$2.59
Dividend	$0.21	$0.20	$0.63	$0.60
WEIGHTED AVERAGE COMMON SHARES				
Basic	110.0	111.0	110.8	111.6
Diluted	110.9	112.7	111.7	113.2

The accompanying Notes to the Consolidated Financial Statements are an integral part of this Statement.

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OWENS CORNING AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE EARNINGS
(unaudited)
(in millions)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
NET EARNINGS	$162	$96	$376	$293
Currency translation adjustment (net of tax of $0 and $3 for the three months ended September 30, 2018 and 2017, respectively, and $(1) and $9 for the nine months ended September 30, 2018 and 2017, respectively)	(12)	27	(101)	92
Pension and other postretirement adjustment (net of tax of $(1) and $(1) for the three months ended September 30, 2018 and 2017, respectively, and $(3) and $(9) for the nine months ended September 30, 2018 and 2017, respectively)	1	2	3	16
Hedging adjustment (net of tax of $0 and $0 for the three months ended September 30, 2018 and 2017, respectively, and $0 and $2 for the nine months ended September 30, 2018 and 2017, respectively)	1	—	2	(3)
COMPREHENSIVE EARNINGS	152	125	280	398
Comprehensive earnings attributable to noncontrolling interests	1	—	2	—
COMPREHENSIVE EARNINGS ATTRIBUTABLE TO OWENS CORNING	$151	$125	$278	$398

The accompanying Notes to the Consolidated Financial Statements are an integral part of this Statement.

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OWENS CORNING AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(unaudited)
(in millions, except per share amounts)

ASSETS	September 30, 2018	December 31, 2017
CURRENT ASSETS		
Cash and cash equivalents	$ 136	$ 246
Receivables, less allowances of $18 at September 30, 2018 and $19 at December 31, 2017	955	806
Inventories	1,032	841
Assets held for sale	5	12
Other current assets	113	80
Total current assets	2,241	1,985
Property, plant and equipment, net	3,741	3,425
Goodwill	1,960	1,507
Intangible assets, net	1,799	1,360
Deferred income taxes	71	144
Other non-current assets	234	211
TOTAL ASSETS	$ 10,046	$ 8,632
LIABILITIES AND EQUITY		
CURRENT LIABILITIES		
Accounts payable and accrued liabilities	$ 1,381	$ 1,277
Short-term debt	1	1
Long-term debt – current portion	4	4
Total current liabilities	1,386	1,282
Long-term debt, net of current portion	3,669	2,405
Pension plan liability	218	256
Other employee benefits liability	216	225
Deferred income taxes	124	37
Other liabilities	227	223
OWENS CORNING STOCKHOLDERS’ EQUITY		
Preferred stock, par value $0.01 per share (a)	—	—
Common stock, par value $0.01 per share (b)	1	1
Additional paid in capital	4,017	4,011
Accumulated earnings	1,867	1,575
Accumulated other comprehensive deficit	(610)	(514)
Cost of common stock in treasury (c)	(1,110)	(911)
Total Owens Corning stockholders’ equity	4,165	4,162
Noncontrolling interests	41	42
Total equity	4,206	4,204
TOTAL LIABILITIES AND EQUITY	$ 10,046	$ 8,632

(a) 10 shares authorized; none issued or outstanding at September 30, 2018 and December 31, 2017

(b) 400 shares authorized; 135.5 issued and 109.3 outstanding at September 30, 2018; 135.5 issued and 111.5 outstanding at December 31, 2017

(c) 26.2 shares at September 30, 2018, and 24.0 shares at December 31, 2017

The accompanying Notes to the Consolidated Financial Statements are an integral part of this Statement.

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OWENS CORNING AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited)
(in millions)

	Nine Months Ended September 30,	
	2018	2017
NET CASH FLOW PROVIDED BY OPERATING ACTIVITIES		
Net earnings	$376	$293
Adjustments to reconcile net earnings to cash provided by operating activities:		
Depreciation and amortization	323	269
Gain on sale of fixed assets	(3)	—
Deferred income taxes	77	88
Provision for pension and other employee benefits liabilities	(1)	34
Stock-based compensation expense	34	30
Other non-cash	13	17
Loss on extinguishment of debt	—	71
Changes in operating assets and liabilities	(265)	(17)
Pension fund contributions	(34)	(68)
Payments for other employee benefits liabilities	(15)	(13)
Other	1	(10)
Net cash flow provided by operating activities	506	694
NET CASH FLOW USED FOR INVESTING ACTIVITIES		
Cash paid for property, plant and equipment	(425)	(249)
Proceeds from the sale of assets or affiliates	11	3
Investment in subsidiaries and affiliates, net of cash acquired	(1,143)	(566)
Other	6	2
Net cash flow used for investing activities	(1,551)	(810)
NET CASH FLOW PROVIDED BY FINANCING ACTIVITIES		
Proceeds from long-term debt	389	588
Proceeds from senior revolving credit and receivables securitization facilities	1,534	869
Payments on senior revolving credit and receivables securitization facilities	(1,227)	(736)
Proceeds from term loan borrowing	600	—
Payments on term loan borrowing	(30)	—
Payments on long-term debt	—	(351)
Net increase (decrease) in short-term debt	—	2
Dividends paid	(70)	(67)
Purchases of treasury stock	(236)	(159)
Other	(7)	8
Net cash flow provided by financing activities	953	154
Effect of exchange rate changes on cash	(17)	19
Net (decrease) increase in cash, cash equivalents and restricted cash	(109)	57
Cash, cash equivalents and restricted cash at beginning of period	253	118
CASH, CASH EQUIVALENTS AND RESTRICTED CASH AT END OF PERIOD	$144	$175

The accompanying Notes to the Consolidated Financial Statements are an integral part of this Statement.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

1. GENERAL

Unless the context requires otherwise, the terms “Owens Corning,” “Company,” “we” and “our” in this report refer to Owens Corning, a Delaware corporation, and its subsidiaries.

The Consolidated Financial Statements included in this report are unaudited, pursuant to certain rules and regulations of the Securities and Exchange Commission, and include, in the opinion of the Company, normal recurring adjustments necessary for a fair statement of the results for the periods indicated, which, however, are not necessarily indicative of results which may be expected for the full year. The December 31, 2017 balance sheet data was derived from audited financial statements, but does not include all disclosures required by accounting principles generally accepted in the United States ("U.S."). In connection with the Consolidated Financial Statements and Notes included in this report, reference is made to the Consolidated Financial Statements and Notes contained in the Company’s Form 10-K for the year ended December 31, 2017 (the "2017 Form 10-K"). Certain reclassifications have been made to the periods presented for 2017 to conform to the classifications used in the periods presented for 2018.

Cash, Cash Equivalents and Restricted Cash

On the Consolidated Statements of Cash Flows, the total of Cash, cash equivalents and restricted cash includes restricted cash of $8 million, $7 million, $7 million and $6 million as of September 30, 2018, December 31, 2017, September 30, 2017 and December 31, 2016, respectively. Restricted cash primarily represents amounts received from a counterparty related to its performance assurance on an executory contract, which is included in Other current assets on the Consolidated Balance Sheets. These amounts are contractually required to be set aside, and the counterparty can exchange the cash for another form of performance assurance at its discretion.

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1. GENERAL (continued)

Accounting Pronouncements

The following table summarizes recent accounting standard updates (ASU) issued by the Financial Accounting Standards Board (FASB) that could have an impact on the Company's Consolidated Financial Statements:

Standard	Description	Effective Date for Company	Effect on the Consolidated Financial Statements
Recently adopted standards:			
ASU 2014-09 "Revenue from Contracts with Customers (Topic 606)," as amended by ASU's 2015-14, 2016-08, 2016-10, 2016-11, 2016-12, 2016-20, 2017-05 and 2017-13 and 2017-14	This standard outlines a new, single comprehensive model for entities to use in accounting for revenue arising from contracts with customers. Entities can adopt this standard either through a retrospective or modified-retrospective approach.	January 1, 2018	The adoption of this standard did not have a material impact on our Consolidated Financial Statements. Please refer to Note 3 of the Consolidated Financial Statements for transition disclosures, as well as other ongoing disclosure requirements.
ASU 2016-16 "Income Taxes (Topic 740)"	This standard requires that an entity recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs.	January 1, 2018	The adoption of this standard did not have a material impact on our Consolidated Financial Statements. Please refer to Note 16 of the Consolidated Financial Statements for a detailed explanation of the cumulative effect of adoption recognized on January 1, 2018.
ASU 2017-07 "Compensation - Retirement Benefits (Topic 715)"	This standard requires that the other components of net benefit cost be presented in the income statement separately from the service cost component and outside a subtotal of income from operations, if one is presented. Entities will adopt the presentation elements of this standard on a retrospective basis.	January 1, 2018	The adoption of this standard did not have a material effect on our Consolidated Financial Statements for the three and nine months ended September 30, 2018. The standard's retrospective adoption, though, will result in a full-year $60 million reclassification of non-service costs from various financial statement lines to non-operating expense, primarily related to pension settlement losses that were recorded in the second and fourth quarters of 2017 (as described in Note 13 of our 2017 Form 10-K). Please refer to Note 12 of the Consolidated Financial Statements for

			additional detail on this adoption.
ASU 2017-12 "Derivatives and Hedging (Topic 815)"	This standard changes how an entity assesses effectiveness of derivative instruments, potentially resulting in less ineffectiveness and more derivatives qualifying for hedge accounting. Entities may early adopt the standard in any interim period, with the effect of adoption being applied to existing hedging relationships as of the beginning of the fiscal year of adoption.	January 1, 2018	The early adoption of this standard did not have a material impact on our Consolidated Financial Statements. Please refer to Note 5 of the Consolidated Financial Statements for additional detail on this adoption.
Recently issued standards:			
ASU 2016-02 "Leases (Topic 842)," as amended by ASU 2017-13, 2018-01, 2018-10, and 2018-11	The standard requires lessees to recognize a right-of-use asset and lease liability for all leases with terms of more than 12 months. The recognition and presentation of expenses will depend on classification as a finance or operating lease. Entities may elect to apply the provisions of the new leasing standard on January 1, 2019, without adjusting the comparative periods presented by recognizing a cumulative-effect adjustment to the opening balance of retained earnings.	January 1, 2019	We are currently assessing the potential impact of this standard adoption on our financial reporting processes and disclosures. We believe that our adoption of the standard will likely have a material impact to our Consolidated Balance Sheets for the recognition of certain operating leases as right-of-use assets and lease liabilities. (Our operating lease obligations are described in Note 8 of our 2017 Form 10-K.) We are in the process of analyzing our lease portfolio, implementing systems, developing processes and internal controls and finalizing our accounting policies to comply with the standard's retrospective adoption requirements.
ASU 2016-13 "Financial Instruments - Credit Losses (Topic 326)"	This standard replaces the incurred loss methodology for recognizing credit losses with a current expected credit losses model and applies to all financial assets, including trade receivables. Entities will adopt the standard using a modified-retrospective approach.	January 1, 2020	We are currently assessing the impact this standard will have on our Consolidated Financial Statements. Our current accounts receivable policy (as described in Note 1 of our 2017 Form 10-K) uses historical and current information to estimate the amount of probable credit losses in our existing accounts receivable. We have not yet analyzed our current systems and methods to determine the impact of using forward-looking information to estimate expected credit losses.
ASU 2018-14 "Compensation-Retirement Benefits-Defined Benefit Plans-General (Subtopic 715-20)	This standard modifies the disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans.	January 1, 2020	We do not believe the adoption of this guidance will have a material effect on our consolidated financial statements.

2. SEGMENT INFORMATION

The Company has three reportable segments: Composites, Insulation and Roofing. Accounting policies for the segments are the same as those for the Company. The Company's three reportable segments are defined as follows:
Composites – The Composites segment includes vertically integrated downstream activities. The Company manufactures, fabricates and sells glass reinforcements in the form of fiber. Glass reinforcement materials are also used downstream by the Composites segment to manufacture and sell glass fiber products in the form of fabrics, non-wovens and other specialized products.
Insulation – Within our Insulation segment, the Company manufactures and sells fiberglass insulation into residential, commercial, industrial and other markets for both thermal and acoustical applications. It also manufactures and sells glass fiber pipe insulation, flexible duct media, bonded and granulated mineral wool insulation, cellular glass insulation and foam insulation used in above- and below-grade construction applications.
Roofing – Within our Roofing segment, the Company manufactures and sells residential roofing shingles, oxidized asphalt materials, roofing components used in residential and commercial construction and specialty applications, and synthetic packaging materials.

NET SALES

The following table summarizes our Net sales by segment and geographic region (in millions). Corporate eliminations (shown below) largely reflect intercompany sales from Composites to Roofing. External customer sales are attributed to geographic region based upon the location from which the product is sold to the external customer.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Reportable Segments				
Composites	$508	$514	$1,560	$1,562
Insulation	710	568	1,988	1,406
Roofing	645	682	1,946	1,993
Total reportable segments	1,863	1,764	5,494	4,961
Corporate eliminations	(45)	(61)	(161)	(183)
NET SALES	$1,818	$1,703	$5,333	$4,778
External Customer Sales by Geographic Region				
United States	$1,208	$1,197	$3,525	$3,387
Europe	304	194	909	481
Asia-Pacific	166	167	484	505
Rest of world	140	145	415	405
NET SALES	$1,818	$1,703	$5,333	$4,778

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2. SEGMENT INFORMATION (continued)

EARNINGS BEFORE INTEREST AND TAXES

Earnings before interest and taxes (EBIT) by segment consist of net sales less related costs and expenses and are presented on a basis that is used internally for evaluating segment performance. Certain items, such as general corporate expenses or income and certain other expense or income items, are excluded from the internal evaluation of segment performance. Accordingly, these items are not reflected in EBIT for our reportable segments and are included within Corporate, Other and Eliminations.

The following table summarizes EBIT by segment (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Reportable Segments				
Composites	$64	$62	$195	$217
Insulation	94	64	175	98
Roofing	127	147	351	427
Total reportable segments	285	273	721	742
Restructuring costs	(7)	(8)	(19)	(37)
Acquisition-related costs	(1)	(1)	(16)	(12)
Recognition of acquisition inventory fair value step-up	—	(5)	(2)	(5)
Litigation settlement gain, net of legal fees	—	—	—	29
Pension settlement gains / (losses)	—	2	—	(28)
General corporate expense and other	(18)	(34)	(88)	(102)
Total corporate, other and eliminations	(26)	(46)	(125)	(155)
EBIT	$259	$227	$596	$587

3. REVENUE

ASU 2014-09 Adoption

On January 1, 2018, we adopted ASU 2014-09, "Revenue from Contracts with Customers (Topic 606)" and the related amendments (collectively, "ASC 606"). We used the modified retrospective method of adoption, in which the cumulative effect of initially applying the new standard to existing contracts (as of January 1, 2018) was recorded as a $2 million decrease to the January 1, 2018 opening balance of Accumulated earnings. The effect of this adoption was immaterial to our Consolidated Financial Statements, and we do not expect a material effect to our Consolidated Financial Statements on an ongoing basis. Under the modified-retrospective method of adoption, the comparative information in the Consolidated Financial Statements has not been revised and continues to be reported under the previously applicable revenue accounting guidance ("ASC 605"). If ASC 605 had been applied to the first nine months of 2018, Cost of Sales would have been $2 million higher on the Consolidated Statements of Earnings with no effect to the Consolidated Balance Sheet.

Revenue Recognition

Many of our customer volume commitments are short-term and our performance obligations are generally limited to single purchase orders. Substantially all of our revenue is recognized at a point-in-time when control of goods transfers to the customer. Control transfer typically occurs when goods are shipped from our facilities or at other predetermined control transfer points (for instance, destination terms or consignment arrangements). We have elected to account for shipping and handling activities that occur after control of the related good transfers as fulfillment activities instead of performance obligations. We used the practical expedients to omit the disclosure of remaining performance obligations for contracts with an original expected duration of one year or less and for contracts where we have the right to invoice for performance completed to date.

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3. REVENUE (continued)

We recognize revenue as the amount of consideration that we expect to receive in exchange for transferring promised goods or services to customers. We do not adjust the transaction price for the effects of a significant financing component, as the time period between control transfer of goods and services and expected payment is one year or less. At the time of sale, we estimate provisions for different forms of variable consideration (discounts, rebates, returns and other refund liabilities) based on historical experience, current conditions and contractual obligations, as applicable. The estimated transaction price is typically not subject to significant reversals. We adjust these estimates when the most likely amount of consideration we expect to receive changes, although these changes are typically minor. During the three and nine months ended September 30, 2018, the adjustments related to performance obligations satisfied in previous periods were immaterial. Sales, value-added and other similar taxes that we collect are excluded from revenue.

Disaggregated Revenue

The following table shows a disaggregation of Net sales (in millions):

	For the three months ended September 30, 2018				
Reportable Segments	Composites	Insulation	Roofing	Eliminations	Consolidated
Disaggregation Categories					
U.S. residential	$62	$ 260	$ 560	$ (40)	$ 842
U.S. commercial and industrial	157	161	52	(4)	366
Europe	142	159	3	—	304
Asia-Pacific	115	47	4	—	166
Rest of world	32	83	26	(1)	140
NET SALES	$508	$ 710	$ 645	$ (45)	$ 1,818

	For the nine months ended September 30, 2018				
Reportable Segments	Composites	Insulation	Roofing	Eliminations	Consolidated
Disaggregation Categories					
U.S. residential	$213	$ 708	$ 1,696	$ (146)	$ 2,471
U.S. commercial and industrial	452	469	141	(8)	1,054
Europe	455	444	10	—	909
Asia-Pacific	343	131	11	(1)	484
Rest of world	97	236	88	(6)	415
NET SALES	$1,560	$ 1,988	$ 1,946	$ (161)	$ 5,333

Please refer to Note 2 and Item 1 of our 2017 Form 10-K for further information on our three reportable segments (Composites, Insulation and Roofing). Our contracts with customers are broadly similar in nature throughout our reportable segments, but the amount, timing and uncertainty of revenue and cash flows may vary in each reportable segment due to geographic and end-market economic factors.

In the United States, sales are primarily related to the residential housing market and commercial and industrial applications. Residential market demand is driven by housing starts and repair and remodeling activity (influenced by existing home sales, seasonal home improvement and damage from major storms). Significant portions of our residential products are used interchangeably in both new construction and repair and remodeling, and our customers typically distribute (or use) the products for both applications. U.S. commercial and industrial revenues are largely driven by U.S. industrial production growth.

Outside of the United States (Europe, Asia-Pacific and Rest of world), sales are primarily related to commercial and industrial applications and, to a lesser extent, residential applications in certain countries. Throughout the international regions, demand is primarily driven by industrial production growth in each respective geographical region.

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3. REVENUE (continued)

Contract Balances

We typically do not satisfy performance obligations without obtaining an unconditional right to payment from customers and, therefore, do not carry contract asset balances on the Consolidated Balance Sheets. Contract liability balances are recorded separately from receivables on the Consolidated Balance Sheets in either Accounts payable and accrued liabilities or Other liabilities, depending on the timing of performance obligation satisfaction.

We sell separately-priced warranties that extend certain product and workmanship coverages beyond our standard product warranty, which is described in Note 9. The up-front consideration on extended warranty contracts is deferred and recognized as revenue over time, based on the respective coverage period, ranging from 16 to 20 years. On an annual basis, we expect to recognize approximately $2 million of revenue associated with these extended warranty contracts. Additionally, in certain limited cases, we receive consideration before goods or services are transferred to the customer. These customer down payments and deposits are deferred, and typically recognized as revenue in the following quarter when we satisfy the related performance obligations.

As of January 1, 2018, our contract liability balances (for extended warranties, down payments and deposits, collectively) totaled $46 million, of which $14 million was recognized as revenue in the first nine months of 2018. As of September 30, 2018, our contract liability balances totaled $50 million.

As a practical expedient, we recognize incremental costs of obtaining a contract, if any, as an expense when incurred if the amortization period of the asset would have been one year or less. We do not have any costs to obtain or fulfill a contract that are capitalized under ASC 606.

4. INVENTORIES

Inventories consist of the following (in millions):

	September 30, 2018	December 31, 2017
Finished goods	$ 691	$ 562
Materials and supplies	341	279
Total inventories	$ 1,032	$ 841

5. DERIVATIVE FINANCIAL INSTRUMENTS

The Company is exposed to, among other risks, the impact of changes in commodity prices, foreign currency exchange rates, and interest rates in the normal course of business. The Company's risk management program is designed to manage the exposure and volatility arising from these risks, and utilizes derivative financial instruments to offset a portion of these risks. The Company uses derivative financial instruments only to the extent necessary to hedge identified business risks, and does not enter into such transactions for trading purposes.

The Company generally does not require collateral or other security with counterparties to these financial instruments and is therefore subject to credit risk in the event of nonperformance; however, the Company monitors credit risk and currently does not anticipate nonperformance by other parties. Contracts with counterparties generally contain right of offset provisions. These provisions effectively reduce the Company's exposure to credit risk in situations where the Company has gain and loss positions outstanding with a single counterparty. It is the Company's policy to offset on the Consolidated Balance Sheets the amounts recognized for derivative instruments with any cash collateral arising from derivative instruments executed with the same counterparty under a master netting agreement. As of September 30, 2018 and December 31, 2017, the Company did not have any amounts on deposit with any of its counterparties, nor did any of its counterparties have any amounts on deposit with the Company.

During the first quarter of 2018, the Company early adopted ASU 2017-12, "Derivatives and Hedging (Topic 815)," which was issued with the objective of improving the financial reporting of hedging relationships to better portray the economic results of an entity's risk management activities in its financial statements and to make certain targeted improvements to simplify the application of previously applicable hedge accounting guidance. This adoption did not have a material effect on our Consolidated Financial Statements, and did not result in any cumulative adjustment to equity as of the date of adoption. Please refer to the Cash Flow Hedges and Net Investment Hedges paragraphs below for further information.

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
(unaudited)

5. DERIVATIVE FINANCIAL INSTRUMENTS (continued)

Derivative Fair Values
Our derivatives consist of natural gas forward swaps, cross-currency swaps and foreign exchange forward contracts, all of which are over-the-counter and not traded through an exchange. The Company uses widely accepted valuation tools to determine fair value, such as discounting cash flows to calculate a present value for the derivatives. The models use Level 2 inputs, such as forward curves and other commonly quoted observable transactions and prices. The fair value of our derivatives and hedging instruments are all classified as Level 2 investments within the three-tier hierarchy.
The following table presents the fair value of derivatives and hedging instruments and the respective location on the Consolidated Balance Sheets (in millions):

	Location	Fair Value at	
		September 30, 2018	December 31, 2017
Derivative assets designated as hedging instruments:			
Net investment hedges:			
Cross-currency swaps	Other current assets	$ 8	$ 7
Cash flow hedges:			
Natural gas forward swaps	Other current assets	$ 2	$ 1
Foreign exchange forward contracts	Other current assets	$ 2	$ —
Derivative liabilities designated as hedging instruments:			
Net investment hedges:			
Cross-currency swaps	Other liabilities	$ 34	$ 38
Cash flow hedges:			
Natural gas forward swaps	Accounts payable and accrued liabilities	$ —	$ 1
Derivative assets not designated as hedging instruments:			
Foreign exchange forward contracts	Other current assets	$ 46	$ 1
Derivative liabilities not designated as hedging instruments:			
Foreign exchange forward contracts	Accounts payable and accrued liabilities	$ 2	$ 1

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5. DERIVATIVE FINANCIAL INSTRUMENTS (continued)

Consolidated Statements of Earnings Activity

The following table presents the impact and respective location of derivative activities on the Consolidated Statements of Earnings (in millions):

	Location	Three Months Ended September 30, 2018	2017	Nine Months Ended September 30, 2018	2017
Derivative activity designated as hedging instruments:					
Natural gas cash flow hedges:					
Amount of gain reclassified from AOCI (as defined below) into earnings	Cost of sales	$ (1)	$ —	$ (1)	$ (2)
Cross-currency swap net investment hedges:					
Amount of gain recognized in earnings on derivative amounts excluded from effectiveness testing	Interest expense, net	$ (3)	$ —	$ (9)	$ —
Derivative activity not designated as hedging instruments:					
Natural gas:					
Amount of loss recognized in earnings	Other expenses, net	$ —	$ —	$ —	$ 1
Foreign currency:					
Amount of (gain)/loss recognized in earnings (a)	Other expenses, net	$ (10)	$ 2	$ (54)	$ 6

(a) (Gains)/losses related to foreign currency derivatives were substantially offset by net revaluation impacts on foreign currency denominated balance sheet exposures, which were also recorded in Other expenses, net. Please refer to the "Other Derivatives" section below for additional detail.

Consolidated Statements of Comprehensive Earnings Activity

The following table presents the impact of derivative activities on the Consolidated Statements of Comprehensive Earnings (in millions):

Hedging Type	Derivative Financial Instrument	Amount of (Gain) Loss Recognized in Comprehensive Earnings	
		Three Months Ended September 30, 2018	Nine Months Ended September 30, 2018
Net investment hedge	Cross-currency swaps	$ (1)	$ (2)
Cash flow hedge	Natural gas forward swaps	$ —	$ (2)

Cash Flow Hedges

The Company uses a combination of derivative financial instruments, which qualify as cash flow hedges, and physical contracts to manage forecasted exposure to electricity and natural gas prices. The Company's policy for electricity exposure is to hedge up to 75% of its total forecasted exposure for the current calendar year and up to 65% of its total forecasted exposure for the first calendar year forward. The Company’s policy for natural gas exposure is to hedge up to 75% of its total forecasted exposure for the next three months and up to 60% of its total forecasted exposure for the following three months, and lesser amounts for the remaining periods. Based on market conditions, approved variation from these standard policies may occur. Currently, the Company is managing risk associated with electricity prices only through physical contracts and has natural gas derivatives designated as hedging instruments that mature within 15 months. As of September 30, 2018, the notional amounts of these natural gas forward swaps was 2 MMBtu (or MMBtu equivalent) based on U.S. and European indices.

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5. DERIVATIVE FINANCIAL INSTRUMENTS (continued)

As of September 30, 2018, the Company had notional amounts of $10 million for derivative financial instruments designated as cash flow hedges for foreign currency exposures in Polish Zloty primarily related to European Euro, and also $14 million for exposures in Swedish Krona primarily related to European Euro.

The Company performs an analysis for effectiveness of its derivatives designated as hedging instruments at the end of each quarter based on the terms of the contracts and the underlying items being hedged. The change in the fair value of cash flow hedges is deferred in Accumulated other comprehensive income (deficit) ("AOCI") and is subsequently recognized in Cost of sales (for commodity and foreign currency cash flow hedges) on the Consolidated Statements of Earnings in order to mirror the location of the hedged items impacting earnings. Cash settlements for commodity and foreign currency hedges qualifying as cash flow hedges are included in Other operating activities in the Consolidated Statements of Cash Flows.

As of September 30, 2018, $2 million of gains included in AOCI on the Consolidated Balance Sheet relate to natural gas and foreign currency forward contracts that are expected to impact earnings during the next 12 months. Transactions and events that are expected to occur over the next 12 months that will necessitate recognizing these deferred amounts include the recognition of the hedged item through earnings.

Net Investment Hedges

The Company has translation exposure resulting from translating the financial statements of foreign subsidiaries into U.S. Dollars, which is recognized in Currency translation adjustment (a component of AOCI). The Company uses cross-currency forward contracts to hedge a portion of the net investment in foreign subsidiaries against fluctuations in foreign exchange rates. As of September 30, 2018, the notional amount of these derivative financial instruments was $516 million related to the U.S Dollar and European Euro.

In the first quarter of 2018, we redesignated these derivative financial instruments that qualify as hedges of net investments in foreign operations using the spot method. The changes in fair values of these derivative instruments are recognized in Currency translation adjustment (a component of AOCI), with recognition of the excluded components amortized to Interest expense, net on the Consolidated Statements of Earnings. For the first nine months of 2018, the difference between the change in fair value of the excluded components and the amounts recognized to earnings was a $21 million increase to Accumulated other comprehensive deficit. Prior to our first quarter 2018 adoption of ASU 2017-12, all settlements and changes in fair values of these derivative instruments were recognized in Currency translation adjustment (a component of AOCI), and there has been no ineffectiveness on these hedging relationships. Cash settlements are included in Other investing activities in the Consolidated Statements of Cash Flows.

Other Derivatives

The Company uses forward currency exchange contracts to manage existing exposures to foreign exchange risk related to assets and liabilities recorded on the Consolidated Balance Sheets. As of September 30, 2018, the Company had notional amounts of $802 million for non-designated derivative financial instruments related to foreign currency exposures in U.S. Dollars primarily related to Brazilian Real, Chinese Yuan, European Euro, Indian Rupee, Japanese Yen, and South Korean Won. The growth in notional amounts (as compared to $109 million at December 31, 2017) was primarily related to new derivative financial instruments used to hedge increased European Euro balance sheet exposures following our acquisition of Paroc Group Oy ("Paroc"). In addition, the Company had notional amounts of $157 million for non-designated derivative financial instruments related to foreign currency exposures in European Euro primarily related to the Russian Ruble, Polish Zloty and Swedish Krona.

Gains and losses resulting from the changes in fair value of these instruments are recorded in Other expenses, net on the Consolidated Statements of Earnings, and are substantially offset by net revaluation impacts on foreign currency denominated balance sheet exposures (which are also recorded in Other expenses, net).

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
(unaudited)

6. GOODWILL AND OTHER INTANGIBLE ASSETS

Intangible assets and goodwill consist of the following (in millions):

September 30, 2018	Weighted Average Useful Life	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Amortizable intangible assets:				
Customer relationships	20	$ 559	$ (132)	$ 427
Technology	17	322	(128)	194
Other	14	60	(28)	32
Indefinite-lived intangible assets:				
Trademarks		1,146	—	1,146
Total intangible assets		$ 2,087	$ (288)	$ 1,799
Goodwill		$ 1,960		

December 31, 2017	Weighted Average Useful Life	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Amortizable intangible assets:				
Customer relationships	20	$ 363	$ (109)	$ 254
Technology	18	255	(116)	139
Other	8	47	(26)	21
Indefinite-lived intangible assets:				
Trademarks		946	—	946
Total intangible assets		$ 1,611	$ (251)	$ 1,360
Goodwill		$ 1,507		

Goodwill

The Company tests goodwill and indefinite-lived intangible assets for impairment during the fourth quarter of each year, or more frequently should circumstances change or events occur that would more likely than not reduce the fair value of a reporting unit below its carrying amount. No testing was deemed necessary in the first nine months of 2018.

The changes in the net carrying amount of goodwill by segment are as follows (in millions):

	Composites	Insulation	Roofing	Total
Balance at December 31, 2017	$ 58	$ 1,049	$ 400	$ 1,507
Acquisitions (see Note 8)	—	500	—	500
Foreign currency translation	(2)	(43)	(2)	(47)
Balance at September 30, 2018	$ 56	$ 1,506	$ 398	$ 1,960

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6. GOODWILL AND OTHER INTANGIBLE ASSETS (continued)

Other Intangible Assets

The Other category below primarily includes franchise agreements and quarry and emission rights. The changes in the gross carrying amount of intangible assets by asset group are as follows (in millions):

	Customer Relationships	Technology	Trademarks	Other	Total
Balance at December 31, 2017	$ 363	$ 255	$ 946	$ 47	$1,611
Acquisitions (see Note 8)	215	73	213	7	508
Other additions, net	—	—	—	6	6
Foreign currency translation	(19)	(6)	(13)	—	(38)
Balance at September 30, 2018	$ 559	$ 322	$ 1,146	$ 60	$2,087

The estimated amortization expense for intangible assets for the next five years is as follows (in millions):

Period	Amortization (a)
2019	$ 51
2020	$ 51
2021	$ 50
2022	$ 46
2023	$ 43

(a) The yearly amortization amounts in the table above include approximately $24 million of aggregate amortization expense related to the purchase price allocation of the acquisition of Pittsburgh Corning Corporation and Pittsburgh Corning Europe NV (collectively, "Pittsburgh Corning") and the preliminary purchase price allocation of the Paroc acquisition. See Note 8 for more details of these acquisitions.

7. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consist of the following (in millions):

	September 30, 2018	December 31, 2017
Land	$ 249	$ 251
Buildings and leasehold improvements	1,036	944
Machinery and equipment	4,533	4,211
Construction in progress	431	350
	6,249	5,756
Accumulated depreciation	(2,508)	(2,331)
Property, plant and equipment, net	$ 3,741	$ 3,425

Machinery and equipment includes certain precious metals used in our production tooling, which comprise approximately 11% and 12% of total machinery and equipment as of September 30, 2018 and December 31, 2017, respectively. Precious metals used in our production tooling are depleted as they are consumed during the production process, which typically represents an annual expense of less than 3% of the outstanding carrying value.

8. ACQUISITIONS

During the first nine months of 2018, the Company completed acquisitions with an aggregate purchase price of $1,147 million, net of cash acquired.

Paroc Acquisition

On February 5, 2018, the Company acquired all the outstanding equity of Paroc, a leading producer of mineral wool insulation for building and technical applications in Europe, for approximately $1,121 million (approximately 900 million Euro), net of cash acquired. The acquisition of Paroc expands the Company's mineral wool technology, grows its presence in the European insulation market, provides access to a variety of new end-use markets and will increase the Insulation segment's geographic sales mix outside of the U.S. and Canada. Paroc's operating results and a preliminary purchase price allocation have been included in the Company’s Insulation segment within the Consolidated Financial Statements. The Company is continuing to obtain information to complete its valuation of certain assets and liabilities, and during the three months ended September 30, 2018, the Company recorded immaterial measurement period adjustments to the purchase price allocation which are reflected in the value of the goodwill noted below.

The following table details the identifiable indefinite and definite-lived intangible assets acquired, their preliminary fair values and estimated weighted average useful lives (in millions):

Type of Intangible Asset	Preliminary Fair Value	Weighted Average Useful Life
Customer relationships	$ 215	20
Technology - Know-how	61	15
Technology - Patented	12	5
Quarry Rights	7	45
Trademarks	213	Indefinite
Total	$ 508	

During the first nine months of 2018, the Consolidated Statements of Earnings included $337 million in Net Sales attributable to the acquisition and a $2 million charge related to inventory fair value step-up in Cost of Sales. The acquisition also included Property, plant and equipment, net with a fair value of approximately $307 million, estimated net deferred tax liabilities of $99 million and net uncertain tax position liabilities of $40 million (which were recorded within Other non-current assets, Accounts payable and accrued liabilities and Other liabilities). Goodwill has been initially valued at approximately $482 million, with none of the amount expected to be tax-deductible. The factors contributing to the recognition of the amount of goodwill are based on several strategic and synergistic benefits that are expected to be realized from the acquisition. The Company has not yet assigned the goodwill acquired to a reporting unit. The acquisition also included cash of approximately $17 million. The Company expects to complete its valuations no later than one year from the acquisition date and adjustments will continue to be made to the fair value of the identifiable assets acquired and liabilities assumed. Those adjustments may or may not be material. The pro forma effect of this acquisition on Net sales and Net earnings attributable to Owens Corning was immaterial.

Pittsburgh Corning Acquisition

On June 27, 2017, the Company acquired all the outstanding equity of Pittsburgh Corning Corporation and Pittsburgh Corning Europe NV (collectively, "Pittsburgh Corning"), the world’s leading producer of cellular glass insulation systems for commercial and industrial markets, for approximately $563 million, net of cash acquired. This acquisition expands the Company’s position in commercial and industrial product offerings and grows its presence in Europe and Asia. Pittsburgh Corning's operating results since the date of acquisition and purchase price allocation have been included in the Company's Insulation segment in the Consolidated Financial Statements.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
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8. ACQUISITIONS (continued)

The following table details the identifiable indefinite and definite-lived intangible assets, their fair values and estimated weighted average useful lives (in millions):

Type of Intangible Asset	Fair Value	Weighted Average Useful Life
Customer relationships	$ 107	19
Technology	37	15
Trademarks	101	Indefinite
Total	$ 245	

During the first nine months of 2018, the Consolidated Statements of Earnings included $128 million in Net sales attributable to the Pittsburgh Corning acquisition (related to the one-year post-acquisition period). Goodwill has been valued at $154 million, with none of the amount expected to be tax-deductible. The factors contributing to the recognition of the amount of goodwill are based on several strategic and synergistic benefits that are expected to be realized from the acquisition. The acquisition also included cash of approximately $52 million. The pro forma effect of this acquisition on Net sales and Net earnings attributable to Owens Corning was not material.

9. WARRANTIES

The Company records a liability for warranty obligations at the date the related products are sold. Adjustments are made as new information becomes available. Please refer to Note 3 for information about our separately-priced extended warranty contracts. A reconciliation of the warranty liability is as follows (in millions):

	Nine Months Ended September 30, 2018
Beginning balance	$ 55
Amounts accrued for current year	16
Settlements of warranty claims	(11)
Ending balance	$ 60

10. RESTRUCTURING AND ACQUISITION-RELATED COSTS

The Company may incur restructuring, transaction and integration costs related to acquisitions, and may incur restructuring costs in connection with its global cost reduction and productivity initiatives.

Acquisition-Related Costs

During the first nine months of 2018, the Company incurred $16 million of transaction and integration costs related to its announced acquisitions. Please refer to Note 8 of the Consolidated Financial Statements for further information on these acquisitions. These costs are recorded within Corporate, Other and Eliminations. See the Restructuring Costs paragraph below for detail on additional costs related to these acquisitions. The following table presents the impact and respective location of acquisition-related costs for the first nine months of 2018 on the Consolidated Statements of Earnings (in millions):

Location	Paroc Acquisition	Pittsburgh Corning Acquisition	Total
Marketing and administrative expenses	$ 5	$ 2	$ 7
Other expenses, net	9	—	9
Total acquisition-related costs	$ 14	$ 2	$ 16

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OWENS CORNING AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (continued)
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10. RESTRUCTURING AND ACQUISITION-RELATED COSTS (continued)

Restructuring Costs

Pittsburgh Corning Acquisition-Related Restructuring
Following the acquisition of Pittsburgh Corning into the Company's Insulation segment, the Company took actions to realize expected synergies from the newly acquired operations. During the first nine months of 2018, the Company recorded $2 million of charges, comprised of $1 million of severance and $1 million of accelerated depreciation related to these actions. The Company expects to incur an immaterial amount of incremental costs in the remainder of 2018 related to these actions.

2017 Cost Reduction Actions
During the second quarter of 2017, the Company took actions to avoid future capital outlays and reduce costs in its Composites segment, mainly through decisions to close certain sub-scale manufacturing facilities in Asia Pacific (including Doudian, Peoples Republic of China and Thimmapur, India) and North America (Mexico City, Mexico and Brunswick, Maine) and to reposition assets in its Chambery, France operation. During the first nine months of 2018, the Company recorded $17 million of charges, comprised of $2 million of severance, $8 million of accelerated depreciation and $7 million from exit activities associated with these actions. The Company expects to recognize approximately $7 million of incremental costs throughout 2018 and 2019.

Consolidated Statements of Earnings Classification
The following table presents the impact and respective location of total restructuring costs on the Consolidated Statements of Earnings, which are included within Corporate, Other and Eliminations (in millions):

		Three Months Ended September 30,		Nine Months Ended September 30,	
Type of cost	Location	2018	2017	2018	2017
Accelerated depreciation	Cost of sales	$ 1	$ 7	$ 9	$ 9
Other exit costs	Cost of sales	2	—	6	2
Severance	Other expenses, net	1	1	3	26
Other exit costs	Other expenses, net	3	—	1	—
Total restructuring costs		$ 7	$ 8	$ 19	$ 37

Summary of Unpaid Liabilities
The following table summarizes the status of the unpaid liabilities from the Company's restructuring activity (in millions):

	2017 Cost Reduction Actions	Pittsburgh Corning Acquisition-Related Restructuring	Total
Balance at December 31, 2017	$ 11	$ 9	$ 20
Restructuring costs	17	2	19
Payments	(13)	(3)	(16)
Non-cash items and reclassifications to other accounts	(5)	(1)	(6)

Balance at September 30, 2018	$ 10	$ 7	$ 17
Cumulative charges incurred	$ 46	$ 19	$ 65

As of September 30, 2018, the remaining liability balance is comprised of $14 million of severance, inclusive of $3 million of non-current severance and $11 million of severance the Company expects to pay over the next twelve months, and $3 million of contract termination fees.

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11. DEBT

Details of the Company’s outstanding long-term debt, as well as the fair values, are as follows (in millions):

	September 30, 2018		December 31, 2017	
	Carrying Value	Fair Value	Carrying Value	Fair Value
4.20% senior notes, net of discount and financing fees, due 2022	$597	101 %	$597	105 %
4.20% senior notes, net of discount and financing fees, due 2024	393	99 %	392	105 %
3.40% senior notes, net of discount and financing fees, due 2026	396	92 %	395	98 %
7.00% senior notes, net of discount and financing fees, due 2036	400	115 %	400	132 %
4.30% senior notes, net of discount and financing fees, due 2047	588	82 %	588	99 %
4.40% senior notes, net of discount and financing fees, due 2048	389	83 %	—	n/a
Senior revolving credit facility, maturing in 2023 (a)	43	100 %	—	n/a
Receivables securitization facility, maturing in 2020 (a)	264	100 %	—	n/a
Various capital leases, due through and beyond 2050 (a)	28	100 %	31	100 %
Term loan borrowing, maturing in 2021 (a)	570	100 %	—	n/a
Unamortized interest rate swap basis adjustment	5	n/a	6	n/a
Total long-term debt	3,673	n/a	2,409	n/a
Less – current portion (a)	4	100 %	4	100 %
Long-term debt, net of current portion	$3,669	n/a	$2,405	n/a

(a) The Company determined that the book value of the above noted long-term debt instruments approximates fair value.

The fair values of the Company's outstanding long-term debt instruments were estimated using market observable inputs, including quoted prices in active markets, market indices and interest rate measurements. Within the hierarchy of fair value measurements, these are Level 2 fair values.

Senior Notes

The Company issued $400 million of 2048 senior notes on January 25, 2018. Interest on the notes is payable semiannually in arrears on January 30 and July 30 each year, beginning on July 30, 2018. The proceeds from these notes were used, along with borrowings on a $600 million term loan commitment and borrowings on the Receivables Securitization Facility (as defined below), to fund the purchase of Paroc in the first quarter of 2018.

The Company issued $600 million of 2047 senior notes on June 26, 2017. Interest on the notes is payable semiannually in arrears on January 15 and July 15 each year, beginning on January 15, 2018. A portion of the proceeds from these notes was used to fund the purchase of Pittsburgh Corning in 2017 and for general corporate purposes. The remaining proceeds were used to repay $144 million of our 2019 senior notes and $140 million of our 2036 senior notes.

The Company issued $400 million of 2026 senior notes on August 8, 2016. Interest on the notes is payable semiannually in arrears on February 15 and August 15 each year, beginning on February 15, 2017. A portion of the proceeds from these notes was used to redeem $158 million of our 2016 senior notes. The remaining proceeds were used to pay down portions of our Receivables Securitization Facility and for general corporate purposes.

The Company issued $400 million of 2024 senior notes on November 12, 2014. Interest on the notes is payable semiannually in arrears on June 1 and December 1 each year, beginning on June 1, 2015. A portion of the proceeds from these notes was used to repay $242 million of our 2016 senior notes and $105 million of our 2019 senior notes. The remaining proceeds were used to pay down our Senior Revolving Credit Facility (as defined below), finance general working capital needs, and for general corporate purposes.

11. DEBT (continued)

The Company issued $600 million of 2022 senior notes on October 17, 2012. Interest on the notes is payable semiannually in arrears on June 15 and December 15 each year, beginning on June 15, 2013. The proceeds of these notes were used to refinance $250 million of our 2016 senior notes and $100 million of our 2019 senior notes and pay down our Senior Revolving Credit Facility.

On October 31, 2006, the Company issued $540 million of 2036 senior notes. The proceeds of these notes were used to pay certain unsecured and administrative claims, finance general working capital needs and for general corporate purposes.

Collectively, the senior notes above are referred to as the “Senior Notes.” The Senior Notes are general unsecured obligations of the Company and rank pari passu with all existing and future senior unsecured indebtedness of the Company.

In May 2018, the Company entered into a new agreement covering our Senior Revolving Credit Facility. This new agreement, among other things, removed all subsidiaries of the Company as guarantors under our Senior Revolving Credit Facility, unless certain conditions precedent are met that do not exist at this time, and had the effect of removing the guarantees of such subsidiaries under our Senior Notes. In addition, we elected to amend our Registration Statement on Form S-3 to eliminate the guarantees of our Senior Notes as registered securities.

The Company has the option to redeem all or part of the Senior Notes at any time at a “make-whole” redemption price. The Company is subject to certain covenants in connection with the issuance of the Senior Notes that it believes are usual and customary. The Company was in compliance with these covenants as of September 30, 2018.

In the first quarter of 2016, the Company terminated interest rate swaps designated to hedge a portion of the 4.20% senior notes due 2022. The residual fair value of the swaps is recognized in Long-term debt, net of current portion on the Consolidated Balance Sheets as an unamortized interest rate swap basis adjustment.

Senior Revolving Credit Facility

The Company has an $800 million Senior Revolving Credit Facility with a maturity date in May 2023. In May 2018, the Company entered into a new agreement to extend its maturity to May 2023 and remove all subsidiaries of the Company as guarantors under the Senior Revolving Credit Facility, unless certain conditions precedent are met that do not exist at this time. The Senior Revolving Credit Facility includes both borrowings and letters of credit. Borrowings under the Senior Revolving Credit Facility may be used for general corporate purposes and working capital. The Company has the discretion to borrow under multiple options, which provide for varying terms and interest rates including the United States prime rate, federal funds rate plus a spread or LIBOR plus a spread.

The Senior Revolving Credit Facility contains various covenants, including a maximum allowed leverage ratio and a minimum required interest expense coverage ratio, that the Company believes are usual and customary for a senior unsecured credit agreement. The Company was in compliance with these covenants as of September 30, 2018. Please refer to the Credit Facility Utilization paragraph below for liquidity information as of September 30, 2018.

Term Loan Commitments

The Company obtained two term loan commitments on October 27, 2017 for $300 million and $600 million, respectively, (collectively, the "Term Loan Commitments"). The Company entered into the Term Loan Commitments, in part, to pay a portion of the purchase price of the Paroc acquisition. In the first quarter of 2018, the Company borrowed on the $600 million term loan commitment, along with borrowings on the Receivables Securitization Facility and the proceeds of the 2048 senior notes, to fund the purchase of Paroc. The $600 million term loan borrowing (the "Term Loan Borrowing") requires partial quarterly principal repayments and full repayment by February 2021. On February 12, 2018, the Company voluntarily reduced the entire $300 million term loan commitment, thus eliminating the availability of credit under such commitment. On May 4, 2018, the Company

amended the terms of the $600 million term loan, among other things, to provide for a reduction in the applicable margin used in the calculation of interest on the outstanding indebtedness and mirror the terms of the new Senior Revolving Credit Facility.

The Term Loan Commitment contains various covenants, including a maximum allowed leverage ratio and a minimum required interest expense coverage ratio, that the Company believes are usual and customary for a term loan. The Company was in compliance with these covenants as of September 30, 2018.

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11. DEBT (continued)

Receivables Securitization Facility
Included in long-term debt on the Consolidated Balance Sheets are borrowings outstanding under a Receivables Purchase Agreement (RPA) that are accounted for as secured borrowings in accordance with ASC 860, "Accounting for Transfers and Servicing." Owens Corning Sales, LLC and Owens Corning Receivables LLC, each a subsidiary of the Company, have a $280 million RPA with certain financial institutions. The securitization facility (the "Receivables Securitization Facility") has been amended from time to time, with a maturity date of May 2020. The facility was most recently amended in April 2018 to increase the borrowing limit from $250 million to $280 million. No other significant terms impacting liquidity were amended. The Company has the ability to borrow at the lenders' cost of funds, which approximates A-1/P-1 commercial paper rates vs. LIBOR, plus a fixed spread.
The Receivables Securitization Facility contains various covenants, including a maximum allowed leverage ratio and a minimum required interest expense coverage ratio that the Company believes are usual and customary for a securitization facility. The Company was in compliance with these covenants as of September 30, 2018. Please refer to the Credit Facility Utilization section below for liquidity information as of September 30, 2018.
Owens Corning Receivables LLC's sole business consists of the purchase or acceptance through capital contributions of trade receivables and related rights from Owens Corning Sales, LLC and the subsequent retransfer of or granting of a security interest in such trade receivables and related rights to certain purchasers who are party to the RPA. Owens Corning Receivables LLC is a separate legal entity with its own separate creditors who will be entitled, upon its liquidation, to be satisfied out of Owens Corning Receivables LLC's assets prior to any assets or value in Owens Corning Receivables LLC becoming available to Owens Corning Receivables LLC's equity holders. The assets of Owens Corning Receivables LLC are not available to pay creditors of the Company or any other affiliates of the Company or Owens Corning Sales, LLC.
Credit Facility Utilization
The following table shows how the Company utilized its primary sources of liquidity (in millions):

	Balance at September 30, 2018	
	Senior Revolving Credit Facility	Receivables Securitization Facility
Facility size or borrowing limit	$ 800	$ 280
Collateral capacity limitation on availability	n/a	13
Outstanding borrowings	43	264
Outstanding letters of credit	9	3
Availability on facility	$ 748	$ —

Short-Term Debt
Short-term borrowings were $1 million as of September 30, 2018 and December 31, 2017. The short-term borrowings for both periods consisted of various operating lines of credit and working capital facilities. Certain of these borrowings are collateralized by receivables, inventories or property. The borrowing facilities are typically for one-year renewable terms. The weighted average interest rate on all short-term borrowings was approximately 5.1% and 6.7% for September 30, 2018 and December 31, 2017, respectively.

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12. PENSION PLANS AND OTHER POSTRETIREMENT BENEFITS

ASU 2017-07 Adoption

On January 1, 2018, we adopted ASU 2017-07, "Compensation - Retirement Benefits (Topic 715)." This standard requires that the other components of net benefit cost be presented in the income statement separately from the service cost component and outside a subtotal of income from operations, if one is presented. These other components of net benefit cost are now presented in Non-operating (income) expense on the Consolidated Statements of Earnings. In accordance with the standard's retrospective adoption requirement, we used an allowable practical expedient that permits the use of amounts disclosed in previous pension and other postretirement benefit plan disclosures as the estimation basis for applying the retrospective presentation requirement. Please refer to the Accounting Pronouncements section of Note 1 for more details on the impact of this adoption.

The following table shows the location and impact of the adoption on certain periods of the Consolidated Statements of Earnings:

Location	Three Months Ended September 30, 2017			Nine Months Ended September 30, 2017		
	Before Adoption	Adoption Impact	After Adoption	Before Adoption	Adoption Impact	After Adoption
Cost of sales	$1,279	$ 1	$ 1,280	$3,602	$ 3	$ 3,605
Other expenses, net	$15	$ 3	$ 18	$68	$ (25)	$ 43
Non-operating (income) expense	$—	$ (4)	$ (4)	$—	$ 23	$ 23

Pension Plans

The Company sponsors defined benefit pension plans. Under the plans, pension benefits are based on an employee’s years of service and, for certain categories of employees, qualifying compensation. Company contributions to these pension plans are determined by an independent actuary to meet or exceed minimum funding requirements. In our non-U.S. plans, the unrecognized cost of any retroactive amendments and actuarial gains and losses are amortized over the average future service period of plan participants expected to receive benefits. In our U.S. plans, the unrecognized cost of any retroactive amendments and actuarial gains and losses are amortized over the average remaining life expectancy of the inactive participants as substantially all of the plan participants are inactive.

The following tables provide information regarding pension expense recognized (in millions):

	Three Months Ended September 30,					
	2018			2017		
	U.S.	Non-U.S.	Total	U.S.	Non-U.S.	Total
Components of Net Periodic Pension Cost						
Service cost	$1	$ 1	$ 2	$2	$ 1	$3
Interest cost	9	3	12	10	2	12
Expected return on plan assets	(14)	(4)	(18)	(14)	(4)	(18)
Amortization of actuarial loss	3	1	4	3	—	3
Settlement loss	—	—	—	—	(2)	(2)
Net periodic pension (gain)/cost	$(1)	$ 1	$ —	$1	$ (3)	$(2)

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12. PENSION PLANS AND OTHER POSTRETIREMENT BENEFITS (continued)

	Nine Months Ended September 30,					
	2018			2017		
	U.S.	Non-U.S.	Total	U.S.	Non-U.S.	Total
Components of Net Periodic Pension Cost						
Service cost	$4	$ 4	$ 8	$5	$ 4	$9
Interest cost	26	10	36	30	10	40
Expected return on plan assets	(41)	(14)	(55)	(43)	(16)	(59)
Amortization of actuarial loss	9	2	11	10	3	13
Settlement losses	—	—	—	—	28	28
Net periodic pension (gain)/cost	$(2)	$ 2	$ —	$2	$ 29	$31

The Company expects to contribute approximately $25 million in cash to the U.S. pension plans and another $13 million to non-U.S. plans during 2018. The Company made cash contributions of $34 million to the plans during the nine months ended September 30, 2018.

Postemployment and Postretirement Benefits Other than Pension Plans ("OPEB")

The Company maintains healthcare and life insurance benefit plans for certain retired employees and their dependents. The health care plans in the United States are non-funded and pay either (1) stated percentages of covered medically necessary expenses, after subtracting payments by Medicare or other providers and after stated deductibles have been met, or (2) fixed amounts of medical expense reimbursement.

The following table provides the components of net periodic benefit cost for aggregated U.S. and non-U.S. plans for the periods indicated (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Components of Net Periodic Benefit Cost				
Service cost	$ —	$ —	$ 1	$ 2
Interest cost	3	2	6	6
Amortization of prior service cost	(1)	(1)	(3)	(3)
Amortization of actuarial loss	(2)	—	(5)	(2)
Net periodic benefit cost/(gain)	$ —	$ 1	$ (1)	$ 3

13. CONTINGENT LIABILITIES AND OTHER MATTERS

The Company may be involved in various legal and regulatory proceedings relating to employment, antitrust, tax, product liability, environmental and other matters (collectively, “Proceedings”). The Company regularly reviews the status of such Proceedings along with legal counsel. Liabilities for such Proceedings are recorded when it is probable that the liability has been incurred and when the amount of the liability can be reasonably estimated. Liabilities are adjusted when additional information becomes available. Management believes that the amount of any reasonably possible losses in excess of any amounts accrued, if any, with respect to such Proceedings or any other known claim,

including the matters described below under the caption Environmental Matters (the “Environmental Matters”), are not material to the Company’s financial statements. Management believes that the ultimate disposition of the Proceedings and the Environmental Matters will not have a material adverse effect on the Company’s financial condition. While the likelihood is remote, the disposition of the Proceedings and Environmental Matters could have a material impact on the results of operations, cash flows or liquidity in any given reporting period.

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13.CONTINGENT LIABILITIES AND OTHER MATTERS (continued)

Litigation and Regulatory Proceedings

The Company is involved in litigation and regulatory proceedings from time to time in the regular course of its business. The Company believes that adequate provisions for resolution of all contingencies, claims and pending matters have been made for probable losses that are reasonably estimable.

Environmental Matters

The Company has established policies and procedures designed to ensure that its operations are conducted in compliance with all relevant laws and regulations and that enable the Company to meet its high standards for corporate sustainability and environmental stewardship. Our manufacturing facilities are subject to numerous foreign, federal, state and local laws and regulations relating to the presence of hazardous materials, pollution and protection of the environment, including emissions to air, discharges to water, management of hazardous materials, handling and disposal of solid wastes, and remediation of contaminated sites. All Company manufacturing facilities operate using an ISO 14001 or equivalent environmental management system. The Company’s 2020 Sustainability Goals include significant global reductions in energy use, water consumption, waste to landfill, and emissions of greenhouse gases, fine particulate matter and toxic air emissions.

Owens Corning is involved in remedial response activities and is responsible for environmental remediation at a number of sites, including certain of its currently owned or formerly owned plants. These responsibilities arise under a number of laws, including, but not limited to, the Federal Resource Conservation and Recovery Act, and similar state or local laws pertaining to the management and remediation of hazardous materials and petroleum. The Company has also been named a potentially responsible party under the U.S. Federal Superfund law, or state equivalents, at a number of disposal sites. The Company became involved in these sites as a result of government action or in connection with business acquisitions. As of September 30, 2018, the Company was involved with a total of 23 sites worldwide, including 8 Superfund and state equivalent sites and 15 owned or formerly owned sites. None of the liabilities for these sites are individually significant to the Company.

Remediation activities generally involve a potential range of activities and costs related to soil and groundwater contamination. This can include pre-cleanup activities such as fact-finding and investigation, risk assessment, feasibility studies, remedial action design and implementation (where actions may range from monitoring to removal of contaminants, to installation of longer-term remediation systems). A number of factors affect the cost of environmental remediation, including the number of parties involved in a particular site, the determination of the extent of contamination, the length of time the remediation may require, the complexity of environmental regulations, variability in clean-up standards, the need for legal action, and changes in remediation technology. Taking these factors into account, Owens Corning has predicted the costs of remediation reasonably estimated to be paid over a period of years. The Company accrues an amount on an undiscounted basis, consistent with the reasonable estimates of these costs when it is probable that a liability has been incurred. Actual cost may differ from these estimates for the reasons mentioned above. At September 30, 2018, the Company had an accrual totaling $17 million for these costs, of which the current portion is $8 million. Changes in required remediation procedures or timing of those procedures, or discovery of contamination at additional sites, could result in material increases to the Company’s environmental obligations.

14. STOCK COMPENSATION

Stock Plans

2016 Stock Plan

On April 21, 2016, the Company’s stockholders approved the Owens Corning 2016 Stock Plan (the “2016 Stock Plan”) which authorizes grants of stock options, stock appreciation rights, restricted stock awards, restricted stock units, bonus stock awards and performance stock awards. At September 30, 2018, the number of shares remaining available under the 2016 Stock Plan for all stock awards was 2.5 million.

14. STOCK COMPENSATION (continued)

Stock Options

The Company did not grant any stock options during the nine months ended September 30, 2018. The Company calculates a weighted-average grant-date fair value using a Black-Scholes valuation model for options granted. Compensation expense for options is measured based on the fair market value of the option on the date of grant, and is recognized on a straight-line basis over a four-year vesting period. In general, the exercise price of each option awarded was equal to the market price of the Company's common stock on the date of grant, and an option's maximum term is 10 years.

During the nine months ended September 30, 2018, the Company recognized expense of less than $1 million related to the Company's stock options. The Company did not recognize any stock option expense during the three months ended September 30, 2018. During both the three and nine months ended September 30, 2017, the Company recognized expense of less than $1 million and $1 million, respectively, related to the Company's stock options. As of September 30, 2018, there was no unrecognized compensation cost related to stock options. The total aggregate intrinsic value of options outstanding as of September 30, 2018 was $8 million.

The following table summarizes the Company's stock option activity:

	Nine Months Ended September 30, 2018	
	Number of Options	Weighted-Average Exercise Price
Beginning Balance	518,725	$ 37.17
Exercised	(39,100)	37.05
Forfeited	(750)	37.65
Ending Balance	478,875	$ 37.18

The following table summarizes information about the Company's options outstanding and exercisable:

	Options Outstanding			Options Exercisable		
		Weighted-Average			Weighted-Average	
Range of Exercise Prices	Options Outstanding	Remaining Contractual Life	Exercise Price	Number Exercisable at September 30, 2018	Remaining Contractual Life	Exercise Price
13.89 - 42.16	478,875	4.26	$ 37.18	478,875	4.26	$ 37.18

Restricted Stock Awards and Restricted Stock Units

The Company has granted restricted stock awards and restricted stock units (collectively referred to as "restricted stock") as a part of its long-term incentive plan. Compensation expense for restricted stock is measured based on the market price of the stock at date of grant and is recognized on a straight-line basis over the vesting period, which is typically three or four years. The Stock Plan allows alternate vesting schedules for death, disability, and retirement. During the three and nine months ended September 30, 2018, the Company recognized expense of $6 million and $17 million, respectively, related to the Company's restricted stock. During the three and nine months ended September 30, 2017, the Company recognized expense of $5 million and $16 million, respectively, related to the Company's restricted stock. As of September 30, 2018, there was $41 million of total unrecognized compensation cost

related to restricted stock. That cost is expected to be recognized over a weighted-average period of 2.57 years. The total fair value of shares vested during the nine months ended September 30, 2018 and 2017 was $22 million and $18 million, respectively.

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14. STOCK COMPENSATION (continued)

The following table summarizes the Company’s restricted stock activity:

	Nine Months Ended September 30, 2018	
	Number of Shares/Units	Weighted-Average Grant-Date Fair Value
Beginning Balance	1,752,136	$ 42.40
Granted	349,754	85.75
Vested	(532,237)	41.63
Forfeited	(69,737)	52.87
Ending Balance	1,499,916	$ 52.16

Performance Stock Awards and Performance Stock Units

The Company has granted performance stock awards and performance stock units (collectively referred to as “PSUs”) as a part of its long-term incentive plan. All outstanding performance grants will fully settle in stock. The amount of stock ultimately distributed from all performance shares is contingent on meeting internal company-based metrics or an external-based stock performance metric.

In the nine months ended September 30, 2018, the Company granted both internal company-based and external-based metric PSUs.

Internal based metrics

The internal company-based metrics are based on various Company metrics and typically vest over a three-year period. The amount of stock distributed will vary from 0% to 300% of PSUs awarded depending on each award's design and performance versus the internal Company-based metrics.

The initial fair value for all internal Company-based metric PSUs assumes that the performance goals will be achieved and is based on the grant date stock price. This assumption is monitored quarterly and if it becomes probable that such goals will not be achieved or will be exceeded, compensation expense recognized will be adjusted and previous surplus compensation expense recognized will be reversed or additional expense will be recognized. The expected term represents the period from the grant date to the end of the vesting period. Pro-rata vesting may be utilized in the case of death, disability or approved retirement and awards if earned will be paid at the end of the vesting period.

External-based metrics

The external-based metrics vest after a three-year period. Outstanding grants are based on the Company's total stockholder return relative to the performance of the companies constituting the former S&P Building & Construction Industry Index or Dow Jones Construction and Materials Index. The amount of stock distributed will vary from 0% to 200% of PSUs awarded depending on the relative stockholder return performance.

The Company estimated the fair value of the external-based metric performance stock grants using a Monte Carlo simulation. The external-based metric performance stock granted in 2018 uses various assumptions that include expected volatility of 24.6%, and a risk free interest rate of 2.2%, both of which were based on an expected term of 2.92 years. Expected volatility was based on a benchmark study of our peers. The risk-free interest rate was based on zero coupon U.S. Treasury bills at the time of grant. The expected term represents the period from the grant date to the end of the three-year performance period. Compensation expense for external-based metric PSUs is measured based on the grant date fair value and is recognized on a straight-line basis over the vesting period. Pro-rata vesting may be utilized in the case of death, disability or approved retirement, and awards if earned will be paid at the end of the three-year period.

During the three and nine months ended September 30, 2018, the Company recognized expense of $5 million and $14 million, respectively, related to the Company's PSUs. During the three and nine months ended September 30, 2017, the Company recognized expense of $4 million and $12 million, respectively, related to the Company's PSUs. As of September 30, 2018, there was $19

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14. STOCK COMPENSATION (continued)

million of total unrecognized compensation cost related to PSUs. That cost is expected to be recognized over a weighted-average period of 1.65 years.

The following table summarizes the Company’s PSU activity:

	Nine Months Ended September 30, 2018	
	Number of PSUs	Weighted-Average Grant-Date Fair Value
Beginning Balance	451,148	$ 53.96
Granted	171,725	94.14
Forfeited	(48,396)	60.92
Ending Balance	574,477	$ 65.38

Employee Stock Purchase Plan

On April 18, 2013, the Company’s stockholders approved the Owens Corning Employee Stock Purchase Plan (ESPP). The ESPP is a tax-qualified plan under Section 423 of the Internal Revenue Code. The purchase price of shares purchased under the ESPP is equal to 85% of the lower of the fair market value of shares of Owens Corning common stock at the beginning or ending of the offering period, which is a six-month period ending on May 31 and November 30 of each year. At the approval date, 2.0 million shares were available for purchase under the ESPP. As of September 30, 2018, 0.8 million shares remain available for purchase.

During the three and nine months ended September 30, 2018, the Company recognized expense of $1 million and $3 million, respectively, related to the Company's ESPP. During the three and nine months ended September 30, 2017, the Company recognized expense of $1 million and $2 million, respectively, related to the Company's ESPP. As of September 30, 2018, there was $1 million of total unrecognized compensation cost related to the ESPP.

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15. EARNINGS PER SHARE

The following table is a reconciliation of weighted-average shares for calculating basic and diluted earnings per-share (in millions, except per share amounts):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Net earnings attributable to Owens Corning	$161	$96	$374	$293
Weighted-average number of shares outstanding used for basic earnings per share	110.0	111.0	110.8	111.6
Non-vested restricted and performance shares	0.7	1.4	0.7	1.4
Options to purchase common stock	0.2	0.3	0.2	0.2
Weighted-average number of shares outstanding and common equivalent shares used for diluted earnings per share	110.9	112.7	111.7	113.2
Earnings per common share attributable to Owens Corning common stockholders:				
Basic	$1.46	$0.86	$3.38	$2.63
Diluted	$1.45	$0.85	$3.35	$2.59

For the three and nine months ended September 30, 2018, the number of shares used in the calculation of diluted earnings per share did not include 0.3 million non-vested restricted shares and 0.3 million non-vested performance shares, due to their anti-dilutive effect. For the three and nine months ended September 30, 2017, we did not have any non-vested performance shares that had an anti-dilutive effect on earnings per share.

On October 24, 2016, the Board of Directors approved a share buy-back program under which the Company is authorized to repurchase up to 10 million shares of the Company’s outstanding common stock (the “Repurchase Authorization”). The Repurchase Authorization enables the Company to repurchase shares through the open market, privately negotiated, or other transactions. The actual number of shares repurchased will depend on timing, market conditions and other factors and is at the Company’s discretion. The Company repurchased 3.0 million shares of its common stock for $203 million during the nine months ended September 30, 2018, under the Repurchase Authorization. As of September 30, 2018, 4.6 million shares remain available for repurchase under the Repurchase Authorization.

16. INCOME TAXES

The following table provides the Income tax expense (in millions) and effective tax rate for the periods indicated:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Income tax expense	$67	$32	$127	$142
Effective tax rate	29 %	25 %	25 %	33 %

The difference between the effective tax rate and the U.S. federal statutory tax rate of 21% for the three months ended September 30, 2018 is primarily due to U.S. state and local income tax expense, the impact of higher foreign tax rates, an increase in U.S. federal tax expense on foreign earnings and other discrete adjustments, offset by a reversal of a valuation allowance recorded in prior years against certain European net deferred tax assets. The difference between the effective tax rate and the U.S. federal statutory tax rate of 21% for the nine months ended September 30, 2018 is primarily due to U.S. state and local income tax expense, the impact of higher foreign tax rates, an increase in U.S. federal tax expense on foreign earnings, offset by excess tax benefits related to stock compensation, a reversal of a valuation allowance recorded in prior years against certain European net deferred tax assets and other discrete adjustments.

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16. INCOME TAXES (continued)

The difference between the effective tax rate and the U.S. federal statutory tax rate of 35% for the three and nine months ended September 30, 2017 is primarily due to the reversal of a valuation allowance recorded in prior years against certain Asian net deferred tax assets, an increase in U.S. research and development tax credits, the benefit of lower foreign tax rates and other discrete adjustments.
During the first quarter of 2018, the Company adopted ASU No. 2016-16, “Intra-Entity Transfers of Assets Other Than Inventory (Topic 740).” Under this standard, the tax effects of intra-entity sales of assets other than inventory will be recognized immediately in the seller's tax jurisdiction when the transfer occurs, even though the pre-tax effects of that transaction are eliminated in consolidation. Any deferred tax asset that arises in the buyer’s jurisdiction would also be recognized at the time of the transfer. The standard is applied using a modified retrospective transition method by means of a cumulative-effect adjustment to equity as of the beginning of the year of adoption. As of January 1, 2018, we recorded a $17 million decrease in Other non-current assets, a $7 million increase in Deferred income tax assets and a $10 million decrease to Accumulated earnings.

The U.S. government enacted tax legislation commonly known as the U.S. Tax Cuts and Jobs Act of 2017 on December 22, 2017 (the "Tax Act"). The Tax Act made broad and complex changes to the U.S. tax code, including but not limited to, a reduction to the U.S. federal corporate income tax rate from 35% to 21%; a one-time transition tax on certain unrepatriated earnings of foreign subsidiaries (the "Transition Tax”); eliminating the corporate alternative minimum tax (AMT) and changing realization of AMT credits; changing rules related to uses and limitations of net operating loss (NOL) carryforwards created in tax years after December 31, 2017; changes to the limitations on available interest expense deductions; and changes to other existing deductions and business-related exclusions.

The SEC issued Staff Accounting Bulletin No. 118, "Income Tax Accounting Implications of the Tax Cuts and Jobs Act" ("SAB 118"), which provides guidance on the accounting for the tax effects of the Tax Act. SAB 118 provides a measurement period that should not extend beyond one year from the Tax Act enactment date to complete the accounting under ASC 740, "Income Taxes." The Company's accounting for the income tax effects of the Tax Act is incomplete. In accordance with SAB 118, a provisional charge was recorded in December 2017 based on reasonable estimates of certain effects of the Tax Act. Revised estimates in the third quarter resulted in a $2 million increase to the provisional charge. The Company was not yet able to make a reasonable estimate of the U.S. state tax effects of the Tax Act. Therefore, no provisional adjustment was recorded with respect to this item. We are continuing to evaluate the estimates used to record and disclose the effects of the Tax Act.

Effective January 1, 2018, the Tax Act creates a new requirement to include in U.S. income global intangible low-taxed income (GILTI) earned by controlled foreign corporations (CFCs). The GILTI must be included currently in the gross income of the CFCs’ U.S. shareholder. Under U.S. GAAP, we are allowed to make an accounting policy choice of either (1) treating taxes due on future U.S. inclusions related to GILTI as a current-period expense when incurred (the “period cost method”) or (2) factoring such amounts into a company’s measurement of its deferred taxes (the “deferred method”). During the first quarter of 2018, we selected the period cost method in recording the tax effects of GILTI in our financial statements.
The Company's analysis of whether to change its indefinite reinvestment assertion on account of the Tax Act is incomplete. Therefore, we continue to assert indefinite reinvestment in accordance with ASC 740 based on the laws before enactment of the Tax Act.

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17. CHANGES IN ACCUMULATED OTHER COMPREHENSIVE DEFICIT

The following table summarizes the changes in accumulated other comprehensive income (deficit) (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Currency Translation Adjustment				
Beginning balance	$(272)	$(219)	$(183)	$(284)
Net investment hedge amounts classified into AOCI, net of tax	1	(6)	2	(15)
(Loss)/gain on foreign currency translation	(13)	33	(103)	107
Other comprehensive (loss)/income, net of tax	(12)	27	(101)	92
Ending balance	$(284)	$(192)	$(284)	$(192)
Pension and Other Postretirement Adjustment				
Beginning balance	$(329)	$(415)	$(331)	$(429)
Amounts reclassified from AOCI to net earnings, net of tax (a)	1	4	3	22
Amounts classified into AOCI, net of tax	—	(2)	—	(6)
Other comprehensive income, net of tax	1	2	3	16
Ending balance	$(328)	$(413)	$(328)	$(413)
Hedging Adjustment				
Beginning balance	$1	$—	$—	$3
Amounts reclassified from AOCI to net earnings, net of tax (b)	—	—	—	(1)
Amounts classified into AOCI, net of tax	1	—	2	(2)
Other comprehensive (loss)/income, net of tax	1	—	2	(3)
Ending balance	$2	$—	$2	$—
Total AOCI ending balance	$(610)	$(605)	$(610)	$(605)

(a) These AOCI components are included in the computation of total Pension and OPEB expense and are recorded in Non-operating income. See Note 12 for additional information.
(b) Amounts reclassified from gain/(loss) on cash flow hedges are reclassified from AOCI to income when the hedged item affects earnings and are recognized in Cost of sales. See Note 5 for additional information.

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

This Management's Discussion and Analysis (MD&A) is intended to help investors understand Owens Corning, our operations and our present business environment. MD&A is provided as a supplement to, and should be read in conjunction with, our Consolidated Financial Statements and the accompanying Notes thereto contained in this report. Unless the context requires otherwise, the terms "Owens Corning," "Company," "we" and "our" in this report refer to Owens Corning and its subsidiaries.

GENERAL

Owens Corning is a leading global producer of glass fiber reinforcements and other materials for composites and of residential and commercial building materials. The Company has three reportable segments: Composites, Insulation and Roofing. Through these lines of business, we manufacture and sell products worldwide. We maintain leading market positions in many of our major product categories.

EXECUTIVE OVERVIEW

Net earnings attributable to Owens Corning were $161 million in the third quarter of 2018, compared to $96 million in the same period of 2017. The Company reported $259 million in earnings before interest and taxes (EBIT) for the third quarter of 2018 compared to $227 million in the same period of 2017. The Company generated $267 million in adjusted earnings before interest and taxes ("Adjusted EBIT") for the third quarter of 2018 compared to $239 million in the same period of 2017. See the Adjusted Earnings Before Interest and Taxes paragraph of the MD&A for further information regarding EBIT and Adjusted EBIT, including the reconciliation to net earnings attributable to Owens Corning. Third quarter of 2018 EBIT performance compared to the same period of 2017 increased $30 million and $2 million in our Insulation and Composites segments, respectively, and decreased $20 million in our Roofing segment. Within our Corporate, Other and Eliminations category, General corporate expense and other decreased by $16 million.

In our Insulation segment, EBIT in the third quarter of 2018 was $94 million compared to $64 million in the same period of 2017, primarily due to pricing gains and the impact of our acquisitions. In our Composites segment, EBIT was $64 million in the third quarter of 2018 compared to $62 million in the same period of 2017. In our Roofing segment, EBIT in the third quarter of 2018 was $127 million compared to $147 million in the same period in 2017, primarily due to lower sales volumes.

In the nine months ended September 30, 2018, the Company's operating activities provided $506 million of cash flow, compared to $694 million in the same period in 2017. The change was primarily driven by higher year-over-year growth of inventories in 2018.

On February 5, 2018, the Company acquired all of the outstanding equity of Paroc Group Oy ("Paroc"), a leading producer of mineral wool insulation for building and technical applications in Europe, for an enterprise value of approximately $1.1 billion (900 million Euro). The acquisition of Paroc expands the Company's mineral wool technology, grows its presence in the European insulation market, provides access to a variety of new end-use markets and increases the Insulation segment's geographic sales mix outside of the U.S. and Canada. Operating results of the acquisition and a preliminary purchase price allocation have been included in the Company's Insulation segment in the Consolidated Financial Statements.

In May 2018, the Company entered into a new credit agreement covering our Senior Revolving Credit Facility (as defined below) with a maturity in 2023. This new agreement, among other things, removed all subsidiaries of the Company as guarantors under our Senior Revolving Credit Facility, unless certain conditions precedent are met that do not exist at this time.

In January 2018, the Company issued $400 million of 2048 senior notes with an annual interest rate of 4.40%. The proceeds from the senior notes, along with borrowings on a $600 million term loan commitment and the Receivables Securitization Facility (as defined below), were used to fund the purchase of Paroc in February 2018.

The Company repurchased 1.7 million shares of its common stock for $100 million in the third quarter of 2018 under a previously announced repurchase authorization (the "Share Repurchase Authorization"). As of September 30, 2018, 4.6 million shares remained available for repurchase under the Share Repurchase Authorization.

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

RESULTS OF OPERATIONS

Consolidated Results (in millions)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Net sales	$1,818	$1,703	$5,333	$4,778
Gross margin	$448	$423	$1,221	$1,173
% of net sales	25 %	25 %	23 %	25 %
Marketing and administrative expenses	$159	$159	$531	$456
Other expenses, net	$13	$19	$39	$43
Non-operating (income) expense	$(4)	$(4)	$(11)	$23
Earnings before interest and taxes	$259	$227	$596	$587
Interest expense, net	$31	$28	$92	$81
Loss on extinguishment of debt	$—	$71	$—	$71
Income tax expense	$67	$32	$127	$142
Net earnings attributable to Owens Corning	$161	$96	$374	$293

The Consolidated Results discussion below provides a summary of our results and the trends affecting our business, and should be read in conjunction with the more detailed Segment Results discussion that follows.

NET SALES

In the third quarter and year-to-date 2018, net sales increased $115 million and $555 million, respectively, compared to the same periods in 2017. For the third quarter and year-to-date comparison, the increase in net sales was driven by the acquisition of Paroc in February 2018 and higher selling prices, partially offset by the impact of lower sales volumes in our Roofing segment.

GROSS MARGIN

In the third quarter and year-to-date 2018, gross margin increased $25 million and $48 million, respectively, compared to the same periods in 2017. For the third quarter and year-to-date comparison, the increase was driven by the contribution of our Paroc acquisition and higher selling prices in our Insulation and Roofing segments, partially offset by input cost inflation and higher transportation costs in all three segments.

MARKETING AND ADMINISTRATIVE EXPENSES

Marketing and administrative expenses for the third quarter were flat compared to the same period in 2017. Year-to-date 2018 marketing and administrative expenses increased $75 million compared to the same period in 2017. For the third quarter comparison, higher selling, general and administrative expenses in our Insulation segment, primarily due to our acquisition of Paroc, were offset by lower general corporate expenses. For the year-to-date comparison, the increase was primarily due to higher selling, general and administrative expenses in our Insulation segment, primarily due to our acquisitions, partially offset by lower general corporate expenses.

INTEREST EXPENSE, NET

Third quarter and year-to-date 2018 interest expense, net increased $3 million and $11 million, respectively, compared to the same periods in 2017, primarily due to higher long-term debt balances in connection with our acquisitions.

NON-OPERATING (INCOME) EXPENSE

Third quarter non-operating (income) expense was flat compared to the same period in 2017. Year-to-date 2018 non-operating (income) expense increased $34 million compared to the same period in 2017, primarily due to pension settlement losses recognized in the prior year.

ITEM 2. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

INCOME TAX EXPENSE

Income tax expense for the three and nine months ended September 30, 2018 was $67 million and $127 million, respectively. For the third quarter 2018, the Company's effective tax rate was 29% and for the nine months ended September 30, 2018, the Company's effective tax rate was 25%.

The difference between the effective tax rate and the U.S. federal statutory tax rate of 21% for the three months ended September 30, 2018 was primarily due to U.S. state and local income tax expense, the impact of higher foreign tax rates, an increase in U.S. federal tax expense on foreign earnings and other discrete adjustments, offset by a reversal of a valuation allowance recorded in prior years against certain European net deferred tax assets. The difference between the effective tax rate and the U.S. federal statutory tax rate of 21% for the nine months ended September 30, 2018 is primarily due to U.S. state and local income tax expense, the impact of higher foreign tax rates, an increase in U.S. federal tax expense on foreign earnings, offset by excess tax benefits related to stock compensation, a reversal of a valuation allowance recorded in prior years against certain European net deferred tax assets and other discrete adjustments.

In December 2017, the U.S. government enacted tax legislation commonly known as the U.S. Tax Cuts and Jobs Act of 2017 (the "Tax Act"). The SEC issued Staff Accounting Bulletin No. 118, "Income Tax Accounting Implications of the Tax Cuts and Jobs Act ("SAB 118"), providing guidance on accounting for the Tax Act. The Company has not completed the accounting for the income tax effects of the Tax Act. In accordance with SAB 118, a provisional charge was recorded in December 2017 based on reasonable estimates of certain effects of the Tax Act. Revised estimates in the third quarter resulted in a $2 million increase to the provisional charge. Additionally, the Company has not yet been able to make a reasonable estimate of the U.S. state tax effects of the Tax Act. Therefore, no provision adjustment has been recorded with respect to this item.

The realization of deferred tax assets depends on achieving a certain minimum level of future taxable income. Management currently believes that it is at least reasonably possible that the minimum level of taxable income will be met within the next 12 months to reduce the valuation allowances of certain foreign jurisdictions by a range of $0 million to $2 million.

Income tax expense for the three and nine months ended September 30, 2017 was $32 million and $142 million, respectively. For the third quarter 2017, the Company's effective tax rate was 25% and for the nine months ended September 30, 2017, the Company's effective tax rate was 33%. The difference between the effective tax rate and the U.S. federal statutory tax rate of 35% for the three and nine months ended September 30, 2017, was primarily due to the reversal of a valuation allowance recorded in prior years against certain Asian net deferred tax assets, an increase in U.S. research and development tax credits, the benefit of lower foreign tax rates and other discrete adjustments.

Restructuring and Acquisition-Related Costs

The Company has incurred restructuring, transaction and integration costs related to acquisitions, along with restructuring costs in connection with its global cost reduction and productivity initiatives. These costs are recorded within Corporate, Other and Eliminations. Please refer to Notes 8 and 10 of the Consolidated Financial Statements for further information on the nature of these costs.

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

The following table presents the impact and respective location of these income (expense) items on the Consolidated Statements of Earnings (in millions):

	Location	Three Months Ended September 30, 2018	2017	Nine Months Ended September 30, 2018	2017
Restructuring costs	Cost of sales	$(3)	$(7)	$(15)	$(11)
Restructuring costs	Other expenses, net	(4)	(1)	(4)	(26)
Acquisition-related costs	Marketing and administrative expenses	(1)	(1)	(7)	(3)
Acquisition-related costs	Other expenses, net	—	—	(9)	(9)
Recognition of acquisition inventory fair value step-up	Cost of sales	—	(5)	(2)	(5)
Total restructuring, acquisition and integration-related costs		$(8)	$(14)	$(37)	$(54)

Adjusted Earnings Before Interest and Taxes

Adjusted EBIT is a non-GAAP measure that excludes certain items that management does not allocate to our segment results because it believes they are not representative of the Company's ongoing operations. Adjusted EBIT is used internally by the Company for various purposes, including reporting results of operations to the Board of Directors of the Company, analysis of performance and related employee compensation measures. Although management believes that these adjustments result in a measure that provides a useful representation of our operational performance, the adjusted measure should not be considered in isolation or as a substitute for Net earnings attributable to Owens Corning as prepared in accordance with accounting principles generally accepted in the United States.

Adjusting income (expense) items to EBIT are shown in the table below (in millions):

	Three Months Ended September 30, 2018	2017	Nine Months Ended September 30, 2018	2017
Restructuring costs	$(7)	$(8)	$(19)	$(37)
Acquisition-related costs	(1)	(1)	(16)	(12)
Recognition of acquisition inventory fair value step-up	—	(5)	(2)	(5)
Litigation settlement gain, net of legal fees	—	—	—	29
Pension settlement gains / (losses)	—	2	—	(28)
Total adjusting items	$(8)	$(12)	$(37)	$(53)

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

The reconciliation from Net earnings attributable to Owens Corning to EBIT and to Adjusted EBIT is shown in the table below (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
NET EARNINGS ATTRIBUTABLE TO OWENS CORNING	$161	$96	$374	$293
Net earnings attributable to noncontrolling interests	1	—	2	—
NET EARNINGS	162	96	376	293
Equity in net earnings / (loss) of affiliates	1	—	(1)	—
Income tax expense	67	32	127	142
EARNINGS BEFORE TAXES	228	128	504	435
Interest expense, net	31	28	92	81
Loss on extinguishment of debt	—	71	—	71
EARNINGS BEFORE INTEREST AND TAXES	259	227	596	587
Adjusting items from above	(8)	(12)	(37)	(53)
ADJUSTED EBIT	$267	$239	$633	$640

Segment Results

EBIT by segment consists of net sales less related costs and expenses and is presented on a basis that is used internally for evaluating segment performance. Certain items, such as general corporate expenses or income and certain other expense or income items, are excluded from the internal evaluation of segment performance. Accordingly, these items are not reflected in EBIT for our reportable segments and are included in the Corporate, Other and Eliminations category, which is presented following the discussion of our reportable segments.

Composites

The table below provides a summary of net sales, EBIT and depreciation and amortization expense for the Composites segment (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Net sales	$508	$514	$1,560	$1,562
% change from prior year	-1%	4%	—%	5%
EBIT	$64	$62	$195	$217
EBIT as a % of net sales	13%	12%	13%	14%
Depreciation and amortization expense	$36	$36	$109	$107

NET SALES

In our Composites segment, net sales in the third quarter 2018 decreased $6 million compared to the same period in 2017. The negative impact of translating sales denominated in foreign currencies into United States dollars decreased

sales by $14 million quarter-over-quarter. This impact was partially offset, about equally, by slightly higher sales volumes and favorable product mix.

For the year-to-date 2018, net sales in our Composites segment decreased $2 million compared to the same period in 2017. The decrease was driven by lower sales volumes of about 2%, largely offset by a $15 million positive impact of translating sales denominated in foreign currencies into United States dollars and favorable product mix.

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

EBIT

In our Composites segment, EBIT in the third quarter of 2018 increased $2 million compared to the same period in 2017. The negative impact of input cost inflation and transportation costs of $13 million was largely offset by $10 million of improved manufacturing performance quarter-over-quarter. Higher rebuild and start-up costs in the third quarter of 2018 were offset by the absence of the $10 million charge for allowance for doubtful accounts that was recorded in the third quarter of 2017. EBIT benefited $3 million quarter over quarter from lower selling, general and administrative expenses.

For the year-to-date 2018, EBIT decreased $22 million compared to the same period in 2017. Input cost and transportation inflation drove $28 million of the year-over-year decline. Higher rebuild and start-up costs of $15 million were more than offset by $10 million in improved manufacturing performance and the $10 million favorable variance from the prior year bad debt charge. The negative impact of slightly lower sales volumes was largely offset by lower selling, general and administrative expenses.

OUTLOOK

Global glass reinforcements market demand has historically grown on average with global industrial production and we believe this relationship will continue over the long term. In 2018, we expect our volume to lag growth in global industrial production due to lower pull-through from roofing demand.

Insulation

The table below provides a summary of net sales, EBIT and depreciation and amortization expense for the Insulation segment (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Net sales	$710	$568	$1,988	$1,406
% change from prior year	25 %	19 %	41 %	10 %
EBIT	$94	$64	$175	$98
EBIT as a % of net sales	13 %	11 %	9 %	7 %
Depreciation and amortization expense	$47	$36	$138	$89

NET SALES

In our Insulation segment, net sales in the third quarter of 2018 increased $142 million compared to the same period in 2017. The increase was primarily driven by the $121 million impact of our acquisition of Paroc and higher selling prices of $40 million. This growth was partially offset, about equally, by lower sales volumes of about 2% and the unfavorable impact of translating sales denominated in foreign currencies into United States dollars.

For the year-to-date 2018, net sales in our Insulation segment increased $582 million compared to the same period in 2017. The increase was primarily driven by the $463 million impact of our acquisitions of Paroc and Pittsburgh Corning (which was included in the other categories following the one-year post-acquisition period), higher selling prices of $87 million and slightly higher sales volumes of about 1%. The remaining increase was driven by favorable customer mix and the favorable impact of translating sales denominated in foreign currencies into United States dollars.

EBIT

In our Insulation segment, EBIT in the third quarter of 2018 increased by $30 million compared to the same period in 2017. The EBIT improvement was driven by higher selling prices of $40 million, partially offset by $5 million of higher rebuild and start-up costs and slightly higher selling, general and administrative costs. The $14 million contribution from our acquisition of Paroc was offset by $16 million of input cost inflation and higher transportation costs.

For the year-to-date 2018, EBIT in our Insulation segment increased by $77 million compared to the same period in 2017, primarily driven by higher selling prices of $87 million. The $45 million favorable impact from of our acquisitions of Paroc and Pittsburgh

Corning (which was included in the other categories following the one-year post-acquisition period) was more than offset by $39 million of combined input cost inflation and higher transportation costs and $14 million of higher year-over-year rebuild and start-up costs. Slightly higher selling, general and administrative costs were partially offset by the impact of higher sales volumes early in the year.

DEPRECIATION AND AMORTIZATION

In our Insulation segment, depreciation and amortization expense in the third quarter and year-to-date 2018 increased by $11 million and $49 million, respectively, compared to the same periods in 2017. Our third quarter results include $12 million of depreciation related to property, plant and equipment and $6 million related to amortization of intangible assets related to our acquisitions of Paroc and Pittsburgh Corning. Year-to-date 2018 results include $35 million of depreciation related to property, plant and equipment and amortization of $17 million related to our Paroc and Pittsburgh Corning acquisitions.

OUTLOOK

The outlook for Insulation demand is driven by new residential construction, remodeling and repair activity, commercial construction and industrial construction activity in the United States, Canada, Europe and Asia-Pacific. Demand for commercial and industrial insulation is most closely correlated to gross domestic product growth in the global markets we serve. Demand for residential insulation is most closely correlated to U.S. housing starts. During the third quarter of 2018, the average Seasonally Adjusted Annual Rate (SAAR) of U.S. housing starts was approximately 1.218 million, up from an annual average of approximately 1.172 million starts in the third quarter of 2017. The Company expects its Insulation segment to benefit from continued global gross domestic product growth and an overall strengthening of the U.S. housing market (including higher capacity utilization and improved pricing).

Roofing

The table below provides a summary of net sales, EBIT and depreciation and amortization expense for the Roofing segment (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Net sales	$645	$682	$1,946	$1,993
% change from prior year	-5 %	13 %	-2 %	16 %
EBIT	$127	$147	$351	$427
EBIT as a % of net sales	20 %	22 %	18 %	21 %
Depreciation and amortization expense	$13	$13	$38	$37

NET SALES

In our Roofing segment, net sales in the third quarter of 2018 decreased by $37 million compared to the same period in 2017. The decrease was primarily driven by lower sales volumes of about 15% on lower shingle volumes, partially offset by $48 million of higher selling prices and higher third-party asphalt sales driven by higher selling prices.

For the year-to-date 2018, net sales in our Roofing segment decreased by $47 million compared to the same period in 2017. The decrease was driven by lower sales volumes of about 9% on primarily lower shingle volumes, partially offset by $84 million of higher selling prices, $14 million of favorable product mix, and $24 million of higher third-party asphalt sales driven by higher selling prices.

EBIT

In our Roofing segment, EBIT in the third quarter of 2018 decreased by $20 million compared to the same period in 2017. Higher selling prices of $48 million more than offset $19 million of asphalt cost inflation and $19 million of combined other input inflation and transportation costs. The remaining unfavorable variance was driven primarily by

lower sales volumes.

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

For the year-to-date 2018, EBIT in our Roofing segment decreased by $76 million compared to the same period in 2017. Higher selling prices of $84 million more than offset $81 million of input cost inflation ($45 million of which was related to asphalt costs). The impact of lower sales volumes and $23 million of higher transportation costs contributed to the year-over-year decrease.

OUTLOOK

In our Roofing segment, we expect the factors that have driven strong margins in recent years, such as growth from new construction and remodeling demand, along with higher sales of roofing components, to continue to deliver profitability. Uncertainties that may impact our Roofing margins include demand from storm and other weather events, competitive pricing pressure and the cost and availability of raw materials, particularly asphalt.

Corporate, Other and Eliminations

The table below provides a summary of EBIT and depreciation and amortization expense for the Corporate, Other and Eliminations category (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Restructuring costs	$(7)	$(8)	$(19)	$(37)
Acquisition-related costs	(1)	(1)	(16)	(12)
Recognition of acquisition inventory fair value step-up	—	(5)	(2)	(5)
Litigation settlement gain, net of legal fees	—	—	—	29
Pension settlement gains / (losses)	—	2	—	(28)
General corporate expense and other	(18)	(34)	(88)	(102)
EBIT	$(26)	$(46)	$(125)	$(155)
Depreciation and amortization	$11	$16	$38	$36

EBIT

In Corporate, Other and Eliminations, EBIT losses for the third quarter 2018 were lower by $20 million compared to the same period in 2017. EBIT improvement in the third quarter of 2018 was primarily driven by lower performance-based compensation and acquisition-related costs. See details of these costs in the table above and further explained in both the Restructuring and Acquisition-Related Costs paragraph of MD&A and Note 10 of the Consolidated Financial Statements.

For the year-to-date 2018, Corporate, Other and Eliminations EBIT losses were lower by $30 million due to the impact of lower restructuring costs, lower performance-based compensation and lower pension-related costs. See details of these costs in the table above and further explained in both the Restructuring and Acquisition-Related Costs paragraph of MD&A and Note 10 of the Consolidated Financial Statements.

General corporate expense and other for the third quarter 2018 was lower by $16 million compared to the same period in 2017, primarily driven by lower performance-based compensation. General corporate expense and other for the year-to-date 2018 was lower by $14 million compared to the same period in 2017, primarily driven by lower performance-based compensation and pension-related costs.

DEPRECIATION AND AMORTIZATION

Depreciation and amortization in the third quarter and year-to-date of 2018 was lower by $5 million and higher by $2 million, respectively, compared to the same periods in 2017. For the third quarter comparison, the decrease is

primarily due to higher accelerated depreciation recorded in 2017 related to our restructuring actions.

OUTLOOK

In 2018, we expect general corporate expenses to range between $125 million to $130 million.

ITEM 2. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

LIQUIDITY, CAPITAL RESOURCES AND OTHER RELATED MATTERS

Liquidity

The Company's primary external sources of liquidity are its Senior Revolving Credit Facility and its Receivables Securitization Facility.

The Company has an $800 million senior revolving credit facility (the "Senior Revolving Credit Facility") with a maturity date in May 2023. In May 2018, the Company entered into a new credit agreement to extend its maturity to May 2023 and remove the $600 million of uncommitted incremental loans permitted under the facility. The new agreement also removed all subsidiaries of the Company as guarantors under the Senior Revolving Credit Facility, unless certain conditions precedent are met that do not exist at this time.

The Company has a $280 million securitization facility (the "Receivables Securitization Facility") that has been amended from time to time, which matures in May 2020. The facility was most recently amended in April 2018 to increase the borrowing limit from $250 million to $280 million. No other significant terms impacting liquidity were amended.

The following table shows how the Company utilized its primary sources of liquidity (in millions):

	As of September 30, 2018	
	Senior Revolving Credit Facility	Receivables Securitization Facility
Facility size or borrowing limit	$ 800	$ 280
Collateral capacity limitation on availability	n/a	13
Outstanding borrowings	43	264
Outstanding letters of credit	9	3
Availability on facility	$ 748	$ —

The Company issued $400 million of 2048 senior notes on January 25, 2018. Interest on these notes is payable semiannually in arrears on January 30 and July 30 each year, beginning on July 30, 2018. The proceeds from the 2048 senior notes, along with borrowings on a $600 million term loan commitment and the Receivables Securitization Facility, were used to fund the purchase of Paroc in the first quarter of 2018.

The Company obtained two term loan commitments on October 27, 2017 for $300 million and $600 million, respectively, (collectively, the "Term Loan Commitments"). The Company entered into the Term Loan Commitments, in part, to pay a portion of the purchase price of the Paroc acquisition. The $600 million term loan borrowing (the "Term Loan Borrowing") requires full repayment of borrowings in February 2021. On February 12, 2018, the Company voluntarily reduced the entire $300 million term loan commitment, thus eliminating the availability of credit under the facility.

The Company has no significant debt maturities of senior notes before 2022, with our Senior Revolving Credit Facility and Receivables Securitization Facility maturing in 2023 and 2020, respectively. The Company also has a $600 million term loan borrowing that must be repaid by 2021. As of September 30, 2018, the Company had $3.7 billion of total debt and cash and cash equivalents of $136 million.

Cash and cash equivalents held by foreign subsidiaries may be subject to foreign withholding taxes upon repatriation to the U.S. As of September 30, 2018, and December 31, 2017, the Company had $129 million and $101 million, respectively, in cash and cash equivalents in certain of our foreign subsidiaries. The Company's analysis of whether to change its indefinite reinvestment assertion on account of the Tax Act is incomplete. Therefore, we continue to assert

indefinite reinvestment in accordance with ASC 740 based on the laws prior to enactment of the Tax Act and do not provide for foreign withholding taxes on the undistributed earnings of our foreign subsidiaries.

As a holding company, we have no operations of our own and most of our assets are held by our direct and indirect subsidiaries. Dividends and other payments or distributions from our subsidiaries will be used to meet our debt service and other obligations and to enable us to pay dividends to our stockholders. Please refer to page 13 of the Risk Factors disclosed in Item 1A of the

ITEM 2. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

Company's Form 10-K for the year ended December 31, 2017 (the "2017 Form 10-K") for details on the factors that could inhibit our subsidiaries' ability to pay dividends or make other distributions to the parent company.

We expect that our cash on hand, coupled with future cash flows from operations and other available sources of liquidity, including our Senior Revolving Credit Facility and Receivables Securitization Facility, will provide ample liquidity to enable us to meet our cash requirements. Our anticipated uses of cash include capital expenditures, working capital needs, pension contributions, meeting financial obligations, payments of quarterly dividends as authorized by our Board of Directors, acquisitions and reducing outstanding amounts under the Senior Revolving Credit Facility, Receivables Securitization Facility and term loan borrowing.

We have outstanding share repurchase authorizations and will evaluate and consider repurchasing shares of our common stock, as well as strategic acquisitions, divestitures, joint ventures and other transactions to create stockholder value and enhance financial performance. Such transactions may require cash expenditures beyond current sources of liquidity or generate proceeds.

The agreements governing our Senior Revolving Credit Facility, Receivables Securitization Facility, and Term Loan Commitments contain various covenants that we believe are usual and customary. The Senior Revolving Credit Facility and the Receivables Securitization Facility each include a maximum allowed leverage ratio and a minimum required interest expense coverage ratio. We were in compliance with these covenants as of September 30, 2018.

Cash Flows

The following table presents a summary of our cash balance, cash flows, and availability on credit facilities (in millions):

	Nine Months Ended September 30,	
	2018	2017
Cash and cash equivalents	$136	$168
Net cash flow provided by operating activities	$506	$694
Net cash flow used for investing activities	$(1,551)	$(810)
Net cash flow provided by financing activities	$953	$154
Availability on the Senior Revolving Credit Facility	$748	$791
Availability on the Receivables Securitization Facility	$—	$115

Operating activities: For the nine months ended September 30, 2018, the Company's operating activities provided $506 million of cash compared to $694 million provided in the same period in 2017. The change in cash provided by operating activities was primarily due to a larger increase in operating assets and liabilities (mainly inventories) in 2018 compared to the same period of 2017.

Investing activities: Net cash flow used for investing activities increased $741 million for the nine months ended September 30, 2018 compared to the same period of 2017, primarily driven by higher spending on acquisitions year-over-year and higher cash paid for property, plant and equipment.

Financing activities: Net cash provided by financing activities was $953 million for the nine months ended September 30, 2018, compared to $154 million in the same period in 2017. The change of $799 million was primarily due to higher long-term debt inflows to fund the purchase of Paroc in the first quarter of 2018 (see Note 11 of the Consolidated Financial Statements and the Liquidity section above for further discussion of activities related to debt).

2018 Investments

Capital Expenditures: The Company will continue a balanced approach to the use of its cash flow. Operational cash flow will be used to fund the Company’s growth and innovation. Capital expenditures in 2018 are expected to be approximately $500 million, which is roughly $50 million greater than expected depreciation and amortization.

Capital spending in excess of depreciation and amortization is primarily due to spending for our Composites expansion in India and growth projects in our Roofing and Insulation segments, including the construction of a Paroc mineral wool insulation manufacturing line in Poland that was in progress at the date of the acquisition. The Company will also continue to evaluate projects and acquisitions that provide opportunities for growth in our businesses, and invest in them when they meet our strategic and financial criteria.

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

Tax Net Operating Losses and U.S Foreign Tax Credits

There have been no material changes to the disclosure in our 2017 Form 10-K. We are continuing to evaluate the estimates used to record and disclose the effects of the Tax Act.

Pension Contributions

Please refer to Note 12 of the Consolidated Financial Statements. The Company expects to contribute $38 million in cash to its global pension plans during 2018. Actual contributions to the plans may change as a result of several factors, including changes in laws that impact funding requirements. The ultimate cash flow impact to the Company, if any, of the pension plan liability and the timing of any such impact will depend on numerous variables, including future changes in actuarial assumptions, legislative changes to pension funding laws, and market conditions.

Derivatives

Please refer to Note 5 of the Consolidated Financial Statements.

Fair Value Measurement

Please refer to Notes 5 and 11 of the Consolidated Financial Statements.

Contractual Obligations

In the normal course of business, we enter into contractual obligations to make payments to third parties. During the nine months ended September 30, 2018, there were no material changes to such contractual obligations outside the ordinary course of our business.

SAFETY

Working safely is a condition of employment at Owens Corning. We believe this organization-wide expectation provides for a safer work environment for employees, improves our manufacturing processes, reduces our costs and enhances our reputation. Furthermore, striving to be a world-class leader in safety provides a platform for all employees to understand and apply the resolve necessary to be a high-performing global organization. We measure our progress on safety based on Recordable Incidence Rate ("RIR") as defined by the United States Department of Labor, Bureau of Labor Statistics. For the three months ended September 30, 2018, our RIR was 0.36 as compared to 0.46 in the same period a year ago. For the nine months ended September 30, 2018, our RIR was 0.46 as compared to 0.48 in the same period a year ago.

ACCOUNTING PRONOUNCEMENTS

Please refer to Note 1 of the Consolidated Financial Statements.

ENVIRONMENTAL MATTERS

Please refer to Note 13 of the Consolidated Financial Statements.

CAUTIONARY STATEMENT CONCERNING FORWARD-LOOKING STATEMENTS

Our disclosures and analysis in this report, including Management's Discussion and Analysis of Financial Condition and Results of Operations, contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 (the "Exchange Act"). Forward-looking statements present our current forecasts and estimates of future events. These statements do not strictly relate to historical or current results and can be identified by words such as "anticipate," "appear," "assume," "believe," "estimate," "expect," "forecast," "intend," "likely," "may," "plan," "project," "seek," "should," "strategy," "will" and other terms of similar meaning or import in connection with any discussion of future operating, financial or other performance. These forward-looking statements are subject to risks, uncertainties and other factors and actual results may differ materially from those results projected in the statements. These risks, uncertainties and other factors include, without limitation:

- relationships with key customers;

ITEM 2. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS (continued)

- levels of residential and commercial construction activity;
- competitive and pricing factors;
- levels of global industrial production;
- demand for our products;
- industry and economic conditions that affect the market and operating conditions of our customers, suppliers or lenders;
- domestic and international economic and political conditions, policies or other governmental actions, legislation and related regulations or interpretations, in the United States or elsewhere;
- changes to tariff, trade or investment policies or laws;
- the impact of recent tax reform legislation and related actions, interpretations and regulatory guidance;
- foreign exchange and commodity price fluctuations;
- our level of indebtedness;
- weather conditions;
- availability and cost of credit;
- availability and cost of energy, transportation, raw materials, and other inputs;
- issues involving implementation and protection of information technology systems;
- labor disputes;
- legal and regulatory proceedings, including litigation and environmental actions;
- our ability to utilize our net operating loss carryforwards;
- research and development activities and intellectual property protection;
- interest rate movements;
- uninsured losses;
- issues related to acquisitions, divestitures and joint ventures;
- achievement of expected synergies, cost reductions and/or productivity improvements;
- defined benefit plan funding obligations; and
- price volatility in certain wind energy markets in the U.S.

All forward-looking statements in this report should be considered in the context of the risks and other factors described above and in Item 1A - Risk factors in Part I of our 2017 Form 10-K. Any forward-looking statements speak only as of the date the statement is made and we undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by federal securities laws. It is not possible to identify all of the risks, uncertainties and other factors that may affect future results. In light of these risks and uncertainties, the forward-looking events and circumstances discussed in this report may not occur and actual results may differ materially from those anticipated or implied

in the forward-looking statements. Accordingly, users of this report are cautioned not to place undue reliance on the forward-looking statements.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

There has been no material change in our exposure to market risk during the nine months ended September 30, 2018. Please refer to "Quantitative and Qualitative Disclosures about Market Risk" contained in Part II, Item 7A of our 2017 Form 10-K for a discussion of our exposure to market risk.

ITEM 4. CONTROLS AND PROCEDURES

The Company maintains (a) disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act), and (b) internal control over financial reporting (as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act).

The Company’s management, with the participation of the Company’s Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company’s disclosure controls and procedures as of the end of the period covered by this report. Based on such evaluation, the Company’s Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of such period, the Company’s disclosure controls and procedures are effective.

There has been no change in the Company's internal control over financial reporting during the quarter ended September 30, 2018 that materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II

ITEM 1. LEGAL PROCEEDINGS

Information required by this item is incorporated by reference to Note 13, Contingent Liabilities and Other Matters.

ITEM 1A. RISK FACTORS

There have been no material changes to the risk factors disclosed in Item 1A of the Company’s 2017 Form 10-K.

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

Recent Sales of Unregistered Securities; Use of Proceeds from Registered Securities

None.

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Issuer Purchases of Equity Securities

The following table provides information about Owens Corning's purchases of its common stock for each month during the quarterly period covered by this report:

Period	Total Number of Shares (or Units) Purchased		Average Price Paid per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs**	Maximum Number (or Approximate Dollar Value) of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs**
July 1-31, 2018	300,937		$ 62.81	300,000	5,939,176
August 1-31, 2018	1,361,188		59.80	1,357,450	4,581,726
September 1-30, 2018	1,998		56.56	—	4,581,726
Total	1,664,123	*	$ 60.34	1,657,450	4,581,726

* The Company retained an aggregate of 6,673 shares surrendered to satisfy tax withholding obligations in connection with the vesting of restricted shares granted to our employees.

** On October 24, 2016, the Board of Directors approved a share buy-back program under which the Company is authorized to repurchase up to 10 million shares of the Company's outstanding common stock (the "Repurchase Authorization"). The Repurchase Authorization enables the Company to repurchase shares through the open market, privately negotiated transactions, or other transactions. The actual number of shares repurchased will depend on timing, market conditions and other factors and is at the Company's discretion. The Company repurchased 1.7 million shares of its common stock for $100 million during the three months ended September 30, 2018 under the Repurchase Authorization. As of September 30, 2018, 4.6 million shares remain available for repurchase under the Repurchase Authorization.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

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ITEM 6. EXHIBITS

Exhibit Number	Description
31.1	Certification of Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a) (filed herewith).
31.2	Certification of Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a) (filed herewith).
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350 (furnished herewith).
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350 (furnished herewith).
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase

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SIGNATURES

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

OWENS CORNING

Registrant

Date: October 24, 2018 By: /s/ Michael C. McMurray
Michael C. McMurray
Senior Vice President and
Chief Financial Officer

Date: October 24, 2018 By: /s/ Kelly J. Schmidt
Kelly J. Schmidt
Vice President and
Controller