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

Form 10-Q

(Mark One)

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

For the quarterly period ended December 31, 2017

OR

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

For the transition period from _________ to _________

Commission File Number: 001-13836

JOHNSON CONTROLS INTERNATIONAL PLC
(Exact name of registrant as specified in its charter)

Ireland	**98-0390500**
(Jurisdiction of Incorporation)	**(I.R.S. Employer Identification No.)**

One Albert Quay
Cork, Ireland
(Address of principal executive offices)

353-21-423-5000
(Registrant's telephone number)

Not Applicable
(Former name, former address and former fiscal year, if changed since last report)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☑ 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 during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☑ No ☐

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

Large accelerated filer	☑		Accelerated filer	☐
Non-accelerated filer	☐	(Do not check if a smaller reporting company)	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 ☑

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

Class	Ordinary Shares Outstanding at December 31, 2017
Ordinary Shares, $0.01 par value per share	926,105,380

JOHNSON CONTROLS INTERNATIONAL PLC

FORM 10-Q

Report Index

PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

Johnson Controls International plc
Consolidated Statements of Financial Position
(in millions, except par value; unaudited)

	December 31, 2017	September 30, 2017
Assets		
Cash and cash equivalents	$ 552	$ 321
Accounts receivable - net	6,731	6,666
Inventories	3,459	3,209
Assets held for sale	40	189
Other current assets	1,647	1,907
Current assets	12,429	12,292
Property, plant and equipment - net	6,105	6,121
Goodwill	19,717	19,688
Other intangible assets - net	6,657	6,741
Investments in partially-owned affiliates	1,219	1,191
Noncurrent assets held for sale	—	1,920
Other noncurrent assets	3,640	3,931
Total assets	$ 49,767	$ 51,884
Liabilities and Equity		
Short-term debt	$ 1,514	$ 1,214
Current portion of long-term debt	91	394
Accounts payable	4,020	4,271
Accrued compensation and benefits	883	1,071
Deferred revenue	1,368	1,279
Liabilities held for sale	—	72
Other current liabilities	3,370	3,553
Current liabilities	11,246	11,854
Long-term debt	10,895	11,964
Pension and postretirement benefits	896	947
Noncurrent liabilities held for sale	—	173
Other noncurrent liabilities	5,004	5,368
Long-term liabilities	16,795	18,452
Commitments and contingencies (Note 21)		
Redeemable noncontrolling interests	226	211
Ordinary shares, $0.01 par value	9	9
Ordinary A shares, €1.00 par value	—	—
Preferred shares, $0.01 par value	—	—
Ordinary shares held in treasury, at cost	(885)	(710)
Capital in excess of par value	16,427	16,390
Retained earnings	5,398	5,231
Accumulated other comprehensive loss	(414)	(473)
Shareholders' equity attributable to Johnson Controls	20,535	20,447
Noncontrolling interests	965	920
Total equity	21,500	21,367
Total liabilities and equity	$ 49,767	$ 51,884

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

Johnson Controls International plc
Consolidated Statements of Income
(in millions, except per share data; unaudited)

	Three Months Ended December 31,			
	2017		2016	
Net sales				
Products and systems*	$	5,946	$	5,585
Services*		1,489		1,501
		7,435		7,086
Cost of sales				
Products and systems*		4,449		4,063
Services*		817		909
		5,266		4,972
Gross profit		2,169		2,114
Selling, general and administrative expenses		(1,417)		(1,570)
Restructuring and impairment costs		(158)		(78)
Net financing charges		(116)		(136)
Equity income		60		55
Income from continuing operations before income taxes		538		385
Income tax provision (benefit)		267		(27)
Income from continuing operations		271		412
Loss from discontinued operations, net of tax (Note 4)		—		(34)
Net income		271		378
Income from continuing operations attributable to noncontrolling interests		41		40
Income from discontinued operations attributable to noncontrolling interests		—		9
Net income attributable to Johnson Controls	$	230	$	329
Amounts attributable to Johnson Controls ordinary shareholders:				
Income from continuing operations	$	230	$	372
Loss from discontinued operations		—		(43)
Net income	$	230	$	329
Basic earnings (loss) per share attributable to Johnson Controls				
Continuing operations	$	0.25	$	0.40
Discontinued operations		0.00		(0.05)
Net income	$	0.25	$	0.35
Diluted earnings (loss) per share attributable to Johnson Controls				
Continuing operations	$	0.25	$	0.39
Discontinued operations		0.00		(0.05)
Net income **	$	0.25	$	0.35

* Products and systems consist of Building Technologies & Solutions and Power Solutions products and systems. Services are Building Technologies & Solutions technical services.

** Certain items do not sum due to rounding.

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

Johnson Controls International plc
Consolidated Statements of Comprehensive Income (Loss)
(in millions; unaudited)

	Three Months Ended December 31, 2017	Three Months Ended December 31, 2016
Net income	$ 271	$ 378
Other comprehensive income (loss), net of tax:		
Foreign currency translation adjustments	79	(703)
Realized and unrealized gains (losses) on derivatives	(1)	4
Realized and unrealized losses on marketable securities	—	(2)
Other comprehensive income (loss)	78	(701)
Total comprehensive income (loss)	349	(323)
Comprehensive income attributable to noncontrolling interests	60	9
Comprehensive income (loss) attributable to Johnson Controls	$ 289	$ (332)

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

Johnson Controls International plc
Consolidated Statements of Cash Flows
(in millions; unaudited)

	Three Months Ended December 31, 2017	Three Months Ended December 31, 2016
Operating Activities		
Net income attributable to Johnson Controls	$ 230	$ 329
Income from continuing operations attributable to noncontrolling interests	41	40
Income from discontinued operations attributable to noncontrolling interests	—	9
Net income	271	378
Adjustments to reconcile net income to cash used by operating activities:		
Depreciation and amortization	272	346
Pension and postretirement benefit income	(36)	(155)
Pension and postretirement contributions	(24)	(247)
Equity in earnings of partially-owned affiliates, net of dividends received	(36)	(64)
Deferred income taxes	(79)	580
Non-cash restructuring and impairment charges	30	16
Gain on divestitures	(114)	—
Equity-based compensation	30	37
Other	(13)	—
Changes in assets and liabilities, excluding acquisitions and divestitures:		
Accounts receivable	(30)	37
Inventories	(233)	(142)
Other assets	64	(87)
Restructuring reserves	93	20
Accounts payable and accrued liabilities	(623)	(796)
Accrued income taxes	299	(1,808)
Cash used by operating activities	(129)	(1,885)
Investing Activities		
Capital expenditures	(230)	(371)
Sale of property, plant and equipment	5	2
Acquisition of businesses, net of cash acquired	—	(3)
Business divestitures	2,011	47
Changes in long-term investments	(12)	(6)
Cash provided (used) by investing activities	1,774	(331)
Financing Activities		
Increase in short-term debt - net	304	1,312
Increase in long-term debt	885	7
Repayment of long-term debt	(2,234)	(763)
Debt financing costs	(4)	(6)
Stock repurchases	(150)	—
Payment of cash dividends	(232)	—
Proceeds from the exercise of stock options	16	29
Employee equity-based compensation withholding taxes	(25)	(25)
Dividends paid to noncontrolling interests	—	(31)
Dividend from Adient spin-off	—	2,050
Cash transferred to Adient related to spin-off	—	(564)
Cash paid related to prior acquisitions	—	(45)
Cash provided (used) by financing activities	(1,440)	1,964
Effect of exchange rate changes on cash and cash equivalents	17	(55)
Change in cash held for sale	9	105
Increase (decrease) in cash and cash equivalents	231	(202)
Cash and cash equivalents at beginning of period	321	579
Cash and cash equivalents at end of period	$ 552	$ 377

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

1. Financial Statements

The consolidated financial statements include the consolidated accounts of Johnson Controls International plc, a corporation organized under the laws of Ireland, and its subsidiaries (Johnson Controls International plc and all its subsidiaries, hereinafter collectively referred to as the "Company" or "Johnson Controls"). In the opinion of management, the accompanying unaudited consolidated financial statements contain all adjustments (which include normal recurring adjustments) necessary to state fairly the financial position, results of operations and cash flows for the periods presented. Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") have been omitted pursuant to the rules and regulations of the United States Securities and Exchange Commission ("SEC"). These consolidated financial statements should be read in conjunction with the audited financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the year ended September 30, 2017 filed with the SEC on November 21, 2017. The results of operations for the three month period ended December 31, 2017 are not necessarily indicative of results for the Company's 2018 fiscal year because of seasonal and other factors.

Nature of Operations

Johnson Controls International plc, headquartered in Cork, Ireland, is a global diversified technology and multi industrial leader serving a wide range of customers in more than 150 countries. The Company creates intelligent buildings, efficient energy solutions, integrated infrastructure and next generation transportation systems that work seamlessly together to deliver on the promise of smart cities and communities. The Company is committed to helping our customers win and creating greater value for all of its stakeholders through strategic focus on our buildings and energy growth platforms.

In the fourth quarter of fiscal 2016, Johnson Controls, Inc. ("JCI Inc.") and Tyco International plc ("Tyco") completed their combination with JCI Inc. merging with a wholly-owned, indirect subsidiary of Tyco (the "Merger"). Following the Merger, Tyco changed its name to "Johnson Controls International plc" and JCI Inc. is a wholly-owned subsidiary of Johnson Controls International plc. The Merger was accounted for as a reverse acquisition using the acquisition method of accounting in accordance with Accounting Standards Codification ("ASC") 805, "Business Combinations." JCI Inc. was the accounting acquirer for financial reporting purposes. Accordingly, the historical consolidated financial statements of JCI Inc. for periods prior to this transaction are considered to be the historic financial statements of the Company.

The Building Technologies & Solutions ("Buildings") business is a global market leader in engineering, developing, manufacturing and installing building products and systems around the world, including heating, ventilating, air-conditioning ("HVAC") equipment, HVAC controls, energy-management systems, security systems, fire detection systems and fire suppression solutions. The Buildings business further serves customers by providing technical services (in the HVAC, security and fire-protection space), energy-management consulting and data-driven solutions via its recently launch data-enabled business. Finally, the Company is a North American market leader in residential air conditioning and heating systems and a global market leader in industrial refrigeration products.

The Power Solutions business is a leading global supplier of lead-acid automotive batteries for virtually every type of passenger car, light truck and utility vehicle. The Company serves both automotive original equipment manufacturers and the general vehicle battery aftermarket. The Company also supplies advanced battery technologies to power start-stop, hybrid and electric vehicles.

Principles of Consolidation

The consolidated financial statements include the consolidated accounts of Johnson Controls International plc and its subsidiaries that are consolidated in conformity with U.S. GAAP. All significant intercompany transactions have been eliminated. The results of companies acquired or disposed of during the year are included in the consolidated financial statements from the effective date of acquisition or up to the date of disposal. Investments in partially-owned affiliates are accounted for by the equity method when the Company's interest exceeds 20% and the Company does not have a controlling interest.

Under certain criteria as provided for in Financial Accounting Standards Board ("FASB") ASC 810, "Consolidation," the Company may consolidate a partially-owned affiliate. To determine whether to consolidate a partially-owned affiliate, the Company first determines if the entity is a variable interest entity ("VIE"). An entity is considered to be a VIE if it has one of the following characteristics: 1) the entity is thinly capitalized; 2) residual equity holders do not control the entity; 3) equity holders are shielded from economic losses or do not participate fully in the entity's residual economics; or 4) the entity was established with non-substantive voting rights. If the entity meets one of these characteristics, the Company then determines if it is the primary beneficiary of the VIE. The party with the power to direct activities of the VIE that most significantly impact the VIE's economic performance and the potential to absorb benefits or losses that could be significant to the VIE is considered the primary beneficiary and consolidates the VIE. If the entity is not considered a VIE, then the Company applies the voting interest model to determine whether or not the Company shall consolidate the partially-owned affiliate.

Consolidated VIEs

Based upon the criteria set forth in ASC 810, the Company has determined that it was not the primary beneficiary in any VIEs for the reporting period ended December 31, 2017 and that it was the primary beneficiary in one VIE for the reporting period ended September 30, 2017, as the Company absorbed significant economics of the entity and had the power to direct the activities that are considered most significant to the entity.

In fiscal 2012, a pre-existing VIE accounted for under the equity method was reorganized into three separate investments as a result of the counterparty exercising its option to put its interest to the Company. The Company acquired additional interests in two of the reorganized group entities. The reorganized group entities are considered to be VIEs as the other owner party has been provided decision making rights but does not have equity at risk. The Company was considered the primary beneficiary of one of the entities due to the Company's power pertaining to decisions over significant activities of the entity. As such, this VIE was consolidated within the Company's consolidated statements of financial position as of September 30, 2017. The impact of the entity on the Company's consolidated statements of income for the three month periods ended December 31, 2017 and 2016 were not material. During the quarter ended December 31, 2017, certain joint venture agreements were amended, and as a result, the Company can no longer make key operating decisions considered to be most significant to the VIE. As such, the Company is no longer considered the primary beneficiary of this entity, and the Company deconsolidated the entity during the quarter ended December 31, 2017.

The carrying amounts and classification of assets (none of which are restricted) and liabilities included in the Company's consolidated statements of financial position for the consolidated VIE is as follows (in millions):

	September 30, 2017
Current assets	$ 2
Noncurrent assets	53
Total assets	$ 55
Current liabilities	$ 6
Noncurrent liabilities	42
Total liabilities	$ 48

The Company did not have a significant variable interest in any other consolidated VIEs for the presented reporting periods.

Nonconsolidated VIEs

As mentioned previously within the "Consolidated VIEs" section above, in fisca1 2012, a pre-existing VIE was reorganized into three separate investments as a result of the counterparty exercising its option to put its interest to the Company. The reorganized group entities are considered to be VIEs as the other owner party has been provided decision making rights but does not have equity at risk. The VIEs are named as co-obligors under a third party debt agreement in the amount of $162 million, maturing in fiscal 2020, under which a VIE could become subject to paying more than its allocated share of the third party debt in the event of bankruptcy of one or more of the other co-obligors. The other co-obligors, all related parties in which the Company is an equity investor, consist of the remaining group entities involved in the reorganization. As part of the overall reorganization transaction, the Company has also provided financial support to the group entities in the form of loans totaling $37 million, which are subordinate to the third party debt agreement. The Company is a significant customer of certain co-obligors, resulting in a remote possibility of loss. Additionally, the Company is subject to a floor guaranty expiring in fiscal 2022; in the event that the other owner party no longer owns any part of the group entities due to sale or transfer, the Company has guaranteed that the proceeds received from the sale or transfer will not be less than $25 million. The Company has partnered with the group entities to design and manufacture battery components for the Power Solutions business. The Company is not considered to be the primary beneficiary of three of the entities as of December 31, 2017 and two of the entities as of September 30, 2017, as the Company cannot make key operating decisions considered to be most significant to the VIEs. Therefore, the entities are accounted for under the equity method of accounting as the Company's interest exceeds 20% and the Company does not have a controlling interest. The Company's maximum exposure to loss includes the partially-owned affiliate investment balances of $38 million and $65 million at December 31, 2017 and September 30, 2017, respectively, as well as the subordinated loan from the Company, third party debt agreement and floor guaranty mentioned above. Current liabilities due to the VIEs are not material and represent normal course of business trade payables for all presented periods.

The Company did not have a significant variable interest in any other unconsolidated VIEs for the presented reporting periods.

Restricted Cash

At December 31, 2017, the Company held restricted cash of approximately $19 million, of which $10 million was recorded within other current assets in the consolidated statements of financial position and $9 million was recorded within other noncurrent assets in the consolidated statements of financial position. At September 30, 2017, the Company held restricted cash of approximately $31 million, of which $22 million was recorded within other current assets in the consolidated statements of financial position and $9 million was recorded within other noncurrent assets in the consolidated statements of financial position. These amounts were primarily related to cash restricted for payment of asbestos liabilities.

Retrospective Changes

Effective July 1, 2017, the Company reorganized the reportable segments within its Building Technologies & Solutions business to align with its new management reporting structure and business activities. Prior to this reorganization, Building Technologies & Solutions was comprised of five reportable segments for financial reporting purposes: Systems and Service North America, Products North America, Asia, Rest of World and Tyco. As a result of this change, Building Technologies & Solutions is now comprised of four reportable segments for financial reporting purposes: Building Solutions North America, Building Solutions EMEA/LA, Building Solutions Asia Pacific and Global Products. Refer to Note 18, "Segment Information," of the notes to consolidated financial statements for further information. The net sales and cost of sales split of products and systems versus services in the consolidated statements of income has also been revised for the Building Technologies & Solutions reorganization.

In March 2016, the FASB issued Accounting Standards Update ("ASU") No. 2016-09, "Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting." During the quarter ended December 31, 2017, the Company adopted ASU No. 2016-09. As a result, employee withholding taxes paid to taxing authorities for equity-based compensation transactions, previously classified as cash flows from operating activities, were reclassified to financing activities in the consolidated statements of cash flows for the three months ended December 31, 2016. Refer to Note 2, "New Accounting Standards," of the notes to consolidated financial statements for further information.

2. New Accounting Standards

Recently Adopted Accounting Pronouncements

In August 2017, the FASB issued ASU No. 2017-12, "Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities." The ASU more closely aligns the results of hedge accounting with risk management activities through amendments to the designation and measurement guidance to better reflect a Company's hedging strategy and effectiveness. During the quarter ended December 31, 2017, the Company early adopted ASU 2017-12. The adoption of this guidance did not have a material impact on the Company's consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, "Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting." ASU No. 2016-09 impacts certain aspects of the accounting for share-based payment transactions, including income tax consequences, classification of awards as either equity or liabilities, and classification on the statements of cash flows. During the quarter ended December 31, 2017, the Company adopted ASU No. 2016-09. As a result, the Company recognized deferred tax assets of $179 million in the consolidated statements of financial position related to certain operating loss carryforwards resulting from the exercise of employee stock options and vested restricted stock on a modified retrospective basis through a cumulative-effect adjustment to retained earnings as of October 1, 2017. Additionally, employee withholding taxes paid to taxing authorities for equity-based compensation transactions, previously classified as cash flows from operating activities, were reclassified to financing activities in the consolidated statements of cash flows for the three months ended December 31, 2016 for comparative purposes. The remaining provisions of ASU No. 2016-09 did not have a material impact on the Company's consolidated financial statements.

Recently Issued Accounting Pronouncements

In November 2016, the FASB issued ASU No. 2016-18, "Statement of Cash Flows (Topic 230): Restricted Cash (a consensus of the FASB Emerging Issues Task Force)." The ASU requires amounts generally described as restricted cash and restricted cash equivalents to be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The guidance will be effective for the Company for the quarter ending December 31, 2018, with early adoption permitted. The amendments in this update should be applied retrospectively to all periods presented. The impact of this guidance for the Company will depend on the levels of restricted cash balances in the periods presented.

In October 2016, the FASB issued ASU No. 2016-16, "Accounting for Income Taxes: Intra-Entity Asset Transfers of Assets Other than Inventory." The ASU requires the tax effects of all intra-entity sales of assets other than inventory to be recognized in the period in which the transaction occurs. The guidance will be effective for the Company for the quarter ending December 31, 2018, with early adoption permitted but only in the first interim period of a fiscal year. The changes are required to be applied by means of a cumulative-effect adjustment recorded in retained earnings as of the beginning of the fiscal year of adoption. The Company is currently assessing the impact adoption of this guidance will have on its consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15, "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments." ASU No. 2016-15 provides clarification guidance on eight specific cash flow presentation issues in order to reduce the diversity in practice. ASU No. 2016-15 will be effective for the Company for the quarter ending December 31, 2018, with early adoption permitted. The guidance should be applied retrospectively to all periods presented, unless deemed impracticable, in which case prospective application is permitted. The Company is currently assessing the impact adoption of this guidance will have on its consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)." ASU No. 2016-02 requires recognition of operating leases as lease assets and liabilities on the balance sheet, and disclosure of key information about leasing arrangements. ASU No. 2016-02 will be effective retrospectively for the Company for the quarter ending December 31, 2019, with early adoption permitted. The Company is currently assessing the impact adoption of this guidance will have on its consolidated financial statements. The Company has started the assessment process by evaluating the population of leases under the revised definition of what qualifies as a leased asset. The Company is the lessee under various agreements for facilities and equipment that are currently accounted for as operating leases. The new guidance will require the Company to record operating leases on the balance sheet with a right-of-use asset and corresponding liability for future payment obligations. The Company expects the new guidance will have a material impact on its consolidated statements of financial position for the addition of right-of-use assets and lease liabilities, but the Company does not expect it to have a material impact on its consolidated statements of income.

In January 2016, the FASB issued ASU No. 2016-01, "Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities." ASU No. 2016-01 amends certain aspects of recognition, measurement, presentation and disclosure of financial instruments, including marketable securities. ASU No. 2016-01 will be effective for the Company for the quarter ending December 31, 2018, and early adoption is not permitted, with certain exceptions. The changes are required to be applied by means of a cumulative-effect adjustment on the balance sheet as of the beginning of the fiscal year of adoption. The impact of this guidance for the Company will depend on the magnitude of the unrealized gains and losses on the Company's marketable securities investments.

In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)." ASU No. 2014-09 clarifies the principles for recognizing revenue when an entity either enters into a contract with customers to transfer goods or services or enters into a contract for the transfer of non-financial assets. The original standard was effective retrospectively for the Company for the quarter ending December 31, 2017; however in August 2015, the FASB issued ASU No. 2015-14, "Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date," which defers the effective date of ASU No. 2014-09 by one-year for all entities. The new standard will become effective retrospectively for the Company for the quarter ending December 31, 2018, with early adoption permitted, but not before the original effective date. Additionally, in March 2016, the FASB issued ASU No. 2016-08, "Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net)," in April 2016, the FASB issued ASU No. 2016-10, "Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing," in May 2016, the FASB issued ASU No. 2016-12, "Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients," and in December 2016, the FASB issued ASU No. 2016-20, "Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers," all of which provide additional clarification on certain topics addressed in ASU No. 2014-09. ASU No. 2016-08, ASU No. 2016-10, ASU No. 2016-12 and ASU No. 2016-20 follow the same implementation guidelines as ASU No. 2014-09 and ASU No. 2015-14. The Company has elected to adopt the new revenue guidance as of October 1, 2018 using the modified retrospective approach. In preparation for adoption of the new guidance, the Company has reviewed representative samples of contracts and other forms of agreements with customers globally and is in the process of evaluating the impact of the new revenue standard. Based on its procedures to date, the Company is not in a position today to quantify the potential impact the new revenue standard will have to its consolidated financial statements.

Other recently issued accounting pronouncements are not expected to have a material impact on the Company's consolidated financial statements.

3. Acquisitions and Divestitures

In the first quarter of fiscal 2018, the Company completed the sale of its Scott Safety business to 3M Company. The selling price, net of cash divested, was $2.0 billion, all of which was received as of December 31, 2017. In connection with the sale, the Company recorded a pre-tax gain of $114 million within selling, general and administrative expenses in the consolidated statements of income and reduced goodwill in assets held for sale by $1.2 billion. The gain, net of tax, recorded was $84 million. Net cash proceeds from the transaction of approximately $1.9 billion were used to repay a significant portion of the Tyco International Holding S.a.r.L.'s ("TSarl") $4.0 billion of merger-related debt. The Scott Safety business is included in the Global Products segment and is reported within assets and liabilities held for sale in the consolidated statements of financial position as of September 30, 2017. Refer to Note 4, "Discontinued Operations," of the notes to consolidated financial statements for further disclosure related to the Company's net assets held for sale.

In the first quarter of fiscal 2017, the Company completed two acquisitions for a combined purchase price, net of cash acquired, of $6 million, $3 million of which was paid in the three months ended December 31, 2016. The acquisitions in the aggregate were not material to the Company’s consolidated financial statements. In connection with the acquisitions, the Company recorded goodwill of $1 million.

In the first quarter of fiscal 2017, the Company completed one divestiture for a sales price of $4 million, none of which was received in the three months ended December 31, 2016. The divestiture decreased the Company's ownership from a controlling to noncontrolling interest, and as a result, the Company deconsolidated cash of $5 million. The divestiture was not material to the Company's consolidated financial statements.

During the first quarter of fiscal 2017, the Company received $52 million in net cash proceeds related to prior year business divestitures.

4. Discontinued Operations

On October 31, 2016, the Company completed the spin-off of its Automotive Experience business by way of the transfer of the Automotive Experience business from Johnson Controls to Adient plc and the issuance of ordinary shares of Adient directly to holders of Johnson Controls ordinary shares on a pro rata basis. Prior to the open of business on October 31, 2016, each of the Company's shareholders received one ordinary share of Adient plc for every 10 ordinary shares of Johnson Controls held as of the close of business on October 19, 2016, the record date for the distribution. Company shareholders received cash in lieu of fractional shares of Adient, if any. Following the separation and distribution, Adient plc is now an independent public company trading on the New York Stock Exchange ("NYSE") under the symbol "ADNT." The Company did not retain any equity interest in Adient plc. Adient's historical financial results are reflected in the Company's consolidated financial statements as a discontinued operation. The Company did not allocate any general corporate overhead to discontinued operations.

The following table summarizes the results of Adient, reclassified as discontinued operations for the three month period ended December 31, 2016 (in millions). As the Adient spin-off occurred on October 31, 2016, there is only one month of Adient results included in the three month period ended December 31, 2016.

	Three Months Ended December 31, 2016
Net sales	$ 1,434
Income from discontinued operations before income taxes	1
Provision for income taxes on discontinued operations	35
Income from discontinued operations attributable to noncontrolling interests, net of tax	9
Loss from discontinued operations	$ (43)

For the three months ended December 31, 2016, the income from discontinued operations before income taxes included separation costs of $79 million.

For the three months ended December 31, 2016, the effective tax rate was more than the U.S. federal statutory rate of 35% primarily due to the tax impacts of separation costs and Adient spin-off related tax expense, partially offset by non-U.S. tax rate differentials.

The following table summarizes depreciation and amortization, capital expenditures, and significant operating and investing noncash items related to Adient for the three month period ended December 31, 2016 (in millions):

	Three Months Ended December 31, 2016
Depreciation and amortization	$ 29
Equity in earnings of partially-owned affiliates	(31)
Deferred income taxes	562
Equity-based compensation	1
Accrued income taxes	(808)
Capital expenditures	(91)

Assets and Liabilities Held for Sale

During the second quarter of fiscal 2017, the Company signed a definitive agreement to sell its Scott Safety business of the Global Products segment to 3M Company. The transaction closed on October 4, 2017. The assets and liabilities of this business are presented as held for sale in the consolidated statements of financial position as of September 30, 2017. The business did not meet the criteria to be classified as a discontinued operation as the divestiture of the Scott Safety business did not have a major effect on the Company's operations and financial results.

The following table summarizes the carrying value of the Scott Safety assets and liabilities held for sale at September 30, 2017 (in millions):

	September 30, 2017
Cash	$ 9
Accounts receivable - net	100
Inventories	75
Other current assets	5
Assets held for sale	$ 189
Property, plant and equipment - net	$ 79
Goodwill	1,248
Other intangible assets - net	592
Other noncurrent assets	1
Noncurrent assets held for sale	$ 1,920
Accounts payable	$ 37
Accrued compensation and benefits	10
Other current liabilities	25
Liabilities held for sale	$ 72
Other noncurrent liabilities	$ 173
Noncurrent liabilities held for sale	$ 173

During the first quarter of fiscal 2018, the Company signed a definitive agreement to sell a certain Global Products business. As a result, $18 million of goodwill was transfered to assets held for sale in the consolidated statements of financial position as of December 31, 2017. The business did not meet the criteria to be classified as a discontinued operation as the divestiture of the business will not have a major effect on the Company's operations and financial results.

At December 31, 2017, $22 million of certain Corporate assets were classified as held for sale.

5. Percentage-of-Completion Contracts

The Building Technologies & Solutions business records certain long-term contracts under the percentage-of-completion method of accounting. Under this method, sales and gross profit are recognized as work is performed based on the relationship between actual costs incurred and total estimated costs at completion. The Company records costs and earnings in excess of billings on uncompleted contracts primarily within accounts receivable - net and billings in excess of costs and earnings on uncompleted contracts primarily within deferred revenue in the consolidated statements of financial position. Costs and earnings in excess of billings related to these contracts were $975 million and $908 million at December 31, 2017 and September 30, 2017, respectively. Billings in excess of costs and earnings related to these contracts were $567 million and $451 million at December 31, 2017 and September 30, 2017, respectively.

6. Inventories

Inventories consisted of the following (in millions):

	December 31, 2017	September 30, 2017
Raw materials and supplies	$ 1,006	$ 919
Work-in-process	543	567
Finished goods	1,910	1,723
Inventories	$ 3,459	$ 3,209

7. Goodwill and Other Intangible Assets

The changes in the carrying amount of goodwill in each of the Company's reportable segments for the three month period ended December 31, 2017 were as follows (in millions):

	September 30, 2017	Business Acquisitions	Business Divestitures	Currency Translation and Other	December 31, 2017
Building Technologies & Solutions					
Building Solutions North America	$ 9,637	$ —	$ —	$ (4)	$ 9,633
Building Solutions EMEA/LA	2,012	—	—	14	2,026
Building Solutions Asia Pacific	1,255	—	—	28	1,283
Global Products	5,687	—	(18)	1	5,670
Power Solutions	1,097	—	—	8	1,105
Total	$ 19,688	$ —	$ (18)	$ 47	$ 19,717

At September 30, 2017, accumulated goodwill impairment charges included $47 million related to the Building Solutions EMEA/LA - Latin America reporting unit. The three months ended December 31, 2017 Global Products business divestiture amount includes $18 million of goodwill transferred to assets held for sale in the consolidated statements of financial position. Refer to Note 4, "Discontinued Operations," of the notes to consolidated financial statements for further information regarding the Company's assets and liabilities held for sale.

The Company's other intangible assets, primarily from business acquisitions valued based on independent appraisals, consisted of (in millions):

	December 31, 2017			September 30, 2017		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Amortized intangible assets						
Technology	$ 1,343	$ (174)	$ 1,169	$ 1,328	$ (137)	$ 1,191
Customer relationships	3,136	(503)	2,633	3,168	(486)	2,682
Miscellaneous	413	(167)	246	389	(147)	242
Total amortized intangible assets	4,892	(844)	4,048	4,885	(770)	4,115
Unamortized intangible assets						
Trademarks/trade names	2,486	—	2,486	2,483	—	2,483
Miscellaneous	123	—	123	143	—	143
	2,609	—	2,609	2,626	—	2,626
Total intangible assets	$ 7,501	$ (844)	$ 6,657	$ 7,511	$ (770)	$ 6,741

Amortization of other intangible assets included within continuing operations for the three month periods ended December 31, 2017 and 2016 was $94 million and $149 million, respectively. Excluding the impact of any future acquisitions, the Company anticipates amortization for fiscal 2019, 2020, 2021, 2022 and 2023 will be approximately $376 million, $371 million, $365 million, $355 million and $346 million per year, respectively.

8. Significant Restructuring and Impairment Costs

To better align its resources with its growth strategies and reduce the cost structure of its global operations in certain underlying markets, the Company commits to restructuring plans as necessary.

In fiscal 2018, the Company committed to a significant restructuring plan (2018 Plan) and recorded $158 million of restructuring and impairment costs in the consolidated statements of income. This was the total amount incurred to date and the total amount expected to be incurred for this restructuring plan. The restructuring actions related to cost reduction initiatives in the Company's Building Technologies & Solutions and Power Solutions businesses and at Corporate. The costs consist primarily of workforce reductions, plant closures and asset impairments. Of the restructuring and impairment costs recorded, $76 million related to the Global Products segment, $32 million related to the Building Solutions EMEA/LA segment, $24 million related to Corporate, $14 million related to the Building Solutions Asia Pacific segment, $8 million related to the Building Solutions North America segment and $4 million related to the Power Solutions segment. The restructuring actions are expected to be substantially complete in 2020.

The following table summarizes the changes in the Company's 2018 Plan reserve, included within other current liabilities in the consolidated statements of financial position (in millions):

	Employee Severance and Termination Benefits	Long-Lived Asset Impairments	Other	Total
Original reserve	$ 125	$ 30	$ 3	$ 158
Utilized—noncash	—	(30)	—	(30)
Balance at December 31, 2017	$ 125	$ —	$ 3	$ 128

In fiscal 2017, the Company committed to a significant restructuring plan (2017 Plan) and recorded $367 million of restructuring and impairment costs in the consolidated statements of income. This was the total amount incurred to date and the total amount expected to be incurred for this restructuring plan. The restructuring actions related to cost reduction initiatives in the Company's Building Technologies & Solutions and Power Solutions businesses and at Corporate. The costs consist primarily of workforce reductions, plant closures and asset impairments. Of the restructuring and impairment costs recorded, $166 million related to Corporate, $74 million related to the Building Solutions EMEA/LA segment, $59 million related to the Building Solutions North America segment, $32 million related to the Global Products segment, $20 million related to the Power Solutions segment and $16 million related to the Building Solutions Asia Pacific segment. The restructuring actions are expected to be substantially complete in fiscal 2018.

The following table summarizes the changes in the Company's 2017 Plan reserve, included within other current liabilities in the consolidated statements of financial position (in millions):

	Employee Severance and Termination Benefits	Long-Lived Asset Impairments	Other	Total
Original reserve	$ 276	$ 77	$ 14	$ 367
Utilized—cash	(75)	—	—	(75)
Utilized—noncash	—	(77)	(1)	(78)
Adjustment to restructuring reserves	25	—	—	25
Balance at September 30, 2017	$ 226	$ —	$ 13	$ 239
Utilized—cash	(26)	—	(2)	(28)
Balance at December 31, 2017	$ 200	$ —	$ 11	$ 211

In fiscal 2016, the Company committed to a significant restructuring plan (2016 Plan) and recorded $288 million of restructuring and impairment costs in the consolidated statements of income. This was the total amount incurred to date and the total amount expected to be incurred for this restructuring plan. The restructuring actions related to cost reduction initiatives in the Company's Building Technologies & Solutions and Power Solutions businesses and at Corporate. The costs consist primarily of workforce reductions, plant closures, asset impairments and change-in-control payments. Of the restructuring and impairment costs recorded, $161 million related to Corporate, $66 million related to the Power Solutions segment, $44 million related to the Global Products segment and $17 million related to the Building Solutions EMEA/LA segment. The restructuring actions are expected to be substantially complete in fiscal 2018. Included in the reserve is $56 million of committed restructuring actions taken by Tyco for liabilities assumed as part of the Tyco acquisition.

Additionally, the Company recorded $332 million of restructuring and impairment costs within discontinued operations related to Adient in fiscal 2016.

The following table summarizes the changes in the Company’s 2016 Plan reserve, included within other current liabilities in the consolidated statements of financial position (in millions):

	Employee Severance and Termination Benefits	Long-Lived Asset Impairments	Other	Currency Translation	Total
Original reserve	$ 368	$ 190	$ 62	$ —	$ 620
Acquired Tyco restructuring reserves	78	—	—	—	78
Utilized—cash	(32)	—	—	—	(32)
Utilized—noncash	—	(190)	(32)	1	(221)
Balance at September 30, 2016	$ 414	$ —	$ 30	$ 1	$ 445
Adient spin-off impact	(194)	—	(22)	—	(216)
Utilized—cash	(86)	—	(2)	—	(88)
Utilized—noncash	—	—	—	1	1
Adjustment to restructuring reserves	(25)	—	—	—	(25)
Transfer to liabilities held for sale	(3)	—	—	—	(3)
Adjustment to acquired Tyco restructuring reserves	(22)	—	—	—	(22)
Balance at September 30, 2017	$ 84	$ —	$ 6	$ 2	$ 92
Utilized—cash	(5)	—	(1)	—	(6)
Balance at December 31, 2017	$ 79	$ —	$ 5	$ 2	$ 86

The Company's fiscal 2018, 2017 and 2016 restructuring plans included workforce reductions of approximately 9,200 employees (7,300 for the Building Technologies & Solutions business, 1,700 for Corporate and 200 for Power Solutions). Restructuring charges associated with employee severance and termination benefits are paid over the severance period granted to each employee or on a lump sum basis in accordance with individual severance agreements. As of December 31, 2017, approximately 1,800 of the employees have been separated from the Company pursuant to the restructuring plans. In addition, the restructuring plans included eleven plant closures in the Building Technologies & Solutions business. As of December 31, 2017, four of the eleven plants have been closed.

Company management closely monitors its overall cost structure and continually analyzes each of its businesses for opportunities to consolidate current operations, improve operating efficiencies and locate facilities in close proximity to customers. This ongoing analysis includes a review of its manufacturing, engineering and purchasing operations, as well as the overall global footprint for all its businesses.

9. Income Taxes

In calculating the provision for income taxes, the Company uses an estimate of the annual effective tax rate based upon the facts and circumstances known at each interim period. On a quarterly basis, the actual effective tax rate is adjusted, as appropriate, based upon changed facts and circumstances, if any, as compared to those forecasted at the beginning of the fiscal year and each interim period thereafter. The U.S. federal statutory tax rate is being used as a comparison due to the Company's current legal entity structure. As a result of recently enacted U.S. Tax Reform, the Company will be subject to a U.S. federal statutory tax rate of 24.5% for its fiscal year ended September 30, 2018, which reflects a blended federal statutory rate of 35% for its first fiscal quarter and 21% for the remaining three fiscal quarters. For the three months ended December 31, 2017, the Company's effective tax rate was 50% and was higher than the blended U.S. federal statutory rate of 24.5% primarily due to the discrete net impacts of U.S. Tax Reform, Tyco Merger transaction and integration costs, and the jurisdictional mix of significant restructuring and impairment costs, partially offset by the benefits of continuing global tax planning initiatives, non-U.S. tax rate differentials and tax audit closures. For the three months ended December 31, 2016, the Company's effective tax rate was -7% and was lower than the U.S. federal statutory rate of 35% primarily due to the benefits of continuing global tax planning initiatives, non-U.S. tax rate differentials and a tax benefit due to changes in entity tax status, partially offset by the jurisdictional mix of significant restructuring and impairment costs, as well as Tyco Merger transaction and integration costs, and purchase accounting impacts.

Valuation Allowance

The Company reviews the realizability of its deferred tax assets on a quarterly basis, or whenever events or changes in circumstances indicate that a review is required. In determining the requirement for a valuation allowance, the historical and projected financial results of the legal entity or consolidated group recording the net deferred tax asset are considered, along with any other positive or negative evidence. Since future financial results may differ from previous estimates, periodic adjustments to the Company's valuation allowances may be necessary.

Uncertain Tax Positions

At September 30, 2017, the Company had gross tax effected unrecognized tax benefits of $2,173 million, of which $2,047 million, if recognized, would impact the effective tax rate. Total net accrued interest at September 30, 2017 was approximately $99 million (net of tax benefit). The interest and penalties accrued during the three months ended December 31, 2017 and 2016 were not material. The Company recognizes interest and penalties related to unrecognized tax benefits as a component of income tax expense.

In the first quarter of fiscal 2018, tax audit resolutions resulted in a net $25 million benefit to income tax expense.

The Company is currently under exam in the following major non-U.S. jurisdictions:

Tax Jurisdiction	Tax Years Covered
Belgium	2015 - 2016
Brazil	2011 - 2012
Canada	2013 - 2014
China	2008 - 2016
France	2010 - 2016
Germany	2007 - 2015
Japan	2016
Spain	2010 - 2014
Switzerland	2011 - 2014
United Kingdom	2011 - 2014

Impacts of Tax Legislation

On December 22, 2017, the "Tax Cuts and Jobs Act" (H.R. 1) was enacted and significantly revises U.S. corporate income tax by, among other things, lowering corporate income tax rates, imposing a one-time transition tax on deemed repatriated earnings of non-U.S. subsidiaries, and implementing a territorial tax system and various base erosion minimum tax provisions.

In the first quarter of fiscal 2018, as a result of the enacted legislation, the Company recorded a discrete non-cash tax benefit of $101 million due to the remeasurement of U.S. deferred tax assets and liabilities. The Company remeasured certain deferred tax assets and liabilities based on the rates at which they are expected to reverse in the future, which is generally 21% or the blended fiscal 2018 rate of 24.5%. This tax benefit is provisional as the Company is still analyzing certain aspects of the legislation and refining calculations, which could potentially materially affect the measurement of these amounts or give rise to new deferred tax amounts.

In the first quarter of fiscal 2018, the Company also recorded a discrete tax charge of $305 million due to the one-time transition tax on deemed repatriated earnings of certain non-U.S. subsidiaries. This charge is inclusive of relevant non-U.S. withholding taxes and U.S. state income tax on the portion of the earnings expected to be repatriated. This one-time transition tax is based on the Company's post-1986 earnings and profits ("E&P") not previously subjected to U.S. taxation. This tax charge is provisional as the Company has not yet finally determined its post-1986 non-U.S. E&P. Further, the transition tax is based in part on the amount of those earnings held in cash and other specified assets. Given the varying tax rates (15.5% on cash and 8% on other property), this amount may change when the Company completes the calculation of post-1986 non-U.S. E&P previously deferred from U.S. federal taxation and concludes on the amounts held in cash versus other specified assets.

Various impacts of the enacted legislation are still being evaluated by the Company and may materially differ from the estimated impacts recognized in the first quarter of fiscal 2018 due to future treasury regulations, tax law technical corrections, and other potential guidance, notices, rulings, refined computations, actions the Company may take as a result of the tax legislation, and other items. The SEC has issued rules that allow for a measurement period of up to one year after the enactment date of the legislation to finalize the recording of the related tax impacts.

On October 13, 2016, the U.S. Treasury and the Internal Revenue Service ("IRS") released final and temporary Section 385 regulations. These regulations address whether certain instruments between related parties are treated as debt or equity. The Company does not expect that the regulations will have a material impact on its consolidated financial statements.

During the three months ended December 31, 2017 and 2016, other tax legislation was adopted in various jurisdictions. These law changes did not have a material impact on the Company's consolidated financial statements.

Other Tax Matters

In the first quarter of fiscal 2018, the Company recorded $50 million of transaction and integration costs. These costs generated a $7 million tax benefit which was impacted by the Company's current tax position in these jurisdictions.

In the first quarter of fiscal 2018, the Company recorded $158 million of significant restructuring and impairment costs. Refer to Note 8, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The restructuring costs generated a $24 million tax benefit, which was impacted by the Company's current tax position in these jurisdictions and the lower enacted U.S. tax rate.

In the first quarter of fiscal 2017, the Company recorded a discrete tax benefit of $101 million due to changes in entity tax status.

In the first quarter of fiscal 2017, the Company recorded $130 million of transaction and integration costs which generated an $11 million tax benefit.

In the first quarter of fiscal 2017, the Company recorded $78 million of significant restructuring and impairment costs. Refer to Note 8, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The restructuring costs generated a $14 million tax benefit, which was impacted by the Company's current tax position in these jurisdictions.

10. Pension and Postretirement Plans

The components of the Company's net periodic benefit costs from continuing operations associated with its defined benefit pension and postretirement plans are shown in the tables below in accordance with ASC 715, "Compensation – Retirement Benefits" (in millions):

	U.S. Pension Plans	
	Three Months Ended December 31,	
	2017	2016
Service cost	$ 4	$ 5
Interest cost	26	28
Expected return on plan assets	(57)	(59)
Net actuarial gain	—	(117)
Settlement gain	—	(8)
Net periodic benefit credit	$ (27)	$ (151)

	Non-U.S. Pension Plans	
	Three Months Ended December 31,	
	2017	2016
Service cost	$ 6	$ 8
Interest cost	14	12
Expected return on plan assets	(29)	(23)
Net periodic benefit credit	$ (9)	$ (3)

	Postretirement Benefits	
	Three Months Ended December 31,	
	2017	2016
Service cost	$ —	$ 1
Interest cost	2	1
Expected return on plan assets	(2)	(3)
Net periodic benefit credit	$ —	$ (1)

During the three months ended December 31, 2016, the amount of lump sum payouts triggered a remeasurement event for certain U.S. pension plans resulting in the recognition of net actuarial gains of $117 million.

11. Debt and Financing Arrangements

In December 2017, the Company repaid a 364-day 150 million euro floating rate term loan, plus accrued interest, scheduled to mature in September 2018.

In November 2017, the Company issued 750 million euro in principal amount of 0.0% senior unsecured fixed rate notes due in December 2020. Proceeds from the issuance were used to repay existing debt and for other general corporate purposes.

In November 2017, the Company retired $300 million in principal amount, plus accrued interest, of its 1.4% fixed rate notes that expired in November 2017.

In October 2017, the Company completed the previously announced sale of its Scott Safety business to 3M. Net cash proceeds from the transaction of approximately $1.9 billion were used to repay a significant portion of the TSarl $4.0 billion of merger-related debt. As of December 31, 2017, the outstanding balance of the TSarl term loan was approximately $1.8 billion.

Net Financing Charges

The Company's net financing charges line item in the consolidated statements of income for the three months ended December 31, 2017 and 2016 contained the following components (in millions):

	Three Months Ended December 31,	
	2017	2016
Interest expense, net of capitalized interest costs	$ 114	$ 110
Banking fees and bond cost amortization	13	30
Interest income	(9)	(7)
Net foreign exchange results for financing activities	(2)	3
Net financing charges	$ 116	$ 136

Net financing charges for the three months ended December 31, 2016, included $17 million of transaction costs related primarily to the prior year debt exchange offer fees.

12. Stock-Based Compensation

During September 2016, the Board of Directors of the Company approved amendments to the Johnson Controls International plc 2012 Share and Incentive Plan (the "Plan"). The types of awards authorized by the Plan comprise of stock options, stock appreciation rights, performance shares, performance units and other stock-based compensation awards. The Compensation Committee of the Company's Board of Directors determines the types of awards to be granted to individual participants and the terms and conditions of the awards. Awards are typically granted annually in the Company's fiscal first quarter. A summary of the stock-based awards granted during the three month periods ended December 31, 2017 and 2016 is presented below:

	Three Months Ended December 31,			
	2017		2016	
	Number Granted	Weighted Average Grant Date Fair Value	Number Granted	Weighted Average Grant Date Fair Value
Stock options	1,355,595	$ 7.05	2,830,826	$ 7.81
Stock appreciation rights	—	—	15,693	8.28
Restricted stock/units	2,051,817	37.36	1,512,544	41.74
Performance shares	496,478	36.31	846,725	48.40

Stock Options

Stock options are granted with an exercise price equal to the market price of the Company's stock at the date of grant. Stock option awards typically vest between two and three years after the grant date and expire ten years from the grant date.

The fair value of each option is estimated on the date of grant using a Black-Scholes option valuation model that uses the assumptions noted in the following table. The expected life of options represents the period of time that options granted are expected to be outstanding, assessed separately for executives and non-executives. The risk-free interest rate for periods during the contractual life of the option is based on the U.S. Treasury yield curve in effect at the time of grant. For fiscal 2018, the expected volatility is based on the historical volatility of the Company's stock after the Adient spin-off blended with the historical volatility of certain peer companies' stock prior to the Adient spin-off over the most recent period corresponding to the expected life as of the grant date. For fiscal 2017, the expected volatility is based on the historical volatility of certain peer companies over the most recent period corresponding to the expected life as of the grant date. The expected dividend yield is based on the expected annual dividend as a percentage of the market value of the Company's ordinary shares as of the grant date. The Company uses historical data to estimate option exercises and employee terminations within the valuation model.

	Three Months Ended December 31,	
	2017	2016
Expected life of option (years)	6.5	4.75 & 6.5
Risk-free interest rate	2.28%	1.23% - 1.48%
Expected volatility of the Company's stock	23.7%	24.6%
Expected dividend yield on the Company's stock	2.78%	2.21%

Stock Appreciation Rights ("SARs")

SARs vest under the same terms and conditions as stock option awards; however, they are settled in cash for the difference between the market price on the date of exercise and the exercise price. As a result, SARs are recorded in the Company's consolidated statements of financial position as a liability until the date of exercise. The fair value of each SAR award is estimated using a similar method described for stock options. The fair value of each SAR award is recalculated at the end of each reporting period and the liability and expense are adjusted based on the new fair value.

Restricted (Nonvested) Stock / Units

The Plan provides for the award of restricted stock or restricted stock units to certain employees. These awards are typically share settled unless the employee is a non-U.S. employee or elects to defer settlement until retirement at which point the award would be settled in cash. Restricted awards typically vest over a period of three years from the grant date. The Plan allows for different vesting terms on specific grants with approval by the Board of Directors. The value of restricted awards is based on the closing market value of the Company's ordinary shares on the date of grant.

Performance Share Awards

The Plan permits the grant of performance-based share unit ("PSU") awards. The PSUs are generally contingent on the achievement of pre-determined performance goals over a three-year performance period as well as on the award holder's continuous employment until the vesting date. The PSUs are also indexed to the achievement of specified levels of total shareholder return versus a peer group over the performance period. Each PSU that is earned will be settled with shares of the Company's ordinary shares following the completion of the performance period, unless the award holder elected to defer a portion or all of the award until retirement which would then be settled in cash.

The fair value of each PSU is estimated on the date of grant using a Monte Carlo simulation that uses the assumptions noted in the following table. The risk-free interest rate for periods during the contractual life of the PSU is based on the U.S. Treasury yield curve in effect at the time of grant. For fiscal 2018, the expected volatility is based on the historical volatility of the Company's stock after the Adient spin-off blended with the historical volatility of certain peer companies' stock prior to the Adient spin-off over the most recent three-year period as of the grant date. For fiscal 2017, the expected volatility is based on historical volatility of certain peer companies over the most recent three-year period as of the grant date.

	Three Months Ended December 31,	
	2017	2016
Risk-free interest rate	1.92%	1.40%
Expected volatility of the Company's stock	21.7%	21.0%

13. Earnings Per Share

The Company presents both basic and diluted earnings per share ("EPS") amounts. Basic EPS is calculated by dividing net income attributable to Johnson Controls by the weighted average number of ordinary shares outstanding during the reporting period. Diluted EPS is calculated by dividing net income attributable to Johnson Controls by the weighted average number of ordinary shares and ordinary equivalent shares outstanding during the reporting period that are calculated using the treasury stock method for stock options, unvested restricted stock and unvested performance share awards. The treasury stock method assumes that the Company uses the proceeds from the exercise of stock option awards to repurchase ordinary shares at the average market price during the period. The assumed proceeds under the treasury stock method include the purchase price that the grantee will pay in the future and compensation cost for future service that the Company has not yet recognized. For unvested restricted stock and unvested performance share awards, assumed proceeds under the treasury stock method would include unamortized compensation cost.

The following table reconciles the numerators and denominators used to calculate basic and diluted earnings per share (in millions):

	Three Months Ended December 31,	
	2017	2016
Income Available to Ordinary Shareholders		
Income from continuing operations	$ 230	$ 372
Loss from discontinued operations	—	(43)
Basic and diluted income available to shareholders	$ 230	$ 329
Weighted Average Shares Outstanding		
Basic weighted average shares outstanding	926.1	937.2
Effect of dilutive securities:		
Stock options, unvested restricted stock and unvested performance share awards	7.2	10.2
Diluted weighted average shares outstanding	933.3	947.4
Antidilutive Securities		
Options to purchase shares	1.0	0.1

During the three months ended December 31, 2017 and 2016, the Company declared a dividend of $0.26 and $0.25, respectively, per share. The Company paid all dividends in the month subsequent to the end of each fiscal quarter.

14. Equity and Noncontrolling Interests

Other comprehensive income includes activity relating to discontinued operations. The following schedules present changes in consolidated equity attributable to Johnson Controls and noncontrolling interests (in millions, net of tax):

	Three Months Ended December 31, 2017			Three Months Ended December 31, 2016		
	Equity Attributable to Johnson Controls International plc	Equity Attributable to Noncontrolling Interests	Total Equity	Equity Attributable to Johnson Controls International plc	Equity Attributable to Noncontrolling Interests	Total Equity
Beginning balance, September 30,	$ 20,447	$ 920	$ 21,367	$ 24,118	$ 972	$ 25,090
Total comprehensive income (loss):						
Net income	230	28	258	329	36	365
Foreign currency translation adjustments	58	16	74	(659)	(35)	(694)
Realized and unrealized gains on derivatives	1	1	2	—	4	4
Realized and unrealized losses on marketable securities	—	—	—	(2)	—	(2)
Other comprehensive income (loss)	59	17	76	(661)	(31)	(692)
Comprehensive income (loss)	289	45	334	(332)	5	(327)
Other changes in equity:						
Cash dividends—ordinary shares	(242)	—	(242)	(236)	—	(236)
Repurchases of ordinary shares	(150)	—	(150)	—	—	—
Change in noncontrolling interest share	—	—	—	—	(20)	(20)
Adoption of ASU 2016-09	179	—	179	—	—	—
Spin-off of Adient	—	—	—	(4,020)	(138)	(4,158)
Other, including options exercised	12	—	12	47	—	47
Ending balance, December 31	$ 20,535	$ 965	$ 21,500	$ 19,577	$ 819	$ 20,396

As previously disclosed, during the quarter ended December 31, 2017, the Company adopted ASU No. 2016-09. As a result, the Company recognized deferred tax assets of $179 million related to certain operating loss carryforwards resulting from the exercise of employee stock options and restricted stock vestings on a modified retrospective basis through a cumulative-effect adjustment to retained earnings as of October 1, 2017.

As previously disclosed, on October 31, 2016, the Company completed the Adient spin-off. As a result of the spin-off, the Company divested net assets of approximately $4.0 billion.

Following the Tyco Merger, the Company adopted, subject to the ongoing existence of sufficient distributable reserves, the existing Tyco International plc $1 billion share repurchase program in September 2016. In December 2017, the Company's Board of Directors approved an $1 billion increase to its share repurchase authorization. The share repurchase program does not have an expiration date and may be amended or terminated by the Board of Directors at any time without prior notice. For the three month period ended December 31, 2017, the Company repurchased $150 million of its ordinary shares. For the three month period ended December 31, 2016, the Company had no repurchases of its ordinary shares. As of December 31, 2017, approximately $1.2 billion remains available under the share repurchase program.

The Company consolidates certain subsidiaries in which the noncontrolling interest party has within its control the right to require the Company to redeem all or a portion of its interest in the subsidiary. The redeemable noncontrolling interests are reported at their estimated redemption value. Any adjustment to the redemption value impacts retained earnings but does not impact net income. Redeemable noncontrolling interests which are redeemable only upon future events, the occurrence of which is not currently probable, are recorded at carrying value.

The following schedules present changes in the redeemable noncontrolling interests (in millions):

	Three Months Ended December 31,	
	2017	2016
Beginning balance, September 30	$ 211	$ 234
Net income	13	13
Foreign currency translation adjustments	5	(9)
Realized and unrealized losses on derivatives	(3)	—
Dividends	—	(43)
Spin-off of Adient	—	(36)
Ending balance, December 31	$ 226	$ 159

The following schedules present changes in accumulated other comprehensive income ("AOCI") attributable to Johnson Controls (in millions, net of tax):

	Three Months Ended December 31,	
	2017	2016
Foreign currency translation adjustments ("CTA")		
Balance at beginning of period	$ (481)	$ (1,152)
Aggregate adjustment for the period (net of tax effect of $1 and $5)*	58	(659)
Adient spin-off impact (net of tax effect of $0)	—	563
Balance at end of period	(423)	(1,248)
Realized and unrealized gains (losses) on derivatives		
Balance at beginning of period	6	4
Current period changes in fair value (net of tax effect of $3 and $4)	6	6
Reclassification to income (net of tax effect of $(2) and $(3)) **	(5)	(6)
Adient spin-off impact (net of tax effect of $0 and $6)	—	16
Balance at end of period	7	20
Realized and unrealized gains (losses) on marketable securities		
Balance at beginning of period	4	(1)
Current period changes in fair value (net of tax effect of $0)	—	(2)
Balance at end of period	4	(3)
Pension and postretirement plans		
Balance at beginning of period	(2)	(4)
Adient spin-off impact (net of tax effect of $0)	—	2
Balance at end of period	(2)	(2)
Accumulated other comprehensive loss, end of period	$ (414)	$ (1,233)

* During the three months ended December 31, 2017, $12 million of cumulative CTA were recognized as part of the divestiture-related gain recognized as a result of the divestiture of Scott Safety.

** Refer to Note 15, "Derivative Instruments and Hedging Activities," of the notes to consolidated financial statements for disclosure of the line items in the consolidated statements of income affected by reclassifications from AOCI into income related to derivatives.

15. Derivative Instruments and Hedging Activities

The Company selectively uses derivative instruments to reduce market risk associated with changes in foreign currency, commodities, stock-based compensation liabilities and interest rates. Under Company policy, the use of derivatives is restricted to those intended for hedging purposes; the use of any derivative instrument for speculative purposes is strictly prohibited. A description of each type of derivative utilized by the Company to manage risk is included in the following paragraphs. In addition, refer to Note 16, "Fair Value Measurements," of the notes to consolidated financial statements for information related to the fair value measurements and valuation methods utilized by the Company for each derivative type.

Cash Flow Hedges

The Company has global operations and participates in the foreign exchange markets to minimize its risk of loss from fluctuations in foreign currency exchange rates. The Company selectively hedges anticipated transactions that are subject to foreign exchange rate risk primarily using foreign currency exchange hedge contracts. The Company hedges 70% to 90% of the nominal amount of each of its known foreign exchange transactional exposures. As cash flow hedges under ASC 815, "Derivatives and Hedging," the hedge gains or losses due to changes in fair value are initially recorded as a component of AOCI and are subsequently reclassified into earnings when the hedged transactions occur and affect earnings. These contracts were highly effective in hedging the variability in future cash flows attributable to changes in currency exchange rates during the three months ended December 31, 2017 and 2016.

The Company selectively hedges anticipated transactions that are subject to commodity price risk, primarily using commodity hedge contracts, to minimize overall price risk associated with the Company’s purchases of lead, copper, tin, aluminum and polypropylene in cases where commodity price risk cannot be naturally offset or hedged through supply base fixed price contracts. Commodity risks are systematically managed pursuant to policy guidelines. As cash flow hedges, the effective portion of the hedge gains or losses due to changes in fair value are initially recorded as a component of AOCI and are subsequently reclassified into earnings when the hedged transactions, typically sales, occur and affect earnings. The maturities of the commodity hedge contracts coincide with the expected purchase of the commodities. These contracts were highly effective in hedging the variability in future cash flows attributable to changes in commodity prices during the three months ended December 31, 2017 and 2016.

The Company had the following outstanding contracts to hedge forecasted commodity purchases:

		Volume Outstanding as of	
Commodity	Units	December 31, 2017	September 30, 2017
Copper	Metric Tons	3,765	1,962
Polypropylene	Metric Tons	21,762	19,563
Lead	Metric Tons	13,791	24,705
Aluminum	Metric Tons	5,295	2,169
Tin	Metric Tons	1,655	1,715

Fair Value Hedges

The Company selectively uses interest rate swaps to reduce market risk associated with changes in interest rates for its fixed-rate bonds. As fair value hedges, the interest rate swaps and related debt balances are valued under a market approach using publicized swap curves. Changes in the fair value of the swap and hedged portion of the debt are recorded in the consolidated statements of income. As of September 30, 2016, the Company had four fixed to floating interest rate swaps totaling $400 million to hedge the coupon of its 2.6% notes that matured in December 2016, three fixed to floating interest rate swaps totaling $300 million to hedge the coupon of its 1.4% notes maturing November 2017 and one fixed to floating interest rate swap totaling $150 million to hedge the coupon of its 7.125% notes maturing July 2017. In December 2016, the four remaining outstanding interest rate swaps were terminated. The Company had no interest rate swaps outstanding at December 31, 2017 and September 30, 2017, respectively.

Net Investment Hedges

The Company enters into foreign currency denominated debt obligations to selectively hedge portions of its net investment in non-U.S. subsidiaries. The currency effects of the debt obligations are reflected in the AOCI account within shareholders' equity attributable to Johnson Controls ordinary shareholders where they offset gains and losses recorded on the Company's net investments globally. At December 31, 2017, the Company had one billion euro, 750 million euro, 423 million euro and 58 million euro bonds designated as net investment hedges in the Company's net investment in Europe and 35 billion yen of foreign denominated debt designated as net investment hedge in the Company's net investment in Japan. At September 30, 2017, the Company had one billion euro, 423 million euro and 58 million euro bonds designated as net investment hedges in the Company's net investment in Europe and 35 billion yen of foreign denominated debt designated as net investment hedge in the Company's net investment in Japan.

Derivatives Not Designated as Hedging Instruments

The Company selectively uses equity swaps to reduce market risk associated with certain of its stock-based compensation plans, such as its deferred compensation plans. These equity compensation liabilities increase as the Company's stock price increases and decrease as the Company's stock price decreases. In contrast, the value of the swap agreement moves in the opposite direction of these liabilities, allowing the Company to fix a portion of the liabilities at a stated amount. As of December 31, 2017, the Company hedged approximately 1.8 million shares of its ordinary shares, which have a cost basis of $73 million. As of September 30, 2017, the Company hedged approximately 1.4 million shares of its ordinary shares, which have a cost basis of $58 million.

The Company also holds certain foreign currency forward contracts which do not qualify for hedge accounting treatment. The change in fair value of foreign currency exchange derivatives not designated as hedging instruments under ASC 815 are recorded in the consolidated statements of income.

Fair Value of Derivative Instruments

The following table presents the location and fair values of derivative instruments and hedging activities included in the Company's consolidated statements of financial position (in millions):

	Derivatives and Hedging Activities Designated as Hedging Instruments under ASC 815		Derivatives and Hedging Activities Not Designated as Hedging Instruments under ASC 815	
	December 31, 2017	September 30, 2017	December 31, 2017	September 30, 2017
Other current assets				
Foreign currency exchange derivatives	$ 35	$ 27	$ 21	$ —
Commodity derivatives	6	9	—	—
Other noncurrent assets				
Equity swap	—	—	68	55
Total assets	$ 41	$ 36	$ 89	$ 55
Other current liabilities				
Foreign currency exchange derivatives	$ 25	$ 21	$ 16	$ 25
Commodity derivatives	1	1	—	—
Long-term debt				
Foreign currency denominated debt	2,981	2,058	—	—
Total liabilities	$ 3,007	$ 2,080	$ 16	$ 25

Counterparty Credit Risk

The use of derivative financial instruments exposes the Company to counterparty credit risk. The Company has established policies and procedures to limit the potential for counterparty credit risk, including establishing limits for credit exposure and continually assessing the creditworthiness of counterparties. As a matter of practice, the Company deals with major banks worldwide having strong investment grade long-term credit ratings. To further reduce the risk of loss, the Company generally enters into International Swaps and Derivatives Association ("ISDA") master netting agreements with substantially all of its counterparties. The Company's derivative contracts do not contain any credit risk related contingent features and do not require collateral or other security to be furnished by the Company or the counterparties. The Company's exposure to credit risk associated with its derivative instruments is measured on an individual counterparty basis, as well as by groups of counterparties that share similar attributes. The Company does not anticipate any non-performance by any of its counterparties, and the concentration of risk with financial institutions does not present significant credit risk to the Company.

The Company enters into ISDA master netting agreements with counterparties that permit the net settlement of amounts owed under the derivative contracts. The master netting agreements generally provide for net settlement of all outstanding contracts with a counterparty in the case of an event of default or a termination event. The Company has not elected to offset the fair value positions of the derivative contracts recorded in the consolidated statements of financial position. Collateral is generally not required of the Company or the counterparties under the master netting agreements. As of December 31, 2017 and September 30, 2017, no cash collateral was received or pledged under the master netting agreements.

The gross and net amounts of derivative assets and liabilities were as follows (in millions):

	Fair Value of Assets		Fair Value of Liabilities	
	December 31, 2017	September 30, 2017	December 31, 2017	September 30, 2017
Gross amount recognized	$ 130	$ 91	$ 3,023	$ 2,105
Gross amount eligible for offsetting	(27)	(16)	(27)	(16)
Net amount	$ 103	$ 75	$ 2,996	$ 2,089

Derivatives Impact on the Statements of Income and Statements of Comprehensive Income

The following table presents the effective portion of pre-tax gains (losses) recorded in other comprehensive income (loss) related to cash flow hedges for the three months ended December 31, 2017 and 2016 (in millions):

Derivatives in ASC 815 Cash Flow Hedging Relationships	Three Months Ended December 31, 2017	2016
Foreign currency exchange derivatives	$ 6	$ 8
Commodity derivatives	3	2
Total	$ 9	$ 10

The following tables present the location and amount of the effective portion of pre-tax gains (losses) on cash flow hedges reclassified from AOCI into the Company's consolidated statements of income for the three months ended December 31, 2017 and 2016 (in millions):

Derivatives in ASC 815 Cash Flow Hedging Relationships	Location of Gain (Loss) Reclassified from AOCI into Income	Three Months Ended December 31, 2017	2016
Foreign currency exchange derivatives	Cost of sales	$ 2	$ 8
Commodity derivatives	Cost of sales	5	1
Total		$ 7	$ 9

The following table presents the location and amount of pre-tax gains (losses) on fair value hedges recognized in the Company's consolidated statements of income for the three months ended December 31, 2017 and 2016 (in millions):

Derivatives in ASC 815 Fair Value Hedging Relationships	Location of Gain (Loss) Recognized in Income on Derivative	Three Months Ended December 31, 2017	2016
Interest rate swap	Net financing charges	$ —	$ (1)
Fixed rate debt swapped to floating	Net financing charges	—	2
Total		$ —	$ 1

The following table presents the location and amount of pre-tax gains (losses) on derivatives not designated as hedging instruments recognized in the Company's consolidated statements of income for the three months ended December 31, 2017 and 2016 (in millions):

Derivatives Not Designated as Hedging Instruments under ASC 815	Location of Gain (Loss) Recognized in Income on Derivative	Amount of Gain (Loss) Recognized in Income on Derivative Three Months Ended December 31, 2017	2016
Foreign currency exchange derivatives	Cost of sales	$ 2	$ 1
Foreign currency exchange derivatives	Net financing charges	4	4
Foreign currency exchange derivatives	Income tax provision	2	(3)
Foreign currency exchange derivatives	Income (loss) from discontinued operations	—	5
Equity swap	Selling, general and administrative	(2)	—
Total		$ 6	$ 7

The effective portion of pre-tax gains (losses) recorded in CTA within other comprehensive income (loss) related to net investment hedges were $(36) million and $47 million for the three months ended December 31, 2017 and 2016, respectively. For the three months ended December 31, 2017 and 2016, no gains or losses were reclassified from CTA into income for the Company's outstanding net investment hedges.

16. Fair Value Measurements

ASC 820, "Fair Value Measurement," 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 for identical assets or liabilities;

Level 2: Quoted prices in active markets for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in markets that are not active, or 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.

Recurring Fair Value Measurements

The following tables present the Company’s fair value hierarchy for those assets and liabilities measured at fair value as of December 31, 2017 and September 30, 2017 (in millions):

		Fair Value Measurements Using:		
	Total as of December 31, 2017	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Other current assets				
Foreign currency exchange derivatives	$ 56	$ —	$ 56	$ —
Commodity derivatives	6	—	6	—
Exchange traded funds (fixed income)[1]	28	28	—	—
Other noncurrent assets				
Investments in marketable common stock	6	6	—	—
Deferred compensation plan assets	96	96	—	—
Exchange traded funds (fixed income)[1]	142	142	—	—
Exchange traded funds (equity)[1]	113	113	—	—
Equity swap	68	—	68	—
Total assets	$ 515	$ 385	$ 130	$ —
Other current liabilities				
Foreign currency exchange derivatives	$ 41	$ —	$ 41	$ —
Commodity derivatives	1	—	1	—
Total liabilities	$ 42	$ —	$ 42	$ —

		Fair Value Measurements Using:		
	Total as of September 30, 2017	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Other current assets				
Foreign currency exchange derivatives	$ 27	$ —	$ 27	$ —
Commodity derivatives	9	—	9	—
Exchange traded funds (fixed income)[1]	14	14	—	—
Other noncurrent assets				
Investments in marketable common stock	10	10	—	—
Deferred compensation plan assets	92	92	—	—
Exchange traded funds (fixed income)[1]	155	155	—	—
Exchange traded funds (equity)[1]	100	100	—	—
Equity swap	55	—	55	—
Total assets	$ 462	$ 371	$ 91	$ —
Other current liabilities				
Foreign currency exchange derivatives	$ 46	$ —	$ 46	$ —
Commodity derivatives	1	—	1	—
Total liabilities	$ 47	$ —	$ 47	$ —

[1] Classified as restricted investments for payment of asbestos liabilities. See Note 21, "Commitments and Contingencies," of the notes to consolidated financial statements for further details.

Valuation Methods

Foreign currency exchange derivatives: The foreign currency exchange derivatives are valued under a market approach using publicized spot and forward prices.

Commodity derivatives: The commodity derivatives are valued under a market approach using publicized prices, where available, or dealer quotes.

Equity swaps: The equity swaps are valued under a market approach as the fair value of the swaps is equal to the Company's stock price at the reporting period date.

Deferred compensation plan assets: Assets held in the deferred compensation plans will be used to pay benefits under certain of the Company's non-qualified deferred compensation plans. The investments primarily consist of mutual funds which are publicly traded on stock exchanges and are valued using a market approach based on the quoted market prices.

Investments in marketable common stock and exchange traded funds: Investments in marketable common stock and exchange traded funds are valued using a market approach based on the quoted market prices, where available, or broker/dealer quotes of identical or comparable instruments. The Company recorded unrealized gains of $14 million and unrealized losses of $10 million on these investments as of December 31, 2017 within AOCI in the consolidated statements of financial position. The Company recorded unrealized gains of $10 million and unrealized losses of $6 million on these investments as of September 30, 2017 within AOCI in the consolidated statements of financial position.

The fair values of cash and cash equivalents, accounts receivable, short-term debt and accounts payable approximate their carrying values. The fair value of long-term debt was $11.5 billion and $12.7 billion at December 31, 2017 and September 30, 2017, respectively. The fair value of public debt was $9.3 billion and $8.6 billion, at December 31, 2017 and September 30, 2017, respectively, which was determined primarily using market quotes classified as Level 1 inputs within the ASC 820 fair value hierarchy. The fair value of other long-term debt was $2.2 billion and $4.1 billion at December 31, 2017 and September 30, 2017, respectively, which was determined based on quoted market prices for similar instruments classified as Level 2 inputs within the ASC 820 fair value hierarchy.

17. Impairment of Long-Lived Assets

The Company reviews long-lived assets, including tangible assets and other intangible assets with definitive lives, for impairment whenever events or changes in circumstances indicate that the asset's carrying amount may not be recoverable. The Company conducts its long-lived asset impairment analyses in accordance with ASC 360-10-15, "Impairment or Disposal of Long-Lived Assets" and ASC 350-30, "General Intangibles Other than Goodwill." ASC 360-10-15 requires the Company to group assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities and evaluate the asset group against the sum of the undiscounted future cash flows. If the undiscounted cash flows do not indicate the carrying amount of the asset group is recoverable, an impairment charge is measured as the amount by which the carrying amount of the asset group exceeds its fair value based on discounted cash flow analysis or appraisals. ASC 350-30 requires intangible assets acquired in a business combination that are used in research and development activities to be considered indefinite lived until the completion or abandonment of the associated research and development efforts. During the period that those assets are considered indefinite lived, they shall not be amortized but shall be tested for impairment annually and more frequently if events or changes in circumstances indicate that it is more likely than not that the asset is impaired. If the carrying amount of an intangible asset exceeds its fair value, an entity shall recognize an impairment loss in an amount equal to that excess.

In the first quarter of fiscal 2018, the Company concluded it had a triggering event requiring assessment of impairment for certain of its long-lived assets in conjunction with its restructuring actions announced in fiscal 2018. As a result, the Company reviewed the long-lived assets for impairment and recorded $30 million of asset impairment charges within restructuring and impairment costs in the consolidated statements of income. Of the total impairment charges, $23 million related to the Global Products segment, $5 million related to Corporate assets and $2 million related to the Power Solutions segment. Refer to Note 8, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The impairments were measured under a market approach utilizing an appraisal to determine fair values of the impaired assets. This method is consistent with the methods the Company employed in prior periods to value other long-lived assets. The inputs utilized in the analyses are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement."

In the first quarter of fiscal 2017, the Company concluded it had a triggering event requiring assessment of impairment for certain of its long-lived assets in conjunction with its restructuring actions announced in fiscal 2017. As a result, the Company reviewed the long-lived assets for impairment and recorded $15 million of asset impairment charges within restructuring and impairment costs in the consolidated statements of income, all of which related to Corporate assets. Refer to Note 8, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The impairments were measured under a market approach utilizing an appraisal to determine fair values of the impaired assets. This method is consistent with the methods the Company employed in prior periods to value other long-lived assets. The inputs utilized in the analyses are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement."

At December 31, 2017 and 2016, the Company concluded it did not have any other triggering events requiring assessment of impairment of its long-lived assets.

18. Segment Information

ASC 280, "Segment Reporting," establishes the standards for reporting information about segments in financial statements. In applying the criteria set forth in ASC 280, the Company has determined that it has five reportable segments for financial reporting purposes. The Company's five reportable segments are presented in the context of its two primary businesses – Building Technologies & Solutions and Power Solutions.

Effective July 1, 2017, the Company reorganized the reportable segments within its Building Technologies & Solutions business to align with its new management reporting structure and business activities. Prior to this reorganization, Building Technologies

& Solutions was comprised of five reportable segments for financial reporting purposes: Systems and Service North America, Products North America, Asia, Rest of World and Tyco. As a result of this change, Building Technologies & Solutions is now comprised of four reportable segments for financial reporting purposes: Building Solutions North America, Building Solutions EMEA/LA, Building Solutions Asia Pacific and Global Products. Historical information has been revised to reflect the new Building Technologies & Solutions segments.

A summary of the significant Building Technologies & Solutions reportable segment changes is as follows:

- The "Systems and Service North America" segment is now part of the new "Building Solutions North America" reportable segment.

- The North America Unitary Products business, Air Distribution Technologies business and refrigeration systems business, as well as HVAC products installed for Marine customers, previously included in the "Products North America" segment, are now part of the new reportable segment "Global Products." The systems and products installation business for U.S. Navy customers, previously included in the "Products North America" segment, is now part of the new "Building Solutions North America" reportable segment.

- The systems and service business within the former "Asia" segment is now part of the new "Building Solutions Asia Pacific" reportable segment. The HVAC products manufacturing business and the Johnson Controls-Hitachi joint venture, previously part of the "Asia" segment, are now part of the new "Global Products" reportable segment.

- The systems and service businesses in Europe, the Middle East and Latin America within the former "Rest of World" segment are now part of the new "Building Solutions EMEA/LA" reportable segment. The HVAC products manufacturing businesses, previously part of the "Rest of World" segment, are now part of the new "Global Products" reportable segment.

- As the Company has integrated the legacy Tyco business with its legacy Building Efficiency business for segment reporting purposes, Tyco is no longer a separate reportable segment. The Tyco businesses are now included throughout the new reportable segments.

Building Technologies & Solutions

- Building Solutions North America designs, sells, installs, and services HVAC and controls systems, integrated electronic security systems (including monitoring), and integrated fire detection and suppression systems for commercial, industrial, retail, small business, institutional and governmental customers in North America. Building Solutions North America also provides energy efficiency solutions and technical services, including inspection, scheduled maintenance, and repair and replacement of mechanical and control systems, to non-residential building and industrial applications in the North American marketplace.

- Building Solutions EMEA/LA designs, sells, installs, and services HVAC, controls, refrigeration, integrated electronic security, integrated fire detection and suppression systems, and provides technical services to markets in Europe, the Middle East, Africa and Latin America.

- Building Solutions Asia Pacific designs, sells, installs, and services HVAC, controls, refrigeration, integrated electronic security, integrated fire detection and suppression systems, and provides technical services to the Asia Pacific marketplace.

- Global Products designs and produces heating and air conditioning for residential and commercial applications, and markets products and refrigeration systems to replacement and new construction market customers globally. The Global Products business also designs, manufactures and sells fire protection and security products, including intrusion security, anti-theft devices, and access control and video management systems, for commercial, industrial, retail, residential, small business, institutional and governmental customers worldwide. Global Products also includes the Johnson Controls-Hitachi joint venture, which was formed October 1, 2015, and included the Scott Safety business, prior to its sale on October 4, 2017.

Power Solutions

Power Solutions services both automotive original equipment manufacturers and the battery aftermarket by providing advanced battery technology, coupled with systems engineering, marketing and service expertise.

Management evaluates the performance of its business segments primarily on segment earnings before interest, taxes and amortization ("EBITA"), which represents income from continuing operations before income taxes and noncontrolling interests, excluding general corporate expenses, intangible asset amortization, net financing charges, significant restructuring and impairment costs, and the net mark-to-market adjustments related to pension and postretirement plans.

Financial information relating to the Company's reportable segments is as follows (in millions):

	Net Sales	
	Three Months Ended December 31,	
	2017	2016
Building Technologies & Solutions		
Building Solutions North America	$ 2,012	$ 1,942
Building Solutions EMEA/LA	915	875
Building Solutions Asia Pacific	597	575
Global Products	1,781	1,794
	5,305	5,186
Power Solutions	2,130	1,900
Total net sales	$ 7,435	$ 7,086

	Segment EBITA	
	Three Months Ended December 31,	
	2017	2016
Building Technologies & Solutions		
Building Solutions North America	$ 227	$ 196
Building Solutions EMEA/LA	69	49
Building Solutions Asia Pacific	74	63
Global Products	286	127
	656	435
Power Solutions	384	389
Total segment EBITA	$ 1,040	$ 824
Corporate expenses	$ (134)	$ (193)
Amortization of intangible assets	(94)	(149)
Restructuring and impairment costs	(158)	(78)
Net mark-to-market adjustments on pension plans	—	117
Net financing charges	(116)	(136)
Income from continuing operations before income taxes	$ 538	$ 385

19. Guarantees

Certain of the Company's subsidiaries at the business segment level have guaranteed the performance of third-parties and provided financial guarantees for uncompleted work and financial commitments. The terms of these guarantees vary with end dates ranging from the current fiscal year through the completion of such transactions and would typically be triggered in the event of nonperformance. Performance under the guarantees, if required, would not have a material effect on the Company's financial position, results of operations or cash flows.

The Company offers warranties to its customers depending upon the specific product and terms of the customer purchase agreement. A typical warranty program requires that the Company replace defective products within a specified time period from the date of sale. The Company records an estimate for future warranty-related costs based on actual historical return rates and other known factors. Based on analysis of return rates and other factors, the Company’s warranty provisions are adjusted as necessary. The Company monitors its warranty activity and adjusts its reserve estimates when it is probable that future warranty costs will be different than those estimates.

The Company’s product warranty liability for continuing operations is recorded in the consolidated statements of financial position in other current liabilities if the warranty is less than one year and in other noncurrent liabilities if the warranty extends longer than one year.

The changes in the carrying amount of the Company’s total product warranty liability, including extended warranties, for the three months ended December 31, 2017 and 2016 were as follows (in millions):

	Three Months Ended December 31,	
	2017	2016
Balance at beginning of period	$ 409	$ 374
Accruals for warranties issued during the period	84	82
Accruals from acquisition and divestitures	—	(1)
Accruals related to pre-existing warranties	(3)	(6)
Settlements made (in cash or in kind) during the period	(77)	(73)
Currency translation	2	(6)
Balance at end of period	$ 415	$ 370

As a result of the Tyco Merger in the fourth quarter of fiscal 2016, the Company recorded, as part of the acquired liabilities of Tyco, $290 million of post sale contingent tax indemnification liabilities which is generally recorded within other noncurrent liabilities in the consolidated statements of financial position. The liabilities are recorded at fair value and relate to certain tax related matters borne by the buyer of previously divested subsidiaries of Tyco which Tyco has indemnified certain parties and the amounts are probable of being paid. At December 31, 2017 and September 30, 2017, the Company recorded liabilities of $272 million and $290 million, respectively. Of the $272 million recorded as of December 31, 2017, $237 million is related to prior divested businesses and the remainder relates to Tyco’s tax sharing agreements from its 2007 and 2012 spin-off transactions. These are certain guarantees or indemnifications extended among Tyco, Medtronic, TE Connectivity, ADT and Pentair in accordance with the terms of the 2007 and 2012 separation and tax sharing agreements. In addition, the Company has recorded $9 million and $11 million of tax indemnification liabilities as of December 31, 2017 and September 30, 2017, respectively, related to other divestitures.

20. Tyco International Finance S.A.

Tyco International Finance S.A. ("TIFSA"), a 100% owned subsidiary of the Company, has public debt securities outstanding which, as of September 30, 2016, were fully and unconditionally guaranteed by Johnson Controls and by Tyco Fire & Security Finance S.C.A. ("TIFSCA"), a wholly owned subsidiary of the Company and parent company of TIFSA. During the first quarter of fiscal 2017, the guarantees were removed. The following tables present condensed consolidating financial information for Johnson Controls, TIFSCA, TIFSA and all other subsidiaries. Condensed financial information for the Company, TIFSCA and TIFSA on a stand-alone basis is presented using the equity method of accounting for subsidiaries.

CONDENSED CONSOLIDATING STATEMENT OF OPERATIONS
For the Three Months Ended December 31, 2017

(in millions)	Johnson Controls International plc	Tyco Fire & Security Finance SCA	Tyco International Finance S.A.	Other Subsidiaries	Consolidating Adjustments	Total
Net sales	$ —	$ —	$ —	$ 7,435	$ —	$ 7,435
Cost of sales	—	—	—	5,266	—	5,266
Gross profit	—	—	—	2,169	—	2,169
Selling, general and administrative expenses	(3)	—	—	(1,414)	—	(1,417)
Restructuring and impairment costs	—	—	—	(158)	—	(158)
Net financing charges	(50)	1	(2)	(65)	—	(116)
Equity income	285	188	142	60	(615)	60
Intercompany interest and fees	(2)	85	(29)	(54)	—	—
Income from continuing operations before income taxes	230	274	111	538	(615)	538
Income tax provision	—	—	—	267	—	267
Net income	230	274	111	271	(615)	271
Income from continuing operations attributable to noncontrolling interests	—	—	—	41	—	41
Net income attributable to Johnson Controls	$ 230	$ 274	$ 111	$ 230	$ (615)	$ 230

CONDENSED CONSOLIDATING STATEMENT OF COMPREHENSIVE INCOME (LOSS)
For the Three Months Ended December 31, 2017

(in millions)	Johnson Controls International plc	Tyco Fire & Security Finance SCA	Tyco International Finance S.A.	Other Subsidiaries	Consolidating Adjustments	Total
Net income	$ 230	$ 274	$ 111	$ 271	$ (615)	$ 271
Other comprehensive income (loss), net of tax						
Foreign currency translation adjustments	58	(7)	(1)	53	(24)	79
Realized and unrealized gains (losses) on derivatives	1	—	—	(1)	(1)	(1)
Realized and unrealized gains (losses) on marketable securities	—	—	(4)	4	—	—
Other comprehensive income (loss)	59	(7)	(5)	56	(25)	78
Total comprehensive income	289	267	106	327	(640)	349
Comprehensive income attributable to noncontrolling interests	—	—	—	60	—	60
Comprehensive income attributable to Johnson Controls	$ 289	$ 267	$ 106	$ 267	$ (640)	$ 289

CONDENSED CONSOLIDATING STATEMENT OF OPERATIONS
For the Three Months Ended December 31, 2016

(in millions)	Johnson Controls International plc	Tyco Fire & Security Finance SCA	Tyco International Finance S.A.	Other Subsidiaries	Consolidating Adjustments	Total
Net sales	$ —	$ —	$ —	$ 7,086	$ —	$ 7,086
Cost of sales	—	—	—	4,972	—	4,972
Gross profit	—	—	—	2,114	—	2,114
Selling, general and administrative expenses	(2)	—	1	(1,569)	—	(1,570)
Restructuring and impairment costs	—	—	—	(78)	—	(78)
Net financing charges	(19)	—	(19)	(98)	—	(136)
Equity income (loss)	318	(286)	(110)	55	78	55
Intercompany interest and fees	32	—	17	(49)	—	—
Income (loss) from continuing operations before income taxes	329	(286)	(111)	375	78	385
Income tax benefit	—	—	—	(27)	—	(27)
Income (loss) from continuing operations	329	(286)	(111)	402	78	412
Income (loss) from sale of intercompany investment, net of tax	—	—	(935)	—	935	—
Loss from discontinued operations, net of tax	—	—	—	(34)	—	(34)
Net income (loss)	329	(286)	(1,046)	368	1,013	378
Income from continuing operations attributable to noncontrolling interests	—	—	—	40	—	40
Income from discontinued operations attributable to noncontrolling interests	—	—	—	9	—	9
Net income (loss) attributable to Johnson Controls	$ 329	$ (286)	$ (1,046)	$ 319	$ 1,013	$ 329

CONDENSED CONSOLIDATING STATEMENT OF COMPREHENSIVE INCOME (LOSS)
For the Three Months Ended December 31, 2016

(in millions)	Johnson Controls International plc	Tyco Fire & Security Finance SCA	Tyco International Finance S.A.	Other Subsidiaries	Consolidating Adjustments	Total
Net income (loss)	$ 329	$ (286)	$ (1,046)	$ 368	$ 1,013	$ 378
Other comprehensive income (loss), net of tax						
Foreign currency translation adjustments	(659)	—	27	(730)	659	(703)
Realized and unrealized gains on derivatives	—	—	—	4	—	4
Realized and unrealized gains (losses) on marketable securities	(2)	—	—	(2)	2	(2)
Other comprehensive income (loss)	(661)	—	27	(728)	661	(701)
Total comprehensive income (loss)	(332)	(286)	(1,019)	(360)	1,674	(323)
Comprehensive income attributable to noncontrolling interests	—	—	—	9	—	9
Comprehensive income (loss) attributable to Johnson Controls	$ (332)	$ (286)	$ (1,019)	$ (369)	$ 1,674	$ (332)

CONDENSED CONSOLIDATING STATEMENT OF FINANCIAL POSITION
As of December 31, 2017

(in millions)	Johnson Controls International plc	Tyco Fire & Security Finance SCA	Tyco International Finance S.A.	Other Subsidiaries	Consolidating Adjustments	Total
Assets						
Cash and cash equivalents	$ 285	$ 108	$ 81	$ 991	$ (913)	$ 552
Accounts receivable - net	—	—	—	6,731	—	6,731
Inventories	—	—	—	3,459	—	3,459
Intercompany receivables	323	1,824	397	22,957	(25,501)	—
Assets held for sale	—	—	—	40	—	40
Other current assets	46	—	1	1,600	—	1,647
Current assets	654	1,932	479	35,778	(26,414)	12,429
Property, plant and equipment - net	—	—	—	6,105	—	6,105
Goodwill	243	—	32	19,442	—	19,717
Other intangible assets - net	—	—	—	6,657	—	6,657
Investments in partially-owned affiliates	—	—	—	1,219	—	1,219
Investments in affiliates	38,975	32,053	21,422	—	(92,450)	—
Intercompany loans receivable	—	4,140	2,836	9,004	(15,980)	—
Other noncurrent assets	68	—	2	3,570	—	3,640
Total assets	$ 39,940	$ 38,125	$ 24,771	$ 81,775	$ (134,844)	$ 49,767
Liabilities and Equity						
Short-term debt	$ 1,820	$ —	$ —	$ 607	$ (913)	$ 1,514
Current portion of long-term debt	49	—	18	24	—	91
Accounts payable	1	—	—	4,019	—	4,020
Accrued compensation and benefits	1	—	—	882	—	883
Deferred revenue	—	—	—	1,368	—	1,368
Intercompany payables	3,753	18,978	1,958	812	(25,501)	—
Other current liabilities	376	1	24	2,969	—	3,370
Current liabilities	6,000	18,979	2,000	10,681	(26,414)	11,246
Long-term debt	8,717	—	153	2,025	—	10,895
Pension and postretirement benefits	—	—	—	896	—	896
Intercompany loans payable	4,688	—	4,316	6,976	(15,980)	—
Other noncurrent liabilities	—	—	23	4,981	—	5,004
Long-term liabilities	13,405	—	4,492	14,878	(15,980)	16,795
Redeemable noncontrolling interests	—	—	—	226	—	226
Ordinary shares	9	—	—	—	—	9
Ordinary shares held in treasury	(885)	—	—	—	—	(885)
Other shareholders' equity	21,411	19,146	18,279	55,025	(92,450)	21,411
Shareholders' equity attributable to Johnson Controls	20,535	19,146	18,279	55,025	(92,450)	20,535
Noncontrolling interests	—	—	—	965	—	965
Total equity	20,535	19,146	18,279	55,990	(92,450)	21,500
Total liabilities and equity	$ 39,940	$ 38,125	$ 24,771	$ 81,775	$ (134,844)	$ 49,767

CONDENSED CONSOLIDATING STATEMENT OF FINANCIAL POSITION
As of September 30, 2017

(in millions)	Johnson Controls International plc	Tyco Fire & Security Finance SCA	Tyco International Finance S.A.	Other Subsidiaries	Consolidating Adjustments	Total
Assets						
Cash and cash equivalents	$ —	$ 107	$ 382	$ 718	$ (886)	$ 321
Accounts receivable - net	—	—	—	6,666	—	6,666
Inventories	—	—	—	3,209	—	3,209
Intercompany receivables	1,580	1,732	55	4,470	(7,837)	—
Assets held for sale	—	—	—	189	—	189
Other current assets	14	—	1	1,892	—	1,907
Current assets	$ 1,594	$ 1,839	$ 438	$ 17,144	$ (8,723)	$ 12,292
Property, plant and equipment - net	—	—	—	6,121	—	6,121
Goodwill	243	—	32	19,413	—	19,688
Other intangible assets - net	—	—	—	6,741	—	6,741
Investments in partially-owned affiliates	—	—	—	1,191	—	1,191
Investments in affiliates	19,487	31,594	21,132	—	(72,213)	—
Intercompany loans receivable	17,908	4,140	2,836	9,004	(33,888)	—
Noncurrent assets held for sale	—	—	—	1,920	—	1,920
Other noncurrent assets	56	—	7	3,868	—	3,931
Total assets	$ 39,288	$ 37,573	$ 24,445	$ 65,402	$ (114,824)	$ 51,884
Liabilities and Equity						
Short-term debt	$ 1,476	$ —	$ —	$ 624	$ (886)	$ 1,214
Current portion of long-term debt	307	—	18	69	—	394
Accounts payable	—	—	—	4,271	—	4,271
Accrued compensation and benefits	4	—	—	1,067	—	1,071
Deferred revenue	—	—	—	1,279	—	1,279
Liabilities held for sale	—	—	—	72	—	72
Intercompany payables	4,236	1,055	1,886	660	(7,837)	—
Other current liabilities	324	2	24	3,203	—	3,553
Current liabilities	6,347	1,057	1,928	11,245	(8,723)	11,854
Long-term debt	7,806	—	152	4,006	—	11,964
Pension and postretirement benefits	—	—	—	947	—	947
Intercompany loans payable	4,688	17,908	4,316	6,976	(33,888)	—
Noncurrent liabilities held for sale	—	—	—	173	—	173
Other noncurrent liabilities	—	—	24	5,344	—	5,368
Long-term liabilities	12,494	17,908	4,492	17,446	(33,888)	18,452
Redeemable noncontrolling interest	—	—	—	211	—	211
Ordinary shares	9	—	—	—	—	9
Ordinary shares held in treasury	(710)	—	—	—	—	(710)
Other shareholders' equity	21,148	18,608	18,025	35,580	(72,213)	21,148
Shareholders’ equity attributable to Johnson Controls	20,447	18,608	18,025	35,580	(72,213)	20,447
Noncontrolling interests	—	—	—	920	—	920
Total equity	20,447	18,608	18,025	36,500	(72,213)	21,367
Total liabilities and equity	$ 39,288	$ 37,573	$ 24,445	$ 65,402	$ (114,824)	$ 51,884

CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS
For the Three Months Ended December 31, 2017

(in millions)	Johnson Controls International plc	Tyco Fire & Security Finance SCA	Tyco International Finance S.A.	Other Subsidiaries	Consolidating Adjustments	Total
Operating Activities						
Net cash provided (used) by operating activities	$ (135)	$ 1	$ 33	$ (28)	$ —	$ (129)
Investing Activities						
Capital expenditures	—	—	—	(230)	—	(230)
Sale of property, plant and equipment	—	—	—	5	—	5
Business divestitures	—	—	—	2,011	—	2,011
Changes in long-term investments	—	—	—	(12)	—	(12)
Net change in intercompany loans receivable	300	—	(334)	480	(446)	—
Net cash provided (used) by investing activities	300	—	(334)	2,254	(446)	1,774
Financing Activities						
Increase (decrease) in short-term debt - net	344	—	—	(13)	(27)	304
Increase in long-term debt	885	—	—	—	—	885
Repayment of long-term debt	(259)	—	—	(1,975)	—	(2,234)
Debt financing costs	(4)	—	—	—	—	(4)
Stock repurchases	(150)	—	—	—	—	(150)
Payment of cash dividends	(232)	—	—	—	—	(232)
Proceeds from the exercise of stock options	16	—	—	—	—	16
Employee equity-based compensation withholding taxes	—	—	—	(25)	—	(25)
Net change in intercompany loans payable	(480)	—	—	34	446	—
Net cash provided (used) by financing activities	120	—	—	(1,979)	419	(1,440)
Effect of exchange rate changes on cash and cash equivalents	—	—	—	17	—	17
Change in cash held for sale	—	—	—	9	—	9
Increase (decrease) in cash and cash equivalents	285	1	(301)	273	(27)	231
Cash and cash equivalents at beginning of period	—	107	382	718	(886)	321
Cash and cash equivalents at end of period	$ 285	$ 108	$ 81	$ 991	$ (913)	$ 552

Johnson Controls International plc
Notes to Consolidated Financial Statements
December 31, 2017
(unaudited)

CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS
For the Three Months Ended December 31, 2016

(in millions)	Johnson Controls International plc	Tyco Fire & Security Finance SCA	Tyco International Finance S.A.	Other Subsidiaries	Consolidating Adjustments	Total
Operating Activities						
Net cash provided (used) by operating activities	$ 211	$ —	$ 32	$ (2,128)	$ —	$ (1,885)
Investing Activities						
Capital expenditures	—	—	—	(371)	—	(371)
Sale of property, plant and equipment	—	—	—	2	—	2
Acquisition of businesses, net of cash acquired	—	—	(6)	3	—	(3)
Business divestitures	—	—	—	47	—	47
Changes in long-term investments	—	—	—	(6)	—	(6)
Net change in intercompany loans receivable	—	—	10	—	(10)	—
Net cash provided (used) by investing activities	—	—	4	(325)	(10)	(331)
Financing Activities						
Increase in short-term debt - net	105	—	—	1,460	(253)	1,312
Increase in long-term debt	—	—	—	7	—	7
Repayment of long-term debt	—	—	—	(763)	—	(763)
Debt financing costs	(6)	—	—	—	—	(6)
Proceeds from the exercise of stock options	29	—	—	—	—	29
Employee equity-based compensation withholding taxes	—	—	—	(25)	—	(25)
Net change in intercompany loans payable	—	—	—	(10)	10	—
Dividends paid to noncontrolling interests	—	—	—	(31)	—	(31)
Dividend from Adient spin-off	—	—	—	2,050	—	2,050
Cash transferred to Adient related to spin-off	—	—	—	(564)	—	(564)
Cash paid related to prior acquisitions	—	—	—	(45)	—	(45)
Net cash provided (used) by financing activities	128	—	—	2,079	(243)	1,964
Effect of exchange rate changes on cash and cash equivalents	—	—	—	(55)	—	(55)
Change in cash held for sale	—	—	—	105	—	105
Increase (decrease) in cash and cash equivalents	339	—	36	(324)	(253)	(202)
Cash and cash equivalents at beginning of period	11	—	244	324	—	579
Cash and cash equivalents at end of period	$ 350	$ —	$ 280	$ —	$ (253)	$ 377

21. Commitments and Contingencies

Environmental Matters

The Company accrues for potential environmental liabilities when it is probable a liability has been incurred and the amount of the liability is reasonably estimable. As of December 31, 2017, reserves for environmental liabilities totaled $48 million, of which $10 million was recorded within other current liabilities and $38 million was recorded within other noncurrent liabilities in the consolidated statements of financial position. Reserves for environmental liabilities for continuing operations totaled $51 million at September 30, 2017. Such potential liabilities accrued by the Company do not take into consideration possible recoveries of future insurance proceeds. They do, however, take into account the likely share other parties will bear at remediation sites. It is difficult to estimate the Company’s ultimate level of liability at many remediation sites due to the large number of other parties that may be involved, the complexity of determining the relative liability among those parties, the uncertainty as to the nature and scope of the investigations and remediation to be conducted, the uncertainty in the application of law and risk assessment, the various choices and costs associated with diverse technologies that may be used in corrective actions at the sites, and the often quite lengthy periods over which eventual remediation may occur. Nevertheless, the Company does not currently believe that any claims, penalties or costs in connection with known environmental matters will have a material adverse effect on the Company’s financial position, results of operations or cash flows. In addition, the Company has identified asset retirement obligations for environmental matters that are expected to be addressed at the retirement, disposal, removal or abandonment of existing owned facilities, primarily in the Power Solutions and Building Technologies & Solutions businesses. At December 31, 2017 and September 30, 2017, the Company recorded conditional asset retirement obligations of $62 million and $61 million, respectively.

Asbestos Matters

The Company and certain of its subsidiaries, along with numerous other third parties, are named as defendants in personal injury lawsuits based on alleged exposure to asbestos containing materials. These cases have typically involved product liability claims based primarily on allegations of manufacture, sale or distribution of industrial products that either contained asbestos or were used with asbestos containing components.

As of December 31, 2017, the Company's estimated asbestos related net liability recorded on a discounted basis within the Company's consolidated statements of financial position was $166 million. The net liability within the consolidated statements of financial position was comprised of a liability for pending and future claims and related defense costs of $559 million, of which $54 million was recorded in other current liabilities and $505 million was recorded in other noncurrent liabilities. The Company also maintained separate cash, investments and receivables related to insurance recoveries within the consolidated statements of financial position of $393 million, of which $55 million was recorded in other current assets, and $338 million was recorded in other noncurrent assets. Assets included $10 million of cash and $283 million of investments, which have all been designated as restricted. In connection with the recognition of liabilities for asbestos-related matters, the Company records asbestos-related insurance recoveries that are probable; the amount of such recoveries recorded at December 31, 2017 was $100 million. As of September 30, 2017, the Company's estimated asbestos related net liability recorded on a discounted basis within the Company's consolidated statements of financial position was $181 million. The net liability within the consolidated statements of financial position was comprised of a liability for pending and future claims and related defense costs of $573 million, of which $48 million was recorded in other current liabilities and $525 million was recorded in other noncurrent liabilities. The Company also maintained separate cash, investments and receivables related to insurance recoveries within the consolidated statements of financial position of $392 million, of which $53 million was recorded in other current assets, and $339 million was recorded in other noncurrent assets. Assets included $22 million of cash and $269 million of investments, which have all been designated as restricted. In connection with the recognition of liabilities for asbestos-related matters, the Company records asbestos-related insurance recoveries that are probable; the amount of such recoveries recorded at September 30, 2017 was $101 million.

The Company's estimate of the liability and corresponding insurance recovery for pending and future claims and defense costs is based on the Company's historical claim experience, and estimates of the number and resolution cost of potential future claims that may be filed and is discounted to present value from 2068 (which is the Company's reasonable best estimate of the actuarially determined time period through which asbestos-related claims will be filed against Company affiliates). Asbestos related defense costs are included in the asbestos liability. The Company's legal strategy for resolving claims also impacts these estimates. The Company considers various trends and developments in evaluating the period of time (the look-back period) over which historical claim and settlement experience is used to estimate and value claims reasonably projected to be made through 2068. At least annually, the Company assesses the sufficiency of its estimated liability for pending and future claims and defense costs by evaluating actual experience regarding claims filed, settled and dismissed, and amounts paid in settlements. In addition to claims and settlement experience, the Company considers additional quantitative and qualitative factors such as changes in legislation, the legal environment, and the Company's defense strategy. The Company also evaluates the recoverability of its insurance receivable on an annual basis. The Company evaluates all of these factors and determines whether a change in the estimate of its liability for pending and future claims and defense costs or insurance receivable is warranted.

The amounts recorded by the Company for asbestos-related liabilities and insurance-related assets are based on the Company's strategies for resolving its asbestos claims, currently available information, and a number of estimates and assumptions. Key variables and assumptions include the number and type of new claims that are filed each year, the average cost of resolution of claims, the identity of defendants, the resolution of coverage issues with insurance carriers, amount of insurance, and the solvency risk with respect to the Company's insurance carriers. Many of these factors are closely linked, such that a change in one variable or assumption will impact one or more of the others, and no single variable or assumption predominately influences the determination of the Company's asbestos-related liabilities and insurance-related assets. Furthermore, predictions with respect to these variables are subject to greater uncertainty in the later portion of the projection period. Other factors that may affect the Company's liability and cash payments for asbestos-related matters include uncertainties surrounding the litigation process from jurisdiction to jurisdiction and from case to case, reforms of state or federal tort legislation and the applicability of insurance policies among subsidiaries. As a result, actual liabilities or insurance recoveries could be significantly higher or lower than those recorded if assumptions used in the Company's calculations vary significantly from actual results.

Insurable Liabilities

The Company records liabilities for its workers' compensation, product, general, property and auto liabilities. The determination of these liabilities and related expenses is dependent on claims experience. For most of these liabilities, claims incurred but not yet reported are estimated by utilizing actuarial valuations based upon historical claims experience. At December 31, 2017 and September 30, 2017, the insurable liabilities totaled $434 million and $445 million, respectively, of which $92 million and $122 million was recorded within other current liabilities, $23 million and $22 million was recorded within accrued compensation and benefits, and $319 million and $301 million was recorded within other noncurrent liabilities in the consolidated statements of financial position, respectively. The Company records receivables from third party insurers when recovery has been determined to be probable. The amount of such receivables recorded at December 31, 2017 was $21 million, of which $6 million was recorded within other current assets and $15 million was recorded within other noncurrent assets. The amount of such receivables recorded at September 30, 2017 was $46 million, of which $31 million was recorded within other current assets and $15 million was recorded within other noncurrent assets. The Company maintains captive insurance companies to manage certain of its insurable liabilities.

Arbitration Award

In September 2017, the Company was subject to an unfavorable arbitration award of approximately $50 million relating to a contractual dispute with a subcontractor used by the Company at an airport construction project in Doha, Qatar. In connection with the unfavorable arbitration award, the Company recorded a charge of $50 million within selling, general and administrative expenses in the consolidated statements of income in the fourth quarter of fiscal 2017. The airport project is being managed by a steering committee. The Company and the subcontractor were working jointly to document claims for increased costs against the steering committee when the subcontractor initiated the arbitration proceeding against the Company. Pursuant to its arbitration proceeding against the Company, the subcontractor sought to recover costs it alleges it incurred due to project delays, additional work and related financing costs. The Company has filed annulment proceedings with respect to the arbitration award in the local court in Qatar. While the award remains outstanding, a portion of the balance will accrue interest at a statutory rate of 9.56%.

In a related action, the Company has initiated an arbitration claim against the steering committee related to costs it incurred in connection with delays of the airport construction project, including costs related to the above award. The arbitrator is expected to issue a decision on the Company's claims against the steering committee by the end of fiscal 2018.

Aqueous Film-Forming Foam Litigation

Two of our subsidiaries, Chemguard, Inc. ("Chemguard") and Tyco Fire Products L.P. ("Tyco Fire Products"), have been named, along with other defendant manufacturers, in a number of class action lawsuits relating to the use of fire-fighting foam products by the U.S. Department of Defense (the "DOD") and others for fire suppression purposes and related training exercises. Plaintiffs generally allege that the firefighting foam products manufactured by defendants contain or break down into the chemicals perfluorooctane sulfonate ("PFOS") and perfluorooctanoic acid ("PFOA") and that the use of these products by others at various airbases and airports resulted in the release of these chemicals into the environment and ultimately into communities' drinking water supplies neighboring those airports and airbases. Plaintiffs generally seek compensatory damages, including damages for alleged personal injuries, medical monitoring, and alleged diminution in property values, and also seek punitive damages and injunctive relief to address remediation of the alleged contamination. As of February 2, 2018, the Company is named in 12 putative class actions in federal courts in three states as set forth below:

Colorado

- *District of Colorado - Bell et al. v. The 3M Company et al.,* filed on September 18, 2016.
- *District of Colorado - Bell et al. v. The 3M Company et al.,* filed on September 18, 2016.
- *District of Colorado - Davis et al. v. The 3M Company et al.,* filed on September 22, 2016.

The above cases have been consolidated in the U.S. District Court for the District of Colorado, and a hearing on the plaintiffs' motion for class certification is scheduled for April 2018 with a trial date schedule for April 2019.

New York

- *Eastern District of New York - Green et al. v. The 3M Company et al.,* filed March 27, 2017 in Supreme Court of the State of New York, Suffolk County, prior to removal to federal court.
- *Southern District of New York - Adamo et al. v. The Port Authority of NY and NJ et al.,* filed August 11, 2017 in Supreme Court of the State of New York, Orange County, prior to removal to federal court.
- *Southern District of New York - Fogarty et al. v. The Port Authority of NY and NJ et al.,* filed August 11, 2017 in Supreme Court of the State of New York, Orange County, prior to removal to federal court.
- *Southern District of New York - Miller et al. v. The Port Authority of NY and NJ et al.,* filed August 11, 2017 in Supreme Court of the State of New York, Orange County, prior to removal to federal court.
- *Supreme Court of the State of New York, Suffolk County - Singer et al. v. The 3M Company et al.,* filed October 10, 2017.

Chemguard and Tyco Fire Products are also defendants in *Ayo, et al. v. The 3M Company, et al*., filed on December 11, 2017 in the Suffolk County Supreme Court of New York. Approximately 32 plaintiffs allege that releases of PFOS and PFOA have contaminated surrounding communities' water supplies near the Gabreski Air National Guard Base located on Long Island, New York. The plaintiffs assert defective design, failure to warn, negligence, private nuisance, and trespass and seek recovery for alleged diminished property values, personal injury, medical monitoring and punitive damages.

Responses to the complaints have not been filed yet in any of the New York actions.

Pennsylvania

- *Eastern District of Pennsylvania - Bates et al. v. The 3M Company et al.,* filed September 15, 2016.
- *Eastern District of Pennsylvania - Grande et al. v. The 3M Company et al.,* filed October 13, 2016.
- *Eastern District of Pennsylvania - Yockey et al. v. The 3M Company et al.,* filed October 24, 2016.
- *Eastern District of Pennsylvania - Fearnley et al. v. The 3M Company et al.,* filed December 9, 2016.

The above cases have been consolidated in the U.S. District Court for the Eastern District of Pennsylvania. The defendants' motion to dismiss the complaint in the consolidated proceeding was denied without prejudice and the cases are currently stayed pending the appeal of an action in which the Company is not a party.

In addition to the putative class actions, Chemguard and Tyco Fire Products are also defendants in an action filed by two plaintiffs in the U.S. District Court for the Eastern District of Pennsylvania: *Menkes et al. v. The 3M Company et al.*, (filed February 7, 2017). The Menkes plaintiffs assert substantive claims and allegations similar to the putative class allegations, but also include personal injury claim. The Company is also on notice of approximately 540 other possible individual product liability claims by filings made in Pennsylvania state court, but complaints have not been filed in those matters, and, under Pennsylvania's procedural rules, they may or may not result in lawsuits.

Chemguard and Tyco Fire Products are also defendants in two cases pending in the U.S. District Court for the District of Massachusetts: *Town of Barnstable v. the 3M. Co., et al, (filed Nov. 21, 2016)*, and *County of Barnstable v. the 3M. Co., et al*, (filed January 9, 2017). These municipal plaintiffs generally allege that the use of the defendants' fire-fighting foam products at a fire training academy and municipal airport released PFOS and PFOA into the town's water supply wells, allegedly requiring remediation of the town and county property. The defendants have filed a motion to dismiss in County of Barnstable, which was granted without prejudice and the plaintiffs have subsequently filed an amended complaint.

The Company is vigorously defending these cases and believes that it has meritorious defenses to class certification and the claims asserted. However, there are numerous factual and legal issues to be resolved in connection with these claims, and it is extremely difficult to predict the outcome or ultimate financial exposure, if any, represented by these matters, but there can be no assurance that any such exposure will not be material. The Company is also pursuing insurance coverage for these matters.

The Company is involved in various lawsuits, claims and proceedings incident to the operation of its businesses, including those pertaining to product liability, environmental, safety and health, intellectual property, employment, commercial and contractual matters, and various other casualty matters. Although the outcome of litigation cannot be predicted with certainty and some lawsuits, claims or proceedings may be disposed of unfavorably to us, it is management's opinion that none of these will have a material adverse effect on the Company's financial position, results of operations or cash flows. Costs related to such matters were not material to the periods presented.

22. Related Party Transactions

In the ordinary course of business, the Company enters into transactions with related parties, such as equity affiliates. Such transactions consist of facility management services, the sale or purchase of goods and other arrangements.

The net sales to and purchases from related parties included in the consolidated statements of income were $242 million and $41 million, respectively, for the three months ended December 31, 2017; and $225 million and $49 million, respectively, for the three months ended December 31, 2016.

The following table sets forth the amount of accounts receivable due from and payable to related parties in the consolidated statements of financial position (in millions):

	December 31, 2017	September 30, 2017
Receivable from related parties	$ 122	$ 108
Payable to related parties	34	50

The Company has also provided financial support to certain of its VIE's; see Note 1, "Financial Statements," of the notes to consolidated financial statements for additional information.

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

Cautionary Statements for Forward-Looking Information

Unless otherwise indicated, references to "Johnson Controls," the "Company," "we," "our" and "us" in this Quarterly Report on Form 10-Q refer to Johnson Controls International plc and its consolidated subsidiaries.

The Company has made statements in this document that are forward-looking and therefore are subject to risks and uncertainties. All statements in this document other than statements of historical fact are, or could be, "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. In this document, statements regarding Johnson Controls' future financial position, sales, costs, earnings, cash flows, other measures of results of operations, synergies and integration opportunities, capital expenditures and debt levels are forward-looking statements. Words such as "may," "will," "expect," "intend," "estimate," "anticipate," "believe," "should," "forecast," "project" or "plan" and terms of similar meaning are also generally intended to identify forward-looking statements. However, the absence of these words does not mean that a statement is not forward-looking. Johnson Controls cautions that these statements are subject to numerous important risks, uncertainties, assumptions and other factors, some of which are beyond Johnson Controls’ control, that could cause Johnson Controls’ actual results to differ materially from those expressed or implied by such forward-looking statements, including, among others, risks related to: any delay or inability of Johnson Controls to realize the expected benefits and synergies of recent portfolio transactions such as the merger with Tyco International plc ("Tyco"), the spin-off of Adient, changes in tax laws, regulations, rates, policies or interpretations, the loss of key senior management, the tax treatment of recent portfolio transactions, significant transaction costs and/or unknown liabilities associated with such transactions, the outcome of actual or potential litigation relating to such transactions, the risk that disruptions from recent transactions will harm Johnson Controls’ business, the strength of the U.S. or other economies, automotive vehicle production levels, mix and schedules, energy and commodity prices, the availability of raw materials and component products, currency exchange rates, and cancellation of or changes to commercial arrangements. A detailed discussion of risks related to Johnson Controls' business is included in Item 1A of Part I of the Company's most recent Annual Report on Form 10-K for the year ended September 30, 2017 filed with the United States Securities and Exchange Commission ("SEC") on November 21, 2017 and available at www.sec.gov and www.johnsoncontrols.com under the "Investors" tab. The description of certain of these risks is supplemented in Item 1A of Part II of this Quarterly Report on Form 10-Q. The forward-looking statements included in this document are only made as of the date of this document, unless otherwise specified, and, except as required by law, Johnson Controls assumes no obligation, and disclaims any obligation, to update such statements to reflect events or circumstances occurring after the date of this document.

Overview

Johnson Controls International plc, headquartered in Cork, Ireland, is a global diversified technology and multi industrial leader serving a wide range of customers in more than 150 countries. The Company creates intelligent buildings, efficient energy solutions, integrated infrastructure and next generation transportation systems that work seamlessly together to deliver on the promise of smart cities and communities. The Company is committed to helping our customers win and creating greater value for all of its stakeholders through strategic focus on our buildings and energy growth platforms.

Johnson Controls was originally incorporated in the state of Wisconsin in 1885 as Johnson Electric Service Company to manufacture, install and service automatic temperature regulation systems for buildings. The Company was renamed to Johnson Controls, Inc. in 1974. In 1978, the Company acquired Globe-Union, Inc., a Wisconsin-based manufacturer of automotive batteries for both the replacement and original equipment markets. The Company entered the automotive seating industry in 1985 with the acquisition of Michigan-based Hoover Universal, Inc. In 2005, the Company acquired York International, a global supplier of heating, ventilating, air-conditioning and refrigeration equipment and services. In 2014, the Company acquired Air Distribution Technologies, Inc. ("ADTi"), one of the largest independent providers of air distribution and ventilation products in North America. On October 1, 2015, the Company formed a joint venture with Hitachi to expand its building product offerings.

In the fourth quarter of fiscal 2016, Johnson Controls, Inc. ("JCI Inc.") and Tyco completed their combination, with JCI Inc. merging with a wholly owned, indirect subsidiary of Tyco (the "Merger"). Following the Merger, Tyco changed its name to “Johnson Controls International plc” and JCI Inc. is a wholly-owned subsidiary of Johnson Controls International plc. The Merger was accounted for as a reverse acquisition using the acquisition method of accounting in accordance with Accounting Standards Codification ("ASC") 805, "Business Combinations." JCI Inc. was the accounting acquirer for financial reporting purposes. Accordingly, the historical consolidated financial statements of JCI Inc. for periods prior to this transaction are considered to be the historic financial statements of the Company.

The acquisition of Tyco brings together best-in-class product, technology and service capabilities across controls, fire, security, HVAC, power solutions and energy storage, to serve various end-markets including large institutions, commercial buildings, retail, industrial, small business and residential. The combination of the Tyco and Johnson Controls buildings platforms creates immediate opportunities for near-term growth through cross-selling, complementary branch and channel networks, and expanded global reach for established businesses. The new Company benefits by combining innovation capabilities and pipelines involving new products, advanced solutions for smart buildings and cities, value-added services driven by advanced data and analytics and connectivity between buildings and energy storage through infrastructure integration.

On October 31, 2016, the Company completed the spin-off of its Automotive Experience business by way of the transfer of the Automotive Experience Business from Johnson Controls to Adient plc ("Adient") and the issuance of ordinary shares of Adient directly to holders of Johnson Controls ordinary shares on a pro rata basis. Prior to the open of business on October 31, 2016, each of the Company's shareholders received one ordinary share of Adient plc for every 10 ordinary shares of Johnson Controls held as of the close of business on October 19, 2016, the record date for the distribution. Company shareholders received cash in lieu of fractional shares of Adient, if any. Following the separation and distribution, Adient plc is now an independent public company trading on the New York Stock Exchange ("NYSE") under the symbol "ADNT." The Company did not retain any equity interest in Adient plc. Adient's historical financial results are reflected in the Company's consolidated financial statements as a discontinued operation.

The Building Technologies & Solutions ("Buildings") business is a global market leader in engineering, developing, manufacturing and installing building products and systems around the world, including HVAC equipment, HVAC controls, energy-management systems, security systems, fire detection systems and fire suppression solutions. The Buildings business further serves customers by providing technical services (in the HVAC, security and fire-protection space), energy-management consulting and data-driven solutions via its recently launch data-enabled business. Finally, the Company is a North American market leader in residential air conditioning and heating systems and a global market leader in industrial refrigeration products.

The Power Solutions business is a leading global supplier of lead-acid automotive batteries for virtually every type of passenger car, light truck and utility vehicle. The Company serves both automotive original equipment manufacturers ("OEMs") and the general vehicle battery aftermarket. The Company also supplies advanced battery technologies to power start-stop, hybrid and electric vehicles.

The following information should be read in conjunction with the September 30, 2017 consolidated financial statements and notes thereto, along with management's discussion and analysis of financial condition and results of operations included in our Annual Report on Form 10-K for the year ended September 30, 2017 filed with the SEC on November 21, 2017. References in the following discussion and analysis to "Three Months"(or similar language) refer to the three months ended December 31, 2017 compared to the three months ended December 31, 2016.

Net Sales

	Three Months Ended December 31,		
(in millions)	2017	2016	Change
Net sales	$ 7,435	$ 7,086	5%

The increase in consolidated net sales for the three months ended December 31, 2017 was due to the favorable impact of foreign currency translation ($172 million), and higher sales in the the Power Solutions business ($152 million) and Building Technologies & Solutions business ($25 million). Increased sales resulted from higher volumes across all Building Technologies & Solutions segments and the impact of higher lead costs on pricing in the Power Solutions business, partially offset by lower volumes related to business divestitures in the Building Technologies & Solutions business. Excluding the impact of foreign currency translation, impact of lead costs on pricing and business divestitures, consolidated net sales increased 3% as compared to the prior year. Refer to the "Segment Analysis" below within Item 2 for a discussion of net sales by segment.

Cost of Sales / Gross Profit

(in millions)	Three Months Ended December 31, 2017	2016	Change
Cost of sales	$ 5,266	$ 4,972	6%
Gross profit	2,169	2,114	3%
% of sales	29.2%	29.8%	

Cost of sales for the three month period ended December 31, 2017 increased as compared to the three month period ended December 31, 2016, and gross profit as a percentage of sales decreased by 60 basis points. Gross profit in the Building Technologies & Solutions business increased due to prior year nonrecurring purchase accounting adjustments ($112 million) and higher volumes across all Building Technologies & Solutions segments, partially offset by higher operating costs. Gross profit in the Power Solutions business was impacted by higher operating costs primarily driven by efforts to satisfy customer demand, partially offset by favorable pricing and product mix. Net mark-to-market adjustments on pension plans had a prior year favorable impact on cost of sales of $10 million primarily due to an increase in discount rates. Foreign currency translation had an unfavorable impact on cost of sales of approximately $128 million. Refer to the "Segment Analysis" below within Item 2 for a discussion of segment earnings before interest, taxes and amortization ("EBITA") by segment.

Selling, General and Administrative Expenses

(in millions)	Three Months Ended December 31, 2017	2016	Change
Selling, general and administrative expenses	$ 1,417	$ 1,570	-10%
% of sales	19.1%	22.2%	

Selling, general and administrative expenses ("SG&A") for the three month period ended December 31, 2017 decreased 10% as compared to the three month period ended December 31, 2016. The decrease in SG&A was primarily due to a gain on business divestiture in the Building Technologies & Solutions Global Products segment ($114 million), and productivity savings and costs synergies, partially offset by net mark-to-market adjustments on pension plans which had a prior year favorable impact on SG&A of $107 million primarily due to an increase in discount rates. Foreign currency translation had an unfavorable impact on SG&A of $24 million. Refer to the "Segment Analysis" below within Item 2 for a discussion of segment EBITA by segment.

Restructuring and Impairment Costs

(in millions)	Three Months Ended December 31, 2017	2016	Change
Restructuring and impairment costs	$ 158	$ 78	*

* Measure not meaningful

Refer to Note 8, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for further disclosure related to the Company's restructuring plans.

Net Financing Charges

(in millions)	Three Months Ended December 31, 2017		Three Months Ended December 31, 2016		Change
Net financing charges	$	116	$	136	-15%

Net financing charges were lower for the three month period ended December 31, 2017 primarily due to prior year debt exchange offer fees.

Equity Income

(in millions)	Three Months Ended December 31, 2017		Three Months Ended December 31, 2016		Change
Equity income	$	60	$	55	9%

The increase in equity income for the three months ended December 31, 2017 was primarily due to higher income at the Johnson Controls - Hitachi ("JCH") joint venture in the Building Technologies & Solutions business, partially offset by lower income at certain partially-owned affiliates in the Power Solutions business. Refer to the "Segment Analysis" below within Item 2 for a discussion of segment EBITA by segment.

Income Tax Provision (Benefit)

(in millions)	Three Months Ended December 31, 2017		Three Months Ended December 31, 2016		Change
Income tax provision (benefit)	$	267	$	(27)	*
Effective tax rate		50%		-7%	

* Measure not meaningful

In calculating the provision for income taxes, the Company uses an estimate of the annual effective tax rate based upon the facts and circumstances known at each interim period. On a quarterly basis, the actual effective tax rate is adjusted, as appropriate, based upon changed facts and circumstances, if any, as compared to those forecasted at the beginning of the fiscal year and each interim period thereafter.

The U.S. federal statutory tax rate is being used as a comparison due to the Company's current legal entity structure. As a result of recently enacted U.S. Tax Reform, the Company will be subject to a U.S. federal statutory tax rate of 24.5% for its fiscal year ended September 30, 2018, which reflects a blended federal statutory rate of 35% for its first fiscal quarter and 21% for the remaining three fiscal quarters. For the three months ended December 31, 2017, the Company's effective tax rate was 50% and was higher than the blended U.S. federal statutory rate of 24.5% primarily due to the discrete net impacts of U.S. Tax Reform, Tyco Merger transaction and integration costs, and the jurisdictional mix of significant restructuring and impairment costs, partially offset by the benefits of continuing global tax planning initiatives, non-U.S. tax rate differentials and tax audit closures. For the three months ended December 31, 2016, the Company's effective tax rate was -7% and was lower than the U.S. federal statutory rate of 35% primarily due to the benefits of continuing global tax planning initiatives, non-U.S. tax rate differentials and a tax benefit due to changes in entity tax status, partially offset by the jurisdictional mix of significant restructuring and impairment costs, as well as Tyco Merger transaction and integration costs, and purchase accounting impacts. The effective tax rate for the three months ended December 31, 2017 increased as compared to the three months ended December 31, 2016, primarily due to the discrete tax items described below, partially offset by tax planning initiatives. The global tax planning initiatives related primarily to foreign tax credit planning, global financing structures and alignment of our global business functions in a tax efficient manner.

On December 22, 2017, the “Tax Cuts and Jobs Act” (H.R. 1) was enacted and significantly revises U.S. corporate income tax by, among other things, lowering corporate income tax rates, imposing a one-time transition tax on deemed repatriated earnings of non-U.S. subsidiaries, and implementing a territorial tax system and various base erosion minimum tax provisions.

In the first quarter of fiscal 2018, as a result of the enacted legislation, the Company recorded a discrete non-cash tax benefit of $101 million due to the remeasurement of U.S. deferred tax assets and liabilities. The Company remeasured certain deferred tax assets and liabilities based on the rates at which they are expected to reverse in the future, which is generally 21% or the blended fiscal 2018 rate of 24.5%. This tax benefit is provisional as the Company is still analyzing certain aspects of the legislation and refining calculations, which could potentially materially affect the measurement of these amounts or give rise to new deferred tax amounts.

In the first quarter of fiscal 2018, the Company also recorded a discrete tax charge of $305 million due to the one-time transition tax on deemed repatriated earnings of certain non-U.S. subsidiaries. This charge is inclusive of relevant withholding taxes. This one-time transition tax is based on the Company’s post-1986 earnings and profits (“E&P”) not previously subjected to U.S. taxation. This tax charge is provisional as the Company has not yet finally determined its post-1986 non-U.S. E&P. Further, the transition tax is based in part on the amount of those earnings held in cash and other specified assets. Given the varying tax rates (15.5% on cash and 8% on other property), this amount may change when the Company completes the calculation of post-1986 non-U.S. E&P previously deferred from U.S. federal taxation and concludes on the amounts held in cash versus other specified assets.

Various impacts of the enacted legislation are still being evaluated by the Company and may materially differ from the estimated impacts recognized in the first quarter of fiscal 2018 due to future treasury regulations, tax law technical corrections, and other potential guidance, notices, rulings, refined computations, actions the Company may take as a result of the tax legislation, and other items. The SEC has issued rules that allow for a measurement period of up to one year after the enactment date of the legislation to finalize the recording of the related tax impacts.

In the first quarter of fiscal 2018, tax audit resolutions resulted in a net $25 million benefit to income tax expense.

In the first quarter of fiscal 2018, the Company recorded $50 million of transaction and integration costs. These costs generated a $7 million tax benefit which was impacted by the Company’s current tax position in these jurisdictions.

In the first quarter of fiscal 2018, the Company recorded $158 million of significant restructuring and impairment costs. Refer to Note 8, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The restructuring costs generated a $24 million tax benefit, which was impacted by the Company’s current tax position in these jurisdictions and the lower enacted U.S. tax rate.

In the first quarter of fiscal 2017, the Company recorded a discrete tax benefit of $101 million due to changes in entity tax status.

In the first quarter of fiscal 2017, the Company recorded $130 million of transaction and integration costs which generated an $11 million tax benefit.

In the first quarter of fiscal 2017, the Company recorded $78 million of significant restructuring and impairment costs. Refer to Note 8, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The restructuring costs generated a $14 million tax benefit, which was impacted by the Company’s current tax position in these jurisdictions.

Loss From Discontinued Operations, Net of Tax

	Three Months Ended December 31,		
(in millions)	2017	2016	Change
Loss from discontinued operations, net of tax	$ —	$ (34)	*

* Measure not meaningful

Refer to Note 4, "Discontinued Operations," of the notes to consolidated financial statements for further information regarding the Company's discontinued operations.

Income Attributable to Noncontrolling Interests

(in millions)	Three Months Ended December 31, 2017	2016	Change
Income from continuing operations attributable to noncontrolling interests	$ 41	$ 40	3%
Income from discontinued operations attributable to noncontrolling interests	—	9	*

* Measure not meaningful

The increase in income from continuing operations attributable to noncontrolling interests for the three months ended December 31, 2017 was primarily due to higher net income at a certain Power Solutions partially-owned affiliate.

Refer to Note 4, "Discontinued Operations," of the notes to consolidated financial statements for further information regarding the Company's discontinued operations.

Net Income Attributable to Johnson Controls

(in millions)	Three Months Ended December 31, 2017	2016	Change
Net income attributable to Johnson Controls	$ 230	$ 329	-30%

The decrease in net income attributable to Johnson Controls for the three months ended December 31, 2017 was primarily due to an increase in restructuring and impairment costs, and the income tax provision due to discrete period net tax charges, partially offset by lower SG&A. Diluted earnings per share attributable to Johnson Controls for the three months ended December 31, 2017 was $0.25 compared to $0.35 for the three months ended December 31, 2016.

Comprehensive Income Attributable to Johnson Controls

(in millions)	Three Months Ended December 31, 2017	2016	Change
Comprehensive income (loss) attributable to Johnson Controls	$ 289	$ (332)	*

* Measure not meaningful

The increase in comprehensive income (loss) attributable to Johnson Controls for the three months ended December 31, 2017 was primarily due to an increase in other comprehensive income attributable to Johnson Controls ($720 million) resulting primarily from favorable foreign currency translation adjustments, partially offset by lower net income attributable to Johnson Controls ($99 million). These year-over-year favorable foreign currency translation adjustments were primarily driven by the weakening of the British pound, euro and Japanese yen currencies against the U.S. dollar in the prior year.

Segment Analysis

Management evaluates the performance of its business units based primarily on segment EBITA, which is defined as income from continuing operations before income taxes and noncontrolling interests, excluding general corporate expenses, intangible asset amortization, net financing charges, significant restructuring and impairment costs, and net mark-to-market adjustments on pension and postretirement plans.

Building Technologies & Solutions - Net Sales

(in millions)	Three Months Ended December 31, 2017	2016	Change
Building Solutions North America	$ 2,012	$ 1,942	4%
Building Solutions EMEA/LA	915	875	5%
Building Solutions Asia Pacific	597	575	4%
Global Products	1,781	1,794	-1%
	$ 5,305	$ 5,186	2%

- The increase in Building Solutions North America was due to higher volumes ($60 million) and the favorable impact of foreign currency translation ($10 million). The increase in volumes was primarily attributable to higher HVAC and controls sales.

- The increase in Building Solutions EMEA/LA was due to the favorable impact of foreign currency translation ($47 million), higher volumes in the Middle East ($20 million), Latin America ($11 million) and in Europe ($2 million), and the impact of prior year nonrecurring purchase accounting adjustments ($3 million), partially offset by lower volumes related to a business divestiture ($43 million).

- The increase in Building Solutions Asia Pacific was due to higher service and project installation volumes ($14 million), the favorable impact of foreign currency translation ($14 million) and the impact of prior year nonrecurring purchase accounting adjustments ($1 million), partially offset by lower volumes related to a business divestiture ($7 million).

- The decrease in Global Products was due to lower volumes related to business divestitures ($138 million), partially offset by higher volumes ($96 million), the favorable impact of foreign currency translation ($23 million) and the impact of prior year nonrecurring purchase accounting adjustments ($6 million). The increase in volumes was primarily attributable to higher building management, HVAC and refrigeration equipment, and specialty products sales.

Building Technologies & Solutions - Segment EBITA

(in millions)	Three Months Ended December 31, 2017	2016	Change
Building Solutions North America	$ 227	$ 196	16%
Building Solutions EMEA/LA	69	49	41%
Building Solutions Asia Pacific	74	63	17%
Global Products	286	127	*
	$ 656	$ 435	51%

* Measure not meaningful

- The increase in Building Solutions North America was due to prior year nonrecurring purchase accounting adjustments ($23 million), prior year transaction costs ($10 million), prior year integration costs ($7 million), favorable volumes / mix ($5 million), lower selling, general and administrative expenses ($2 million), and the favorable impact of foreign currency translation ($1 million), partially offset by current year integration costs ($9 million), higher operating costs ($5 million) and incremental investments ($3 million).

- The increase in Building Solutions EMEA/LA was due to prior year nonrecurring purchase accounting adjustments ($12 million), higher volumes ($10 million), the favorable impact of foreign currency translation ($4 million), prior year transaction costs ($2 million), prior year integration costs ($2 million) and higher equity income ($1 million), partially offset by higher operating costs ($5 million), higher selling, general and administrative expenses ($2 million), lower income due to a business divestiture ($2 million) and current year integration costs ($2 million).

- The increase in Building Solutions Asia Pacific was due to prior year nonrecurring purchase accounting adjustments ($6 million), higher volumes ($3 million), lower selling, general and administrative expenses ($3 million), prior year transaction costs ($2 million) and prior year integration costs ($1 million), partially offset by unfavorable pricing ($4 million).

- The increase in Global Products was due to a gain on business divestiture ($114 million), prior year nonrecurring purchase accounting adjustments ($71 million), favorable volumes / mix ($30 million), higher equity income ($7 million), the favorable impact of foreign currency translation ($5 million), prior year integration costs ($4 million) and prior year transaction costs ($3 million), partially offset by lower income due to business divestitures ($35 million), incremental global product investments ($17 million), higher operating costs ($13 million), current year integration costs ($6 million), and higher selling, general and administrative expenses ($4 million).

Power Solutions

	Three Months Ended December 31,		
(in millions)	2017	2016	Change
Net sales	$ 2,130	$ 1,900	12%
Segment EBITA	384	389	-1%

- Net sales increased due to the impact of higher lead costs on pricing ($131 million), the favorable impact of foreign currency translation ($78 million), and favorable pricing and product mix ($48 million), partially offset by lower volumes ($27 million). The decrease in volumes was driven by changes in customer demand patterns in Europe and North America, partially offset by an increase in start-stop battery volumes. Additionally, higher start-stop volumes contributed to favorable product mix.

- Segment EBITA decreased due to higher operating costs primarily driven by efforts to satisfy customer demand including higher transportation costs in North America ($25 million), incremental investments ($11 million), lower volumes ($8 million) and lower equity income ($4 million), partially offset by favorable pricing and product mix ($19 million), a current year gain on a business deconsolidation and changes in selling, general and administrative expenses ($13 million), the favorable impact of foreign currency translation ($10 million) and prior year transaction costs ($1 million).

Backlog

The Company's backlog relating to the Building Technologies & Solutions business is applicable to its sales of systems and services. At December 31, 2017, the backlog was $8.5 billion. The backlog amount outstanding at any given time is not necessarily indicative of the amount of revenue to be earned during the fiscal year.

Liquidity and Capital Resources

Working Capital

(in millions)	December 31, 2017	September 30, 2017	Change
Current assets	$ 12,429	$ 12,292	
Current liabilities	(11,246)	(11,854)	
	1,183	438	*
Less: Cash	(552)	(321)	
Add: Short-term debt	1,514	1,214	
Add: Current portion of long-term debt	91	394	
Less: Assets held for sale	(40)	(189)	
Add: Liabilities held for sale	—	72	
Working capital (as defined)	$ 2,196	$ 1,608	37%
Accounts receivable - net	$ 6,731	$ 6,666	1%
Inventories	3,459	3,209	8%
Accounts payable	4,020	4,271	-6%

* Measure not meaningful

- The Company defines working capital as current assets less current liabilities, excluding cash, short-term debt, the current portion of long-term debt, and the current portion of assets and liabilities held for sale. Management believes that this measure of working capital, which excludes financing-related items and businesses to be divested, provides a more useful measurement of the Company's operating performance.

- The increase in working capital at December 31, 2017 as compared to September 30, 2017, was primarily due to an increase in inventory to meet anticipated customer demand and a decrease in accounts payable due to timing and mix of supplier payments.

- The Company's days sales in accounts receivable at December 31, 2017 were 70 days, higher than 65 days at September 30, 2017. There have been no changes in revenue recognition methods. There has been no significant adverse changes in the level of overdue receivables or changes in revenue recognition methods.

- The Company's inventory turns for the three months ended December 31, 2017 were lower than the comparable period ended September 30, 2017, primarily due to changes in inventory production levels.

- Days in accounts payable at December 31, 2017 were 72 days, slightly lower than 73 days at the comparable period ended September 30, 2017.

Cash Flows

(in millions)	Three Months Ended December 31, 2017	Three Months Ended December 31, 2016
Cash used by operating activities	$ (129)	$ (1,885)
Cash provided (used) by investing activities	1,774	(331)
Cash provided (used) by financing activities	(1,440)	1,964
Capital expenditures	(230)	(371)

- The decrease in cash used by operating activities for the three months ended December 31, 2017 was primarily due to higher prior year income tax payments related to the Adient spin-off ($1.2 billion in the first quarter of fiscal 2017) and prior year operating cash outflows in the Automotive Experience business before the Adient spin-off, change in control pension payments and transaction related restructuring payments.

- The increase in cash provided by investing activities for the three months ended December 31, 2017 was primarily due to net cash proceeds received from the Scott Safety divestiture in the current year and a decrease in capital expenditures.

- The increase in cash used by financing activities for the three months ended December 31, 2017 was primarily due to the prior year net dividend proceeds from the Adient spin-off, higher repayments of long-term debt and a prior year increase in short-term debt, partially offset by an increase in long-term debt.

- The decrease in capital expenditures for the three months ended December 31, 2017 primarily relates to lower capital investments in the current year in the Building Technologies & Solutions business and prior year capital investments in the Automotive Experience business before the Adient spin-off.

Capitalization

(in millions)	December 31, 2017	September 30, 2017	Change
Short-term debt	$ 1,514	$ 1,214	
Current portion of long-term debt	91	394	
Long-term debt	10,895	11,964	
Total debt	12,500	13,572	-8%
Less: cash and cash equivalents	552	321	
Total net debt	11,948	13,251	-10%
Shareholders' equity attributable to Johnson Controls ordinary shareholders	20,535	20,447	0%
Total capitalization	$ 32,483	$ 33,698	-4%
Total net debt as a % of total capitalization	36.8%	39.3%	

- Net debt and net debt as a percentage of total capitalization are non-GAAP financial measures. The Company believes the percentage of total net debt to total capitalization is useful to understanding the Company's financial condition as it provides a review of the extent to which the Company relies on external debt financing for its funding and is a measure of risk to its shareholders.

- The Company believes its capital resources and liquidity position at December 31, 2017 are adequate to meet projected needs. The Company believes requirements for working capital, capital expenditures, dividends, stock repurchases, minimum pension contributions, debt maturities and any potential acquisitions in the remainder of fiscal 2018 will continue to be funded from operations, supplemented by short- and long-term borrowings, if required. The Company currently manages its short-term debt position in the U.S. and euro commercial paper markets and bank loan markets. In the event the Company and Tyco International Holding S.à.r.l ("TSarl") are unable to issue commercial paper, they would have the ability to draw on their $2.0 billion and $1.0 billion revolving credit facilities, respectively. Both facilities mature in August 2020. There were no draws on the revolving credit facility as of December 31, 2017 and September 30, 2017. The Company also selectively makes use of short-term credit lines other than its revolving credit facilities at the Company and TSarl. The Company estimates that, as of December 31, 2017, it could borrow up to $1.4 billion based on average borrowing levels during the quarter on committed credit lines. As such, the Company believes it has sufficient financial resources to fund operations and meet its obligations for the foreseeable future.

- The Company's debt financial covenant in its revolving credit facility require a minimum consolidated shareholders' equity attributable to Johnson Controls of at least $3.5 billion at all times. The revolving credit facility also limits the amount of debt secured by liens that may be incurred to a maximum aggregated amount of 10% of consolidated shareholders' equity attributable to Johnson Controls for liens and pledges. For purposes of calculating these covenants, consolidated shareholders' equity attributable to Johnson Controls is calculated without giving effect to (i) the application of Accounting Standards Codification ("ASC") 715-60, "Defined Benefit Plans - Other Postretirement," or (ii) the cumulative foreign currency translation adjustment. TSarl's revolving credit facility contains customary terms and conditions, and a financial covenant that limits the ratio of TSarl's debt to earnings before interest, taxes, depreciation, and amortization as adjusted for certain items set forth in the agreement to 3.5x. TSarl's revolving credit facility also limits its ability to incur subsidiary debt or grant liens on its and its subsidiaries' property. As of December 31, 2017, the Company and TSarl were in compliance with all covenants and other requirements set forth in their credit agreements and the indentures, governing their notes, and expect to remain in compliance for the foreseeable future. None of the Company's or TSarl's debt agreements limit access to stated borrowing levels or require accelerated repayment in the event of a decrease in the respective borrower's credit rating.

- The key financial assumptions used in calculating the Company's pension liability are determined annually, or whenever plan assets and liabilities are re-measured as required under accounting principles generally accepted in the U.S., including the expected rate of return on its plan assets. In fiscal 2018, the Company believes the long-term rate of return will approximate 7.50%, 5.35% and 5.65% for U.S. pension, non-U.S. pension and postretirement plans, respectively. During the first three months of fiscal 2018, the Company made approximately $24 million in total pension and postretirement contributions. In total, the Company expects to contribute approximately $100 million in cash to its defined benefit pension plans in fiscal 2018. The Company expects to contribute $5 million in cash to its postretirement plans in fiscal 2018.

- The Company earns a significant amount of its operating income outside of the parent company. Outside basis differences in consolidated subsidiaries are deemed to be permanently reinvested except in limited circumstances. However, in fiscal 2018, due to U.S. Tax Reform, the Company provided income tax related to the change in the Company's assertion over the outside basis difference of certain non-U.S. subsidiaries owned directly or indirectly by U.S. subsidiaries. Under U.S. Tax Reform, the U.S. has adopted a territorial tax system that provides an exemption for dividends received by U.S. corporations from 10% or more owned non-U.S. corporations. However, certain non-U.S, U.S. state and withholding taxes may still apply when closing an outside basis difference via distribution or other transactions. The Company currently does not intend nor foresee a need to repatriate undistributed earnings or reduce outside basis differences other than as noted above or in tax efficient manners. The Company expects existing U.S. cash and liquidity to continue to be sufficient to fund the Company's U.S. operating activities and cash commitments for investing and financing activities for at least the next twelve months and thereafter for the foreseeable future. In the U.S., should the Company require more capital than is generated by its operations, the Company could elect to raise capital in the U.S. through debt or equity issuances. The Company has borrowed funds in the U.S. and continues to have the ability to borrow funds in the U.S. at reasonable interest rates. In addition, the Company expects existing non-U.S. cash, cash equivalents, short-term investments and cash flows from operations to continue to be sufficient to fund the Company's non-U.S. operating activities and cash commitments for investing activities, such as material capital expenditures, for at least the next twelve months and thereafter for the foreseeable future. Should the Company require more capital at the Luxembourg and Ireland holding and financing entities, other than amounts that can be provided in a tax efficient manner, the Company could also elect to raise capital through debt or equity issuances. These alternatives could result in increased interest expense or other dilution of the Company's earnings.

- To better align its resources with its growth strategies and reduce the cost structure of its global operations in certain underlying markets, the Company committed to a significant restructuring plan in fiscal 2018 and recorded $158 million of restructuring and impairment costs in the consolidated statements of income. The restructuring action related to cost reduction initiatives in the Company's Building Technologies & Solutions and Power Solutions businesses and at Corporate. The costs consist primarily of workforce reductions, plant closures and asset impairments. The Company currently estimates that upon completion of the restructuring action, the fiscal 2018 restructuring plan will reduce annual operating costs by approximately

$150 million, which is primarily the result of lower cost of sales and selling, general and administrative expenses due to reduced employee-related costs, depreciation and amortization expense. The Company expects the annual benefit of these actions will be substantially realized in 2020. For fiscal 2018, the savings, net of execution costs, are expected to be approximately 45% of the expected annual operating cost reduction. The restructuring action is expected to be substantially complete in fiscal 2020. The restructuring plan reserve balance of $128 million at December 31, 2017 is expected to be paid in cash.

- To better align its resources with its growth strategies and reduce the cost structure of its global operations in certain underlying markets, the Company committed to a significant restructuring plan in fiscal 2017 and recorded $367 million of restructuring and impairment costs in the consolidated statements of income. The restructuring action related to cost reduction initiatives in the Company's Building Technologies & Solutions and Power Solutions businesses and at Corporate. The costs consist primarily of workforce reductions, plant closures and asset impairments. The Company currently estimates that upon completion of the restructuring action, the fiscal 2017 restructuring plan will reduce annual operating costs by approximately $280 million, which is primarily the result of lower cost of sales and selling, general and administrative expenses due to reduced employee-related costs, depreciation and amortization expense. The Company expects the annual benefit of these actions will be substantially realized in fiscal 2019. For fiscal 2018, the savings, net of execution costs, are expected to be approximately 85% of the expected annual operating cost reduction. The restructuring action is expected to be substantially complete in fiscal 2018. The restructuring plan reserve balance of $211 million at December 31, 2017 is expected to be paid in cash.

- To better align its resources with its growth strategies and reduce the cost structure of its global operations to address the softness in certain underlying markets, the Company committed to a significant restructuring plan in fiscal 2016 and recorded $288 million of restructuring and impairment costs in the consolidated statements of income. The restructuring action related to cost reduction initiatives in the Company's Building Technologies & Solutions and Power Solutions businesses and at Corporate. The costs consist primarily of workforce reductions, plant closures, asset impairments and change-in-control payments. The Company currently estimates that upon completion of the restructuring action, the fiscal 2016 restructuring plan will reduce annual operating costs by approximately $135 million, which is primarily the result of lower cost of sales and selling, general and administrative expenses due to reduced employee-related costs, depreciation and amortization expense. The Company expects the annual benefit of these actions will be substantially realized in fiscal 2019. For fiscal 2018, the savings, net of execution costs, are expected to be approximately 75% of the expected annual operating cost reduction. The restructuring action is expected to be substantially complete in fiscal 2018. The restructuring plan reserve balance of $86 million at December 31, 2017 is expected to be paid in cash.

- Refer to Note 11, "Debt and Financing Arrangements," of the notes to consolidated financial statements for additional information on items impacting capitalization.

New Accounting Standards

Refer to Note 2, "New Accounting Standards," of the notes to consolidated financial statements.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

As of December 31, 2017, the Company had not experienced any adverse changes in market risk exposures that materially affected the quantitative and qualitative disclosures presented in the Company's Annual Report on Form 10-K for the year ended September 30, 2017.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934, as amended ("Exchange Act"). Based upon their evaluation of these disclosure controls and procedures, the principal executive officer and principal financial officer concluded that the disclosure controls and procedures were effective as of December 31, 2017 to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time period specified in the SEC's rules and forms, and to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is accumulated and communicated to the Company's management, including its principal executive and principal financial officers, as appropriate, to allow timely decisions regarding disclosure.

Changes in Internal Control Over Financial Reporting

There have been no significant changes in the Company's internal control over financial reporting during the three months ended December 31, 2017 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

EC Lead Recycler Investigation

As previously disclosed, an investigation by the European Commission ("EC") related to European lead recyclers' procurement practices was commenced in 2012, with the Company named as one of several companies subject to review. On June 24, 2015, the EC initiated proceedings and adopted a statement of objections alleging infringements of competition rules in Europe against the Company and certain other companies. The EC subsequently scheduled consultation meetings with the Advisory Committee on Restrictive Practices and Dominant Positions, concluded its investigation and announced its decision with respect to the matter on February 8, 2017. According to the EC's announcement, the Company will not be fined because it revealed the existence of the cartel to the EC. The Company does not anticipate any material adverse effect on its business or financial condition as a result of this matter. The Company's policy is to comply with antitrust and competition laws and, if a violation of any such laws is found, to take appropriate remedial action and to cooperate fully with any related governmental inquiry. Competition and antitrust law investigations may continue for several years and can result in substantial fines depending on the gravity and duration of the violations. In addition, as a result of such violations we could be subject to lawsuits brought by customers or other parties alleging economic harm from such violations.

Laufer v. Johnson Controls, Inc., et al.

On May 20, 2016, a putative class action lawsuit, Laufer v. Johnson Controls, Inc., et al., Docket No. 2016CV003859, was filed in the Circuit Court of Wisconsin, Milwaukee County, naming Johnson Controls, Inc., the individual members of its board of directors, the Company and the Company's merger subsidiary as defendants. The complaint alleged that Johnson Controls Inc.'s directors breached their fiduciary duties in connection with the merger between Johnson Controls Inc. and the Company's merger subsidiary by, among other things, failing to take steps to maximize shareholder value, seeking to benefit themselves improperly and failing to disclose material information in the joint proxy statement/prospectus relating to the merger. The complaint further alleged that the Company aided and abetted Johnson Controls Inc.'s directors in the breach of their fiduciary duties. The complaint sought, among other things, to enjoin the merger. On August 8, 2016, the plaintiffs agreed to settle the action and release all claims that were or could have been brought by plaintiffs or any member of the putative class of Johnson Controls Inc.'s shareholders. The settlement is conditioned upon, among other things, the execution of an appropriate stipulation of settlement. On November 10, 2016, the parties filed a joint status report notifying the court they had reached such agreement. On November 22, 2016, the court ordered that a proposed stipulation of settlement be filed by March 15, 2017 and scheduled a status hearing for April 20, 2017. On March 10, 2017, the parties filed a joint letter requesting that the filing and hearing be adjourned and that the parties be allowed an additional 90 days to update the court in light of the Gumm v. Molinaroli action proceeding in federal court, discussed below. The status hearing has subsequently been rescheduled for March 2018. There can be no assurance that the parties will ultimately enter into a stipulation of settlement or that the court will approve the settlement. In either event, or certain other circumstances, the settlement could be terminated.

Gumm v. Molinaroli, et al.

On August 16, 2016, a putative class action lawsuit, Gumm v. Molinaroli, et al., Case No. 16-cv-1093, was filed in the United States District Court for the Eastern District of Wisconsin, naming Johnson Controls, Inc., the individual members of its board of directors at the time of the merger with the Company's merger subsidiary and certain of its officers, the Company and the Company's merger subsidiary as defendants. The complaint asserted various causes of action under the federal securities laws, state law and the Taxpayer Bill of Rights, including that the individual defendants allegedly breached their fiduciary duties and unjustly enriched themselves by structuring the merger among the Company, Tyco and the merger subsidiary in a manner that would result in a United States federal income tax realization event for the putative class of certain Johnson Controls, Inc. shareholders and allegedly result in certain benefits to the defendants, as well as related claims regarding alleged misstatements in the proxy statement/prospectus distributed to the Johnson Controls, Inc. shareholders, conversion and breach of contract. The complaint also asserted that Johnson Controls, Inc., the Company and the Company's merger subsidiary aided and abetted the individual defendants in their breach of fiduciary duties and unjust enrichment. The complaint seeks, among other things, disgorgement of profits and damages. On September 30, 2016, approximately one month after the closing of the merger, plaintiffs filed a preliminary injunction motion seeking, among other items, to compel Johnson Controls, Inc. to make certain intercompany payments that plaintiffs contend will impact the United States federal income tax consequences of the merger to the putative class of certain Johnson Controls, Inc. shareholders and to enjoin Johnson Controls, Inc. from reporting to the Internal Revenue Service the capital gains taxes payable by this putative class as a result of the closing of the merger. The court held a hearing on the preliminary injunction motion on January 4, 2017, and on January 25, 2017, the judge denied the plaintiffs' motion. Plaintiffs filed an amended complaint on February 15, 2017, and the Company filed a motion to dismiss on April 3, 2017. Although the Company believes it has substantial defenses to plaintiffs' claims, it is not able to predict the outcome of this action.

Refer to Note 21, "Commitments and Contingencies," of the notes to consolidated financial statements for discussion of environmental, asbestos, insurable liabilities and other litigation matters, which is incorporated by reference herein and is considered an integral part of Part II, Item 1, "Legal Proceedings."

ITEM 1A. RISK FACTORS

The following should be read in conjunction with, and supplements and amends, the factors that may affect the Company's business or operations described under "Risk Factors" in Part I, Item 1A, of the Company's Annual Report on Form 10-K for the year ended September 30, 2017. Other than as described in this Item 1A, there have been no other material changes to our risk factors from the risk factors previously disclosed in the 2017 Annual Report.

Risks Relating to Business Operations

The following updates and replaces the similar paragraphs of the risk factors entitled "*Negative or unexpected tax consequences could adversely affect our results of operations*" and "*Future changes in U.S. tax law could adversely affect us or our affiliates*" and included in the 2017 Annual Report.

Negative or unexpected tax consequences could adversely affect our results of operations.

Adverse changes in the underlying profitability and financial outlook of our operations in several jurisdictions could lead to additional changes in our valuation allowances against deferred tax assets and other tax reserves on our statement of financial position, and the future sale of certain businesses could potentially result in additional taxes that could materially and adversely affect our results of operations. Additionally, changes in tax laws in the U.S., Ireland or in other countries where we have significant operations could materially affect deferred tax assets and liabilities on our consolidated statements of financial position and our income tax provision in our consolidated statements of income.

We are also subject to tax audits by governmental authorities. Negative unexpected results from one or more such tax audits could adversely affect our results of operations.

Future changes in U.S. tax law could adversely affect us or our affiliates.

On December 22, 2017, the U.S. President signed into law a sweeping tax reform bill known as the "Tax Cuts and Jobs Act" (the "TCJA"). The effects of the TCJA are not yet entirely clear and will depend on, among other things, additional regulatory and administrative guidance, as well as any statutory technical corrections that are subsequently enacted. While the TCJA reduces the statutory U.S. federal income tax rate generally applicable to U.S. corporations, the TCJA could nevertheless have a significant adverse effect on the U.S. federal income taxation of our and our affiliates' operations, including by limiting or eliminating various deductions or credits (including interest expense deductions and deductions relating to employee compensation), imposing taxes with respect to certain accumulated earnings of non-U.S. entities on a current basis, changing the timing of the recognition of income or its character and imposing additional corporate taxes under certain circumstances to combat perceived base erosion issues, among other changes.

The TCJA, or any related, similar or amended legislation or other changes in U.S. federal income tax laws, could adversely affect the U.S. federal income taxation of our and our affiliates' ongoing operations and may also adversely affect the integration efforts relating to, and potential synergies from, past strategic transactions. Any such changes and related consequences could have a material adverse impact on our financial results.

Risks Relating to Strategic Transactions

The following updates and replaces the similar paragraphs of the risk factor entitled "*Future potential changes to the tax laws could result in our being treated as a U.S. corporation for U.S. federal tax purposes or in us and our U.S. affiliates (including the U.S. affiliates historically owned by Tyco) being subject to certain adverse U.S. federal income tax rules*" and included in the 2017 Annual Report.

Future potential changes to the tax laws could result in our being treated as a U.S. corporation for U.S. federal tax purposes or in us and our U.S. affiliates (including the U.S. affiliates historically owned by Tyco) being subject to certain adverse U.S. federal income tax rules.

As discussed above, under current law, we believe that we should be treated as a non-U.S. corporation for U.S. federal tax purposes and that Section 7874 does not otherwise apply as a result of the Merger. However, changes to Section 7874, or the U.S. Treasury regulations promulgated thereunder, could affect our status as a non-U.S. corporation for U.S. federal tax purposes or could result in the application of certain adverse U.S. federal income tax rules to us and our U.S. affiliates (including the U.S. affiliates historically owned by Tyco). Any such changes could have prospective or retroactive application, and may apply even though the Merger has been consummated. If we were to be treated as a U.S. corporation for federal tax purposes or if we or our U.S. affiliates (including the U.S. affiliates historically owned by Tyco) were to become subject to such adverse U.S. federal income tax rules, we and our U.S. affiliates could be subject to substantially greater U.S. tax liability than currently contemplated.

Certain legislative and other proposals have aimed to expand the scope of U.S. corporate tax residence, including in such a way as would cause us to be treated as a U.S. corporation if our place of management and control or the place of management and control of our non-U.S. affiliates were determined to be located primarily in the United States. In addition, certain legislative and other proposals have aimed to expand the scope of Section 7874, or otherwise address certain perceived issues arising in connection with so-called inversion transactions. It is presently uncertain whether any such proposals or other legislative action relating to the scope of U.S. tax residence, Section 7874 or so-called inversion transactions and inverted groups will be enacted into law.

Any future legislation and/or other proposals could cause us and our affiliates to be subject to certain intercompany financing limitations, including with respect to their ability to deduct certain interest expense, could limit or eliminate various other deductions or credits, could impose taxes on certain cross-border payments or transfers, could impose taxes on certain earnings of non-U.S. entities on a current basis, could change the timing of the recognition of income or its character, could limit asset basis under certain circumstances, could impose additional corporate taxes under certain circumstances to combat perceived base erosion issues, and could limit deductions relating to employee compensation, among other changes that could cause us or our affiliates to be subject to additional U.S. federal income taxes.

Any such future legislative proposals, regulations and any other relevant provisions could change on a prospective or retroactive basis and could have a significant adverse effect on us and our affiliates. It is presently uncertain whether legislative reform relating to the U.S. federal income taxation of corporations and other business entities, including the reforms described above, will be implemented in current form or subject to modification through technical corrections, regulations or other means.

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

Following the Tyco Merger, the Company adopted, subject to the ongoing existence of sufficient distributable reserves, the existing Tyco International plc $1 billion share repurchase program in September 2016. In December 2017, the Company's Board of Directors approved an $1 billion increase to its share repurchase authorization. The share repurchase program does not have an expiration date and may be amended or terminated by the Board of Directors at any time without prior notice. During the three months ended December 31, 2017, the Company repurchased approximately $150 million of its shares. As of December 31, 2017, approximately $1.2 billion remains available under the share repurchase program.

From time to time, the Company uses equity swaps to reduce market risk associated with its stock-based compensation plans, such as its deferred compensation plans. These equity compensation liabilities increase as the Company's stock price increases and decrease as the Company's stock price decreases. In contrast, the value of equity swaps move in the opposite direction of these liabilities, allowing the Company to fix a portion of the liabilities at a stated amount.

In connection with equity swap agreements, the counterparty may purchase unlimited shares of the Company's stock in the market or in privately negotiated transactions. Under these arrangements, the Company disclaims that the counterparty in the agreement is an "affiliated purchaser" of the Company as such term is defined in Rule 10b-18(a)(3) under the Securities Exchange Act or that the counterparty is purchasing any shares for the Company.

The following table presents information regarding the repurchase of the Company's ordinary shares by the Company as part of the publicly announced repurchase program and purchases of the Company's ordinary shares by counterparties under equity swap agreements during the three months ended December 31, 2017.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of the Publicly Announced Program	Approximate Dollar Value of Shares that May Yet be Purchased under the Programs
10/1/17 - 10/31/17				
Purchases by Company	3,373,100	$ 41.32	3,373,100	$ 209,113,204
11/1/17 - 11/30/17				
Purchases by Company	253,169	41.90	253,169	198,504,294
12/1/17 - 12/31/17				
Purchases by Company	—	—	—	1,198,504,294
10/1/17 - 10/31/17				
Purchases by affiliated purchaser	—	—	—	NA
11/1/17 - 11/30/17				
Purchases by affiliated purchaser	425,000	35.59	—	NA
12/1/17 - 12/31/17				
Purchases by affiliated purchaser	—	—	—	NA

During the three months ended December 31, 2017, acquisitions of shares by the Company from certain employees in order to satisfy employee tax withholding requirements in connection with the vesting of restricted shares were not material.

ITEM 6. EXHIBITS

Reference is made to the separate exhibit index contained on page 65 filed herewith.

<u>SIGNATURES</u>

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

JOHNSON CONTROLS INTERNATIONAL PLC

Date: February 2, 2018

By: */s/ Brian J. Stief*

Brian J. Stief

Executive Vice President and
Chief Financial Officer

JOHNSON CONTROLS INTERNATIONAL PLC

Form 10-Q

INDEX TO EXHIBITS

Exhibit No.	Description
4.1	Fourth Supplemental Indenture, dated December 4, 2017, among Johnson Controls International plc, U.S. Bank National Association, as trustee and Elavon Financial Services DAC, UK Branch, as paying agent (attaching form of 0.000% Senior Notes due 2020) (Incorporated by reference to Exhibit 4.2 to the registrant's Current Report on Form 8-K filed on December 4, 2017).
10.1*	Letter Agreement between Johnson Controls International plc and George R. Oliver dated December 8, 2017 (Incorporated by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed on December 11, 2017).
10.2*	Johnson Controls International plc Severance and Change in Control Policy for Officers, Amended and Restated December 7, 2017 (Incorporated by reference to Exhibit 10.2 to the registrant's Current Report on Form 8-K filed on December 11, 2017).
10.3*	Form of terms and conditions for Option / SAR Awards, Restricted Stock / Unit Awards, Performance Share Awards under the Johnson Controls International plc 2012 Share and Incentive Plan for fiscal 2018 (filed herewith).
10.4*	Form of terms and conditions for Option / SAR Awards, and Restricted Stock / Unit Awards, under the Johnson Controls International plc 2012 Share and Incentive Plan for fiscal 2018 applicable to Messrs. Oliver and Stief (filed herewith).
31.1	Certification by the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification by the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Periodic Financial Report by the Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	The following materials from Johnson Controls International plc's Quarterly Report on Form 10-Q for the quarter ended December 31, 2017, formatted in XBRL (Extensible Business Reporting Language): (i) the Consolidated Statements of Financial Position, (ii) the Consolidated Statements of Income, (iii) the Consolidated Statements of Comprehensive Income (Loss), (iv) the Consolidated Statements of Cash Flows, and (v) Notes to Consolidated Financial Statements.

* Management contract or compensatory plan.

Exhibit 31.1

CERTIFICATIONS

I, George R. Oliver, of Johnson Controls International plc, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Johnson Controls International plc;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 2, 2018

/s/ George R. Oliver

George R. Oliver
Chairman and Chief Executive Officer

Exhibit 31.2

CERTIFICATIONS

I, Brian J. Stief, of Johnson Controls International plc, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Johnson Controls International plc;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):

    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 2, 2018

/s/ Brian J. Stief

Brian J. Stief
Executive Vice President and
Chief Financial Officer