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

FORM 10-Q

---

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

For the quarterly period ended September 30, 2017

or

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

For the transition period from to

Commission File Number 001-34400

INGERSOLL-RAND PUBLIC LIMITED COMPANY
(Exact name of registrant as specified in its charter)

Ireland	98-0626632
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

170/175 Lakeview Dr.
Airside Business Park
Swords, Co. Dublin
Ireland
(Address of principal executive offices, including zip code)
+(353) (0) 18707400
(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 x NO ¨

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES x NO ¨

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

Large accelerated filer	x	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 x

The number of ordinary shares outstanding of Ingersoll-Rand plc as of October 13, 2017 was 249,867,865.

INGERSOLL-RAND PLC
FORM 10-Q
INDEX

Table of Contents

PART I - FINANCIAL INFORMATION

Item 1. Financial Statements

INGERSOLL-RAND PLC
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited)

	Three months ended September 30,		Nine months ended September 30,	
In millions, except per share amounts	2017	2016	2017	2016
Net revenues	$3,670.5	$3,567.8	$10,579.5	$10,150.1
Cost of goods sold	(2,489.9)	(2,412.9)	(7,269.1)	(6,960.6)
Selling and administrative expenses	(674.5)	(643.2)	(2,031.7)	(1,939.1)
Operating income	506.1	511.7	1,278.7	1,250.4
Interest expense	(53.9)	(54.5)	(162.0)	(167.7)
Other income/(expense), net	(7.6)	(6.3)	(23.8)	390.5
Earnings before income taxes	444.6	450.9	1,092.9	1,473.2
Provision for income taxes	(76.4)	(83.2)	(243.2)	(217.6)
Earnings from continuing operations	368.2	367.7	849.7	1,255.6
Discontinued operations, net of tax	3.7	14.2	5.5	34.3
Net earnings	371.9	381.9	855.2	1,289.9
Less: Net earnings attributable to noncontrolling interests	(4.9)	(4.5)	(12.5)	(12.5)
Net earnings attributable to Ingersoll-Rand plc	$367.0	$377.4	$842.7	$1,277.4
Amounts attributable to Ingersoll-Rand plc ordinary shareholders:				
Continuing operations	$363.3	$363.2	$837.2	$1,243.1
Discontinued operations	3.7	14.2	5.5	34.3
Net earnings	$367.0	$377.4	$842.7	$1,277.4
Earnings (loss) per share attributable to Ingersoll-Rand plc ordinary shareholders:				
Basic:				
Continuing operations	$1.43	$1.40	$3.27	$4.80
Discontinued operations	0.02	0.05	0.02	0.13
Net earnings	$1.45	$1.45	$3.29	$4.93
Diluted:				
Continuing operations	$1.41	$1.39	$3.22	$4.76
Discontinued operations	0.02	0.05	0.02	0.13
Net earnings	$1.43	$1.44	$3.24	$4.89
Weighted-average shares outstanding:				
Basic	253.3	259.2	256.4	259.0
Diluted	256.7	261.8	259.7	261.4
Dividends declared per ordinary share	$0.45	$0.32	$1.25	$0.96
Total comprehensive income (loss)	$488.5	$408.4	$1,267.8	$1,383.2
Less: Total comprehensive income (loss) attributable to noncontrolling interests	4.7	10.5	11.5	18.3
Total comprehensive income (loss) attributable to Ingersoll-Rand plc	$483.8	$397.9	$1,256.3	$1,364.9

See accompanying notes to Condensed Consolidated Financial Statements.

Table of Contents

INGERSOLL-RAND PLC
CONDENSED CONSOLIDATED BALANCE SHEETS

In millions	(Unaudited) September 30, 2017	December 31, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	$ 1,259.0	$ 1,714.7
Accounts and notes receivable, net	2,468.2	2,223.0
Inventories, net	1,661.1	1,385.8
Other current assets	425.6	255.8
Total current assets	5,813.9	5,579.3
Property, plant and equipment, net	1,529.0	1,511.0
Goodwill	5,851.2	5,658.4
Intangible assets, net	3,740.9	3,785.1
Other noncurrent assets	787.8	863.6
Total assets	$ 17,722.8	$ 17,397.4
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	$ 1,487.9	$ 1,334.0
Accrued compensation and benefits	472.0	469.8
Accrued expenses and other current liabilities	1,622.0	1,425.7
Short-term borrowings and current maturities of long-term debt	1,106.7	360.8
Total current liabilities	4,688.6	3,590.3
Long-term debt	2,955.9	3,709.4
Postemployment and other benefit liabilities	1,299.1	1,356.5
Deferred and noncurrent income taxes	912.1	884.9
Other noncurrent liabilities	1,022.7	1,138.0
Total liabilities	10,878.4	10,679.1
Equity:		
Ingersoll-Rand plc shareholders' equity:		
Ordinary shares	273.8	271.7
Ordinary shares held in treasury, at cost	(1,613.8)	(702.7)
Capital in excess of par value	436.8	346.5
Retained earnings	8,556.3	8,018.8
Accumulated other comprehensive income (loss)	(876.9)	(1,290.5)
Total Ingersoll-Rand plc shareholders' equity	6,776.2	6,643.8
Noncontrolling interests	68.2	74.5
Total equity	6,844.4	6,718.3
Total liabilities and equity	$ 17,722.8	$ 17,397.4

See accompanying notes to Condensed Consolidated Financial Statements.

Table of Contents

INGERSOLL-RAND PLC
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

In millions	Nine months ended September 30, 2017	2016
Cash flows from operating activities:		
Net earnings	$855.2	$1,289.9
Discontinued operations, net of tax	(5.5)	(34.3)
Adjustments for non-cash transactions:		
Asset impairment	8.4	—
Depreciation and amortization	261.9	264.7
Gain on sale of Hussmann equity investment	—	(397.8)
Gain on sale of joint venture	(1.5)	—
Changes in assets and liabilities, net	(391.0)	(198.3)
Other non-cash items, net	163.3	98.4
Net cash provided by (used in) continuing operating activities	890.8	1,022.6
Net cash provided by (used in) discontinued operating activities	(17.6)	94.1
Net cash provided by (used in) operating activities	873.2	1,116.7
Cash flows from investing activities:		
Capital expenditures	(149.9)	(127.5)
Acquisition of businesses, net of cash acquired	(60.3)	(9.2)
Proceeds from sale of property, plant and equipment	1.1	2.6
Proceeds from sale of Hussmann equity investment	—	422.5
Proceeds from sale of joint venture	2.7	—
Net cash provided by (used in) continuing investing activities	(206.4)	288.4
Cash flows from financing activities:		
Short-term borrowings (payments), net	(11.6)	(150.6)
Debt issuance costs	(0.2)	(2.1)
Dividends paid to ordinary shareholders	(318.0)	(245.6)
Dividends paid to noncontrolling interests	(15.5)	(13.8)
Acquisition of noncontrolling interest	(6.8)	—
Repurchase of ordinary shares	(911.1)	(250.1)
Other financing activities, net	40.7	16.3
Net cash provided by (used in) continuing financing activities	(1,222.5)	(645.9)
Effect of exchange rate changes on cash and cash equivalents	100.0	8.6
Net increase (decrease) in cash and cash equivalents	(455.7)	767.8
Cash and cash equivalents - beginning of period	1,714.7	736.8
Cash and cash equivalents - end of period	$1,259.0	$1,504.6

See accompanying notes to Condensed Consolidated Financial Statements.

INGERSOLL-RAND PLC
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Note 1. Basis of Presentation

The accompanying unaudited condensed consolidated financial statements of Ingersoll-Rand plc (Plc or Parent Company), a public limited company incorporated in Ireland in 2009, and its consolidated subsidiaries (collectively, the Company), reflect the consolidated operations of the Company and have been prepared in accordance with United States Securities and Exchange Commission (SEC) interim reporting requirements. Accordingly, the accompanying condensed consolidated financial statements do not include all disclosures required by accounting principles generally accepted in the United States of America (GAAP) for full financial statements and should be read in conjunction with the consolidated financial statements included in the Ingersoll-Rand plc Annual Report on Form 10-K for the year ended December 31, 2016. In the opinion of management, the accompanying condensed consolidated financial statements contain all adjustments, which include only normal recurring adjustments, necessary to fairly state the condensed consolidated results for the interim periods presented. Certain reclassifications of amounts reported in prior periods have been made to conform with the current period presentation.

Note 2. Recent Accounting Pronouncements

The Financial Accounting Standards Board (FASB) Accounting Standards Codification is the sole source of authoritative GAAP other than SEC issued rules and regulations that apply only to SEC registrants. The FASB issues an Accounting Standards Update (ASU) to communicate changes to the codification. The Company considers the applicability and impact of all ASU's. ASU's not listed below were assessed and determined to be either not applicable or are not expected to have a material impact on the consolidated financial statements.

Recently Adopted Accounting Pronouncements

In March 2016, the FASB issued ASU No. 2016-09, "Compensation-Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting" (ASU 2016-09) which simplifies several aspects of the accounting for employee share-based payment transactions. The standard makes several modifications to the accounting for forfeitures, employer tax withholding on share-based compensation and the financial statement presentation of excess tax benefits or deficiencies. In addition, ASU 2016-09 clarifies the statement of cash flows presentation for certain components of share-based awards. The standard is effective for interim and annual reporting periods beginning after December 15, 2016. The Company adopted this standard on January 1, 2017 and prospectively presented any excess tax benefits or deficiencies in the income statement as a component of Provision for income taxes rather than in the Equity section of the Balance Sheet. As part of the adoption, the Company reclassified $15.1 million of excess tax benefits previously unrecognized on a modified retrospective basis through a cumulative-effect adjustment to increase Retained earnings as of January 1, 2017. In addition, the statement of cash flows for the nine months ended September 30, 2016 was retrospectively adjusted to present $14.3 million of excess tax benefits as an operating activity rather than a financing activity.

In January 2017, the FASB issued ASU 2017-04, “Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment” (ASU 2017-04) which simplifies the accounting for goodwill impairment by eliminating Step 2 of the current goodwill impairment test which requires a hypothetical purchase price allocation to measure goodwill impairment. Under the new standard, a company will record an impairment charge based on the excess of a reporting unit’s carrying amount over its fair value. ASU 2017-04 does not change the guidance on completing Step 1 of the goodwill impairment test and still allows a company to perform the optional qualitative goodwill impairment assessment before determining whether to proceed to Step 1. The standard is effective for annual and interim goodwill impairment tests in fiscal years beginning after December 15, 2019 with early adoption permitted for any impairment test performed on testing dates after January 1, 2017. The Company adopted this standard on January 1, 2017 and will apply its guidance on future impairment assessments.

In March 2017, the FASB issued ASU 2017-07, "Compensation-Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost" (ASU 2017-07) which changes the way employers that sponsor defined benefit pension and/or postretirement benefit plans reflect net periodic benefit costs in the income statement. Under the current standard, the multiple components of net periodic benefit costs are aggregated and reported within the operating section of the income statement or capitalized into assets when appropriate. The new standard requires a company to present the service cost component of net periodic benefit cost in the same income statement line as other employee compensation costs with the remaining components of net periodic benefit cost presented separately from the service cost component and outside of any subtotal of operating income, if one is presented. In addition, only the service cost component will be eligible for capitalization in assets. ASU 2017-07 is effective for fiscal years beginning after December 15, 2017 with early adoption permitted as of the beginning of an annual period. The Company adopted this standard on January 1, 2017 applying the presentation requirements retrospectively. Refer to Note 9, "Pensions and Postretirement Benefits Other than Pensions" and Note 13, "Other Income/ (Expense), net" for additional information.

Recently Issued Accounting Pronouncements

In August 2017, the FASB issued ASU 2017-12, "Derivatives and hedging (Topic 815): Targeted improvements to accounting for hedging activities" (ASU 2017-12). This standard more closely aligns the results of cash flow and fair value hedge accounting with risk management activities through changes to both the designation and measurement guidance for qualifying hedging relationships and the presentation of hedge results in the financial statements. This standard also addresses specific limitations in current GAAP by expanding hedge accounting for both nonfinancial and financial risk components and by refining the measurement of hedge results to better reflect an entity's hedging strategies. Additionally, by aligning the timing of recognition of hedge results with the earnings effect of the hedged item for cash flow and net investment hedges, and by including the earnings effect of the hedging instrument in the same income statement line item in which the earnings effect of the hedged item is presented, the results of an entity's hedging program and the cost of executing that program will be more visible to users of financial statements. ASU 2017-12 is effective for annual reporting periods beginning after December 15, 2018 with early adoption permitted. The Company is currently assessing the impact of the ASU on its financial statements.

In November 2016, the FASB issued ASU 2016-18, "Statement of Cash Flows (Topic 230): Restricted Cash" (ASU 2016-18). This standard requires restricted cash and restricted cash equivalents to be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period amounts shown on the statements of cash flows. In addition, the standard requires disclosure of the nature of restrictions on cash balances and how the statement of cash flows reconciles to the balance sheet in any situation in which the balance sheet includes more that one line item of cash, cash equivalents and restricted cash. ASU 2016-18 is effective for annual reporting periods beginning after December 15, 2017 with early adoption permitted. The Company intends to early adopt the standard in the fourth quarter of 2017 and does not expect its adoption to have a material impact on its financial statements.

In October 2016, the FASB issued ASU 2016-16, "Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory" (ASU 2016-16) which removes the prohibition in Topic 740 against the immediate recognition of the current and deferred income tax effects of intra-entity transfers of assets other than inventory. ASU 2016-16 is effective for annual reporting periods beginning after December 15, 2017, including interim periods within those annual periods, with early adoption permitted. The amendments are to be applied on a modified retrospective basis through a cumulative-effect adjustment directly to Retained earnings as of the beginning of the period of adoption. The Company does not expect the adoption of this standard to have a material impact on its financial statements.

In August 2016, the FASB issued ASU 2016-15, "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments" (ASU 2016-15). This standard clarifies how certain cash receipts and cash payments are classified on the statement of cash flows. The following eight specific cash flow issues are addressed: debt prepayment or debt extinguishment costs; settlement of zero-coupon debt instruments or other debt instruments with coupon interest rates that are insignificant in relation to the effective interest rate of the borrowing; contingent consideration payments made after a business combination; proceeds from the settlement of insurance claims; proceeds from the settlement of corporate-owned life insurance policies (including bank-owned life insurance policies); distributions received from equity method investees; beneficial interests in securitization transactions and separately identifiable cash flows. In addition, the standard clarifies how the predominance principle should be applied when cash receipts and cash payments have aspects of more than one class of cash flows. ASU 2016-15 is effective for annual reporting periods beginning after December 15, 2017 with early adoption permitted. The Company intends to early adopt the standard in the fourth quarter of 2017 and does not expect its adoption to have a material impact on its financial statements.

In February 2016, the FASB issued ASU 2016-02, "Leases" (ASU 2016-02) which requires the lease rights and obligations arising from lease contracts, including existing and new arrangements, to be recognized as assets and liabilities on the balance sheet. The standard also requires additional disclosures by lessees and contains targeted changes to accounting by lessors. ASU 2016-02 is effective for annual periods beginning after December 15, 2018, including interim periods within those annual periods, with early adoption permitted. The standard is required to be adopted at the earliest period presented using a modified retrospective approach. The Company is currently developing an implementation plan and gathering data to further assess the impact of the ASU on its financial statements. The adoption is anticipated to have a material impact on assets and liabilities due to the recognition of lease rights and obligations on the Balance Sheet. However, the Company does not expect the adoption on January 1, 2019 to have a material impact to its Statements of Cash Flows or Statements of Comprehensive Income.

In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers" (ASC 606), which creates a comprehensive, five-step model for revenue recognition that requires a company to recognize revenue to depict the transfer of promised goods or services to a customer at an amount that reflects the consideration it expects to receive in exchange for those goods or services. Under the new standard, a company will be required to use more judgment and make more estimates when considering contract terms as well as relevant facts and circumstances when identifying performance obligations, estimating the amount of variable consideration in the transaction price and allocating the transaction price to each separate performance obligation.

In addition, ASC 606 enhances disclosures about revenue, provides guidance for transactions that were not previously addressed comprehensively and improves guidance for multiple-element arrangements. ASC 606 is effective for annual reporting periods beginning after December 15, 2017 and is required to be applied retrospectively to each prior reporting period presented or retrospectively with the cumulative effect of initially applying it recognized at the date of initial application. Early adoption is permitted, but not before the original effective date of the standard.

In 2014, the Company began to assess the impact of adopting ASC 606 on its revenue recognition practices. Utilizing working sessions and document reviews with each of its reporting units as well as with appropriate functions such as legal and tax, the Company identified potential differences that would result from applying the requirements of the new standard on the Company's revenue contracts. During 2015, the Company drafted preliminary accounting positions addressing identified potential differences and later determined that certain highly engineered products sold to customers within the Industrial segment and which revenue is currently recognized at a point in time, will meet the criteria of a performance obligation satisfied over time under the new standard. Total applicable revenues represent approximately 4% of the Industrial segment revenue and less than 1% of total Company revenue. The Company intends to apply the guidance by recognizing the cumulative effect of initially applying the standard as an opening balance sheet adjustment to equity in the period of initial adoption. The Company continues to refine the estimate of the cumulative effect adjustment as well as the overall impact to the financial statements. However, management believes the adoption of ASC 606 will not have a material impact to Net revenues, Operating income or the Balance Sheet.

Note 3. Inventories

Depending on the business, U.S. inventories are stated at the lower of cost or market using the last-in, first-out (LIFO) method or the lower of cost or market using the first-in, first-out (FIFO) method. Non-U.S. inventories are primarily stated at the lower of cost or market using the FIFO method.

The major classes of inventory were as follows:

In millions	September 30, 2017	December 31, 2016
Raw materials	$ 526.2	$ 448.5
Work-in-process	195.6	154.0
Finished goods	1,001.5	845.6
	1,723.3	1,448.1
LIFO reserve	(62.2)	(62.3)
Total	$ 1,661.1	$ 1,385.8

The Company performs periodic assessments to determine the existence of obsolete, slow-moving and non-saleable inventories and records necessary provisions to reduce such inventories to net realizable value. Reserve balances, primarily related to obsolete and slow-moving inventories, were $121.2 million and $111.7 million at September 30, 2017 and December 31, 2016, respectively.

Note 4. Goodwill

The Company records as goodwill the excess of the purchase price over the fair value of the net assets acquired. Goodwill is tested and reviewed annually for impairment during the fourth quarter or whenever there is a significant change in events or circumstances that indicate that the fair value of a reporting unit may be less than the carrying amount of the reporting unit.

The changes in the carrying amount of goodwill for the nine months ended September 30, 2017 were as follows:

In millions	Climate	Industrial	Total
Net balance as of December 31, 2016	$4,879.1	$ 779.3	$5,658.4
Acquisitions	13.8	9.7	23.5
Currency translation	141.9	27.4	169.3

Net balance as of September 30, 2017	$5,034.8	$ 816.4	$5,851.2

The net goodwill balances at September 30, 2017 and December 31, 2016 include $2,496.0 million of accumulated impairment. The accumulated impairment relates entirely to a charge in the fourth quarter of 2008 associated with the Climate segment.
During 2017, the Company acquired several businesses, including channel acquisitions, that complement existing products and services. These acquisitions were recorded using the acquisition method of accounting in accordance with the accounting guidance

for business combinations. As a result, the aggregate purchase price has been allocated to assets acquired and liabilities assumed based on the estimate of fair market value of such assets and liabilities at the date of acquisition. Intangible assets associated with these acquisitions primarily relate to technology, trademarks and/or customer relationships. Any excess of the purchase price is recognized as goodwill.

Note 5. Intangible Assets

Indefinite-lived intangible assets are tested and reviewed annually for impairment during the fourth quarter or whenever there is a significant change in events or circumstances that indicate that the fair value of the asset may be less than the carrying amount of the asset. All other intangible assets with finite useful lives are amortized on a straight-line basis over their estimated useful lives.

The gross amount of the Company’s intangible assets and related accumulated amortization were as follows:

	September 30, 2017			December 31, 2016		
In millions	Gross carrying amount	Accumulated amortization	Net carrying amount	Gross carrying amount	Accumulated amortization	Net carrying amount
Completed technologies/patents	$208.9	$ (175.0)	$33.9	$203.0	$ (165.6)	$37.4
Customer relationships	2,063.0	(1,025.6)	1,037.4	2,008.9	(926.1)	1,082.8
Other	61.9	(49.3)	12.6	61.1	(48.5)	12.6
Total finite-lived intangible assets	2,333.8	(1,249.9)	1,083.9	2,273.0	(1,140.2)	1,132.8
Trademarks (indefinite-lived)	2,657.0	—	2,657.0	2,652.3	—	2,652.3
Total	$4,990.8	$ (1,249.9)	$3,740.9	$4,925.3	$ (1,140.2)	$3,785.1

Intangible asset amortization expense was $33.3 million and $33.0 million for the three months ended September 30, 2017 and 2016, respectively. Intangible asset amortization expense was $98.1 million and $99.1 million for the nine months ended September 30, 2017 and 2016, respectively.

Note 6. Debt and Credit Facilities

Short-term borrowings and current maturities of long-term debt consisted of the following:

In millions	September 30, 2017	December 31, 2016
Debentures with put feature	$ 343.0	$ 343.0
6.875% Senior notes due 2018 (1)	749.4	—
Other current maturities of long-term debt	7.7	7.7
Short-term borrowings	6.6	10.1
Total	$ 1,106.7	$ 360.8

(1) During the third quarter of 2017, the Company reclassified its 6.875% Senior notes due August 2018 from noncurrent to current.

Commercial Paper Program

The Company uses borrowings under its commercial paper program for general corporate purposes. The maximum aggregate amount of unsecured commercial paper notes available to be issued, on a private placement basis, under the commercial paper program is $2.0 billion as of September 30, 2017.

Debentures with Put Feature

At September 30, 2017 and December 31, 2016, the Company had $343.0 million of fixed rate debentures outstanding which contain a put feature that the holders may exercise on each anniversary of the issuance date. If exercised, the Company is obligated to repay in whole or in part, at the holder’s option, the outstanding principal amount of the debentures plus accrued interest. If these options are not exercised, the final contractual maturity dates would range between 2027 and 2028. Holders of these debentures had the option to exercise the put feature on $37.2 million of the outstanding debentures in February 2017, subject to the notice requirement. No material exercises were made.

7

Long-term debt, excluding current maturities, consisted of the following:

In millions	September 30, 2017	December 31, 2016
6.875% Senior notes due 2018	$ —	$ 748.6
2.875% Senior notes due 2019	349.3	348.6
2.625% Senior notes due 2020	298.8	298.5
9.000% Debentures due 2021	124.8	124.8
4.250% Senior notes due 2023	696.3	695.6
7.200% Debentures due 2018-2025	52.3	59.7
3.550% Senior notes due 2024	495.0	494.5
6.480% Debentures due 2025	149.7	149.7
5.750% Senior notes due 2043	494.0	493.6
4.650% Senior notes due 2044	295.5	295.4
Other loans and notes	0.2	0.4
Total	$ 2,955.9	$ 3,709.4

Other Credit Facilities

The Company maintains two 5-year, $1.0 billion revolving credit facilities (the Facilities) through its wholly-owned subsidiaries, Ingersoll-Rand Global Holding Company Limited and Ingersoll-Rand Luxembourg Finance S.A. (collectively, the Borrowers). Each senior unsecured credit facility, one of which matures in March 2019 and the other in March 2021, provides support for the Company's commercial paper program and can be used for working capital and other general corporate purposes. Ingersoll-Rand plc, Ingersoll-Rand Irish Holdings Unlimited Company, Ingersoll-Rand Lux International Holding Company S.à.r.l. and Ingersoll-Rand Company each provide irrevocable and unconditional guarantees for these Facilities. In addition, each Borrower will guarantee the obligations under the Facilities of the other Borrower. Total commitments of $2.0 billion were unused at September 30, 2017 and December 31, 2016.

Fair Value of Debt

The carrying value of the Company's short-term borrowings is a reasonable estimate of fair value due to the short-term nature of the instruments. The fair value of the Company's debt instruments at September 30, 2017 and December 31, 2016 was $4.5 billion and $4.4 billion, respectively. The Company measures the fair value of its long-term debt instruments for disclosure purposes based upon observable market prices quoted on public exchanges for similar assets. These fair value inputs are considered Level 2 within the fair value hierarchy. The methodologies used by the Company to determine the fair value of its long-term debt instruments at September 30, 2017 are the same as those used at December 31, 2016.

Note 7. Financial Instruments

In the normal course of business, the Company is exposed to certain risks arising from business operations and economic factors. These fluctuations can increase the cost of financing, investing and operating the business. The Company may use various financial instruments, including derivative instruments, to manage the risks associated with interest rate and currency rate exposures. These financial instruments are not used for trading or speculative purposes. On the date a derivative contract is entered into, the Company designates the derivative instrument as a cash flow hedge of a forecasted transaction or as an undesignated derivative. The Company formally documents its hedge relationships, including identification of the derivative instruments and the hedged items, as well as its risk management objectives and strategies for undertaking the hedge transaction. This process includes linking derivative instruments that are designated as hedges to specific assets, liabilities or forecasted transactions.

The Company assesses at inception, and at least quarterly thereafter, whether the derivatives used in cash flow hedging transactions are highly effective in offsetting the changes in the cash flows of the hedged item. To the extent the derivative is deemed to be a highly effective hedge, the fair market value changes of the instrument are recorded in Accumulated other comprehensive income (AOCI). Any ineffective portion of a derivative instrument's change in fair value is recorded in Net earnings in the period of change. If the hedging relationship ceases to be highly effective, or it becomes probable that a forecasted transaction is no longer expected to occur, the hedging relationship will be undesignated and any future gains and losses on the derivative instrument will be recorded in Net earnings.

Table of Contents
INGERSOLL-RAND PLC
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

The fair values of derivative instruments included within the Condensed Consolidated Balance Sheets were as follows:

In millions	Derivative assets September 30, 2017	Derivative assets December 31, 2016	Derivative liabilities September 30, 2017	Derivative liabilities December 31, 2016
Derivatives designated as hedges:				
Currency derivatives designated as hedges	$ —	$ 0.3	$ 2.0	$ 2.9
Derivatives not designated as hedges:				
Currency derivatives not designated as hedges	11.7	0.3	3.3	17.9
Total derivatives	$ 11.7	$ 0.6	$ 5.3	$ 20.8

Asset and liability derivatives included in the table above are recorded within Other current assets and Accrued expenses and other current liabilities, respectively.

Currency Derivative Instruments

The notional amount of the Company’s currency derivatives was $0.8 billion and $1.1 billion at September 30, 2017 and December 31, 2016, respectively. At September 30, 2017 and December 31, 2016, a net loss of $1.7 million and net gain of $2.4 million, net of tax, respectively, was included in AOCI related to the fair value of the Company’s currency derivatives designated as accounting hedges. The amount expected to be reclassified into Net earnings over the next twelve months is a loss of $1.7 million. The actual amounts that will be reclassified to Net earnings may vary from this amount as a result of changes in market conditions. Gains and losses associated with the Company’s currency derivatives not designated as hedges are recorded in Net earnings as changes in fair value occur. At September 30, 2017, the maximum term of the Company’s currency derivatives was approximately 12 months.

Other Derivative Instruments

The Company has utilized forward-starting interest rate swaps and interest rate locks to manage interest rate exposure in periods prior to the anticipated issuance of fixed-rate debt. These instruments were designated as cash flow hedges and had a notional amount of $1.3 billion. Consequently, when the contracts were settled upon the issuance of the underlying debt, any realized gains or losses in the fair values of the instruments were deferred into AOCI. These deferred gains or losses are subsequently recognized in Interest expense over the term of the related notes. The net unrecognized gain in AOCI was $6.4 million at September 30, 2017 and $6.0 million at December 31, 2016. The net deferred gain at September 30, 2017 will continue to be amortized over the term of notes with maturities ranging from 2018 to 2044. The amount expected to be amortized over the next twelve months is a net loss of $0.4 million. The Company has no forward-starting interest rate swaps or interest rate lock contracts outstanding at September 30, 2017 or December 31, 2016.

The following table represents the amounts associated with derivatives designated as hedges affecting Net earnings and AOCI for the three months ended September 30:

In millions	Amount of gain (loss) recognized in AOCI 2017	Amount of gain (loss) recognized in AOCI 2016	Location of gain (loss) reclassified from AOCI and recognized into Net earnings	Amount of gain (loss) reclassified from AOCI and recognized into Net earnings 2017	Amount of gain (loss) reclassified from AOCI and recognized into Net earnings 2016
Currency derivatives designated as hedges	$ (0.7)	$ 0.4	Cost of goods sold	$ (1.3)	$ 2.3
Interest rate swaps & locks	—	—	Interest expense	(0.1)	(0.1)
Total	$ (0.7)	$ 0.4		$ (1.4)	$ 2.2

The following table represents the amounts associated with derivatives not designated as hedges affecting Other income/(expense), net for the for the three months ended September 30:

In millions	Amount of gain (loss) recognized in Net earnings 2017	2016
Currency derivatives not designated as hedges	$ 14.5	$ (2.5)
Total	$ 14.5	$ (2.5)

Table of Contents
INGERSOLL-RAND PLC
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

The following table represents the amounts associated with derivatives designated as hedges affecting Net earnings and AOCI for the nine months ended September 30:

In millions	Amount of gain (loss) recognized in AOCI 2017	2016	Location of gain (loss) reclassified from AOCI and recognized into Net earnings	Amount of gain (loss) reclassified from AOCI and recognized into Net earnings 2017	2016
Currency derivatives designated as hedges	$ (1.3)	$ 7.0	Cost of goods sold	$ (2.0)	$ 4.3
Interest rate swaps & locks	—	—	Interest expense	(0.4)	(0.4)
Total	$ (1.3)	$ 7.0		$ (2.4)	$ 3.9

The following table represents the amounts associated with derivatives not designated as hedges affecting Other income/(expense), net for the nine months ended September 30:

In millions	Amount of gain (loss) recognized in Net earnings 2017	2016
Currency derivatives not designated as hedges	$ 48.3	$ 8.9
Total	$ 48.3	$ 8.9

The gains and losses associated with the Company’s undesignated currency derivatives are materially offset in Other income/(expense), net by changes in the fair value of the underlying transactions.

Concentration of Credit Risk
The counterparties to the Company’s forward contracts consist of a number of investment grade major international financial institutions. The Company could be exposed to losses in the event of nonperformance by the counterparties. However, the credit ratings and the concentration of risk in these financial institutions are monitored on a continuous basis and present no significant credit risk to the Company.

Note 8. Fair Value Measurements
ASC 820, "Fair Value Measurement," (ASC 820) defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. ASC 820 also establishes a three-level fair value hierarchy that prioritizes information used in developing assumptions when pricing an asset or liability as follows:

- Level 1: Observable inputs such as quoted prices in active markets;
- Level 2: Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and
- Level 3: Unobservable inputs where there is little or no market data, which requires the reporting entity to develop its own assumptions.

ASC 820 requires the use of observable market data, when available, in making fair value measurements. When inputs used to measure fair value fall within different levels of the hierarchy, the level within which the fair value measurement is categorized is based on the lowest level input that is significant to the fair value measurement.

The following table presents the Company’s fair value hierarchy for those assets and liabilities measured at fair value on a recurring basis as of September 30, 2017:

In Millions	Fair Value	Fair value measurements

		Level 1	Level 2	Level 3
Assets:				
Derivative instruments	$ 11.7	$ —	$ 11.7	$ —
Liabilities:				
Derivative instruments	$ 5.3	$ —	$ 5.3	$ —

10

The following table presents the Company’s fair value hierarchy for those assets and liabilities measured at fair value on a recurring basis as of December 31, 2016:

In Millions	Fair Value	Fair value measurements Level 1	Level 2	Level 3
Assets:				
Derivative instruments	$ 0.6	$ —	$ 0.6	$ —
Liabilities:				
Derivative instruments	$ 20.8	$ —	$ 20.8	$ —

Derivative instruments include forward foreign currency contracts and instruments related to non-functional currency balance sheet exposures. The fair value of the derivative instruments are determined based on a pricing model that uses spot rates and forward prices from actively quoted currency markets that are readily accessible and observable.
The carrying values of cash and cash equivalents, accounts receivable, and accounts payable are a reasonable estimate of their fair value due to the short-term nature of these instruments. These methodologies used by the Company to determine the fair value of its financial assets and liabilities at September 30, 2017 are the same as those used at December 31, 2016. There have been no transfers between levels of the fair value hierarchy.

Note 9. Pensions and Postretirement Benefits Other than Pensions

The Company sponsors several U.S. defined benefit and defined contribution plans covering substantially all of the Company's U.S. employees. Additionally, the Company has many non-U.S. defined benefit and defined contribution plans covering eligible non-U.S. employees. Postretirement benefits other than pensions (OPEB) provide healthcare benefits, and in some instances, life insurance benefits for certain eligible employees.
On January 1, 2017, the Company adopted ASU 2017-07 which requires a company to present the service cost component of net periodic benefit cost in the same income statement line as other employee compensation costs with the remaining components of net periodic benefit cost presented separately from the service cost component and outside of any subtotal of operating income, if one is presented. The Company applied the presentation requirements retrospectively.

Pension Plans

The noncontributory defined benefit pension plans covering non-collectively bargained U.S. employees provide benefits on a final average pay formula while plans for most collectively bargained U.S. employees provide benefits on a flat dollar benefit formula or a percentage of pay formula. The non-U.S. pension plans generally provide benefits based on earnings and years of service. The Company also maintains additional other supplemental plans for officers and other key or highly compensated employees.

Table of Contents
INGERSOLL-RAND PLC
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

The components of the Company's net periodic pension benefit cost for the three and nine months ended September 30 were as follows:

	Three months ended		Nine months ended	
In millions	2017	2016	2017	2016
Service cost	$17.1	$16.7	$52.8	$53.2
Interest cost	27.3	27.7	81.3	84.6
Expected return on plan assets	(35.6)	(36.0)	(106.0)	(108.2)
Net amortization of:				
Prior service costs	0.9	0.6	2.8	3.0
Net actuarial losses	14.3	16.2	41.4	46.5
Net periodic pension benefit cost	$24.0	$25.2	$72.3	$79.1
Net curtailment and settlement (gains) losses	1.3	—	3.6	—
Net periodic pension benefit cost after net curtailment and settlement (gains) losses	$25.3	$25.2	$75.9	$79.1
Amounts recorded in continuing operations:				
Operating income	$16.3	$16.0	$50.6	$51.1
Other income/(expense), net	6.4	6.8	17.9	20.6
Amounts recorded in discontinued operations	2.6	2.4	7.4	7.4
Total	$25.3	$25.2	$75.9	$79.1

During the three months ended March 31, 2017, the Company recognized a curtailment loss associated with certain defined benefit plan freezes that is effective January 1, 2022. As a result, projected benefit obligations for these plans were remeasured as of January 31, 2017. During the three months ended September 30, 2017, the Company recognized a settlement loss associated with lump sum distributions of a non-U.S. defined benefit plan.

The Company made contributions to its defined benefit pension plans of $77.8 million and $38.5 million during the nine months ended September 30, 2017 and 2016, respectively. The Company currently projects that it will contribute approximately $102 million to its plans worldwide in 2017.

Postretirement Benefits Other Than Pensions

The Company sponsors several postretirement plans that provide for healthcare benefits, and in some instances, life insurance benefits that cover certain eligible employees. These plans are unfunded and have no plan assets, but are instead funded by the Company on a pay-as-you-go basis in the form of direct benefit payments. Generally, postretirement health benefits are contributory with contributions adjusted annually. Life insurance plans for retirees are primarily noncontributory.

The components of net periodic postretirement benefit cost for the three and nine months ended September 30 were as follows:

	Three months ended		Nine months ended	
In millions	2017	2016	2017	2016
Service cost	$0.8	$0.9	$2.3	$2.8
Interest cost	3.2	4.2	11.7	13.2
Net amortization of:				
Prior service gains	(2.2)	(2.3)	(6.5)	(6.7)
Net actuarial losses	—	0.1	—	0.1
Net periodic postretirement benefit cost	$1.8	$2.9	$7.5	$9.4
Amounts recorded in continuing operations:				

Operating income	$0.8	$0.9	$2.3	$2.8
Other income/(expense), net	0.9	1.2	3.8	3.6
Amounts recorded in discontinued operations	0.1	0.8	1.4	3.0
Total	$1.8	$2.9	$7.5	$9.4

Note 10. Equity

The authorized share capital of Ingersoll-Rand plc is 1,185,040,000 shares, consisting of (1) 1,175,000,000 ordinary shares, par value $1.00 per share, (2) 40,000 ordinary shares, par value EUR 1.00 and (3) 10,000,000 preference shares, par value $0.001 per share. There were no Euro-denominated ordinary shares or preference shares outstanding at September 30, 2017 or December 31, 2016.

Changes in ordinary shares and treasury shares for the nine months ended September 30, 2017 are as follows:

In millions	Ordinary shares issued	Ordinary shares held in treasury
December 31, 2016	271.7	12.7
Shares issued under incentive plans, net	2.1	—
Repurchase of ordinary shares	—	10.6
September 30, 2017	273.8	23.3

Share repurchases are made from time to time in accordance with management's capital allocation strategy, subject to market conditions and regulatory requirements. In February 2014, the Company's Board of Directors authorized the repurchase of up to $1.5 billion of its ordinary shares under a share repurchase program that began in April 2014. Shares repurchased prior to October 2014 were canceled upon repurchase and accounted for as a reduction of Ordinary shares and Capital in excess of par value, or Retained earnings to the extent Capital in excess of par value was exhausted. Beginning in October 2014, repurchased shares were held in treasury and recognized at cost. Ordinary shares held in treasury are presented separately on the balance sheet as a reduction to Equity. This repurchase program was completed in the second quarter of 2017.

In February 2017, the Company's Board of Directors authorized the repurchase of up to $1.5 billion of its ordinary shares under a new share repurchase program upon completion of the prior authorized share repurchase program. Repurchases under this program began in May 2017 and total approximately $495 million at September 30, 2017. As a result, the Company has approximately $1.0 billion remaining under this program. Combined, the Company repurchased $911.1 million of its ordinary shares during the nine months ended September 30, 2017.

The components of Equity for the nine months ended September 30, 2017 were as follows:

In millions	Shareholders' equity	Noncontrolling interests	Total equity
Balance at December 31, 2016	$ 6,643.8	$ 74.5	$ 6,718.3
Net earnings	842.7	12.5	855.2
Currency translation	401.4	(1.0)	400.4
Derivatives qualifying as cash flow hedges, net of tax	1.1	—	1.1
Pension and OPEB adjustments, net of tax	11.1	—	11.1
Total comprehensive income (loss)	1,256.3	11.5	1,267.8
Share-based compensation	53.2	—	53.2
Adoption of ASU 2016-09 (See Note 2)	15.1	—	15.1
Acquisition/ divestiture of noncontrolling interest	(5.0)	(2.3)	(7.3)
Dividends declared to noncontrolling interests	—	(15.5)	(15.5)
Dividends declared to ordinary shareholders	(318.0)	—	(318.0)
Shares issued under incentive plans, net of tax benefit	41.9	—	41.9
Repurchase of ordinary shares	(911.1)	—	(911.1)
Balance at September 30, 2017	$ 6,776.2	$ 68.2	$ 6,844.4

13

The components of Equity for the nine months ended September 30, 2016 were as follows:

In millions	Shareholders' equity	Noncontrolling interests	Total equity
Balance at December 31, 2015	$ 5,816.7	$ 62.5	$ 5,879.2
Net earnings	1,277.4	12.5	1,289.9
Currency translation	42.9	5.8	48.7
Derivatives qualifying as cash flow hedges, net of tax	3.0	—	3.0
Pension and OPEB adjustments, net of tax	41.6	—	41.6
Total comprehensive income (loss)	1,364.9	18.3	1,383.2
Share-based compensation	49.7	—	49.7
Dividends declared to noncontrolling interests	—	(13.8)	(13.8)
Dividends declared to ordinary shareholders	(247.5)	—	(247.5)
Shares issued under incentive plans, net of tax benefit	30.5	—	30.5
Repurchase of ordinary shares	(250.1)	—	(250.1)
Other	(0.1)	—	(0.1)
Balance at September 30, 2016	$ 6,764.1	$ 67.0	$ 6,831.1

Accumulated Other Comprehensive Income (Loss)

The changes in Accumulated other comprehensive income (loss) for the nine months ended September 30, 2017 are as follows:

In millions	Derivative Instruments	Pension and OPEB	Foreign Currency Translation	Total
Balance at December 31, 2016	$ 2.9	$ (554.4)	$ (739.0)	$ (1,290.5)
Other comprehensive income (loss) before reclassifications	(1.3)	(13.8)	401.4	386.3
Amounts reclassified from AOCI	2.4	37.7	—	40.1
Provision for income taxes	—	(12.8)	—	(12.8)
Net current period other comprehensive income (loss)	$ 1.1	$ 11.1	$ 401.4	$ 413.6
Balance at September 30, 2017	$ 4.0	$ (543.3)	$ (337.6)	$ (876.9)

The changes in Accumulated other comprehensive income (loss) for the nine months ended September 30, 2016 are as follows:

In millions	Derivative Instruments	Pension and OPEB	Foreign Currency Translation	Total
Balance at December 31, 2015	$ 5.1	$ (630.4)	$ (495.6)	$ (1,120.9)
Other comprehensive income (loss) before reclassifications	7.0	13.0	42.9	62.9
Amounts reclassified from AOCI	(3.9)	42.9	—	39.0
Provision for income taxes	(0.1)	(14.3)	—	(14.4)
Net current period other comprehensive income (loss)	$ 3.0	$ 41.6	$ 42.9	$ 87.5
Balance at September 30, 2016	$ 8.1	$ (588.8)	$ (452.7)	$ (1,033.4)

The reclassifications out of Accumulated other comprehensive income (loss) for the three and nine months ended September 30 were as follows:

In millions	Three months ended 2017	Three months ended 2016	Nine months ended 2017	Nine months ended 2016
Derivative Instruments				
Reclassifications of deferred (gains) losses [1]	$1.4	$(2.2)	$2.4	$(3.9)
Provision for (benefit from) income taxes	0.1	0.1	0.3	0.3
Reclassifications, net of taxes	$1.5	$(2.1)	$2.7	$(3.6)
Pension and Postretirement benefits				
Amortization of service costs [2]	$(1.3)	$(1.7)	$(3.7)	$(3.7)
Amortization of actuarial losses [2]	14.3	16.3	41.4	46.6
Provision for (benefit from) income taxes	(4.1)	(4.7)	(12.8)	(14.3)
Reclassifications, net of taxes	$8.9	$9.9	$24.9	$28.6
Total reclassifications, net of taxes	$10.4	$7.8	$27.6	$25.0

(1) Reclassifications of interest rate swaps and locks are reflected within Interest expense; reclassifications of currency derivatives designated as hedges are reflected in Cost of goods sold.
(2) Reclassifications of the service cost component of pension and postretirement benefit costs are reflected within Operating income; the remaining components are included within Other income/(expense), net.

Note 11. Share-Based Compensation

The Company accounts for stock-based compensation plans in accordance with ASC 718, "Compensation - Stock Compensation" (ASC 718), which requires a fair-value based method for measuring the value of stock-based compensation. Fair value is measured once at the date of grant and is not adjusted for subsequent changes. The Company’s share-based compensation plans include programs for stock options, restricted stock units (RSUs), performance share units (PSUs) and deferred compensation.

Compensation Expense

Share-based compensation expense is related to continuing operations and is included in Selling and administrative expenses. The expense recognized for the three and nine months ended September 30 were as follows:

In millions	Three months ended 2017	Three months ended 2016	Nine months ended 2017	Nine months ended 2016
Stock options	$3.6	$3.3	$16.3	$14.7
RSUs	5.0	5.1	21.9	21.5
Performance shares	4.7	4.6	15.9	14.1
Other	0.7	1.2	3.8	3.9
Pre-tax expense	14.0	14.2	57.9	54.2
Tax benefit	(5.4)	(5.4)	(22.2)	(20.7)
After-tax expense	$8.6	$8.8	$35.7	$33.5

Stock Options / RSUs

Eligible participants may receive (i) stock options, (ii) RSUs or (iii) a combination of both stock options and RSUs. The fair value of each of the Company's stock option and RSU awards is expensed on a straight-line basis over the required service period, which is generally the 3-year vesting period. However, for stock options and RSUs granted to retirement eligible employees, the Company recognizes an expense for the entire fair value at the grant date. Grants issued during the nine months ended September 30 were as follows:

	2017		2016	
	Number granted	Weighted-average fair value per award	Number granted	Weighted-average fair value per award
Stock options	1,517,235	$ 13.46	1,958,476	$ 9.42
RSUs	353,255	$ 80.68	485,351	$ 51.25

The average fair value of the stock options granted is determined using the Black-Scholes option-pricing model. The following assumptions were used during the nine months ended September 30:

	2017	2016
Dividend yield	2.00 %	2.55 %
Volatility	22.46 %	28.60 %
Risk-free rate of return	1.80 %	1.12 %
Expected life in years	P4Y9M20D	4.8

A description of the significant assumptions used to estimate the fair value of the stock option awards is as follows:

- Volatility - The expected volatility is based on a weighted average of the Company's implied volatility and the most recent historical volatility of the Company's stock commensurate with the expected life.
- Risk-free rate of return - The Company applies a yield curve of continuous risk-free rates based upon the published U.S. Treasury spot rates on the grant date.
- Expected life - The expected life of the Company's stock option awards represents the weighted-average of the actual period since the grant date for all exercised or cancelled options and an expected period for all outstanding options.
- Dividend yield - The Company determines the dividend yield based upon the expected quarterly dividend payments as of the grant date and the current fair market value of the Company's stock.
- Forfeiture Rate - The Company analyzes historical data of forfeited options to develop a reasonable expectation of the number of options to forfeit prior to vesting per year. This expected forfeiture rate is applied to the Company's ongoing compensation expense; however, all expense is adjusted to reflect actual vestings and forfeitures.

Performance Shares

The Company has a Performance Share Program (PSP) for key employees. The program provides awards in the form of PSUs based on performance against pre-established objectives. The annual target award level is expressed as a number of the Company's ordinary shares. All PSUs are settled in the form of ordinary shares. During the nine months ended September 30, 2017, the Company granted PSUs with a maximum award level of approximately 0.4 million shares with a weighted-average fair value per award of $93.17.

PSU awards are earned based 50% upon a performance condition, measured at each reporting period by relative EPS growth to the industrial group of companies in the S&P 500 Index and the fair market value of the Company's stock on the date of grant, and 50% upon a market condition, measured by the Company's relative total shareholder return (TSR) as compared to the TSR of the industrial group of companies in the S&P 500 Index over the 3-year performance period. The fair value of the market condition is estimated using a Monte Carlo Simulation approach in a risk-neutral framework based upon historical volatility, risk-free rates and correlation matrix.

16

Deferred Compensation
The Company allows key employees to defer a portion of their eligible compensation into a number of investment choices, including its ordinary share equivalents. Any amounts invested in ordinary share equivalents will be settled in ordinary shares of the Company at the time of distribution.
Note 12. Restructuring Activities
The Company incurs ongoing costs associated with restructuring initiatives intended to result in improved operating performance, profitability and working capital levels. Actions associated with these initiatives may include workforce reduction, improving manufacturing productivity, realignment of management structures and rationalizing certain assets. The following table details restructuring charges recorded during the three and nine months ended September 30:

	Three months ended		Nine months ended	
In millions	2017	2016	2017	2016
Climate	$5.5	$2.5	$35.3	$5.3
Industrial	3.8	4.8	11.9	13.1
Corporate and Other	0.7	—	1.0	2.4
Total	$10.0	$7.3	$48.2	$20.8
Cost of goods sold	$6.8	$2.0	$39.4	$5.8
Selling and administrative expenses	3.2	5.3	8.8	15.0
Total	$10.0	$7.3	$48.2	$20.8

The changes in the restructuring reserve for the nine months ended September 30, 2017 were as follows:

In millions	Climate	Industrial	Corporate and Other	Total
December 31, 2016	$ 3.4	$ 4.3	$ 0.6	$8.3
Additions, net of reversals (1)	18.6	11.9	1.0	31.5
Cash paid/other	(14.3)	(9.4)	(0.9)	(24.6)
September 30, 2017	$ 7.7	$ 6.8	$ 0.7	$15.2

(1) Excludes the non-cash costs of asset rationalizations ($8.4 million). In addition, a non-cash pension curtailment ($2.5 million) and an enhanced retiree medical benefit ($5.8 million) triggered upon announcement of the restructuring, impact the Company's outstanding benefit obligations and are excluded from this table.
Ongoing restructuring actions primarily include workforce reductions as well as the closure and consolidation of multiple manufacturing facilities in an effort to improve the Company's cost structure. During the first quarter of 2017, the Company announced plans to close three manufacturing facilities during 2017, the largest of which is a U.S. manufacturing facility within the Climate segment that will relocate production to other U.S. facilities. As of September 30, 2017, the Company had $15.2 million accrued for costs associated with its ongoing restructuring actions, of which a majority is expected to be paid within one year and primarily relate to workforce reduction benefits.
In addition, the Company incurred $1.0 million of non-qualified restructuring charges during nine months ended September 30, 2017, which represent costs that are directly attributable to restructuring activities, but do not fall into the severance, exit or disposal category. These non-qualified restructuring charges were incurred to improve the Company's cost structure.

Note 13. Other Income/(Expense), Net

The components of Other income/(expense), net for the three and nine months ended September 30 are as follows:

	Three months ended		Nine months ended	
In millions	2017	2016	2017	2016
Interest income	$2.3	$0.8	$6.7	$5.4
Exchange gain (loss)	(2.0)	(3.1)	(3.5)	6.2
Other components of net periodic benefit cost	(7.3)	(8.0)	(21.7)	(24.2)
Income (loss) from equity investment	—	—	—	(0.8)
Income (loss) from Hussmann equity investment	—	—	—	397.8
Other activity, net	(0.6)	4.0	(5.3)	6.1
Other income/(expense), net	$(7.6)	$(6.3)	$(23.8)	$390.5

Other income /(expense), net includes the results from activities other than normal business operations such as interest income and foreign currency gains and losses on transactions that are denominated in a currency other than an entity's functional currency. In addition, the Company includes the components of net periodic benefit cost for pension and post retirement obligations other than the service cost component as a result of the adoption of ASU 2017-07. Other activity, net include costs associated with Trane U.S. Inc. for the settlement and defense of asbestos-related claims, insurance settlements on asbestos-related matters and the revaluation of asbestos recoveries. Refer to Note 18, "Commitments and Contingencies," for more information regarding asbestos-related matters.

Sale of Hussmann Equity Investment

During 2011, the Company completed the sale of a controlling interest in its Hussmann refrigerated display case business (Hussmann) to a newly-formed affiliate (Hussmann Parent) of private equity firm Clayton Dubilier & Rice, LLC (CD&R). Per the terms of the agreement, CD&R's ownership interest in Hussmann at the acquisition date was 60% with the remaining 40% being retained by the Company. As a result, the Company accounted for its interest in Hussmann using the equity method of accounting.

On December 21, 2015, the Company announced it would sell its remaining equity interest in Hussmann as part of a transaction in which Panasonic Corporation would acquire 100 percent of Hussmann's outstanding shares. The transaction was completed on April 1, 2016. The Company received net proceeds of $422.5 million, including closing settlement amounts, for its interest and recognized a gain of $397.8 million on the sale during the second quarter of 2016.

Note 14. Income Taxes

The Company accounts for its provision for income taxes in accordance with ASC 740, "Income Taxes," which requires an estimate of the annual effective income tax rate for the full year to be applied to the respective interim period, taking into account year-to-date amounts and projected results for the full year. For the nine months ended September 30, 2017 and September 30, 2016, the Company's effective income tax rate was 22.3% and 14.8%, respectively. The effective income tax rate for the nine months ended September 30, 2017 was lower than the U.S. statutory rate of 35% primarily due to the recognition of excess tax benefits from employee share-based payments in Provision for income taxes as a result of the adoption of ASU 2016-09 on January 1, 2017, the provision to return true-up due to the filing of the U.S. federal income tax return, a reduction of a previously accrued tax liability due to obtaining approval from a local non-U.S. tax authority and earnings in non-U.S. jurisdictions, which in aggregate, have a lower effective tax rate. This reduction was partially offset by a non-cash charge related to the establishment of a valuation allowance on certain net deferred tax assets in Brazil. Excess tax benefits from employee share-based payments decreased the effective tax rate by 2.1% and the establishment of the Brazil valuation allowance increased the effective tax rate by 3.1%. The effective tax rate for the nine months ended September 30, 2016 was lower than the U.S. statutory rate of 35% primarily due to the tax treatment of the Hussmann gain. The gain, which was not subject to tax under the relevant local tax laws, decreased the effective tax rate by 5.5%. In addition, the reduction was driven by the provision to return true-up due to the filing of the U.S. federal income tax return, a reduction of a previously accrued tax liability due to obtaining a certification from a local non-U.S. tax authority and by earnings in non-U.S. jurisdictions, which in aggregate, have a lower effective tax rate.

Total unrecognized tax benefits as of September 30, 2017 and December 31, 2016 were $115.5 million and $107.1 million, respectively. Although management believes its tax positions and related provisions reflected in the consolidated financial statements are fully supportable, it recognizes that these tax positions and related provisions may be challenged by various tax authorities. These tax positions and related provisions are reviewed on an ongoing basis and are adjusted as additional facts and information become available, including progress on tax audits, changes in interpretations of tax laws, developments in case law and closing of statute of limitations. To the extent that the ultimate results differ from the original or adjusted estimates of the Company, the effect will be recorded in Provision for income taxes.

The Provision for income taxes involves a significant amount of management judgment regarding interpretation of relevant facts and laws in the jurisdictions in which the Company operates. Future changes in applicable laws, projected levels of taxable income and tax planning could change the effective tax rate and tax balances recorded by the Company. In addition, tax authorities periodically review income tax returns filed by the Company and can raise issues regarding its filing positions, timing and amount of income or deductions, and the allocation of income among the jurisdictions in which the Company operates. A significant period of time may elapse between the filing of an income tax return and the ultimate resolution of an issue raised by a revenue authority with respect to that return. In the normal course of business the Company is subject to examination by taxing authorities throughout the world, including such major jurisdictions as Brazil, Canada, China, France, Germany, Ireland, Italy, Mexico, Spain, Switzerland, the Netherlands and the United States. In general, the examination of the Company’s material tax returns is complete or effectively settled for the years prior to 2008, with certain matters prior to 2008 being resolved through appeals and litigation.

The Company had certain deferred tax assets in Brazil, primarily comprised of net operating loss carryforwards, with a tax effected value of approximately $33 million at December 31, 2016. The operating results of the entities associated with these deferred tax assets have experienced declines in 2016 and 2015 due to market slowdowns in Brazil. The Company concluded that these deferred tax assets, which have an indefinite life, did not require a valuation allowance as of December 31, 2016 due to forecasted profitability and to-be implemented tax planning actions. In the second quarter of 2017, the Company updated its financial forecast and concluded that the forecasted operating results of these entities was further reduced due to weaker markets in Brazil during 2017. This additional negative evidence led the Company to conclude that it is more likely than not that the net deferred tax assets in Brazil will not be realized. As a result, the Company established a valuation allowance during the second quarter of 2017 of approximately $33 million.

Note 15. Discontinued Operations

The Company has retained costs from previously sold businesses that mainly include expenses related to postretirement benefits, product liability and legal costs (mostly asbestos related). The components of Discontinued operations, net of tax for the three and nine months ended September 30 were as follows:

	Three months ended		Nine months ended	
In millions	2017	2016	2017	2016
Pre-tax earnings (loss) from discontinued operations	$5.8	$25.0	$6.7	$37.6
Tax benefit (expense)	(2.1)	(10.8)	(1.2)	(3.3)
Discontinued operations, net of tax	$3.7	$14.2	$5.5	$34.3

Pre-tax earnings (loss) from discontinued operations for each period presented consists of various items including costs associated with asbestos-related matters, environmental expenditures and postretirement expenses. In addition, amounts realized during the nine months ended September 30, 2017 include income from settlements with insurance carriers related to asbestos. Amount realized during the nine months ended September 30, 2016 also include income from settlements with insurance carriers related to asbestos as well as a realized gain on the sale of property relating to a previously sold business. Refer to Note 18, "Commitments and Contingencies," for more information regarding asbestos-related matters.

Note 16. Earnings Per Share (EPS)

Basic EPS is calculated by dividing Net earnings attributable to Ingersoll-Rand plc by the weighted-average number of ordinary shares outstanding for the applicable period. Diluted EPS is calculated after adjusting the denominator of the basic EPS calculation for the effect of all potentially dilutive ordinary shares, which in the Company's case, includes shares issuable under share-based compensation plans. The following table summarizes the weighted-average number of ordinary shares outstanding for basic and diluted earnings per share calculations for the three and nine months ended September 30:

	Three months ended		Nine months ended	
In millions	2017	2016	2017	2016
Weighted-average number of basic shares	253.3	259.2	256.4	259.0
Shares issuable under incentive stock plans	3.4	2.6	3.3	2.4
Weighted-average number of diluted shares	256.7	261.8	259.7	261.4
Anti-dilutive shares	1.0	1.2	1.6	1.3

Note 17. Business Segment Information

The accounting policies of the operating segments are the same as those described in the summary of significant accounting policies except that the operating segments' results are prepared on a management basis that is consistent with the manner in which the Company prepares financial information for internal review and decision making. The Company largely evaluates performance based on Segment operating income and Segment operating margins. Intercompany sales between segments are considered immaterial.

The Company's Climate segment globally delivers energy-efficient products and innovative energy services. It includes Trane® and American Standard® Heating & Air Conditioning which provide heating, ventilation and air conditioning (HVAC) systems, and commercial and residential building services, parts, support and controls; energy services and building automation through Trane Building Advantage and Nexia; and Thermo King® transport temperature control solutions.

The Company's Industrial segment delivers products and services that enhance energy efficiency, productivity and operations. It includes compressed air and gas systems and services, power tools, material handling systems, ARO® fluid management equipment, as well as Club Car ® golf, utility and consumer low-speed vehicles.

Segment operating income is the measure of profit and loss that the Company's chief operating decision maker uses to evaluate the financial performance of the business and as the basis for performance reviews, compensation and resource allocation. For these reasons, the Company believes that Segment operating income represents the most relevant measure of segment profit and loss.

A summary of operations by reportable segment for the three and nine months ended September 30 was as follows:

	Three months ended		Nine months ended	
In millions	2017	2016	2017	2016
Net revenues				
Climate	$2,939.3	$2,838.1	$8,407.2	$7,986.4
Industrial	731.2	729.7	2,172.3	2,163.7
Total	$3,670.5	$3,567.8	$10,579.5	$10,150.1
Segment operating income				
Climate	$480.1	$474.7	$1,224.5	$1,188.8
Industrial	89.0	80.9	247.0	215.0
Unallocated corporate expense	(63.0)	(43.9)	(192.8)	(153.4)
Operating income	$506.1	$511.7	$1,278.7	$1,250.4

Note 18. Commitments and Contingencies

The Company is involved in various litigations, claims and administrative proceedings, including those related to environmental, asbestos, and product liability matters. In accordance with ASC 450, "Contingencies," the Company records accruals for loss contingencies when it is both probable that a liability will be incurred and the amount of the loss can be reasonably estimated. Amounts recorded for identified contingent liabilities are estimates, which are reviewed periodically and adjusted to reflect additional information when it becomes available. Subject to the uncertainties inherent in estimating future costs for contingent liabilities, except as expressly set forth in this note, management believes that any liability which may result from these legal matters would not have a material adverse effect on the financial condition, results of operations, liquidity or cash flows of the Company.

Environmental Matters

The Company continues to be dedicated to an environmental program to reduce the utilization and generation of hazardous materials during the manufacturing process and to remediate identified environmental concerns. As to the latter, the Company is currently engaged in site investigations and remediation activities to address environmental cleanup from past operations at current and former manufacturing facilities.

The Company is sometimes a party to environmental lawsuits and claims and has received notices of potential violations of environmental laws and regulations from the Environmental Protection Agency and similar state authorities. It has also been identified as a potentially responsible party (PRP) for cleanup costs associated with off-site waste disposal at federal Superfund and state remediation sites. For all such sites, there are other PRPs and, in most instances, the Company’s involvement is minimal.

In estimating its liability, the Company has assumed it will not bear the entire cost of remediation of any site to the exclusion of other PRPs who may be jointly and severally liable. The ability of other PRPs to participate has been taken into account, based on the Company's understanding of the parties’ financial condition and probable contributions on a per site basis. Additional lawsuits and claims involving environmental matters are likely to arise from time to time in the future.

Reserves for environmental matters are classified as Accrued expenses and other current liabilities or Other noncurrent liabilities based on their expected term. As of September 30, 2017 and December 31, 2016, the Company has recorded reserves for environmental matters of $42.2 million and $41.3 million, respectively. Of these amounts, $37.3 million and $37.2 million, respectively, relate to remediation of sites previously disposed of by the Company.

Asbestos-Related Matters

Certain wholly-owned subsidiaries of the Company are named as defendants in asbestos-related lawsuits in state and federal courts. In virtually all of the suits, a large number of other companies have also been named as defendants. The vast majority of those claims have been filed against either Ingersoll-Rand Company or Trane U.S. Inc. (Trane) and generally allege injury caused by exposure to asbestos contained in certain historical products sold by Ingersoll-Rand Company or Trane, primarily pumps, boilers and railroad brake shoes. Neither Ingersoll-Rand Company nor Trane was a producer or manufacturer of asbestos.

The Company engages an outside expert to assist in calculating an estimate of the Company’s total liability for pending and unasserted future asbestos-related claims and annually performs a detailed analysis with the assistance of an outside expert to update its estimated asbestos-related liability. The methodology used to project the Company’s total liability for pending and unasserted potential future asbestos-related claims relied upon and included the following factors, among others:

- the outside expert’s interpretation of a widely accepted forecast of the population likely to have been occupationally exposed to asbestos;
- epidemiological studies estimating the number of people likely to develop asbestos-related diseases such as mesothelioma and lung cancer;
- the Company’s historical experience with the filing of non-malignancy claims and claims alleging other types of malignant diseases filed against the Company relative to the number of lung cancer claims filed against the Company;
- the outside expert’s analysis of the number of people likely to file an asbestos-related personal injury claim against the Company based on such epidemiological and historical data and the Company’s most recent three-year claims history;
- an analysis of the Company’s pending cases, by type of disease claimed and by year filed;

- an analysis of the Company’s most recent three-year history to determine the average settlement and resolution value of claims, by type of disease claimed;
- an adjustment for inflation in the future average settlement value of claims, at a 2.5% annual inflation rate, adjusted downward to 1.5% to take account of the declining value of claims resulting from the aging of the claimant population; and
- an analysis of the period over which the Company has and is likely to resolve asbestos-related claims against it in the future.

At September 30, 2017 and December 31, 2016, over 80 percent of the open claims against the Company are non-malignancy or unspecified disease claims, many of which have been placed on inactive or deferral dockets and the vast majority of which have little or no settlement value against the Company, particularly in light of recent changes in the legal and judicial treatment of such claims.

The Company’s liability for asbestos-related matters and the asset for probable asbestos-related insurance recoveries were included in the following balance sheet accounts:

In millions	September 30, 2017	December 31, 2016
Accrued expenses and other current liabilities	$ 61.1	$ 61.5
Other noncurrent liabilities	526.3	569.7
Total asbestos-related liabilities	$ 587.4	$ 631.2
Other current assets	$ 55.2	$ 54.0
Other noncurrent assets	201.9	218.5
Total asset for probable asbestos-related insurance recoveries	$ 257.1	$ 272.5

The Company's asbestos insurance receivable related to Ingersoll-Rand Company and Trane was $127.4 million and $129.7 million at September 30, 2017, respectively, and $129.6 million and $142.9 million at December 31, 2016, respectively.

The (costs) income associated with the settlement and defense of asbestos-related claims after insurance recoveries for the three and nine months ended September 30:

	Three months ended		Nine months ended	
In millions	2017	2016	2017	2016
Continuing operations	$0.2	$1.9	$(2.4)	$4.0
Discontinued operations	11.5	31.8	22.9	51.6
Total	$11.7	$33.7	$20.5	$55.6

Amounts associated with Trane’s asbestos matters are recorded within Other income/(expense), net as they primarily relate to the continuing operations of the Company. Amounts associated with Ingersoll-Rand Company's asbestos matters are recorded within discontinued operations as they primarily relate to Ingersoll-Dresser Pump, a previously divested businesses which was sold by the Company in 2000. In each period presented, the Company reached settlements with insurance carriers related to Ingersoll-Rand Company asbestos matters.

The receivable attributable to Trane for probable insurance recoveries as of September 30, 2017 is entirely supported by settlement agreements between Trane and the respective insurance carriers. Most of these settlement agreements constitute “coverage-in-place” arrangements, in which the insurer signatories agree to reimburse Trane for specified portions of its costs for asbestos bodily injury claims and Trane agrees to certain claims-handling protocols and grants to the insurer signatories certain releases and indemnifications.

In 2012 and 2013, Ingersoll-Rand Company filed actions in the Superior Court of New Jersey, Middlesex County, seeking a declaratory judgment and other relief regarding the Company’s rights to defense and indemnity for asbestos claims. The defendants were several dozen solvent insurance companies, including companies that had been paying a portion of Ingersoll-Rand Company’s asbestos claim defense and indemnity costs. The responding defendants generally challenged the Company’s right to recovery, and raised various coverage defenses. Since filing the actions, Ingersoll-Rand Company has settled with approximately two-thirds of the insurer defendants, and has dismissed one of the actions in its entirety.

The Company continually monitors the status of pending litigation that could impact the allocation of asbestos claims against the Company's various insurance policies. The Company has concluded that its Ingersoll-Rand Company insurance receivable is probable of recovery because of the following factors:

- Ingersoll-Rand Company has reached favorable settlements regarding asbestos coverage claims for the majority of its recorded asbestos-related insurance receivable;
- a review of other companies in circumstances comparable to Ingersoll-Rand Company, including Trane, and the success of other companies in recovering under their insurance policies, including Trane's favorable settlements referenced above;

Table of Contents

- the Company's confidence in its right to recovery under the terms of its policies and pursuant to applicable law; and
- the Company's history of receiving payments under the Ingersoll-Rand Company insurance program, including under policies that had been the subject of prior litigation.

The amounts recorded by the Company for asbestos-related liabilities and insurance-related assets are based on currently available information. The Company’s actual liabilities or insurance recoveries could be significantly higher or lower than those recorded if assumptions used in the calculations vary significantly from actual results. Key variables in these assumptions include the number and type of new claims to be filed each year, the average cost of resolution of each such new claim, the resolution of coverage issues with insurance carriers, and the solvency risk with respect to the Company’s insurance carriers. Furthermore, predictions with respect to these variables are subject to greater uncertainty as the projection period lengthens. Other factors that may affect the Company’s liability include uncertainties surrounding the litigation process from jurisdiction to jurisdiction and from case to case, reforms that may be made by state and federal courts, and the passage of state or federal tort reform legislation.

The aggregate amount of the stated limits in insurance policies available to the Company for asbestos-related claims acquired over many years and from many different carriers, is substantial. However, limitations in that coverage, primarily due to the considerations described above, are expected to result in the projected total liability to claimants substantially exceeding the probable insurance recovery.

Warranty Liability

Standard product warranty accruals are recorded at the time of sale and are estimated based upon product warranty terms and historical experience. The Company assesses the adequacy of its liabilities and will make adjustments as necessary based on known or anticipated warranty claims, or as new information becomes available.

The changes in the standard product warranty liability for the nine months ended September 30 were as follows:

In millions	2017	2016
Balance at beginning of period	$261.6	$262.0
Reductions for payments	(107.4)	(107.7)
Accruals for warranties issued during the current period	101.6	103.0
Changes to accruals related to preexisting warranties	4.3	4.3
Translation	4.6	1.1
Balance at end of period	$264.7	$262.7

Standard product warranty liabilities are classified as