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 March 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 March 31, 2017
Ordinary Shares, $0.01 par value per share	938,108,615

JOHNSON CONTROLS INTERNATIONAL PLC

FORM 10-Q

Report Index

	Page
Part I. Financial Information	
Item 1. Financial Statements (unaudited)	
Consolidated Statements of Financial Position at March 31, 2017 and September 30, 2016	3
Consolidated Statements of Income for the Three and Six Month Periods Ended March 31, 2017 and 2016	4
Consolidated Statements of Comprehensive Income (Loss) for the Three and Six Month Periods Ended March 31, 2017 and 2016	5
Consolidated Statements of Cash Flows for the Six Month Periods Ended March 31, 2017 and 2016	6
Notes to Consolidated Financial Statements	7
Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations	55
Item 3. Quantitative and Qualitative Disclosures About Market Risk	73
Item 4. Controls and Procedures	73
Part II. Other Information	
Item 1. Legal Proceedings	73
Item 1A. Risk Factors	76
Item 2. Unregistered Sales of Equity Securities and Use of Proceeds	76
Item 6. Exhibits	76
Signatures	77

ITEM 1. FINANCIAL STATEMENTS

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

	March 31, 2017	September 30, 2016
Assets		
Cash and cash equivalents	$ 412	$ 579
Accounts receivable - net	6,094	6,394
Inventories	3,138	2,888
Assets held for sale	2,037	5,812
Other current assets	1,548	1,436
Current assets	13,229	17,109
Property, plant and equipment - net	5,601	5,632
Goodwill	19,644	21,024
Other intangible assets - net	6,687	7,540
Investments in partially-owned affiliates	1,099	990
Noncurrent assets held for sale	—	7,374
Other noncurrent assets	3,347	3,510
Total assets	$ 49,607	$ 63,179
Liabilities and Equity		
Short-term debt	$ 1,124	$ 1,078
Current portion of long-term debt	542	628
Accounts payable	3,720	4,000
Accrued compensation and benefits	1,082	1,333
Liabilities held for sale	237	4,276
Other current liabilities	4,037	5,016
Current liabilities	10,742	16,331
Long-term debt	11,810	11,053
Pension and postretirement benefits	1,048	1,550
Noncurrent liabilities held for sale	—	3,888
Other noncurrent liabilities	5,638	5,033
Long-term liabilities	18,496	21,524
Commitments and contingencies (Note 22)		
Redeemable noncontrolling interests	168	234
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	(172)	(20)
Capital in excess of par value	16,270	16,105
Retained earnings	4,268	9,177
Accumulated other comprehensive loss	(987)	(1,153)
Shareholders' equity attributable to Johnson Controls	19,388	24,118
Noncontrolling interests	813	972
Total equity	20,201	25,090
Total liabilities and equity	$ 49,607	$ 63,179

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 March 31, 2017	Three Months Ended March 31, 2016	Six Months Ended March 31, 2017	Six Months Ended March 31, 2016
Net sales				
Products and systems*	$ 5,448	$ 3,863	$ 10,753	$ 7,683
Services*	1,819	870	3,600	1,746
	7,267	4,733	14,353	9,429
Cost of sales				
Products and systems*	3,893	2,851	7,787	5,691
Services*	1,093	595	2,171	1,194
	4,986	3,446	9,958	6,885
Gross profit	2,281	1,287	4,395	2,544
Selling, general and administrative expenses	(1,726)	(899)	(3,296)	(1,746)
Restructuring and impairment costs	(99)	(60)	(177)	(60)
Net financing charges	(116)	(71)	(252)	(137)
Equity income	53	40	108	82
Income from continuing operations before income taxes	393	297	778	683
Income tax provision	508	41	481	124
Income (loss) from continuing operations	(115)	256	297	559
Loss from discontinued operations, net of tax (Note 5)	—	(725)	(34)	(538)
Net income (loss)	(115)	(469)	263	21
Income from continuing operations attributable to noncontrolling interests	33	38	73	61
Income from discontinued operations attributable to noncontrolling interests	—	23	9	40
Net income (loss) attributable to Johnson Controls	$ (148)	$ (530)	$ 181	$ (80)
Amounts attributable to Johnson Controls ordinary shareholders:				
Income (loss) from continuing operations	$ (148)	$ 218	$ 224	$ 498
Loss from discontinued operations	—	(748)	(43)	(578)
Net income (loss)	$ (148)	$ (530)	$ 181	$ (80)
Basic earnings (loss) per share attributable to Johnson Controls				
Continuing operations	$ (0.16)	$ 0.34	$ 0.24	$ 0.77
Discontinued operations	—	(1.15)	(0.05)	(0.89)
Net income (loss) **	$ (0.16)	$ (0.82)	$ 0.19	$ (0.12)
Diluted earnings (loss) per share attributable to Johnson Controls				
Continuing operations	$ (0.16)	$ 0.33	$ 0.24	$ 0.76
Discontinued operations	—	(1.15)	(0.05)	(0.89)
Net income (loss) **	$ (0.16)	$ (0.81)	$ 0.19	$ (0.12)

* 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 March 31,		Six Months Ended March 31,	
	2017	2016	2017	2016
Net income (loss)	$ (115)	$ (469)	$ 263	$ 21
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments	252	203	(451)	26
Realized and unrealized gains (losses) on derivatives	(8)	5	(4)	2
Realized and unrealized gains on marketable securities	11	—	9	—
Other comprehensive income (loss)	255	208	(446)	28
Total comprehensive income (loss)	140	(261)	(183)	49
Comprehensive income attributable to noncontrolling interests	42	90	51	111
Comprehensive income (loss) attributable to Johnson Controls	$ 98	$ (351)	$ (234)	$ (62)

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

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

	Six Months Ended March 31, 2017	Six Months Ended March 31, 2016
Operating Activities		
Net income (loss) attributable to Johnson Controls	$ 181	$ (80)
Income from continuing operations attributable to noncontrolling interests	73	61
Income from discontinued operations attributable to noncontrolling interests	9	40
Net income	263	21
Adjustments to reconcile net income to cash provided (used) by operating activities:		
Depreciation and amortization	638	445
Pension and postretirement benefit income	(202)	(34)
Pension and postretirement contributions	(258)	(53)
Equity in earnings of partially-owned affiliates, net of dividends received	(116)	(207)
Deferred income taxes	1,059	331
Non-cash restructuring and impairment charges	39	29
Fair value adjustment of equity investment	—	(4)
Equity-based compensation	81	51
Other	1	5
Changes in assets and liabilities, excluding acquisitions and divestitures:		
Accounts receivable	(21)	75
Inventories	(370)	(168)
Other assets	(150)	134
Restructuring reserves	47	67
Accounts payable and accrued liabilities	(616)	(311)
Accrued income taxes	(1,931)	240
Cash provided (used) by operating activities	(1,536)	621
Investing Activities		
Capital expenditures	(634)	(543)
Sale of property, plant and equipment	18	14
Acquisition of businesses, net of cash acquired	(6)	(133)
Business divestitures	180	40
Changes in long-term investments	(30)	—
Other	—	5
Cash used by investing activities	(472)	(617)
Financing Activities		
Increase in short-term debt - net	55	1,140
Increase in long-term debt	1,552	—
Repayment of long-term debt	(831)	(814)
Debt financing costs	(17)	—
Stock repurchases	(119)	—
Payment of cash dividends	(235)	(356)
Proceeds from the exercise of stock options	88	20
Dividends paid to noncontrolling interests	(78)	(227)
Dividend from Adient spin-off	2,050	—
Cash transferred to Adient related to spin-off	(665)	—
Cash paid related to prior acquisitions	(37)	—
Other	(2)	3
Cash provided (used) by financing activities	1,761	(234)
Effect of exchange rate changes on cash and cash equivalents	(25)	(9)
Cash held for sale	105	(22)
Decrease in cash and cash equivalents	(167)	(261)
Cash and cash equivalents at beginning of period	579	553
Cash and cash equivalents at end of period	$ 412	$ 292

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, 2016 filed with the SEC on November 23, 2016, portions of which (including Part I, Item 1. Business and Item 3. Legal Proceedings, and the following items from Part II of the Annual Report: Item 6. Selected Financial Data, Item 7. Management's Discussion and Analysis, and Item 8. Financial Statements and Supplementary Data) were recast in the Company's Current Report on Form 8-K filed with the SEC on February 23, 2017. The results of operations for the three and six month periods ended March 31, 2017 are not necessarily indicative of results for the Company's 2017 fiscal year because of seasonal and other factors.

Nature of Operations

On September 2, 2016, Johnson Controls, Inc. ("JCI Inc.") and Tyco International plc ("Tyco") completed their combination pursuant to the Agreement and Plan of Merger (the "Merger Agreement"), dated as of January 24, 2016, as amended by Amendment No. 1, dated as of July 1, 2016, by and among JCI Inc., Tyco and certain other parties named therein, including Jagara Merger Sub LLC, an indirect wholly owned subsidiary of Tyco ("Merger Sub"). Pursuant to the terms of the Merger Agreement, on September 2, 2016, Merger Sub merged with and into JCI Inc., with JCI Inc. being the surviving corporation in the merger and a wholly owned, indirect subsidiary of Tyco (the "Merger"). Following the Merger, Tyco changed its name to "Johnson Controls International plc." The Merger changed the jurisdiction of organization from the United States to Ireland. The domicile to Ireland became effective on September 2, 2016.

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. Refer to Note 3, "Merger Transaction," of the notes to consolidated financial statements for further information.

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. Refer to Note 5, "Discontinued Operations," of the notes to consolidated financial statements for further information.

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 the primary beneficiary in one VIE for the reporting period ended March 31, 2017 and three VIEs for the reporting period ended September 30, 2016, as the Company absorbs significant economics of the entities and has the power to direct the activities that are considered most significant to the entities.

Two of the VIEs manufacture products in North America for the automotive industry. The Company funded the entities' short-term liquidity needs through revolving credit facilities and had the power to direct the activities that were considered most significant to the entities through its key customer supply relationships. These VIE's were divested as a result of the Adient spin-off in the first quarter of fiscal 2017.

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 is 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 has been consolidated within the Company's consolidated statements of financial position. The impact of consolidation of the entity on the Company's consolidated statements of income for the three and six month periods ended March 31, 2017 and 2016 was not material. The VIE is named as a co-obligor under a third party debt agreement in the amount of $168 million, maturing in fiscal 2020, under which it 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 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 VIEs are as follows (in millions):

	March 31, 2017	September 30, 2016
Current assets	$ 2	$ 284
Noncurrent assets	53	98
Total assets	$ 55	$ 382
Current liabilities	$ 3	$ 230
Noncurrent liabilities	44	29
Total liabilities	$ 47	$ 259

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 Company is not considered to be the primary beneficiary of two of the entities 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 $62 million and $59 million at March 31, 2017 and September 30, 2016 respectively, as well as the subordinated loan from the Company, third party debt agreement and floor guaranty mentioned previously within the "Consolidated VIEs" section 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 March 31, 2017, the Company held restricted cash of approximately $42 million, of which $33 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. At September 30, 2016, the Company held restricted cash of approximately $88 million, of which $79 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 held in escrow from business divestitures and cash restricted for payment of asbestos liabilities.

Retrospective Changes

Certain amounts as of September 30, 2016 have been revised to conform to the current year's presentation.

During the first quarter of fiscal 2017, the Company determined that its Automotive Experience business (Adient) met the criteria to be classified as a discontinued operation, which required retrospective application to financial information for all periods presented. Refer to Note 5, "Discontinued Operations," of the notes to consolidated financial statements for further information regarding the Company's discontinued operations.

In the first quarter of fiscal 2017, the Company began evaluating 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. Historical information has been revised to present the comparable periods on a consistent basis.

In April 2015, the FASB issued Accounting Standards Update (ASU) No. 2015-03, "Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs." ASU No. 2015-03 requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of the debt liability. During the quarter ended December 31, 2016, the Company adopted ASU No. 2015-03 and applied the change retrospectively to all periods presented. This change did not have an impact to any period presented on the consolidated statements of income. The financial statement impact of this change for the period ending September 30, 2016 was a decrease to noncurrent assets held for sale of $44 million, a decrease to noncurrent liabilities held for sale of $44 million, a decrease to other noncurrent assets of $30 million and a decrease to long-term debt of $30 million.

2. New Accounting Standards

Recently Adopted Accounting Pronouncements

In October 2016, the FASB issued ASU No. 2016-17, "Consolidations (Topic 810): Interests Held through Related Parties that are under Common Control." The ASU changes how a single decision maker of a VIE that holds indirect interest in the entity through related parties that are under common control determines whether it is the primary beneficiary of the VIE. The new guidance amends ASU 2015-02, "Consolidation (Topic 810): Amendments to the Consolidation Analysis" issued in February 2015. ASU No. 2016-17 was effective for the Company for the quarter ending December 31, 2016. The adoption of this guidance did not have an impact on the Company's consolidated financial statements.

In May 2015, the FASB issued ASU No. 2015-07, "Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)." ASU No. 2015-07 removes the requirement to categorize within the fair value hierarchy all investments for which fair value is measured using the net asset value per share practical expedient. Such investments should be disclosed separate from the fair value hierarchy. ASU No. 2015-07 was effective retrospectively for the Company for the quarter ending December 31, 2016. The adoption of this guidance did not have an impact on the Company's consolidated financial statements, but did impact pension asset disclosures.

In February 2015, the FASB issued ASU No. 2015-02, "Consolidation (Topic 810): Amendments to the Consolidation Analysis." ASU No. 2015-02 amends the analysis performed to determine whether a reporting entity should consolidate certain types of legal entities. ASU No. 2015-02 was effective retrospectively for the Company for the quarter ending December 31, 2016. The adoption of this guidance did not have an impact on the Company's consolidated financial statements.

Recently Issued Accounting Pronouncements

In March 2017, the FASB issued ASU No. 2017-07, "Compensation—Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost." The ASU requires the service cost component of net periodic benefit cost to be presented with other compensation costs. The other components of net periodic benefit cost are required to be presented in the income statement separately from the service cost component and outside a subtotal of income from operations, if one is presented. The ASU also allows only the service cost component of net periodic benefit cost to be eligible for capitalization. The guidance will be effective for the Company for the quarter ending December 31, 2018. Early adoption is permitted as of the beginning of an annual period for which financial statements (interim or annual) have not been issued or made available for issuance. The guidance will be effective retrospectively except for the capitalization of the service cost component which should be applied prospectively. The adoption of this guidance is not expected to have a significant impact on the Company's consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04, "Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment," which eliminates the requirement to calculate the implied fair value of goodwill to measure a goodwill impairment charge (Step 2) from the goodwill impairment test. Instead, an impairment charge will equal the amount by which a reporting unit’s carrying amount exceeds its fair value, not to exceed the amount of goodwill allocated to the reporting unit. The guidance will be effective prospectively for the Company for the quarter ending December 31, 2020, with early adoption permitted after January 1, 2017. The impact of this guidance for the Company will depend on the outcomes of future goodwill impairment tests.

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 June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments." ASU No. 2016-13 changes the impairment model for financial assets measured at amortized cost, requiring presentation at the net amount expected to be collected. The measurement of expected credit losses is based upon historical experience, current conditions, and reasonable and supportable forecasts. Available-for-sale debt securities with unrealized losses will now be recorded through an allowance for credit losses. ASU No. 2016-13 will be effective for the Company for the quarter ended December 31, 2020, with early adoption permitted for the quarter ended December 31, 2019. The adoption of this guidance is not expected to have a significant 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. ASU No. 2016-09 will be effective for the Company for the quarter ending December 31, 2017, with early adoption permitted. The Company is currently assessing the impact adoption of this guidance will have on its consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-07, "Investments - Equity Method and Joint Ventures (Topic 323): Simplifying the Transition to the Equity Method of Accounting." ASU No. 2016-07 eliminates the requirement for an investment that qualifies for the use of the equity method of accounting as a result of an increase in the level of ownership or degree of influence to adjust the investment, results of operations and retained earnings retrospectively. ASU No. 2016-07 will be effective prospectively for the Company for increases in the level of ownership interest or degree of influence that result in the adoption of the equity method that occur during or after the quarter ending December 31, 2017, with early adoption permitted. The impact of this guidance for the Company is dependent on any future increases in the level of ownership interest or degree of influence that result in the adoption of the equity method.

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 July 2015, the FASB issued ASU No. 2015-11, "Simplifying the Measurement of Inventory." ASU No. 2015-11 requires inventory that is recorded using the first-in, first-out method to be measured at the lower of cost or net realizable value. ASU No. 2015-11 will be effective prospectively for the Company for the quarter ending December 31, 2017, with early adoption permitted. The adoption of this guidance is not expected to have a significant impact on the Company's consolidated financial statements.

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," and 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. 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 cannot quantify the potential impact the new revenue standard will have to its consolidated financial statements. The Company will decide which retrospective application to apply once its revenue standard assessment is finalized.

3. Merger Transaction

As discussed in Note 1, "Financial Statements," of the notes to consolidated financial statements, JCI Inc. and Tyco completed the Merger on September 2, 2016. The Merger was accounted for as a reverse acquisition using the acquisition method of accounting in accordance with ASC 805, "Business Combinations." Based on the structure of the Merger and other activities contemplated by the Merger Agreement, relative outstanding share ownership, the composition of the Company's board of directors and the designation of certain senior management positions of the Company, JCI Inc. was the accounting acquirer for financial reporting purposes.

Immediately prior to the Merger and in connection therewith, Tyco shareholders received 0.955 ordinary shares of Tyco (which shares are now referred to as shares of the Company, or “Company ordinary shares”) for each Tyco ordinary share they held by virtue of a 0.955-for-one share consolidation. In the Merger, each outstanding share of common stock, par value $1.00 per share, of JCI Inc. ("JCI Inc. common stock") (other than shares held by JCI Inc., Tyco and certain of their subsidiaries) was converted into the right to receive either the cash consideration or the share consideration (each as described below), at the election of the holder, subject to proration procedures described in the Merger Agreement and applicable withholding taxes. The election to receive the cash consideration was undersubscribed. As a result, holders of shares of JCI Inc. common stock that elected to receive the share consideration and holders of shares of JCI Inc. common stock that made no election (or failed to properly make an election) became entitled to receive, for each such share of JCI Inc. common stock, $5.7293 in cash, without interest, and 0.8357 Company ordinary shares, subject to applicable withholding taxes. Holders of shares of JCI Inc. common stock that elected to receive the cash consideration became entitled to receive, for each such share of JCI Inc. common stock, $34.88 in cash, without interest, subject to applicable withholding taxes. In the merger, JCI Inc. shareholders received, in the aggregate, approximately $3.864 billion in cash. Immediately after the closing of, and giving effect to, the Merger, former JCI Inc. shareholders owned approximately 56% of the issued and outstanding Company ordinary shares and former Tyco stockholders owned approximately 44% of the issued and outstanding Company ordinary shares.

Tyco is a leading global provider of security products and services, fire detection and suppression products and services, and life safety products. The acquisition of Tyco brings together best-in-class product, technology and service capabilities across controls, fire, security, heating, ventilating and air conditioning (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 JCI Inc. buildings platforms is expected to create immediate opportunities for near-term growth through cross-selling, complementary branch and channel networks, and expanded global reach for established businesses. The new Company is also expected to benefit 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.

Fair Value of Consideration Transferred

The total fair value of consideration transferred was approximately $19.7 billion. Total consideration is comprised of the equity value of the Tyco shares that were outstanding as of September 2, 2016 and the portion of Tyco's share awards and share options earned as of September 2, 2016 ($224 million). Share awards and share options not earned ($101 million) as of September 2, 2016 will be expensed over the remaining future vesting period.

The following table summarizes the total fair value of consideration transferred:

(in millions, except for share consolidation ratio and share data)

Number of Tyco shares outstanding at September 2, 2016		427,181,743
Tyco share consolidation ratio		0.955
Tyco ordinary shares outstanding following the share consolidation and immediately prior to the merger		407,958,565
JCI Inc. converted share price (1)	$	47.67
Fair value of equity portion of the merger consideration	$	19,447
Fair value of Tyco equity awards		224
Total fair value of consideration transferred	**$**	**19,671**

(1) Amount equals JCI Inc. closing share price and market capitalization at September 2, 2016 ($45.45 and $29,012 million, respectively) adjusted for the Tyco $3,864 million cash contribution used to purchase 110.8 million shares of JCI Inc. common stock for $34.88 per share.

Fair Value of Assets Acquired and Liabilities Assumed

The Company accounted for the merger with Tyco as a business combination using the acquisition method of accounting. The assets acquired and liabilities assumed were recorded at their respective fair values as of the acquisition date.

As the Company finalizes the fair value of assets acquired and liabilities assumed, additional purchase price adjustments may be recorded during the measurement period in fiscal 2017. Fair value estimates are based on a complex series of judgments about future events and uncertainties and rely heavily on estimates and assumptions. The judgments used to determine the estimated fair value assigned to each class of assets acquired and liabilities assumed, as well as asset lives, can materially impact the Company's results of operations. The finalization of the purchase accounting assessment may result in a change in the valuation of assets acquired and liabilities assumed and may have a material impact on the Company's results of operations and financial position.

The preliminary fair values of the assets acquired and liabilities assumed are as follows (in millions):

Cash and cash equivalents	$	489
Accounts receivable		2,097
Inventories		823
Other current assets		610
Property, plant, and equipment - net		1,219
Goodwill		16,412
Intangible assets - net		6,213
Other noncurrent assets		536
Total assets acquired	$	28,399
Short-term debt	$	462
Accounts payable		724
Accrued compensation and benefits		312
Other current liabilities		1,418
Long-term debt		6,416
Long-term deferred tax liabilities		1,173
Long-term pension and postretirement benefits		774
Other noncurrent liabilities		1,279
Total liabilities acquired	$	12,558
Noncontrolling interests		34
Net assets acquired	$	15,807
Cash consideration paid to JCI Inc. shareholders		3,864
Total fair value of consideration transferred	$	19,671

In connection with the merger, the Company recorded goodwill of $16.4 billion, which is attributable primarily to expected synergies, expanded market opportunities, and other benefits that the Company believes will result from combining its operations with the operations of Tyco. The goodwill created in the merger is not deductible for tax purposes and is subject to potential significant changes as the purchase price allocation is completed. Goodwill has preliminarily been allocated to the Tyco segment based on how the business was reviewed by the Company's Chief Operating Decision Maker as shown in Note 8, "Goodwill and Other Intangible Assets." In connection with the Tyco Merger, the Company recorded additional goodwill of $49 million in the first six months of fiscal 2017 related to purchase price allocations.

The preliminary purchase price allocation to identifiable intangible assets acquired are as follows:

	Preliminary Fair Value (in millions)	Weighted Average Life (in years)
Customer relationships	$ 2,280	11
Completed technology	1,530	10
Other definite-lived intangibles	233	8
Indefinite-lived trademarks	2,020	
Other indefinite-lived intangibles	90	
In-process research and development	60	
Total identifiable intangible assets	$ 6,213	

4. Acquisitions and Divestitures

In the first six months of fiscal 2017, the Company completed three acquisitions for a combined purchase price, net of cash acquired, of $9 million, $6 million of which was paid in the six months ended March 31, 2017. 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 $2 million.

In the second quarter of fiscal 2017, the Company announced it signed a definitive agreement to sell its Scott Safety business to 3M Company for approximately $2.0 billion. Net cash proceeds from the transaction are expected to approximate $1.8 to $1.9 billion. Scott Safety is a leader in the design, manufacture and sale of high performance respiratory protection, gas and flame detection, thermal imaging and other critical products for fire services, law enforcement, industrial, oil and gas, chemical, armed forces, and homeland defense end markets. The transaction is expected to close in the second half of calendar 2017, subject to customary closing conditions including required regulatory approval. The Scott Safety business is included in the Tyco segment and is reported within assets and liabilities held for sale in the consolidated statements of financial position as of March 31, 2017. Refer to Note 5, "Discontinued Operations," of the notes to consolidated financial statements for further disclosure related to the Company's net assets held for sale.

In the second quarter of fiscal 2017, the Company completed the sale of its ADT security business in South Africa within the Tyco segment. The selling price, net of cash divested, was $129 million, all of which was received in the six months ended March 31, 2017. In connection with the sale, the Company reduced goodwill in assets held for sale by $92 million. The divestiture was not material to the Company's consolidated financial statements.

In the first six months of fiscal 2017, the Company completed one additional divestiture for a sales price of $4 million, all of which was received in the six months ended March 31, 2017. 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.

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

In the first quarter of fiscal 2016, the Company formed a joint venture with Hitachi to expand its Building Efficiency product offerings. The Company acquired a 60% ownership interest in the new entity for approximately $170 million ($600 million purchase price less cash acquired of $430 million), $133 million of which was paid in the six months ended March 31, 2016 and $37 million was paid in the six months ended March 31, 2017. In connection with the acquisition, the Company recorded goodwill of $253 million related to purchase price allocations.

In the first six months of fiscal 2016, the Company completed one additional acquisition for a purchase price, net of cash acquired, of $3 million, none of which was paid as of March 31, 2016. The acquisition was not material to the Company's consolidated financial statements. In connection with the acquisition, the Company recorded goodwill of $4 million. The acquisition increased the Company's ownership from a noncontrolling to controlling interest. As a result, the Company recorded a non-cash gain of $4 million in equity income for the Building Efficiency Rest of World segment to adjust the Company's existing equity investment in the partially-owned affiliate to fair value.

5. Discontinued Operations

As discussed in Note 1, "Financial Statements," of the notes to consolidated financial statements, 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. The Company did not retain any equity interest in Adient plc. During the first quarter of fiscal 2017, the Company determined that Adient met the criteria to be classified as a discontinued operation and, as a result, Adient's historical financial results are reflected in the Company's consolidated financial statements as a discontinued operation, and assets and liabilities were retrospectively reclassified as assets and liabilities held for sale. 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 six month period ended March 31, 2017, and the three and six month periods ended March 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 six month period ended March 31, 2017.

	Three Months Ended March 31,	Six Months Ended March 31,	
	2016	2017	2016
Net sales	$ 4,298	$ 1,434	$ 8,531
Income from discontinued operations before income taxes	102	1	335
Provision for income taxes on discontinued operations	827	35	873
Income from discontinued operations attributable to noncontrolling interests, net of tax	23	9	40
Loss from discontinued operations	$ (748)	$ (43)	$ (578)

For the six months ended March 31, 2017, the income from discontinued operations before income taxes included separation costs of $79 million. For the three and six months ended March 31, 2016, the income from discontinued operations before income taxes included separation costs of $90 million and $160 million, respectively.

For the six months ended March 31, 2017, 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. For the three and six months ended March 31, 2016, the effective tax rate was more than the U.S. federal statutory rate of 35% primarily due to $780 million of income tax expense recorded on foreign undistributed earnings of certain non-U.S. subsidiaries, the jurisdictional mix of restructuring and impairment costs, and the tax impacts of separation costs, partially offset by non-U.S. tax rate differentials.

Assets and Liabilities Held for Sale

The following table summarizes the carrying value of Adient, reclassified as assets and liabilities held for sale at September 30, 2016 (in millions):

	September 30, 2016
Cash	$ 105
Cash in escrow related to Adient debt	2,034
Accounts receivable - net	2,071
Inventories	672
Other current assets	756
Assets held for sale	$ 5,638
Property, plant and equipment - net	$ 2,240
Goodwill	2,385
Other intangible assets - net	113
Investments in partially-owned affiliates	1,745
Other noncurrent assets	891
Noncurrent assets held for sale	$ 7,374
Short-term debt	$ 41
Current portion of long-term debt	38
Accounts payable	2,764
Accrued compensation and benefits	430
Other current liabilities	975
Liabilities held for sale	$ 4,248
Long-term debt	$ 3,441
Pension and postretirement benefits	188
Other noncurrent liabilities	259
Noncurrent liabilities held for sale	$ 3,888

The following table summarizes depreciation and amortization, capital expenditures, and significant operating and investing noncash items related to Adient for the six month period ended March 31, 2017, and the three and six month periods ended March 31, 2016 (in millions):

	Three Months Ended March 31,	Six Months Ended March 31,	
	2016	2017	2016
Depreciation and amortization	$ 85	$ 29	$ 171
Equity in earnings of partially-owned affiliates	(77)	(31)	(171)
Deferred income taxes	769	562	765
Non-cash restructuring and impairment charges	14	—	14
Equity-based compensation	4	1	7
Accrued income taxes	—	(808)	—
Capital expenditures	(75)	(91)	(175)

During the second quarter of fiscal 2017, the Company completed the divestiture of its ADT security business in South Africa within the Tyco segment. The assets and liabilities of this business were presented as held for sale in the consolidated statements of financial position as of September 30, 2016. The business did not meet the criteria to be classified as a discontinued operation.

During the second quarter of fiscal 2017, the Company signed a definitive agreement to sell its Scott Safety business of the Tyco segment to 3M Company. The transaction is expected to close in the second half of calendar 2017, subject to customary closing conditions including required regulatory approval. The assets and liabilities of this business were presented as held for sale in the consolidated statements of financial position as of March 31, 2017. The business did not meet the criteria to be classified as a discontinued operation as the divestiture of the Scott Safety business will not have a major effect on the Company's operations and financial results.

The following table summarizes the carrying value of the Tyco segment assets and liabilities held for sale at March 31, 2017 and September 30, 2016 (in millions):

	March 31, 2017	September 30, 2016
Accounts receivable - net	$ 93	$ 9
Inventories	66	7
Other current assets	10	3
Property, plant and equipment - net	74	15
Goodwill	1,261	89
Other intangible assets - net	533	30
Other noncurrent assets	—	4
Assets held for sale	$ 2,037	$ 157
Accounts payable	$ 33	$ 9
Accrued compensation and benefits	9	—
Other current liabilities	22	19
Other noncurrent liabilities	173	—
Liabilities held for sale	$ 237	$ 28

At September 30, 2016, $17 million of certain Corporate assets were classified as held for sale. The assets were sold during the second quarter of fiscal 2017.

6. 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 other current liabilities in the consolidated statements of financial position. Costs and earnings in excess of billings related to these contracts were $863 million and $841 million at March 31, 2017 and September 30, 2016, respectively. Billings in excess of costs and earnings related to these contracts were $472 million and $431 million at March 31, 2017 and September 30, 2016, respectively.

7. Inventories

Inventories consisted of the following (in millions):

	March 31, 2017	September 30, 2016
Raw materials and supplies	$ 877	$ 852
Work-in-process	509	503
Finished goods	1,752	1,533
Inventories	$ 3,138	$ 2,888

8. Goodwill and Other Intangible Assets

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

	September 30, 2016	Business Acquisitions	Business Divestitures	Currency Translation and Other	March 31, 2017
Building Technologies & Solutions					
Building Efficiency					
Systems and Service North America	$ 975	$ —	$ —	$ —	$ 975
Products North America	1,697	1	—	(2)	1,696
Asia	657	—	—	(23)	634
Rest of World	301	1	—	(9)	293
Tyco	16,308	49	(1,261)	(124)	14,972
Power Solutions	1,086	—	—	(12)	1,074
Total	$ 21,024	$ 51	$ (1,261)	$ (170)	$ 19,644

At September 30, 2016, accumulated goodwill impairment charges included $47 million related to the Building Efficiency Rest of World - Latin America reporting unit. The six months ended March 31, 2017 Tyco business divestiture amount includes $1,261 million of goodwill transferred to assets held for sale on the consolidated statement of financial position. Refer to Note 5, "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):

	March 31, 2017			September 30, 2016		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Amortized intangible assets						
Technology	$ 1,170	$ (94)	$ 1,076	$ 1,528	$ (24)	$ 1,504
Customer relationships	3,097	(339)	2,758	3,168	(226)	2,942
Miscellaneous	544	(228)	316	519	(130)	389
Total amortized intangible assets	4,811	(661)	4,150	5,215	(380)	4,835
Unamortized intangible assets						
Trademarks/trade names	2,410	—	2,410	2,555	—	2,555
Miscellaneous	127	—	127	150	—	150
Total intangible assets	$ 7,348	$ (661)	$ 6,687	$ 7,920	$ (380)	$ 7,540

Amortization of other intangible assets included within continuing operations for the three month periods ended March 31, 2017 and 2016 was $126 million and $20 million, respectively. Amortization of other intangible assets included within continuing operations for the six month periods ended March 31, 2017 and 2016 was $275 million and $40 million, respectively. Excluding the impact of any future acquisitions, the Company anticipates amortization for fiscal 2018, 2019, 2020, 2021 and 2022 will be approximately $389 million, $376 million, $365 million, $359 million and $351 million per year, respectively.

9. Significant Restructuring and Impairment Costs

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 commits to restructuring plans as necessary.

In fiscal 2017, the Company committed to a significant restructuring plan (2017 Plan) and recorded $177 million of restructuring and impairment costs in the consolidated statements of income, of which $78 million was recorded in the first quarter and $99 million was recorded in the second quarter of fiscal 2017. This is the total amount incurred to date for this restructuring plan. The restructuring actions related to cost reduction initiatives in the Company's Building Technologies & Solutions business and at Corporate. The costs consist primarily of workforce reductions, plant closures and asset impairments. Of the restructuring and impairment costs recorded, $67 million related to Corporate, $49 million related to the Tyco segment, $27 million related to the Building Efficiency Products North America segment, $16 million related to the Building Efficiency Rest of World segment, $9 million related to the Building Efficiency Asia segment and $9 million related to the Building Efficiency Systems and Service North America 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	$ 62	$ 15	$ 1	$ 78
Utilized—noncash	—	(15)	(1)	(16)
Balance at December 31, 2016	$ 62	$ —	$ —	$ 62
Additional restructuring costs	67	23	9	99
Utilized—cash	(13)	—	—	(13)
Utilized—noncash	—	(23)	—	(23)
Balance at March 31, 2017	$ 116	$ —	$ 9	$ 125

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 is 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, $26 million related to the Building Efficiency Asia segment, $16 million related to the Building Efficiency Rest of World segment, $9 million related to the Building Efficiency Products North America segment, $8 million related to the Tyco segment, and $2 million related to the Building Efficiency Systems and Service North America segment. The restructuring actions are expected to be substantially complete in fiscal 2018. Included in the 2016 Plan is $74 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 and Adient liabilities held for sale 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	(49)	—	(2)	—	(51)
Utilized—noncash	—	—	—	(3)	(3)
Transfer to liabilities held for sale	(3)	—	—	—	(3)
Adjustment to acquired Tyco restructuring reserves	(4)	—	—	—	(4)
Balance at March 31, 2017	$ 164	$ —	$ 6	$ (2)	$ 168

The Company's fiscal 2017 and 2016 restructuring plans included workforce reductions of approximately 4,500 employees (3,900 for the Building Technologies & Solutions business and 600 for Corporate). 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 March 31, 2017, approximately 900 of the employees have been separated from the Company pursuant to the restructuring plans. In addition, the restructuring plans included twelve plant closures in the Building Technologies & Solutions business. As of March 31, 2017, four of the twelve 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.

10. 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 since the Company was a U.S. domiciled company for 11 months of 2016 and due to the Company's current legal entity structure. For the three months ended March 31, 2017, the Company's effective tax rate for continuing operations was 129%. The effective tax rate was higher than the U.S. federal statutory rate of 35% primarily due to the establishment of a deferred tax liability on the outside basis difference of the Company's investment in certain subsidiaries related to the pending divestiture of the Scott Safety business, the jurisdictional mix of significant restructuring and impairment costs, and Tyco Merger transaction and integration costs, partially offset by the benefits of continuing global tax planning initiatives and non-U.S. tax rate differentials. For the six months ended March 31, 2017, the Company's effective tax rate for continuing operations was 62%. The effective tax rate was higher than the U.S. federal statutory rate of 35% primarily due to the establishment of a deferred tax liability on the outside basis difference of the Company's investment in certain subsidiaries related to the pending divestiture of the Scott Safety business, the jurisdictional mix of significant restructuring and impairment costs, and Tyco Merger transaction / integration costs and purchase accounting impacts, partially offset by 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. For the three and six months ended March 31, 2016, the Company's effective tax rate for continuing operations was 14% and 18%, respectively. The effective rate was lower than the U.S. federal statutory rate of 35% primarily due to the benefits of continuing global tax planning initiatives and non-U.S. tax rate differentials, partially offset by the jurisdictional mix of significant restructuring and impairment costs, as well as the tax impact of transaction and separation costs.

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, 2016, exclusive of items included in noncurrent liabilities held for sale, the Company had gross tax effected unrecognized tax benefits of $1,706 million, of which $1,604 million, if recognized, would impact the effective tax rate. Total net accrued interest at September 30, 2016 was approximately $55 million (net of tax benefit). The interest and penalties accrued during the six months ended March 31, 2017 and 2016 was not material. The Company recognizes interest and penalties related to unrecognized tax benefits as a component of income tax expense.

In the U.S., fiscal years 2010 through 2014 are currently under exam by the Internal Revenue Service ("IRS"). Additionally, the Company is currently under exam in the following major non-U.S. jurisdictions:

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

It is reasonably possible that certain tax examinations and/or tax litigation will conclude within the next twelve months, which could be up to a $150 million impact to tax expense.

Impacts of Tax Legislation

On October 13, 2016, the U.S. Treasury and the 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 six months ended March 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 second quarter of fiscal 2017, the Company recorded a discrete non-cash tax charge of $457 million related to establishment of a deferred tax liability on the outside basis difference of the Company's investment in certain subsidiaries of the Scott Safety business. This business is now reported as net assets held for sale given the announced sale to 3M Company in calendar 2017. Refer to Note 4, "Acquisitions and Divestitures" and Note 5, "Discontinued Operations," of the notes to consolidated financial statements for additional information.

In the second quarter of fiscal 2017, the Company recorded $138 million of transaction and integration costs which generated a $31 million tax benefit.

In the second quarter of fiscal 2017, the Company recorded $99 million of significant restructuring and impairment costs. Refer to Note 9, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The restructuring costs generated a $20 million tax benefit, which was impacted by the Company's current tax position in these jurisdictions.

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 9, "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.

In the second quarter of fiscal 2016, the Company recorded $60 million of significant restructuring and impairment costs. Refer to Note 9, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The restructuring costs generated a $12 million tax benefit, which was impacted by the geographic mix, the Company's current tax position in these jurisdictions and the underlying tax basis in the impaired assets.

11. 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 March 31,		Six Months Ended March 31,	
	2017	2016	2017	2016
Service cost	$ 4	$ 4	$ 9	$ 8
Interest cost	29	25	57	50
Expected return on plan assets	(58)	(46)	(117)	(92)
Net actuarial gain	(18)	—	(135)	—
Settlement gain	(1)	—	(9)	—
Net periodic benefit credit	$ (44)	$ (17)	$ (195)	$ (34)

	Non-U.S. Pension Plans			
	Three Months Ended March 31,		Six Months Ended March 31,	
	2017	2016	2017	2016
Service cost	$ 8	$ 2	$ 16	$ 5
Interest cost	11	6	23	12
Expected return on plan assets	(22)	(7)	(45)	(15)
Net periodic benefit cost (credit)	$ (3)	$ 1	$ (6)	$ 2

	Postretirement Benefits			
	Three Months Ended March 31,		Six Months Ended March 31,	
	2017	2016	2017	2016
Service cost	$ —	$ —	$ 1	$ —
Interest cost	2	2	3	3
Expected return on plan assets	(2)	(2)	(5)	(4)
Amortization of prior service credit	—	(1)	—	(1)
Net periodic benefit credit	$ —	$ (1)	$ (1)	$ (2)

During the three and six months ended March 31, 2017, 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 $18 million and $135 million, respectively.

12. Debt and Financing Arrangements

Debt exchange

In connection with the Tyco Merger, on December 28, 2016, the Company completed its offers to exchange all validly tendered and accepted notes of certain series (the "existing notes") issued by JCI Inc. or Tyco International Finance S.A. ("TIFSA"), as applicable, each of which is a wholly owned subsidiary of the Company, for new notes (the New Notes) to be issued by the Company, and the related solicitation of consents to amend the indentures governing the existing notes (the offers to exchange and the related consent solicitation together the "exchange offers"). Pursuant to the exchange offers, the Company exchanged approximately $5.6 billion of $6.0 billion in aggregate principal amount of dollar denominated notes and approximately 423 million euro of 500 million euro in aggregate principal amount of euro denominated notes. All validly tendered and accepted existing notes have been canceled. Immediately following such cancellation, $380.9 million aggregate principal amount of existing notes (not including the TIFSA Euro Notes) remained outstanding across seventeen series of dollar-denominated existing notes and 77.4 million euro aggregate principal amount of TIFSA Euro Notes remained outstanding across one series. In connection with the settlement of the exchange offers, the New Notes were registered under the Securities Act of 1933 and their terms are described in the Company's Prospectus dated December 19, 2016, as filed with the SEC under Rule 424(b)(3) of the Act on that date. The issuance of the New Notes occurred on December 28, 2016. The New Notes are unsecured and unsubordinated obligations of the Company and will rank equally with all other unsecured and unsubordinated indebtedness of the Company issued from time to time.

Other financing arrangements

In March 2017, the Company issued one billion euro in principal amount of 1.0% senior unsecured fixed rate notes due in fiscal 2023. Proceeds from the issuance were used to repay existing debt and for other general corporate purposes.

In March 2017, the Company entered into a 364-day $150 million committed revolving credit facility scheduled to expire in March 2018. As of March 31, 2017, there were no draws on the facility.

In March 2017, the Company retired $46 million in principal amount, plus accrued interest, of its 2.355% fixed rate notes that matured in March 2017.

In March and February 2017, the Company repurchased, at a discount, 15 million euro of its TIFSA 1.375% fixed rate notes, plus accrued interest, scheduled to mature in February 2025.

In February 2017, the Company issued $500 million aggregate principal amount of 4.5% senior unsecured fixed rate notes due in fiscal 2047. Proceeds from the issuance were used to repay outstanding commercial paper borrowings and for other general corporate purposes.

In February 2017, the Company entered into a 364-day $150 million committed revolving credit facility scheduled to expire in February 2018. As of March 31, 2017, there were no draws on the facility.

In January 2017, the Company entered into a 364-day $250 million committed revolving credit facility scheduled to expire in January 2018. As of March 31, 2017, there were no draws on the facility outstanding.

In December 2016, the Company retired $400 million in principal amount, plus accrued interest, of its 2.6% fixed rate notes that matured in December 2016.

In December 2016, the Company entered into a 364-day 100 million euro floating rate term loan scheduled to mature in December 2017. Proceeds from the term loan were used for general corporate purposes. Principal and accrued interest were fully repaid in March 2017.

In December 2016, a $100 million committed revolving credit facility expired. There were no draws on the facility.

In November 2016, the Company fully repaid its 37 billion yen syndicated floating rate term loan, plus accrued interest, scheduled to mature in June 2020.

In November 2016, a $35 million committed revolving credit facility expired. There were no draws on the facility.

In October 2016, the Company repaid two ten-month floating rate term loans totaling $325 million, plus accrued interest, scheduled to mature in October 2016.

In October 2016, the Company repaid a nine-month $100 million floating rate term loan, plus accrued interest, scheduled to mature in November 2016.

In October 2016, the Company repaid a nine-month 100 million euro floating rate term loan, plus accrued interest, scheduled to mature in October 2016.

Net Financing Charges

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

	Three Months Ended March 31,		Six Months Ended March 31,	
	2017	2016	2017	2016
Interest expense, net of capitalized interest costs	$ 118	$ 65	$ 228	$ 137
Banking fees and bond cost amortization	11	5	41	12
Interest income	(5)	(2)	(12)	(4)
Net foreign exchange results for financing activities	(8)	3	(5)	(8)
Net financing charges	$ 116	$ 71	$ 252	$ 137

Net financing charges for the six month period ended March 31, 2017 included $17 million of transaction costs related primarily to the debt exchange offers.

13. Stock-Based Compensation

References to the Company's stock throughout Note 13 refer to stock of JCI Inc. prior to the Tyco merger date of September 2, 2016 (the "Merger Date") and to ordinary shares of the Company subsequent to the Merger Date.

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 six month periods ended March 31, 2017 and 2016 is presented below:

	Six Months Ended March 31,			
	2017		2016	
	Number Granted	Weighted Average Grant Date Fair Value	Number Granted	Weighted Average Grant Date Fair Value
Stock options	2,830,826	$ 7.81	961,705	$ 13.14
Stock appreciation rights	15,693	8.28	54,749	13.15
Restricted stock	1,582,962	41.74	2,290,575	43.68
Performance shares	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 2017, expected volatility is based on historical volatility of certain peer companies over the most recent period corresponding to the expected life as of the grant date. For fiscal 2016, expected volatility is based on the historical volatility of the Company's stock and other factors. 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.

	Six Months Ended March 31,	
	2017	2016
Expected life of option (years)	4.75 & 6.5	6.4
Risk-free interest rate	1.23% - 1.48%	1.64%
Expected volatility of the Company's stock	24.60%	36.00%
Expected dividend yield on the Company's stock	2.21%	2.11%

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

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 after 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. Expected volatility is based on historical volatility of certain peer companies over the most recent three-year period as of the grant date.

	Six Months Ended March 31, 2017
Risk-free interest rate	1.40%
Expected volatility of the Company's stock	21.00%

Spin-off Modification

In connection with the Adient spin-off, pursuant to the Employee Matters Agreement between the Company and Adient, outstanding stock options and SARs held on October 31, 2016 (the "Spin Date") by employees remaining with the Company were converted into options and SARs of the Company using a 1.085317-for-one share ratio, which is based on the pre-spin and post-spin closing prices of the Company's ordinary shares. The exercise prices for options and SARs were converted using the inverse ratio in a manner designed to preserve the intrinsic value of such awards. In addition, pursuant to the Employee Matters Agreement, nonvested restricted stock held on the Spin Date by employees remaining with the Company were converted into nonvested restricted stock of the Company using the 1.085317-for-one share ratio in a manner designed to preserve the intrinsic value of such awards. There were no performance share awards outstanding as of the Spin Date. Employees remaining with the Company did not receive stock-based compensation awards of Adient as a result of the spin-off. Except for the conversion of awards and related exercise prices discussed herein, the material terms of the awards remained unchanged. No incremental fair value resulted from the conversion of the awards; therefore, no additional compensation expense was recorded related to the award modification.

Also in connection with the spin-off transaction, pursuant to the Employee Matters Agreement, employees of Adient were entitled to receive stock-based compensation awards of the Company and Adient in replacement of previously outstanding awards of the Company granted prior to the Spin Date. These awards include stock options, SARs and nonvested restricted stock. Upon the Spin Date, the existing awards held by Adient employees were converted into new awards of the Company and Adient on a pro rata basis and further adjusted based on a formula designed to preserve the intrinsic value of such awards. Additional compensation expense, if any, resulting from the modification of awards held by Adient employees is to be recorded by Adient.

14. 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, compensation cost for future service that the Company has not yet recognized and any windfall tax benefits that would be credited to capital in excess of par value when the award generates a tax deduction. If there would be a shortfall resulting in a charge to capital in excess of par value, such an amount would be a reduction of the proceeds. For unvested restricted stock and unvested performance share awards, assumed proceeds under the treasury stock method would include unamortized compensation cost and windfall tax benefits or shortfalls.

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

	Three Months Ended March 31,		Six Months Ended March 31,	
	2017	2016	2017	2016
Income (loss) Available to Ordinary Shareholders				
Income (loss) from continuing operations	$ (148)	$ 218	$ 224	$ 498
Loss from discontinued operations	—	(748)	(43)	(578)
Basic and diluted income (loss) available to shareholders	$ (148)	$ (530)	$ 181	$ (80)
Weighted Average Shares Outstanding				
Basic weighted average shares outstanding	939.2	648.2	938.2	648.0
Effect of dilutive securities:				
Stock options, unvested restricted stock and unvested performance share awards	—	3.9	9.8	4.5
Diluted weighted average shares outstanding	939.2	652.1	948.0	652.5
Antidilutive Securities				
Options to purchase shares	—	0.4	0.1	0.3

For the three months ended March 31, 2017, the total number of potential dilutive shares due to stock options, unvested restricted stock and unvested performance share awards was 9.4 million. However, these items were not included in the computation of diluted loss per share for the three months ended March 31, 2017 since to do so would decrease the loss per share.

During the three months ended March 31, 2017 and 2016, the Company declared a dividend of $0.25 and $0.29, respectively, per share. During the six months ended March 31, 2017 and 2016, the Company declared dividends totaling $0.50 and $0.58, respectively, per share. The Company paid all dividends in the month subsequent to the end of each fiscal quarter.

15. 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 March 31, 2017			Three Months Ended March 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, December 31	$ 19,577	$ 819	$ 20,396	$ 10,506	$ 931	$ 11,437
Total comprehensive income (loss):						
Net income (loss)	(148)	25	(123)	(530)	50	(480)
Foreign currency translation adjustments	241	10	251	175	18	193
Realized and unrealized gains (losses) on derivatives	(6)	(2)	(8)	4	1	5
Realized and unrealized gains on marketable securities	11	—	11	—	—	—
Other comprehensive income	246	8	254	179	19	198
Comprehensive income (loss)	98	33	131	(351)	69	(282)
Other changes in equity:						
Cash dividends—ordinary shares	(235)	—	(235)	(189)	—	(189)
Dividends attributable to noncontrolling interests	—	(47)	(47)	—	(29)	(29)
Repurchases of ordinary shares	(119)	—	(119)	—	—	—
Change in noncontrolling interest share	—	8	8	—	(73)	(73)
Spin-off of Adient	(18)	—	(18)	—	—	—
Other, including options exercised	85	—	85	18	—	18
Ending balance, March 31	$ 19,388	$ 813	$ 20,201	$ 9,984	$ 898	$ 10,882

	Six Months Ended March 31, 2017			Six Months Ended March 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	$ 24,118	$ 972	$ 25,090	$ 10,376	$ 163	$ 10,539
Total comprehensive income (loss):						
Net income (loss)	181	61	242	(80)	70	(10)
Foreign currency translation adjustments	(418)	(25)	(443)	15	9	24
Realized and unrealized gains (losses) on derivatives	(6)	2	(4)	3	1	4
Realized and unrealized gains on marketable securities	9	—	9	—	—	—
Other comprehensive income (loss)	(415)	(23)	(438)	18	10	28
Comprehensive income (loss)	(234)	38	(196)	(62)	80	18
Other changes in equity:						
Cash dividends—ordinary shares	(471)	—	(471)	(377)	—	(377)
Dividends attributable to noncontrolling interests	—	(47)	(47)	—	(36)	(36)
Repurchases of ordinary shares	(119)	—	(119)	—	—	—
Change in noncontrolling interest share	—	(12)	(12)	—	691	691
Spin-off of Adient	(4,038)	(138)	(4,176)	—	—	—
Other, including options exercised	132	—	132	47	—	47
Ending balance, March 31	$ 19,388	$ 813	$ 20,201	$ 9,984	$ 898	$ 10,882

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 $4,038 million.

As previously disclosed, on October 1, 2015, the Company formed a joint venture with Hitachi. In connection with the acquisition, the Company recorded equity attributable to noncontrolling interests of $679 million.

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. 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 and six month periods ended March 31, 2017, the Company repurchased approximately $119 million of its ordinary shares.

In April 2017, the Company announced its intention to utilize up to $750 million of the $1 billion authorization during fiscal 2017. Shares may be repurchased from time to time in open market purchases at prevailing market prices, in negotiated transactions off the market, or pursuant to a trading plan in accordance with applicable regulations.

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 March 31,	
	2017	2016
Beginning balance, December 31	$ 159	$ 216
Net income	8	11
Foreign currency translation adjustments	1	10
Ending balance, March 31	$ 168	$ 237

	Six Months Ended March 31,	
	2017	2016
Beginning balance, September 30	$ 234	$ 212
Net income	21	31
Foreign currency translation adjustments	(8)	2
Realized and unrealized losses on derivatives	—	(2)
Dividends	(43)	(6)
Spin-off of Adient	(36)	—
Ending balance, March 31	$ 168	$ 237

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

	Three Months Ended March 31,	
	2017	2016
Foreign currency translation adjustments		
Balance at beginning of period	$ (1,248)	$ (1,207)
Aggregate adjustment for the period (net of tax effect of $0 and $5)	241	175
Balance at end of period	(1,007)	(1,032)
Realized and unrealized gains (losses) on derivatives		
Balance at beginning of period	20	(8)
Current period changes in fair value (net of tax effect of $0 and $(1))	1	(2)
Reclassification to income (net of tax effect of $(4) and $3) *	(7)	6
Balance at end of period	14	(4)
Realized and unrealized gains (losses) on marketable securities		
Balance at beginning of period	(3)	—
Current period changes in fair value (net of tax effect of $0)	11	—
Balance at end of period	8	—
Pension and postretirement plans		
Balance at beginning of period	(2)	(3)
Reclassification to income (net of tax effect of $0) **	—	(1)
Other changes (net of tax effect of $0)	—	1
Balance at end of period	(2)	(3)
Accumulated other comprehensive loss, end of period	$ (987)	$ (1,039)

	Six Months Ended March 31, 2017	Six Months Ended March 31, 2016
Foreign currency translation adjustments		
Balance at beginning of period	$ (1,152)	$ (1,047)
Aggregate adjustment for the period (net of tax effect of $5 and $1)	(418)	15
Adient spin-off impact (net of tax effect of $0)	563	—
Balance at end of period	(1,007)	(1,032)
Realized and unrealized gains (losses) on derivatives		
Balance at beginning of period	4	(7)
Current period changes in fair value (net of tax effect of $4 and $(1))	7	(6)
Reclassification to income (net of tax effect of $(7) and $4) *	(13)	9
Adient spin-off impact (net of tax effect of $6 and $0)	16	—
Balance at end of period	14	(4)
Realized and unrealized gains (losses) on marketable securities		
Balance at beginning of period	(1)	—
Current period changes in fair value (net of tax effect of $0)	9	—
Balance at end of period	8	—
Pension and postretirement plans		
Balance at beginning of period	(4)	(3)
Reclassification to income (net of tax effect of $0) **	—	(1)
Adient spin-off impact (net of tax effect of $0)	2	—
Other changes (net of tax effect of $0)	—	1
Balance at end of period	(2)	(3)
Accumulated other comprehensive loss, end of period	$ (987)	$ (1,039)

* Refer to Note 16, "Derivative Instruments and Hedging Activities," of the notes to consolidated financial statements for disclosure of the line items on the consolidated statements of income affected by reclassifications from AOCI into income related to derivatives.

** Refer to Note 11, "Pension and Postretirement Plans," of the notes to consolidated financial statements for disclosure of the components of the Company's net periodic benefit costs associated with its defined benefit pension and postretirement plans. For the three and six months ended March 31, 2016, the amounts reclassified from AOCI into income for pension and postretirement plans were primarily recorded in selling, general and administrative expenses on the consolidated statements of income.

16. 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 17, "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 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 occur and affect earnings. Any ineffective portion of the hedge is reflected in the consolidated statements of income. These contracts were highly effective in hedging the variability in future cash flows attributable to changes in currency exchange rates during the three and six months ended March 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 and aluminum 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. Any ineffective portion of the hedge is reflected in the consolidated statements of income. 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 and six months ended March 31, 2017 and 2016.

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

		Volume Outstanding as of	
Commodity	Units	March 31, 2017	September 30, 2016
Copper	Pounds	7,350,000	5,849,000
Lead	Metric Tons	560	5,185
Aluminum	Metric Tons	2,349	2,620
Tin	Metric Tons	740	185

In September 2005, the Company entered into three forward treasury lock agreements to reduce the market risk associated with changes in interest rates associated with the Company's anticipated fixed-rate note issuance to finance the acquisition of York International (cash flow hedge). The three forward treasury lock agreements, which had a combined notional amount of $1.3 billion, fixed a portion of the future interest cost for 5-year, 10-year and 30-year notes. The fair value of each treasury lock agreement, or the difference between the treasury lock reference rate and the fixed rate at time of note issuance, is amortized to interest expense over the life of the respective note issuance. In January 2006, in connection with the Company's debt refinancing, the three forward treasury lock agreements were terminated.

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. In the third quarter of fiscal 2014, the Company entered into 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 March 31, 2017. There were eight interest rate swaps outstanding as of September 30, 2016.

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 March 31, 2017, the Company had one billion euro and 485 million euro bonds designated as net investment hedges in the Company's net investment in Europe. At September 30, 2016, the Company had 37 billion yen of foreign denominated debt designated as net investment hedge in the Company's net investment in Japan and one billion euro and 500 million euro bonds designated as net investment hedges in the Company's net investment in Europe.

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 March 31, 2017 and September 30, 2016, the Company had no equity swaps outstanding.

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.

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	
	March 31, 2017	September 30, 2016	March 31, 2017	September 30, 2016
Other current assets				
Foreign currency exchange derivatives	$ 20	$ 41	$ 9	$ 49
Commodity derivatives	3	4	—	—
Other noncurrent assets				
Interest rate swaps	—	1	—	—
Total assets	$ 23	$ 46	$ 9	$ 49
Other current liabilities				
Foreign currency exchange derivatives	$ 5	$ 48	$ 15	$ 18
Liabilities held for sale				
Foreign currency exchange derivatives	—	—	—	5
Current portion of long-term debt				
Fixed rate debt swapped to floating	—	551	—	—
Long-term debt				
Foreign currency denominated debt	1,588	938	—	—
Fixed rate debt swapped to floating	—	301	—	—
Noncurrent liabilities held for sale				
Foreign currency denominated debt	—	1,119	—	—
Total liabilities	$ 1,593	$ 2,957	$ 15	$ 23

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 March 31, 2017, and September 30, 2016, 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	
	March 31, 2017	September 30, 2016	March 31, 2017	September 30, 2016
Gross amount recognized	$ 32	$ 95	$ 1,608	$ 2,980
Gross amount eligible for offsetting	(16)	(21)	(16)	(21)
Net amount	$ 16	$ 74	$ 1,592	$ 2,959

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 and six months ended March 31, 2017 and 2016 (in millions):

Derivatives in ASC 815 Cash Flow Hedging Relationships	Three Months Ended March 31,		Six Months Ended March 31,	
	2017	2016	2017	2016
Foreign currency exchange derivatives	$ (2)	$ (4)	$ 6	$ (6)
Commodity derivatives	3	1	5	(1)
Total	$ 1	$ (3)	$ 11	$ (7)

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 and six months ended March 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 March 31,		Six Months Ended March 31,	
		2017	2016	2017	2016
Foreign currency exchange derivatives	Cost of sales	$ 8	$ 4	$ 16	$ 9
Foreign currency exchange derivatives	Loss from discontinued operations	—	(9)	—	(14)
Commodity derivatives	Cost of sales	3	(5)	4	(9)
Forward treasury locks	Net financing charges	—	1	—	1
Total		$ 11	$ (9)	$ 20	$ (13)

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 and six months ended March 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 March 31, 2017	Three Months Ended March 31, 2016	Six Months Ended March 31, 2017	Six Months Ended March 31, 2016
Interest rate swap	Net financing charges	$ —	$ 2	$ (1)	$ (3)
Fixed rate debt swapped to floating	Net financing charges	—	(2)	2	3
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 and six months ended March 31, 2017 and 2016 (in millions):

		Amount of Gain (Loss) Recognized in Income on Derivative			
		Three Months Ended March 31,		Six Months Ended March 31,	
Derivatives Not Designated as Hedging Instruments under ASC 815	Location of Gain (Loss) Recognized in Income on Derivative	2017	2016	2017	2016
Foreign currency exchange derivatives	Cost of sales	$ 2	$ 1	$ 3	$ 3
Foreign currency exchange derivatives	Net financing charges	5	(7)	9	(7)
Foreign currency exchange derivatives	Income tax provision	—	—	(3)	—
Foreign currency exchange derivatives	Income (loss) from discontinued operations	—	(8)	5	(11)
Equity swap	Selling, general and administrative	—	(2)	—	(8)
Total		$ 7	$ (16)	$ 14	$ (23)

The effective portion of pre-tax gains (losses) recorded in foreign currency translation adjustment ("CTA") within other comprehensive income (loss) related to net investment hedges were $(19) million and $1 million for the for the three months ended March 31, 2017 and 2016, respectively. The effective portion of pre-tax gains (losses) recorded in CTA within other comprehensive income (loss) related to net investment hedges were $28 million and $16 million for the for the six months ended March 31, 2017 and 2016, respectively. For the three and six months ended March 31, 2017 and 2016, no gains or losses were reclassified from CTA into income for the Company's outstanding net investment hedges, and no gains or losses were recognized in income for the ineffective portion of cash flow hedges.

17. 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;

Level 2: Inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and

Level 3: Unobservable inputs where there is little or no market data, which requires the reporting entity to develop its own assumptions.

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

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 March 31, 2017 and September 30, 2016 (in millions):

		Fair Value Measurements Using:		
	Total as of March 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	$ 29	$ —	$ 29	$ —
Commodity derivatives	3	—	3	—
Exchange traded funds (fixed income)[1]	14	14	—	—
Other noncurrent assets				
Investments in marketable common stock	21	21	—	—
Deferred compensation plan assets	86	86	—	—
Exchange traded funds (fixed income)[1]	150	150	—	—
Exchange traded funds (equity)[1]	94	94	—	—
Total assets	$ 397	$ 365	$ 32	$ —
Other current liabilities				
Foreign currency exchange derivatives	$ 20	$ —	$ 20	$ —
Long-term debt				
Foreign currency denominated debt	1,588	1,588	—	—
Total liabilities	$ 1,608	$ 1,588	$ 20	$ —

	Fair Value Measurements Using:			
	Total as of September 30, 2016	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	$ 90	$ —	$ 90	$ —
Commodity derivatives	4	—	4	—
Exchange traded funds (fixed income)[1]	15	15	—	—
Other noncurrent assets				
Interest rate swaps	1	—	1	—
Investments in marketable common stock	3	3	—	—
Deferred compensation plan assets	81	81	—	—
Exchange traded funds (fixed income)[1]	163	163	—	—
Exchange traded funds (equity)[1]	86	86	—	—
Total assets	$ 443	$ 348	$ 95	$ —
Other current liabilities				
Foreign currency exchange derivatives	$ 66	$ —	$ 66	$ —
Liabilities held for sale				
Foreign currency exchange derivatives	5	—	5	—
Current portion of long-term debt				
Fixed rate debt swapped to floating	551	—	551	—
Long-term debt				
Foreign currency denominated debt	938	938	—	—
Fixed rate debt swapped to floating	301	—	301	—
Noncurrent liabilities held for sale				
Foreign currency denominated debt	1,119	1,119	—	—
Total liabilities	$ 2,980	$ 2,057	$ 923	$ —

[1] Classified as restricted investments for payment of asbestos liabilities. See Note 22, "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.

Interest rate swaps and related debt: The interest rate swaps and related debt balances are valued under a market approach using publicized swap curves.

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. There was an unrealized gain recorded on these investments of $8 million as of March 31, 2017 within AOCI in the consolidated statements of financial position. There was an unrealized loss recorded on these investments of $1 million as of September 30, 2016 within AOCI in the consolidated statements of financial position.

Foreign currency denominated debt: The Company has entered into a foreign currency denominated debt obligation to selectively hedge portions of its net investment in non-U.S. subsidiaries. The currency effect of the debt obligation 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. The foreign denominated debt obligation is remeasured to current exchange rates under a market approach using publicized spot prices. At March 31, 2017, the Company had one billion euro and 485 million euro bonds designated as net investment hedges in the Company's net investment in Europe. At September 30, 2016, the Company had 37 billion yen of foreign denominated debt designated as net investment hedge in the Company's net investment in Japan and one billion euro and 500 million euro bonds designated as net investment hedges in the Company's net investment in Europe.

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 $12.6 billion and $15.7 billion at March 31, 2017 and September 30, 2016, respectively. The fair value of public debt was $8.5 billion and $9.7 billion, at March 31, 2017 and September 30, 2016, 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 $4.1 billion and $6.0 billion at March 31, 2017 and September 30, 2016, respectively, which was determined based on quoted market prices for similar instruments classified as Level 2 inputs within the ASC 820 fair value hierarchy.

18. Impairment of Long-Lived Assets

The Company reviews long-lived assets 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." 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.

In the first and second quarters of fiscal 2017, the Company concluded it had triggering events 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 $38 million of asset impairment charges within restructuring and impairment costs on the consolidated statements of income, of which $15 million was recorded in the first quarter and $23 million was recorded in the second quarter. Of the total impairment charges, $20 million related to the Building Efficiency Products North America segment, $17 million related to Corporate assets and $1 million related to the Tyco segment. Refer to Note 9, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The impairments were measured, depending on the asset, under either an income approach utilizing forecasted discounted cash flows or a market approach utilizing an appraisal to determine fair values of the impaired assets. These methods are 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 second quarter of fiscal 2016, 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 2016. As a result, the Company reviewed the long-lived assets for impairment and recorded $15 million of asset impairment charge within restructuring and impairment costs on the consolidated statements of income. Of the total impairment charge, $8 million related to the Building Efficiency Products North America segment, $4 million related to the Building Efficiency Asia segment and $3 million related to the Building Efficiency Rest of World segment. In addition, the Company recorded $14 million of asset impairments within discontinued operations related to Adient in the second quarter of fiscal 2016. Refer to Note 9, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The impairments were measured, depending on the asset, under either an income approach utilizing forecasted discounted cash flows or a market approach utilizing an appraisal to determine fair values of the impaired assets. These methods are 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 March 31, 2017 and 2016, the Company concluded it did not have any other triggering events requiring assessment of impairment of its long-lived assets.

19. Segment Information

During the first quarter of fiscal 2017, the Company determined that the Automotive Experience business met the criteria to be classified as a discontinued operation, which required retrospective application to financial information for all periods presented. Refer to Note 5, "Discontinued Operations," of the notes to consolidated financial statements for further information regarding the Company's discontinued operations.

In the first quarter of fiscal 2017, the Company began evaluating the performance of its business segments primarily on segment 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. Historical information has been revised to present the comparable periods on a consistent basis.

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 six reportable segments for financial reporting purposes. The Company’s six reportable segments are presented in the context of its two primary businesses – Building Technologies & Solutions and Power Solutions.

Building Technologies & Solutions

Building Efficiency

Building Efficiency designs, produces, markets and installs HVAC and control systems that monitor, automate and integrate critical building segment equipment and conditions including HVAC, fire-safety and security in commercial buildings and in various industrial applications.

- Systems and Service North America provides products and services to non-residential building and industrial applications in the North American marketplace. The products and services include HVAC and controls systems, energy efficiency solutions and technical services, including inspection, scheduled maintenance, and repair and replacement of mechanical and control systems.

- Products North America designs and produces heating and air conditioning solutions for residential and light commercial applications, and also markets products and refrigeration systems to the replacement and new construction markets in the North American marketplace. Products North America also includes HVAC products installed for Navy and Marine customers globally.

- Asia provides HVAC, controls and refrigeration systems and technical services to the Asian marketplace. Asia also includes the Johnson Controls-Hitachi Air Conditioning joint venture, which was formed October 1, 2015.

- Rest of World provides HVAC, controls and refrigeration systems and technical services to markets in Europe, the Middle East and Latin America.

Tyco

Tyco designs, sells, installs, services and monitors integrated electronic security systems and integrated fire detection and suppression systems for commercial, industrial, retail, small business, institutional and governmental customers. The Tyco business also designs, manufactures and sells fire protection, security and life safety products, including intrusion security, anti-theft devices, breathing apparatus and access control and video management systems, for commercial, industrial, retail, residential, small business, institutional and governmental customers worldwide.

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.

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

	Net Sales			
	Three Months Ended March 31,		Six Months Ended March 31,	
	2017	2016	2017	2016
Building Technologies & Solutions				
Building Efficiency				
Systems and Service North America	$ 1,047	$ 1,034	$ 1,975	$ 2,018
Products North America	585	546	1,128	1,103
Asia	1,173	1,162	2,215	2,154
Rest of World	424	408	822	831
	3,229	3,150	6,140	6,106
Tyco	2,342	—	4,617	—
	5,571	3,150	10,757	6,106
Power Solutions	1,696	1,583	3,596	3,323
Total net sales	$ 7,267	$ 4,733	$ 14,353	$ 9,429

	Segment EBITA			
	Three Months Ended March 31,		Six Months Ended March 31,	
	2017	2016	2017	2016
Building Technologies & Solutions				
Building Efficiency				
Systems and Service North America	$ 90	$ 101	$ 165	$ 200
Products North America	57	47	94	80
Asia	118	118	237	188
Rest of World	9	10	(1)	7
	274	276	495	475
Tyco	379	—	593	—
	653	276	1,088	475
Power Solutions	303	282	692	642
Segment EBITA	$ 956	$ 558	$ 1,780	$ 1,117
Corporate expenses	$ (240)	$ (110)	$ (433)	$ (197)
Amortization of intangible assets	(126)	(20)	(275)	(40)
Restructuring and impairment costs	(99)	(60)	(177)	(60)
Net mark-to-market adjustments on pension plans	18	—	135	—
Net financing charges	(116)	(71)	(252)	(137)
Income from continuing operations before income taxes	$ 393	$ 297	$ 778	$ 683

20. 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 for continuing operations, including extended warranties for which deferred revenue is recorded, for the six months ended March 31, 2017 and 2016 were as follows (in millions):

	Six Months Ended March 31, 2017	Six Months Ended March 31, 2016
Balance at beginning of period	$ 374	$ 288
Accruals for warranties issued during the period	152	153
Accruals from acquisition and divestitures (1)	(5)	36
Accruals related to pre-existing warranties	(2)	7
Settlements made (in cash or in kind) during the period	(146)	(150)
Currency translation	(2)	—
Balance at end of period	$ 371	$ 334

(1) The six months ended March 31, 2017 includes $11 million of product warranties transferred to liabilities held for sale on the consolidated statement of financial position. Refer to Note 5, "Discontinued Operations," of the notes to consolidated financial statements for further information regarding the Company's disposal groups classified as held for sale.

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 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. Of the $290 million recorded as of September 30, 2016 and March 31, 2017, $255 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 $11 million of tax indemnification liabilities as of March 31, 2017 related to other divestitures.

21. 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 TIFSA. During the first quarter of fiscal 2017, the guarantees were removed in connection with the previously disclosed debt exchange. 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.

The TIFSA public debt securities were assumed as part of the Tyco acquisition. Therefore, no consolidating financial information for the period ended March 31, 2016 is presented related to the guarantee of the TIFSA public debt securities. Additional information regarding TIFSA and TIFSCA for the period ended March 25, 2016 can be found in Tyco's Quarterly report on Form 10-Q filed with the SEC on April 29, 2016.

CONDENSED CONSOLIDATING STATEMENT OF OPERATIONS
For the Three Months Ended March 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	$ —	$ —	$ —	$ 7,267	$ —	$ 7,267
Cost of sales	—	—		4,986	—	4,986
Gross profit	—	—	—	2,281	—	2,281
Selling, general and administrative expenses	(4)	—	(1)	(1,721)	—	(1,726)
Restructuring and impairment costs	—	—	—	(99)	—	(99)
Net financing charges	(59)	—	5	(62)	—	(116)
Equity income (loss)	(103)	(201)	(405)	53	709	53
Intercompany interest and fees	18	73	20	(111)	—	—
Income (loss) from continuing operations before income taxes	(148)	(128)	(381)	341	709	393
Income tax provision	—	—	—	508	—	508
Net loss	(148)	(128)	(381)	(167)	709	(115)
Income from continuing operations attributable to noncontrolling interests	—	—	—	33	—	33
Net loss attributable to Johnson Controls	$ (148)	$ (128)	$ (381)	$ (200)	$ 709	$ (148)

CONDENSED CONSOLIDATING STATEMENT OF COMPREHENSIVE INCOME
For the Three Months Ended March 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 (loss)	$ (148)	$ (128)	$ (381)	$ (167)	$ 709	$ (115)
Other comprehensive income (loss), net of tax						
Foreign currency translation adjustments	241	(7)	(1)	260	(241)	252
Realized and unrealized losses on derivatives	(6)	—	—	(8)	6	(8)
Realized and unrealized gains on marketable securities	11	—	7	4	(11)	11
Other comprehensive income (loss)	246	(7)	6	256	(246)	255
Total comprehensive income (loss)	98	(135)	(375)	89	463	140
Comprehensive income attributable to noncontrolling interests	—	—	—	42	—	42
Comprehensive income (loss) attributable to Johnson Controls	$ 98	$ (135)	$ (375)	$ 47	$ 463	$ 98

CONDENSED CONSOLIDATING STATEMENT OF OPERATIONS
For the Six Months Ended March 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	$ —	$ —	$ —	$ 14,353	$ —	$ 14,353
Cost of sales	—	—	—	9,958	—	9,958
Gross profit	—	—	—	4,395	—	4,395
Selling, general and administrative expenses	(6)	—	—	(3,290)	—	(3,296)
Restructuring and impairment costs	—	—	—	(177)	—	(177)
Net financing charges	(78)	—	(14)	(160)	—	(252)
Equity income (loss)	215	(500)	(501)	108	786	108
Intercompany interest and fees	50	73	37	(160)	—	—
Income (loss) from continuing operations before income taxes	181	(427)	(478)	716	786	778
Income tax provision	—	—	—	481	—	481
Income (loss) from continuing operations	181	(427)	(478)	235	786	297
Income (loss) from sale of intercompany investment, net of tax	—	—	(935)	—	935	—
Loss from discontinued operations, net of tax	—	—	—	(34)	—	(34)
Net income (loss)	181	(427)	(1,413)	201	1,721	263
Income from continuing operations attributable to noncontrolling interests	—	—	—	73	—	73
Income from discontinued operations attributable to noncontrolling interests	—	—	—	9	—	9
Net income (loss) attributable to Johnson Controls	$ 181	$ (427)	$ (1,413)	$ 119	$ 1,721	$ 181

CONDENSED CONSOLIDATING STATEMENT OF COMPREHENSIVE INCOME
For the Six Months Ended March 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 (loss)	$ 181	$ (427)	$ (1,413)	$ 201	$ 1,721	$ 263
Other comprehensive income (loss), net of tax						
Foreign currency translation adjustments	(418)	(7)	26	(470)	418	(451)
Realized and unrealized losses on derivatives	(6)	—	—	(4)	6	(4)
Realized and unrealized gains on marketable securities	9	—	7	2	(9)	9
Other comprehensive income (loss)	(415)	(7)	33	(472)	415	(446)
Total comprehensive loss	(234)	(434)	(1,380)	(271)	2,136	(183)
Comprehensive income attributable to noncontrolling interests	—	—	—	51	—	51
Comprehensive loss attributable to Johnson Controls	$ (234)	$ (434)	$ (1,380)	$ (322)	$ 2,136	$ (234)

CONDENSED CONSOLIDATING STATEMENT OF FINANCIAL POSITION
As of March 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	$ 3	$ —	$ 288	$ 482	$ (361)	$ 412
Accounts receivable - net	—	—	—	6,094	—	6,094
Inventories	—	—	—	3,138	—	3,138
Intercompany receivables	1,803	2,039	382	4,576	(8,800)	—
Assets held for sale	—	—	—	2,037	—	2,037
Other current assets	14	—	1	1,533	—	1,548
Current assets	$ 1,820	$ 2,039	$ 671	$ 17,860	$ (9,161)	$ 13,229
Property, plant and equipment - net	—	—	—	5,601	—	5,601
Goodwill	243	—	32	19,369	—	19,644
Other intangible assets - net	—	—	—	6,687	—	6,687
Investments in partially-owned affiliates	—	—	—	1,099	—	1,099
Investments in affiliates	17,112	28,629	22,254	—	(67,995)	—
Intercompany loans receivable	18,205	4,140	2,836	8,398	(33,579)	—
Other noncurrent assets	—	—	18	3,329	—	3,347
Total assets	$ 37,380	$ 34,808	$ 25,811	$ 62,343	$ (110,735)	$ 49,607
Liabilities and Equity						
Short-term debt	$ 885	$ 76	$ —	$ 524	$ (361)	$ 1,124
Current portion of long-term debt	444	—	18	80	—	542
Accounts payable	1	—	—	3,719	—	3,720
Accrued compensation and benefits	—	—	—	1,082	—	1,082
Liabilities held for sale	—	—	—	237	—	237
Intercompany payables	2,588	1,007	4,343	862	(8,800)	—
Other current liabilities	292	2	23	3,720	—	4,037
Current liabilities	4,210	1,085	4,384	10,224	(9,161)	10,742
Long-term debt	7,347	—	149	4,314	—	11,810
Pension and postretirement benefits	—	—	—	1,048	—	1,048
Intercompany loans payable	6,435	18,205	1,964	6,975	(33,579)	—
Other noncurrent liabilities	—	—	24	5,614	—	5,638
Long-term liabilities	13,782	18,205	2,137	17,951	(33,579)	18,496
Redeemable noncontrolling interests	—	—	—	168	—	168
Ordinary shares	9	—	—	—	—	9
Ordinary shares held in treasury	(172)	—	—	—	—	(172)
Other shareholders' equity	19,551	15,518	19,290	33,187	(67,995)	19,551
Shareholders' equity attributable to Johnson Controls	19,388	15,518	19,290	33,187	(67,995)	19,388
Noncontrolling interests	—	—	—	813	—	813
Total equity	19,388	15,518	19,290	34,000	(67,995)	20,201
Total liabilities and equity	$ 37,380	$ 34,808	$ 25,811	$ 62,343	$ (110,735)	$ 49,607

CONDENSED CONSOLIDATING STATEMENT OF CASH FLOWS
For the Six Months Ended March 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	$ 80	$ —	$ 67	$ (1,683)	$ —	$ (1,536)
Investing Activities						
Capital expenditures	—	—	—	(634)	—	(634)
Sale of property, plant and equipment	—	—	—	18	—	18
Acquisition of businesses, net of cash acquired	—	—	(6)	—	—	(6)
Business divestitures	—	—	—	180	—	180
Changes in long-term investments	—	—	(11)	(19)	—	(30)
Net change in intercompany loans receivable	—	—	10	165	(175)	—
Increase in intercompany investment in subsidiaries	(1,924)	(1,716)	(76)	—	3,716	—
Net cash used by investing activities	(1,924)	(1,716)	(83)	(290)	3,541	(472)
Financing Activities						
Increase (decrease) in short-term debt - net	885	76	—	(545)	(361)	55
Increase in long-term debt	1,544	—	—	8	—	1,552
Repayment of long-term debt	(46)	—	(16)	(769)	—	(831)
Debt financing costs	(17)	—	—	—	—	(17)
Stock repurchases	(119)	—	—	—	—	(119)
Payment of cash dividends	(235)	—	—	—	—	(235)
Proceeds from the exercise of stock options	88	—	—	—	—	88
Net change in intercompany loans payable	(165)	—	—	(10)	175	—
Increase in equity from parent	—	1,640	76	2,000	(3,716)	—
Dividends paid to noncontrolling interests	—	—	—	(78)	—	(78)
Dividend from Adient spin-off	—	—	—	2,050	—	2,050
Cash transferred to Adient related to spin-off	(87)	—	—	(578)	—	(665)
Cash paid related to prior acquisitions	—	—	—	(37)	—	(37)
Other	(12)	—	—	10	—	(2)
Net cash provided by financing activities	1,836	1,716	60	2,051	(3,902)	1,761
Effect of exchange rate changes on cash and cash equivalents	—	—	—	(25)	—	(25)
Changes in cash held for sale	—	—	—	105	—	105
Increase (decrease) in cash and cash equivalents	(8)	—	44	158	(361)	(167)
Cash and cash equivalents at beginning of period	11	—	244	324	—	579
Cash and cash equivalents at end of period	$ 3	$ —	$ 288	$ 482	$ (361)	$ 412

CONDENSED CONSOLIDATING STATEMENT OF FINANCIAL POSITION
As of September 30, 2016

(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	$ 11	$ —	$ 244	$ 324	$ —	$ 579
Accounts receivable - net	—	—	—	6,394	—	6,394
Inventories	—	—	—	2,888	—	2,888
Intercompany receivables	16	—	2	6,188	(6,206)	—
Assets held for sale	—	—	—	5,812	—	5,812
Other current assets	6	—	1	1,429	—	1,436
Current assets	$ 33	$ —	$ 247	$ 23,035	$ (6,206)	$ 17,109
Property, plant and equipment - net	—	—	—	5,632	—	5,632
Goodwill	—	—	274	20,750	—	21,024
Other intangible assets - net	—	—	—	7,540	—	7,540
Investments in partially-owned affiliates	—	—	—	990	—	990
Investments in affiliates	12,460	31,142	27,643	—	(71,245)	—
Intercompany loans receivable	18,680	—	13,336	15,631	(47,647)	—
Noncurrent assets held for sale	—	—	—	7,374	—	7,374
Other noncurrent assets	—	—	—	3,510	—	3,510
Total assets	$ 31,173	$ 31,142	$ 41,500	$ 84,462	$ (125,098)	$ 63,179
Liabilities and Equity						
Short-term debt	$ —	$ —	$ —	$ 1,078	$ —	$ 1,078
Current portion of long-term debt	—	—	—	628	—	628
Accounts payable	1	—	—	3,999	—	4,000
Accrued compensation and benefits	—	—	—	1,333	—	1,333
Liabilities held for sale	—	—	—	4,276	—	4,276
Intercompany payables	3,873	—	2,315	18	(6,206)	—
Other current liabilities	3	2	32	4,979	—	5,016
Current liabilities	3,877	2	2,347	16,311	(6,206)	16,331
Long-term debt	—	—	2,413	8,640	—	11,053
Pension and postretirement benefits	—	—	—	1,550	—	1,550
Intercompany loans payable	3,178	18,680	12,453	13,336	(47,647)	—
Noncurrent liabilities held for sale	—	—	—	3,888	—	3,888
Other noncurrent liabilities	—	—	22	5,011	—	5,033
Long-term liabilities	3,178	18,680	14,888	32,425	(47,647)	21,524
Redeemable noncontrolling interest	—	—	—	234	—	234
Ordinary shares	9	—	—	—	—	9
Ordinary shares held in treasury	(20)	—	—	—	—	(20)
Other shareholders' equity	24,129	12,460	24,265	34,520	(71,245)	24,129
Shareholders’ equity attributable to Johnson Controls	24,118	12,460	24,265	34,520	(71,245)	24,118
Noncontrolling interests	—	—	—	972	—	972
Total equity	24,118	12,460	24,265	35,492	(71,245)	25,090
Total liabilities and equity	$ 31,173	$ 31,142	$ 41,500	$ 84,462	$ (125,098)	$ 63,179

22. 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 March 31, 2017, reserves for environmental liabilities totaled $46 million, of which $9 million was recorded within other current liabilities and $37 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, 2016. 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. At March 31, 2017 and September 30, 2016, the Company recorded conditional asset retirement obligations of $72 million and $74 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 March 31, 2017, the Company's estimated asbestos related net liability recorded on a discounted basis within the Company's consolidated statements of financial position is $152 million. The net liability within the consolidated statements of financial position is comprised of a liability for pending and future claims and related defense costs of $540 million, of which $35 million is recorded in other current liabilities and $505 million is recorded in other noncurrent liabilities. The Company also maintains separate cash, investments and receivables related to insurance recoveries within the consolidated statements of financial position of $388 million, of which $57 million is recorded in other current assets, and $331 million is recorded in other noncurrent assets. Assets include $33 million of cash and $258 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 March 31, 2017 is $97 million. As of September 30, 2016, the Company's estimated asbestos related net liability recorded on a discounted basis within the Company's consolidated statements of financial position is $148 million. The net liability within the consolidated statements of financial position is comprised of a liability for pending and future claims and related defense costs of $548 million, of which $35 million is recorded in other current liabilities and $513 million is recorded in other noncurrent liabilities. The Company also maintains separate cash, investments and receivables related to insurance recoveries within the consolidated statements of financial position of $400 million, of which $41 million is recorded in other current assets, and $359 million is recorded in other noncurrent assets. Assets include $16 million of cash and $264 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, 2016 is $120 million. The Company believes that the asbestos related liabilities and insurance related receivables recorded as of March 31, 2017 and September 30, 2016 are appropriate.

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 2069 (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 2069. 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 March 31, 2017 and September 30, 2016, the insurable liabilities for continuing operations totaled $468 million and $422 million, respectively, of which $86 million and $60 million was recorded within other current liabilities, $32 million and $28 million was recorded within accrued compensation and benefits, and $350 million and $334 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 March 31, 2017 was $48 million, of which $30 million was recorded within other current assets and $18 million was recorded within other noncurrent assets. Insurance receivables recorded at September 30, 2016 were $21 million, primarily recorded within other noncurrent assets. The Company maintains captive insurance companies to manage certain of its insurable liabilities.

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.

23. 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 for continuing operations included in the consolidated statements of income were $229 million and $52 million, respectively, for the three months ended March 31, 2017; and $236 million and $45 million, respectively, for the three months ended March 31, 2016. The net sales to and purchases from related parties for continuing operations included in the consolidated statements of income were $454 million and $101 million, respectively, for the six months ended March 31, 2017; and $470 million and $83 million, respectively, for the six months ended March 31, 2016.

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

	March 31, 2017	September 30, 2016
Receivable from related parties	$ 57	$ 66
Payable to related parties	20	11

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") and 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, 2016 filed with the United States Securities and Exchange Commission (SEC) on November 23, 2016 and available at www.sec.gov and www.johnsoncontrols.com under the "Investors" tab. Shareholders, potential investors and others should consider these factors in evaluating the forward-looking statements and should not place undue reliance on such statements. 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 Technologies & Solutions 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. Refer to Note 3, "Merger Transaction," of the notes to consolidated financial statements for additional information.

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 is expected to create immediate opportunities for near-term growth through cross-selling, complementary branch and channel networks, and expanded global reach for established businesses. The new Company is also expected to benefit 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 at December 31, 2016.

The Building Efficiency business is a global market leader in designing, producing, marketing and installing integrated heating, ventilating and air conditioning (HVAC) systems, building management systems, controls, security and mechanical equipment. In addition, the Buildings business provides technical services and energy management consulting. The Company also provides residential air conditioning and heating systems and industrial refrigeration products.

The Tyco business is a global market leader in providing security products and services, fire detection and suppression products and services, and life and safety products. Tyco designs, sells, installs, services and monitors electronic security systems and fire detection and suppression systems. In addition, Tyco manufactures and sells fire protection, security and life safety products, including intrusion security, anti-theft devices, breathing apparatus and access control and video management systems. The products and services are for commercial, industrial, retail, residential, small business, institutional and governmental customers worldwide.

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, 2016 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, 2016 filed with the SEC on November 23, 2016, portions of which (including Part I, Item 1. Business and Item 3. Legal Proceedings, and the following items from Part II of the Annual Report: Item 6. Selected Financial Data, Item 7. Management’s Discussion and Analysis, and Item 8. Financial Statements and Supplementary Data) were recast in the Company's Current Report on Form 8-K filed with the SEC on February 23, 2017. References in the following discussion and analysis to "Three Months"(or similar language) refer to the three months ended March 31, 2017 compared to the three months ended March 31, 2016, while references to "Year-to-Date" refer to the six months ended March 31, 2017 compared to the six months ended March 31, 2016.

Liquidity and Capital Resources

The Company believes its capital resources and liquidity position at March 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 fiscal 2017 will continue 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 its wholly-owned indirect subsidiary, 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 facilities as of March 31, 2017. 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. The TSarl's revolving credit facility also limits its ability to incur subsidiary debt or grant liens on its and its subsidiaries' property. As of March 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 2017, the Company believes the long-term rate of return will approximate 7.50%, 3.40% and 5.60% for U.S. pension, non-U.S. pension and postretirement plans, respectively. During the first six months of fiscal 2017, the Company made approximately $258 million in total pension and postretirement contributions. In total, the Company expects to contribute approximately $326 million in cash to its defined benefit pension plans in fiscal 2017. The Company expects to contribute $4 million in cash to its postretirement plans in fiscal 2017.

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 2017 and recorded $177 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 business 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 from continuing operations by approximately $185 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 2018. For fiscal 2017, the savings from continuing operations, net of execution costs, are expected to be approximately 60% 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 $125 million at March 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 within continuing operations. 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 from continuing operations 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 by the end of fiscal 2018. For fiscal 2017, the savings from continuing operations, net of execution costs, are expected to be approximately 35% 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 $168 million at March 31, 2017 is expected to be paid in cash.

Net Sales

	Three Months Ended March 31,			Six Months Ended March 31,		
(in millions)	2017	2016	Change	2017	2016	Change
Net sales	$ 7,267	$ 4,733	54%	$ 14,353	$ 9,429	52%

The increase in consolidated net sales for the three months ended March 31, 2017 was due to higher sales in the Building Technologies & Solutions business ($2,411 million) and the Power Solutions business ($117 million), and the favorable impact of foreign currency translation ($6 million). Incremental sales resulted from the Tyco Merger, the impact of higher lead costs on pricing in the Power Solutions business and higher volumes across all Building Efficiency segments. Excluding the favorable impacts of the Tyco Merger and foreign currency translation, consolidated net sales increased 4% as compared to the prior year. Refer to the "Segment Analysis" below within Item 2 for a discussion of net sales by segment.

The increase in consolidated net sales for the six months ended March 31, 2017 was due to higher sales in the Building Technologies & Solutions business ($4,620 million) and the Power Solutions business ($288 million), and the favorable impact of foreign currency translation ($16 million). Incremental sales resulted from the Tyco Merger, the impact of higher lead costs on pricing and higher global shipments in the Power Solutions business, and higher volumes in the Building Efficiency Products North America and Asia segments. Excluding the favorable impacts of the Tyco Merger and foreign currency translation, 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

	Three Months Ended March 31,			Six Months Ended March 31,		
(in millions)	2017	2016	Change	2017	2016	Change
Cost of sales	$ 4,986	$ 3,446	45%	$ 9,958	$ 6,885	45%
Gross profit	2,281	1,287	77%	4,395	2,544	73%
% of sales	31.4%	27.2%		30.6%	27.0%	

Cost of sales for the three month period ended March 31, 2017 increased as compared to the three month period ended March 31, 2016, and gross profit as a percentage of sales increased by 420 basis points. Gross profit in the Building Technologies & Solutions business increased due to the incremental gross profit related to the Tyco Merger and higher volumes across all Building Efficiency segments, partially offset by higher operating costs in the Building Efficiency Asia and Systems and Service North America segments as a result of product and channel investments as well as mix. Gross profit in the Power Solutions business was impacted by favorable pricing and product mix net of lead cost increases, partially offset by higher operating costs. Net mark-to-market adjustments on pension plans had a favorable impact on cost of sales of $5 million primarily due to favorable investment returns versus expectations. Foreign currency translation had a unfavorable impact on cost of sales of approximately $3 million. Refer to the "Segment Analysis" below within Item 2 for a discussion of segment earnings before interest, taxes and amortization (EBITA) by segment.

Cost of sales for the six month period ended March 31, 2017 increased as compared to the six month period ended March 31, 2016, and gross profit as a percentage of sales increased by 360 basis points. Gross profit in the Building Technologies & Solutions business increased due to the incremental gross profit related to the Tyco Merger and lower operating costs in the Building Efficiency Products North America segment, partially offset by higher operating costs in the Building Efficiency Systems and Service North America and Asia segments. Gross profit in the Power Solutions business was impacted by favorable pricing and product mix net of lead cost increases, and higher volumes, partially offset by higher operating costs. Net mark-to-market adjustments on pension plans had a favorable impact on cost of sales of $15 million primarily due to an increase in discount rates. Foreign currency translation had a unfavorable impact on cost of sales of approximately $15 million. Refer to the "Segment Analysis" below within Item 2 for a discussion of segment EBITA by segment.

Selling, General and Administrative Expenses

(in millions)	Three Months Ended March 31, 2017	2016	Change	Six Months Ended March 31, 2017	2016	Change
Selling, general and administrative expenses	$ 1,726	$ 899	92%	$ 3,296	$ 1,746	89%
% of sales	23.8%	19.0%		23.0%	18.5%	

Selling, general and administrative expenses (SG&A) for the three month period ended March 31, 2017 increased 92% as compared to the three month period ended March 31, 2016. The increase in SG&A was primarily due to incremental SG&A related to the Tyco Merger, partially offset by productivity savings and costs synergies as well as net mark-to-market adjustments on pension plans. The net mark-to-market adjustments had a favorable impact on SG&A of $13 million primarily due to favorable investment returns versus expectations. Foreign currency translation had an unfavorable impact on SG&A of $3 million. Refer to the "Segment Analysis" below within Item 2 for a discussion of segment EBITA by segment.

SG&A for the six month period ended March 31, 2017 increased 89% as compared to the six month period ended March 31, 2016. The increase in SG&A was primarily due to incremental SG&A related to the Tyco Merger, partially offset by productivity savings and costs synergies as well as net mark-to-market adjustments on pension plans. The net mark-to-market adjustments had a favorable impact on SG&A of $120 million primarily due to an increase in discount rates. Foreign currency translation had an unfavorable impact on SG&A of $7 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 March 31, 2017	2016	Change	Six Months Ended March 31, 2017	2016	Change
Restructuring and impairment costs	$ 99	$ 60	65%	$ 177	$ 60	*

* Measure not meaningful

Refer to Note 9, "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 March 31, 2017	2016	Change	Six Months Ended March 31, 2017	2016	Change
Net financing charges	$ 116	$ 71	63%	$ 252	$ 137	84%

Net financing charges were higher for the three month period ended March 31, 2017 primarily due to higher interest rates and higher average borrowing levels as a result of the debt assumed with the Tyco Merger. Net financing charges were higher for the six month period ended March 31, 2017 primarily due to higher interest rates, higher average borrowing levels as a result of the debt assumed with the Tyco Merger and debt exchange offer fees.

Equity Income

(in millions)	Three Months Ended March 31, 2017	Three Months Ended March 31, 2016	Change	Six Months Ended March 31, 2017	Six Months Ended March 31, 2016	Change
Equity income	$ 53	$ 40	33%	$ 108	$ 82	32%

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

Income Tax Provision

(in millions)	Three Months Ended March 31, 2017	Three Months Ended March 31, 2016	Change	Six Months Ended March 31, 2017	Six Months Ended March 31, 2016	Change
Income tax provision	$ 508	$ 41	*	$ 481	$ 124	*
Effective tax rate	129%	14%		62%	18%	

* 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 annual 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 since the Company was a U.S. domiciled company for 11 months of 2016 and due to the Company's current legal entity structure. For the three months ended March 31, 2017, the Company's effective tax rate for continuing operations was 129%. The effective tax rate was higher than the U.S. federal statutory rate of 35% primarily due to the establishment of a deferred tax liability on the outside basis difference of the Company's investment in certain subsidiaries related to the pending divestiture of the Scott Safety business, the jurisdictional mix of significant restructuring and impairment costs, and Tyco Merger transaction and integration costs, partially offset by the benefits of continuing global tax planning initiatives and non-U.S. tax rate differentials. For the six months ended March 31, 2017, the Company's effective tax rate for continuing operations was 62%. The effective tax rate was higher than the U.S. federal statutory rate of 35% primarily due to the establishment of a deferred tax liability on the outside basis difference of the Company's investment in certain subsidiaries related to the pending divestiture of the Scott Safety business, the jurisdictional mix of significant restructuring and impairment costs, and Tyco Merger transaction / integration costs and purchase accounting impacts, partially offset by 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. For the three and six months ended March 31, 2016, the Company's effective tax rate for continuing operations was 14% and 18%, respectively. The effective rate was lower than the U.S. federal statutory rate of 35% primarily due to the benefits of continuing global tax planning initiatives and non-U.S. tax rate differentials. The effective tax rate for the six months ended March 31, 2017, increased as compared to the six months ended March 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.

In the second quarter of fiscal 2017, the Company recorded a discrete non-cash tax charge of $457 million related to establishment of a deferred tax liability on the outside basis difference of the Company's investment in certain subsidiaries of the Scott Safety business. This business is now reported as net assets held for sale given the announced sale to 3M Company in calendar 2017. Refer to Note 4, "Acquisitions and Divestitures" and Note 5, "Discontinued Operations," of the notes to consolidated financial statements for additional information.

In the second quarter of fiscal 2017, the Company recorded $138 million of transaction and integration costs which generated a $31 million tax benefit.

In the second quarter of fiscal 2017, the Company recorded $99 million of significant restructuring and impairment costs. Refer to Note 9, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The restructuring costs generated a $20 million tax benefit, which was impacted by the Company’s current tax position in these jurisdictions.

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 9, "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.

In the second quarter of fiscal 2016, the Company recorded $60 million of significant restructuring and impairment costs. Refer to Note 9, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The restructuring costs generated a $12 million tax benefit, which was impacted by the geographic mix, the Company’s current tax position in these jurisdictions and the underlying tax basis in the impaired assets.

Loss From Discontinued Operations, Net of Tax

	Three Months Ended March 31,			Six Months Ended March 31,		
(in millions)	2017	2016	Change	2017	2016	Change
Loss from discontinued operations, net of tax	$ —	$ (725)	*	$ (34)	$ (538)	*

* Measure not meaningful

Refer to Note 5, "Discontinued Operations," of the notes to consolidated financial statements for further information regarding the Company's discontinued operations.

Income Attributable to Noncontrolling Interests

	Three Months Ended March 31,			Six Months Ended March 31,		
(in millions)	2017	2016	Change	2017	2016	Change
Income from continuing operations attributable to noncontrolling interests	$ 33	$ 38	-13%	$ 73	$ 61	20%
Income from discontinued operations attributable to noncontrolling interests	—	23	*	9	40	-78%

* Measure not meaningful

The decrease in income from continuing operations attributable to noncontrolling interests for the three months ended March 31, 2017, was primarily due to the mix of earnings and underlying tax rates related to the JCH joint venture in the Building Technologies & Solutions business. The increase in income from continuing operations attributable to noncontrolling interests for the six months ended March 31, 2017, was primarily due to higher net income related to the JCH joint venture in the Building Technologies & Solutions business.

Refer to Note 5, "Discontinued Operations," of the notes to consolidated financial statements for further information regarding the Company's discontinued operations.

Net Income (Loss) Attributable to Johnson Controls

(in millions)	Three Months Ended March 31, 2017	Three Months Ended March 31, 2016	Change	Six Months Ended March 31, 2017	Six Months Ended March 31, 2016	Change
Net income (loss) attributable to Johnson Controls	$ (148)	$ (530)	*	$ 181	$ (80)	*

* Measure not meaningful

The increase in net income attributable to Johnson Controls for the three and six months ended March 31, 2017 was primarily due to incremental operating income as a result of the Tyco Merger and a prior year loss from discontinued operations, partially offset by an increase in the income tax provision and higher net financing charges. Diluted earnings (loss) per share attributable to Johnson Controls for the three months ended March 31, 2017 was $(0.16) compared to $(0.81) for the three months ended March 31, 2016. Diluted earnings (loss) per share attributable to Johnson Controls for the six months ended March 31, 2017 was $0.19 compared to $(0.12) for the six months ended March 31, 2016.

Comprehensive Income (Loss) Attributable to Johnson Controls

(in millions)	Three Months Ended March 31, 2017	Three Months Ended March 31, 2016	Change	Six Months Ended March 31, 2017	Six Months Ended March 31, 2016	Change
Comprehensive income (loss) attributable to Johnson Controls	$ 98	$ (351)	*	$ (234)	$ (62)	*

* Measure not meaningful

The increase in comprehensive income attributable to Johnson Controls for the three months ended March 31, 2017 was primarily due to lower net loss attributable to Johnson Controls ($382 million) and an increase in other comprehensive income attributable to Johnson Controls ($67 million) resulting primarily from favorable foreign currency translation adjustments. These year-over-year favorable foreign currency translation adjustments were primarily driven by the strengthening of the Brazilian real, euro and Japanese yen currencies against the U.S. dollar.

The decrease in comprehensive income attributable to Johnson Controls for the six months ended March 31, 2017 was primarily due to an increase in other comprehensive loss attributable to Johnson Controls ($433 million) resulting primarily from unfavorable foreign currency translation adjustments, partially offset by higher net income attributable to Johnson Controls ($261 million). These year-over-year unfavorable foreign currency translation adjustments were primarily driven by the weakening of the British pound, euro and Japanese yen currencies against the U.S. dollar.

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 the net mark-to-market adjustments related to pension and postretirement plans.

Building Technologies & Solutions - Net Sales

(in millions)	Three Months Ended March 31, 2017	Three Months Ended March 31, 2016	Change	Six Months Ended March 31, 2017	Six Months Ended March 31, 2016	Change
Building Efficiency						
Systems and Service North America	$ 1,047	$ 1,034	1%	$ 1,975	$ 2,018	-2%
Products North America	585	546	7%	1,128	1,103	2%
Asia	1,173	1,162	1%	2,215	2,154	3%
Rest of World	424	408	4%	822	831	-1%
	3,229	3,150	3%	6,140	6,106	1%
Tyco	2,342	—	*	4,617	—	*
	$ 5,571	$ 3,150	77%	$ 10,757	$ 6,106	76%

* Measure not meaningful

Three Months:

- The increase in Systems and Service North America was due to higher volumes of controls systems and service ($24 million), and the favorable impact of foreign currency translation ($3 million), partially offset by a prior year business divestiture ($14 million). The increase in volumes was primarily attributable to market share changes.

- The increase in Products North America was due to higher volumes ($42 million), partially offset by a prior year business divestiture ($2 million) and the unfavorable impact of foreign currency translation ($1 million). The increase in volumes was primarily attributable to market share changes and new product offerings.

- The increase in Asia was due to the favorable impact of foreign currency translation ($12 million) and higher service volumes ($10 million), partially offset by lower volumes related to a business deconsolidation ($11 million). The increase in volumes was primarily due to favorable local market conditions.

- The increase in Rest of World was due to higher volumes in Europe ($23 million), the Middle East ($3 million) and Latin America ($3 million), partially offset by a prior year business divestiture ($9 million) and the unfavorable impact of foreign currency translation ($4 million). The increase in volumes was primarily due to favorable local market conditions.

- The increase in Tyco was due to incremental sales related to the Tyco Merger ($2,342 million).

Year-to-Date:

- The decrease in Systems and Service North America was due to a prior year business divestiture ($28 million), and lower volumes of controls systems and service ($18 million), partially offset by the favorable impact of foreign currency translation ($3 million). The decrease in volumes was primarily attributable to lower performance contracting activity.

- The increase in Products North America was due to higher volumes ($32 million), partially offset by a prior year business divestiture ($5 million) and the unfavorable impact of foreign currency translation ($2 million). The increase in volumes was primarily attributable to market share changes and new product offerings.

- The increase in Asia was due to the favorable impact of foreign currency translation ($41 million), higher service volumes ($21 million), and higher volumes of equipment and control systems ($17 million), partially offset by lower volumes related to a business deconsolidation ($18 million). The increase in volumes was primarily due to favorable local market conditions.

- The decrease in Rest of World was due to lower volumes in the Middle East ($17 million), a prior year business divestiture ($16 million) and the unfavorable impact of foreign currency translation ($11 million), partially offset by higher volumes in Europe ($25 million) and Latin America ($10 million).

- The increase in Tyco was due to incremental sales related to the Tyco Merger ($4,617 million).

Building Technologies & Solutions - Segment EBITA

(in millions)	Three Months Ended March 31, 2017	Three Months Ended March 31, 2016	Change	Six Months Ended March 31, 2017	Six Months Ended March 31, 2016	Change
Building Efficiency						
Systems and Service North America	$ 90	$ 101	-11%	$ 165	$ 200	-18%
Products North America	57	47	21%	94	80	18%
Asia	118	118	0%	237	188	26%
Rest of World	9	10	-10%	(1)	7	*
	274	276	-1%	495	475	4%
Tyco	379	—	*	593	—	*
	$ 653	$ 276	*	$ 1,088	$ 475	*

* Measure not meaningful

Three Months:

- The decrease in Systems and Service North America was due to higher operating costs as a result of mix and channel investments ($19 million), current year transaction costs ($1 million) and a prior year business divestiture ($1 million), partially offset by higher volumes ($6 million), and lower selling, general and administrative expenses ($4 million).

- The increase in Products North America was due to higher volumes ($11 million), lower operating costs ($6 million), and favorable pricing and mix ($3 million), partially offset by higher selling, general and administrative expenses ($4 million), current year integration costs ($3 million), current year transaction costs ($2 million) and the unfavorable impact of foreign currency translation ($1 million).

- Asia was level with the prior year due to lower selling, general and administrative expenses as a result of productivity savings ($19 million), prior year integration costs ($5 million), higher volumes ($2 million), the favorable impact of foreign currency translation ($2 million), higher equity income ($1 million) and prior year transaction costs ($1 million), offset by higher operating costs due to mix and product investments ($30 million).

- The decrease in Rest of World was due to a prior year gain on acquisition of a partially-owned affiliate ($4 million), higher operating costs ($2 million), lower equity income ($2 million), a prior year business divestiture ($1 million) and the unfavorable impact of foreign currency translation ($1 million), partially offset by higher volumes ($7 million), and lower selling, general and administrative expenses ($2 million).

- The increase in Tyco was due to incremental operating income related to the Tyco Merger ($348 million) and the impact of nonrecurring purchasing accounting adjustments ($51 million), partially offset by current year integration costs ($14 million) and current year transaction costs ($6 million).

Year-to-Date:

- The decrease in Systems and Service North America was due to higher operating costs as a result of mix and channel investments ($29 million), lower volumes ($6 million), current year integration costs ($3 million), current year transaction costs ($3 million) and a prior year business divestiture ($2 million), partially offset by lower selling, general and administrative expenses ($8 million).

- The increase in Products North America was due to lower operating costs as a result of cost reduction initiatives ($15 million), higher volumes ($7 million), and favorable pricing and mix ($2 million), partially offset by current year integration costs ($4 million), current year transaction costs ($3 million), the unfavorable impact of foreign currency translation ($2 million) and lower equity income ($1 million).

- The increase in Asia was due to lower selling, general and administrative expenses as a result of productivity savings ($26 million), higher equity income ($14 million), prior year transaction costs ($10 million), higher volumes ($9 million) and prior year integration costs ($8 million), partially offset by higher operating costs due to mix and product investments ($18 million).

- The decrease in Rest of World was due to lower equity income ($8 million), a prior year gain on acquisition of a partially-owned affiliate ($4 million), higher operating costs ($3 million), the unfavorable impact of foreign currency translation ($2 million), a prior year business divestiture ($1 million) and current year integration costs ($1 million), partially offset by lower selling, general and administrative expenses ($9 million), and higher volumes ($2 million).

- The increase in Tyco was due to incremental operating income related to the Tyco Merger ($697 million), partially offset by the impact of nonrecurring purchasing accounting adjustments ($61 million), current year integration costs ($23 million) and current year transaction costs ($20 million).

Power Solutions

	Three Months Ended March 31,			Six Months Ended March 31,		
(in millions)	2017	2016	Change	2017	2016	Change
Net sales	$ 1,696	$ 1,583	7%	$ 3,596	$ 3,323	8%
Segment EBITA	303	282	7%	692	642	8%

Three Months:

- Net sales increased due to the impact of higher lead costs on pricing ($127 million), and favorable pricing and product mix ($30 million), partially offset by lower volumes ($40 million) and the unfavorable impact of foreign currency translation ($4 million). The decrease in volumes was driven by changes in customer demand patterns in North America and China, partially offset by an increase in start-stop battery volumes. Additionally, higher start-stop volumes contributed to favorable product mix.

- Segment EBITA increased due to favorable pricing and product mix net of lead cost increases ($19 million), higher equity income ($14 million), and lower selling, general and administrative expenses as a result of productivity savings ($10 million), partially offset by lower volumes ($12 million) and higher operating costs ($10 million).

Year-to-Date:

- Net sales increased due to the impact of higher lead costs on pricing ($174 million), favorable pricing and product mix ($58 million), and higher volumes ($56 million), partially offset by the unfavorable impact of foreign currency translation ($15 million). The increase in volumes was driven by start-stop battery volumes and growth in China. Additionally, higher start-stop volumes contributed to favorable product mix.

- Segment EBITA increased due to favorable pricing and product mix net of lead cost increases ($40 million), higher equity income ($18 million), higher volumes ($15 million), and lower selling, general and administrative expenses as a result of productivity savings ($9 million), partially offset by higher operating costs primarily driven by efforts to satisfy growing customer demand ($29 million), the unfavorable impact of foreign currency translation ($2 million) and 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 March 31, 2017, the backlog was $8.3 billion and reflects harmonization of the Company's method for determining backlog subsequent to the Tyco Merger. The backlog amount outstanding at any given time is not necessarily indicative of the amount of revenue to be earned during the fiscal year.

Financial Condition

Working Capital

(in millions)	March 31, 2017	September 30, 2016	Change
Current assets	$ 13,229	$ 17,109	
Current liabilities	(10,742)	(16,331)	
	2,487	778	*
Less: Cash	(412)	(579)	
Add: Short-term debt	1,124	1,078	
Add: Current portion of long-term debt	542	628	
Less: Assets held for sale	(2,037)	(5,812)	
Add: Liabilities held for sale	237	4,276	
Working capital (as defined)	$ 1,941	$ 369	*
Accounts receivable - net	$ 6,094	$ 6,394	-5%
Inventories	3,138	2,888	9%
Accounts payable	3,720	4,000	-7%

* 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, provides a more useful measurement of the Company's underlying operating performance.

- Excluding the impact of amounts classified as held for sale, the increase in working capital at March 31, 2017 as compared to September 30, 2016 was primarily due to income tax payments related to the Adient spin-off, a decrease in accounts payable due to timing of supplier payments and an increase in inventory due to changes in production levels.

- The Company's days sales in accounts receivable at March 31, 2017 were 65 days, higher than 61 days at September 30, 2016. There have 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 March 31, 2017 were lower than the comparable period ended September 30, 2016, primarily due to changes in inventory production levels.

- Days in accounts payable at March 31, 2017 were 63 days, lower than 69 days at the comparable period ended September 30, 2016.

Cash Flows

(in millions)	Six Months Ended March 31, 2017	2016
Cash provided (used) by operating activities	$ (1,536)	$ 621
Cash used by investing activities	(472)	(617)
Cash provided (used) by financing activities	1,761	(234)
Capital expenditures	(634)	(543)

- The increase in cash used by operating activities for the six months ended March 31, 2017 was primarily due to higher income tax payments primarily due to the Adient spin-off ($1.2 billion in the first quarter of fiscal 2017), and unfavorable changes in accounts payable and accrued liabilities, other assets and inventories.

- The decrease in cash used by investing activities for the six months ended March 31, 2017 was primarily due to cash received from a business divestiture in the current year and cash paid for the JCH joint venture in the prior year, partially offset by an increase in capital expenditures.

- The increase in cash provided by financing activities for the six months ended March 31, 2017 was primarily due to the dividend from the Adient spin-off and an increase in long-term debt, partially offset by a decrease in short-term debt and cash transferred to Adient related to the spin-off.

- The increase in capital expenditures for the six months ended March 31, 2017 primarily relates to Tyco capital investments in the current year and higher capital investments in the Building Efficiency business.

Deferred Taxes

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.

The Company has certain subsidiaries, mainly located in Australia, Belgium, Brazil, China, France, Spain, Switzerland, Luxembourg and the United Kingdom, which have generated net operating loss carryforwards and, in certain circumstances, have limited loss carryforward periods. In accordance with ASC 740, "Income Taxes," the Company is required to record a valuation allowance when it is more likely than not the Company will not utilize deductible amounts or net operating losses for each legal entity or consolidated group based on the tax rules in the applicable jurisdiction, evaluating both positive and negative historical evidences as well as expected future events and tax planning strategies.

Long-Lived Assets

The Company reviews long-lived assets 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." 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.

In the first and second quarters of fiscal 2017, the Company concluded it had triggering events 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 $38 million of asset impairment charges within restructuring and impairment costs on the consolidated statements of income, of which $15 million was recorded in the first quarter and $23 million was recorded in the second quarter. Of the total impairment charges, $20 million related to the Building Efficiency Products North

America segment, $17 million related to Corporate assets and $1 million related to the Tyco segment. Refer to Note 9, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The impairments were measured, depending on the asset, under either an income approach utilizing forecasted discounted cash flows or a market approach utilizing an appraisal to determine fair values of the impaired assets. These methods are 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 second quarter of fiscal 2016, 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 2016. As a result, the Company reviewed the long-lived assets for impairment and recorded $15 million of asset impairment charge within restructuring and impairment costs on the consolidated statements of income. Of the total impairment charge, $8 million related to the Building Efficiency Products North America segment, $4 million related to the Building Efficiency Asia segment and $3 million related to the Building Efficiency Rest of World segment. In addition, the Company recorded $14 million of asset impairments within discontinued operations related to Adient in the second quarter of fiscal 2016. Refer to Note 9, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The impairments were measured, depending on the asset, under either an income approach utilizing forecasted discounted cash flows or a market approach utilizing an appraisal to determine fair values of the impaired assets. These methods are 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 March 31, 2017 and 2016, the Company concluded it did not have any other triggering events requiring assessment of impairment of its long-lived assets

Capitalization

(in millions)	March 31, 2017	September 30, 2016	Change
Short-term debt	$ 1,124	$ 1,078	
Current portion of long-term debt	542	628	
Long-term debt	11,810	11,053	
Total debt	13,476	12,759	6%
Shareholders’ equity attributable to Johnson Controls ordinary shareholders	19,388	24,118	-20%
Total capitalization	$ 32,864	$ 36,877	-11%
Total debt as a % of total capitalization	41%	35%	

- The Company believes the percentage of total 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.

- Shareholders' equity attributable to Johnson Controls ordinary shareholders decreased as a result of the Adient spin-off in October 2016. Refer to Note 5, "Discontinued Operations," of the notes to consolidated financial statements for further information.

- In connection with the Tyco Merger, on December 28, 2016, the Company completed its offers to exchange all validly tendered and accepted notes of certain series (the "existing notes") issued by JCI Inc. or Tyco International Finance S.A. ("TIFSA"), as applicable, each of which is a wholly owned subsidiary of the Company, for new notes (the New Notes) to be issued by the Company, and the related solicitation of consents to amend the indentures governing the existing notes (the offers to exchange and the related consent solicitation together the "exchange offers"). Pursuant to the exchange offers, the Company exchanged approximately $5.6 billion of $6.0 billion in aggregate principal amount of dollar denominated notes and approximately 423 million euro of 500 million euro in aggregate principal amount of euro denominated notes. All validly tendered and accepted existing notes have been canceled. Immediately following such cancellation, $380.9 million aggregate principal amount of existing notes (not including the TIFSA Euro Notes) remained outstanding across seventeen series of dollar-denominated existing notes and 77.4 million euro aggregate principal amount of TIFSA Euro Notes remained outstanding across one series. In connection with the settlement of the exchange offers, the New Notes were registered under the Securities Act of 1933 and their terms are described in the Company's Prospectus dated December 19, 2016, as filed with the SEC under Rule 424(b)(3) of the Act on that date. The issuance of the New Notes occurred on December 28, 2016. The New Notes are unsecured and unsubordinated obligations of the Company and will rank equally with all other unsecured and unsubordinated indebtedness of the Company issued from time to time.

- In March 2017, the Company issued one billion euro in principal amount of 1.0% senior unsecured fixed rate notes due in fiscal 2023. Proceeds from the issuance were used to repay existing debt and for other general corporate purposes.

- In March 2017, the Company entered into a 364-day $150 million committed revolving credit facility scheduled to expire in March 2018. As of March 31, 2017, there were no draws on the facility.

- In March 2017, the Company retired $46 million in principal amount, plus accrued interest, of its 2.355% fixed rate notes that matured in March 2017.

- In March 2017 and February 2017, the Company repurchased, at a discount, 15 million euro of its TIFSA 1.375% fixed rate notes, plus accrued interest, scheduled to mature in February 2025.

- In February 2017, the Company issued $500 million aggregate principal amount of 4.5% senior unsecured fixed rate notes due in fiscal 2047. Proceeds from the issuance were used to repay outstanding commercial paper borrowings and for other general corporate purposes.

- In February 2017, the Company entered into a 364-day $150 million committed revolving credit facility scheduled to expire in February 2018. As of March 31, 2017, there were no draws on the facility.

- In January 2017, the Company entered into a 364-day $250 million committed revolving credit facility scheduled to expire in January 2018. As of March 31, 2017, there were no draws on the facility outstanding.

- In December 2016, the Company retired $400 million in principal amount, plus accrued interest, of its 2.6% fixed rate notes that matured in December 2016.

- In December 2016, the Company entered into a 364-day 100 million euro floating rate term loan scheduled to mature in December 2017. Proceeds from the term loan were used for general corporate purposes. Principal and accrued interest were fully repaid in March 2017.

- In December 2016, a $100 million committed revolving credit facility expired. There were no draws on the facility.

- In November 2016, the Company fully repaid its 37 billion yen syndicated floating rate term loan, plus accrued interest, scheduled to mature in June 2020.

- In November 2016, a $35 million committed revolving credit facility expired. There were no draws on the facility.

- In October 2016, the Company repaid two ten-month floating rate term loans totaling $325 million, plus accrued interest, scheduled to mature in October 2016.

- In October 2016, the Company repaid a nine-month $100 million floating rate term loan, plus accrued interest, scheduled to mature in November 2016.

- In October 2016, the Company repaid a nine-month 100 million euro floating rate term loan, plus accrued interest, scheduled to mature in October 2016.

- 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 March 31, 2017, it could borrow up to $1.4 billion based on average borrowing levels during the quarter on committed credit lines.

- The Company believes its capital resources and liquidity position at March 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 2017 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 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 March 31, 2017 and September 30, 2016. As such, the Company believes it has sufficient financial resources to fund operations and meet its obligations for the foreseeable future.

- The Company earns a significant amount of its operating income outside of the parent company. Outside basis differences in these subsidiaries are deemed to be permanently reinvested. However, in fiscal 2017, the Company provided income tax expense related to a change in the Company’s assertion over the outside basis difference of the Scott Safety business as a result of the pending divestiture. The Company currently does not intend nor foresee a need to repatriate undistributed earnings included in the outside basis differences other than in tax efficient manners. However, in fiscal 2016, the Company did provide income tax expense related to a change in the Company's assertion over a portion of the permanently reinvested earnings as a result of the planned spin-off of the Automotive Experience business. Except as noted, the Company’s intent is to reduce basis differences only when it would be tax efficient. 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 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 in the U.S. than is generated by operations in the U.S., the Company could elect to raise capital in the U.S. through debt or equity issuances. In addition, should the Company require more capital at the Luxembourg and Ireland holding and financing entities, other than amounts that can be provided in tax efficient methods, the Company could also elect to raise capital through debt or equity issuances. This alternative could result in increased interest expense or other dilution of the Company’s earnings.

- 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. The TSarl's revolving credit facility also limits its ability to incur subsidiary debt or grant liens on its and its subsidiaries' property. As of March 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.

New Accounting Standards

Recently Adopted Accounting Pronouncements

In October 2016, the FASB issued Accounting Standards Update (ASU) No. 2016-17, "Consolidations (Topic 810): Interests Held through Related Parties that are under Common Control." The ASU changes how a single decision maker of a VIE that holds indirect interest in the entity through related parties that are under common control determines whether it is the primary beneficiary of the VIE. The new guidance amends ASU 2015-02, "Consolidation (Topic 810): Amendments to the Consolidation Analysis" issued in February 2015. ASU No. 2016-17 was effective for the Company for the quarter ending December 31, 2016. The adoption of this guidance did not have an impact on the Company's consolidated financial statements.

In May 2015, the FASB issued ASU No. 2015-07, "Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)." ASU No. 2015-07 removes the requirement to categorize within the fair value hierarchy all investments for which fair value is measured using the net asset value per share practical expedient. Such investments should be disclosed separate from the fair value hierarchy. ASU No. 2015-07 was effective retrospectively for the Company for the quarter ending December 31, 2016. The adoption of this guidance did not have an impact on the Company's consolidated financial statements, but did impact pension asset disclosures.

In April 2015, the FASB issued ASU No. 2015-03, "Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs." ASU No. 2015-03 requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of the debt liability. ASU No. 2015-03 was effective retrospectively for the Company for the quarter ending December 31, 2016. The adoption of this guidance did not have a significant impact on the Company's consolidated financial statements.

In February 2015, the FASB issued ASU No. 2015-02, "Consolidation (Topic 810): Amendments to the Consolidation Analysis." ASU No. 2015-02 amends the analysis performed to determine whether a reporting entity should consolidate certain types of legal entities. ASU No. 2015-02 was effective retrospectively for the Company for the quarter ending December 31, 2016. The adoption of this guidance did not have an impact on the Company's consolidated financial statements.

Recently Issued Accounting Pronouncements

In March 2017, the FASB issued ASU No. 2017-07, "Compensation—Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost." The ASU requires the service cost component of net periodic benefit cost to be presented with other compensation costs. The other components of net periodic benefit cost are required to be presented in the income statement separately from the service cost component and outside a subtotal of income from operations, if one is presented. The ASU also allows only the service cost component of net periodic benefit cost to be eligible for capitalization. The guidance will be effective for the Company for the quarter ending December 31, 2018. Early adoption is permitted as of the beginning of an annual period for which financial statements (interim or annual) have not been issued or made available for issuance. The guidance will be effective retrospectively except for the capitalization of the service cost component which should be applied prospectively. The adoption of this guidance is not expected to have a significant impact on the Company's consolidated financial statements.

In January 2017, the FASB issued ASU No. 2017-04, "Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment," which eliminates the requirement to calculate the implied fair value of goodwill to measure a goodwill impairment charge (Step 2) from the goodwill impairment test. Instead, an impairment charge will equal the amount by which a reporting unit's carrying amount exceeds its fair value, not to exceed the amount of goodwill allocated to the reporting unit. The guidance will be effective prospectively for the Company for the quarter ending December 31, 2020, with early adoption permitted after January 1, 2017. The impact of this guidance for the Company will depend on the outcomes of future goodwill impairment tests.

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 June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments." ASU No. 2016-13 changes the impairment model for financial assets measured at amortized cost, requiring presentation at the net amount expected to be collected. The measurement of expected credit losses is based upon historical experience, current conditions, and reasonable and supportable forecasts. Available-for-sale debt securities with unrealized losses will now be recorded through an allowance for credit losses. ASU No. 2016-13 will be effective for the Company for the quarter ended December 31, 2020, with early adoption permitted for the quarter ended December 31, 2019. The adoption of this guidance is not expected to have a significant 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. ASU No. 2016-09 will be effective for the Company for the quarter ending December 31, 2017, with early adoption permitted. The Company is currently assessing the impact adoption of this guidance will have on its consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-07, "Investments - Equity Method and Joint Ventures (Topic 323): Simplifying the Transition to the Equity Method of Accounting." ASU No. 2016-07 eliminates the requirement for an investment that qualifies for the use of the equity method of accounting as a result of an increase in the level of ownership or degree of influence to adjust the investment, results of operations and retained earnings retrospectively. ASU No. 2016-07 will be effective prospectively for the Company for increases in the level of ownership interest or degree of influence that result in the adoption of the equity method that occur during or after the quarter ending December 31, 2017, with early adoption permitted. The impact of this guidance for the Company is dependent on any future increases in the level of ownership interest or degree of influence that result in the adoption of the equity method.

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 July 2015, the FASB issued ASU No. 2015-11, "Simplifying the Measurement of Inventory." ASU No. 2015-11 requires inventory that is recorded using the first-in, first-out method to be measured at the lower of cost or net realizable value. ASU No. 2015-11 will be effective prospectively for the Company for the quarter ending December 31, 2017, with early adoption permitted. The adoption of this guidance is not expected to have a significant impact on the Company's consolidated financial statements.

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," and 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. 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 cannot quantify the potential impact the new revenue standard will have to its consolidated financial statements. The Company will decide which retrospective application to apply once its revenue standard assessment is finalized.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

As of March 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, 2016.

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 March 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 March 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

Environmental Matters

As noted in Item 1 to the Company’s Annual Report on Form 10-K for the year ended September 30, 2016, liabilities potentially arise globally under various environmental laws and worker safety laws for activities that are not in compliance with such laws and for the cleanup of sites where Company-related substances have been released into the environment.

Currently, the Company is responding to allegations that it is responsible for performing environmental remediation, or for the repayment of costs spent by governmental entities or others performing remediation, at approximately 45 sites in the United States. Many of these sites are landfills used by the Company in the past for the disposal of waste materials; others are secondary lead smelters and lead recycling sites where the Company returned lead-containing materials for recycling; a few involve the cleanup of Company manufacturing facilities; and the remaining fall into miscellaneous categories. The Company may face similar claims of liability at additional sites in the future. Where potential liabilities are alleged, the Company pursues a course of action intended to mitigate them.

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 March 31, 2017, reserves for environmental liabilities totaled $46 million, of which $9 million was recorded within other current liabilities and $37 million was recorded within other noncurrent liabilities in the consolidated statements of financial position. 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. At March 31, 2017, the Company recorded conditional asset retirement obligations of $72 million.

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 March 31, 2017, the Company's estimated asbestos related net liability recorded on a discounted basis within the Company's consolidated statements of financial position is $152 million. The net liability within the consolidated statements of financial position is comprised of a liability for pending and future claims and related defense costs of $540 million, of which $35 million is recorded in other current liabilities and $505 million is recorded in other noncurrent liabilities. The Company also maintains separate cash, investments and receivables related to insurance recoveries within the consolidated statements of financial position of $388 million, of which $57 million is recorded in other current assets, and $331 million is recorded in other noncurrent assets. Assets include $33 million of cash and $258 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 March 31, 2017 is $97 million. The Company believes that the asbestos related liabilities and insurance related receivables recorded as of March 31, 2017 are appropriate.

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 2069 (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 2069. 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 March 31, 2017, the insurable liabilities for continuing operations totaled $468 million, of which $86 million was recorded within other current liabilities, $32 million was recorded within accrued compensation and benefits, and $350 million and 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 March 31, 2017 was $48 million, of which $30 million was recorded within other current assets and $18 million was recorded within other noncurrent assets. The Company maintains captive insurance companies to manage certain of its insurable liabilities.

Other Matters

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. 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.

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.

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.

ITEM 1A. RISK FACTORS

There have been no material changes to the disclosure regarding risk factors presented in Item 1A to the Company's Annual Report on Form 10-K for the year ended September 30, 2016.

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. 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.

In April 2017, the Company announced its intention to utilize up to $750 million of the $1 billion authorization during fiscal 2017. Shares may be repurchased from time to time in open market purchases at prevailing market prices, in negotiated transactions off the market, or pursuant to a trading plan in accordance with applicable regulations.

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 Company had no outstanding equity swaps as of and during the three months ended March 31, 2017.

The following table presents information regarding the repurchase of the Company's ordinary shares by the Company as part of the publicly announced program. There were no purchases of the Company's ordinary shares by counterparties under equity swap agreements during the three months ended March 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
1/1/17 - 1/31/17				
Purchases by Company	543,501	$ 43.16	543,501	$ 514,613,327
2/1/17 - 2/28/17				
Purchases by Company	643,916	42.14	643,916	487,478,331
3/1/17 - 3/31/17				
Purchases by Company	1,637,997	41.68	1,637,997	419,202,343

ITEM 6. EXHIBITS

Reference is made to the separate exhibit index contained on page 78 filed herewith.

SIGNATURES

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

JOHNSON CONTROLS INTERNATIONAL PLC

Date: May 4, 2017

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	Second Supplemental Indenture, dated February 7, 2017, between Johnson Controls International plc and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.2 to the registrant's Current Report on Form 8-K filed on February 7, 2017).
4.2	Third Supplemental Indenture, dated March 15, 2017, among Johnson Controls International plc, U.S. Bank National Association, as trustee and Elavon Financial Services DAC, UK Branch, as paying agent (incorporated by reference to Exhibit 4.2 to the registrant's Current Report on Form 8-K filed on March 15, 2017).
10.1	Form of terms and conditions for Restricted Stock Unit Awards for Directors under the 2012 Stock and Incentive Plan (filed herewith) *
10.2	Johnson Controls International plc 2012 Share and Incentive Plan, amended and restated as of March 8, 2017 (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 March 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 10.1

Johnson Controls International plc
2012 Share and Incentive Plan (Amended and Restated as of March 8, 2017) (the "Plan")
Restricted Share Unit Award Agreement

Terms and Conditions for Restricted Share Units

RESTRICTED SHARE UNIT AWARD made in County Cork, Ireland as of **March 9, 2017** (the "Grant Date") pursuant to the Plan. Capitalized terms that are not defined herein have the meaning ascribed to them in the Plan.

1. **Grant of Award.** Johnson Controls International plc (the "Company") has granted you Restricted Share Units, as described in the grant notification letter that was issued to you ("Grant Letter"), subject to the provisions of these Terms and Conditions. The Company will hold the Restricted Share Units in a bookkeeping account on your behalf until they become payable or are forfeited or cancelled.

2. **Payment Amount.** Each Restricted Share Unit represents the right to receive, upon vesting, one (1) ordinary Share.

3. **Form and Timing of Payment.** Unless otherwise set forth herein, vested Restricted Share Units will be paid solely inShares.Payment shall occur within forty-five (45) days after the vesting date, subject to your payment in full of all taxes due, if any, with respect to such Restricted Share Units.

4. **Dividends.** You will be credited with a Dividend Equivalent Unit (DEU) for any cash or share dividends distributed by the Company on the Company's ordinary shares for each Restricted Share Unit that is unvested on the record date. DEUs will be calculated at the same dividend rate paid to other holders of ordinary shares. DEUs will vest in accordance with the vesting schedule applicable to the underlying Restricted Share Units and shall be payable at the same time that the underlying Restricted Share Units are payable as provided herein.

5. **Vesting.** Except as otherwise provided herein, your Restricted Share Units will vest in full on the earlier of (1) the one (1) year anniversary of the Grant Date, and (2) the date of the Annual General Meeting of shareholders in respect of fiscal 2017, provided in each case that you are a member of the Company's Board of Directors on such date (or your term of service ends on such date). No credit will be given for periods following Termination of Directorship.

6. **Termination of Directorship.** Except as set forth in paragraphs 7 and 8, so long as your Termination of Directorship is for reasons other than Cause, your Restricted Share Units will accelerate and vest pro rata (in full month increments) based on the number of full months that you have served as a Director since the Grant Date and ending on the date of your Termination of Directorship divided by the original number of full months in the vesting period; provided that if your Termination of Directorship coincides with the next Annual General Meeting of Shareholders following the Grant Date (and results from your not standing for reelection), your Restricted Share

Units shall vest in full. Any unearned portion of your Award will immediately be forfeited and your rights with respect to such Restricted Share Units will end.

7. **Death or Disability.** If your Termination of Directorship is a result of your Death or Disability, your Award will become fully vested as of your Termination of Directorship. If you are deceased, the Company will make a payment to your estate.

8. **Change in Control.** In the event of a Change in Control, as defined in the Plan, and your Termination of Directorship occurs in connection with such Change in Control, Restricted Share Units will immediately become fully vested as of your Termination of Directorship.

9. **Forfeiture of Award.** If your services as a Director of the Company have been terminated for Cause, then any unvested Restricted Share Units shall be immediately rescinded and you will forfeit any rights you have with respect to such Units.

10. **Withholdings; Tax Recovery.** The Company will have the right, prior to any issuance or delivery of Shares on your Restricted Share Units, to withhold or require from you the payment of the amount necessary to satisfy applicable tax requirements.

11. **Transfer of Award.** You may not transfer any interest in Restricted Share Units except by will or the laws of descent and distribution. Any other attempt to dispose of your interest in Restricted Share Units will be null and void.

12. **Successors.** All obligations of the Company under this Award shall be binding on any successor to the Company. The terms of this Award and the Plan shall be binding upon and inure to your benefit and the benefit of your heirs, executors, administrators or legal representatives.

13. **Securities Compliance.** The Company may place a legend or legends upon the certificates for Shares issued under the Plan and may issue "stop transfer" instructions to its transfer agent in respect of such Shares as it determines to be necessary or appropriate to (a) prevent a violation of, or to obtain an exemption from, the registration requirements of the Securities Act of 1933, as amended, applicable state securities laws or other legal requirements, or (b) implement the provisions of the Plan, this Award or any other agreement between you and the Company with respect to such Shares.

14. **Legal Compliance**. The granting of this Award and the issuance of Shares under this Award shall be subject to all applicable laws, rules, and regulations and to such approvals by any governmental agencies or national securities exchanges as may be required. The Company will not be required to deliver any Shares until all applicable federal and state laws and regulations have been complied with and all legal matters in connection with the issuance and delivery of the Shares have been approved by the appropriate counsel of the Company.

15. **Governing Law; Arbitration**. This Award, and the interpretation of this Award Agreement, shall be governed by (a) the internal laws of Ireland (without reference to conflict of law principles thereof that would direct the application of the laws of another jurisdiction) with respect to the validity and authorization of any Shares issued under this Award, and (b) the internal laws of the State of Wisconsin (without reference to conflict of law principles thereof that would

direct the application of the laws of another jurisdiction) with respect to all other matters. Arbitration will be conducted per the provisions in the Plan.

16. **Plan Terms Govern.** The redemption of Restricted Share Units, the disposition of any Shares received for Restricted Share Units, and the treatment of any gain on the disposition of these Shares are subject to the terms of the Plan and any rules that the Committee may prescribe. The Plan document, as may be amended from time to time, is incorporated by reference into these Terms and Conditions. Except with respect to the choice of law provision, in the event of any conflict between the terms of the Plan and the terms of these Terms and Conditions, the terms of the Plan will control. By accepting the Award, you acknowledge receipt of the Plan and the prospectus, as in effect on the date of these Terms and Conditions. These Terms and Conditions and the Plan constitute the entire understanding between you and the Company regarding the Restricted Share Units. These Terms and Conditions supersede any prior agreements, commitments or negotiations concerning the Restricted Share Units.

17. **Data Privacy and Sharing**. As a condition of the granting of the Award, you acknowledge and agree that it is necessary for some of your personal identifiable information to be provided to certain employees of the Company, the third party data processor that administers the Plan and the Company's designated third party broker in the United States. These transfers will be made pursuant to a contract that requires the processor to provide adequate levels of protection for data privacy and security interests in accordance with the EU Data Privacy Directive 95/46 EC and the implementing legislation of your home country (or any successor or superseding regulation). By acknowledging the Award, you acknowledge having been informed of the processing of your personal identifiable information described in the preceding paragraph and consent to the Company collecting and transferring to the Company's Shareholder Services Department, and its independent benefit plan administrator and third party broker, your personal data that are necessary to administer the Award and the Plan. You understand that your personal information may be transferred, processed and stored outside of your home country in a country that may not have the same data protection laws as your home country, for the purposes mentioned in this Award.

18. **No Contract or Promise of Future Grants.** By accepting the Award, you agree to be bound by these Terms and Conditions and acknowledge that the Award is granted at the sole discretion of the Company and is not considered part of any contract of service as a Board member with the Company or other compensation. Nothing in these Terms and Conditions or the Plan gives you any right to continue in the service as a Board member with the Company or any of its Subsidiaries or to interfere in any way with the right of the Company to terminate your Directorship at any time. If your service as a Board member with the Company is terminated for any reason, whether lawfully or unlawfully, you agree that you will not be entitled by way of damages for breach of contract, dismissal or compensation for loss of office or otherwise to any sum, shares or other benefits to compensate you for the loss or diminution in value of any actual or prospective rights, benefits or expectation under or in relation to the Plan.

19. **Electronic Delivery**. The Company or its Affiliates may, in its or their sole discretion, decide to deliver any documents related to current or future participation in the Plan or related to this Award by electronic means. You hereby consent to receive such documents by electronic delivery and agrees to participate in the Plan through an on-line or electronic system established and maintained by the Company or a third party designated by the Company. You hereby agree that all on-line acknowledgements shall have the same force and effect as a written signature.

20. **Limitations.** Payment of your Restricted Share Units is not secured by a trust, insurance contract or other funding medium, and you do not have any interest in any fund or specific asset of the Company by reason of this Award or the account established on your behalf. You have no rights as a stockholder of the Company pursuant to the Restricted Share Units until Shares are actually delivered to you.

21. **Severability.** The invalidity or unenforceability of any provision of these Terms and Conditions will not affect the validity or enforceability of the other provisions of the Agreement, which will remain in full force and effect. Moreover, if any provision is found to be excessively broad in duration, scope or covered activity, the provision will be construed so as to be enforceable to the maximum extent compatible with applicable law.

22. **Sections 409A and 457A.** The award is intended to be an exempt "short-term deferral" under Sections 409A and 457A of the Internal Revenue Code of the United States. The Committee may make such modifications to these Terms and Conditions as it deems necessary or appropriate to ensure that the Award is exempt from Sections 409A and 457A to the extent applicable.

By accepting this Award, you agree to the following:

(i) you have carefully read, fully understand and agree to all of the terms and conditions described in these Terms and Conditions and the Plan; and

(ii) you understand and agree that these Terms and Conditions and the Plan constitute the entire understanding between you and the Company regarding the Award, and that any prior agreements, commitments or negotiations concerning the Restricted Share Units are replaced and superseded.

You will be deemed to consent to the application of the terms and conditions set forth in these Terms and Conditions and the Plan unless you contact Johnson Controls International plc, c/o Johnson Controls, Inc., Attn: Shareholder Services, 5757 N Green Bay Ave, Milwaukee, WI 53209 in writing within thirty (60) days of the date of these Terms and Conditions. Notification of your non-consent will nullify this grant unless otherwise agreed to in writing by you and the Company.

The Company has caused this Award to be executed by one of its authorized officers as of the date of grant.

JOHNSON CONTROLS INTERNATIONAL PLC

/s/ Judith A. Reinsdorf
Judith A. Reinsdorf
Executive Vice President and General Counsel

Exhibit 10.2

JOHNSON CONTROLS INTERNATIONAL PLC
2012 SHARE AND INCENTIVE PLAN
(AMENDED AND RESTATED As of MARCH 8, 2017)

ARTICLE 1
PURPOSE

1.1 *Purpose*. The purposes of this Johnson Controls International plc 2012 Share and Incentive Plan, as amended and restated (the "Plan"), are to promote the interests of Johnson Controls International plc (and any successor thereto) by (i) aiding in the recruitment and retention of Directors and Employees, (ii) providing incentives to such Directors and Employees by means of performance-related incentives to achieve short-term and long-term performance goals, (iii) providing Directors and Employees an opportunity to participate in the growth and financial success of the Company, and (iv) promoting the growth and success of the Company's business by aligning the financial interests of Directors and Employees with that of the other shareholders of the Company.

1.2 *Background; Effective Date*. The original effective date of this Plan was October 1, 2012. The Plan was amended and restated as of November 17, 2014, was amended and restated again in connection with the merger (the "Merger") that was consummated on September 2, 2016 (the "Amendment Effective Date") pursuant to the Agreement and Plan of Merger, dated as of January 24, 2016, by and among the Company, Johnson Controls, Inc. and Jagara Merger Sub LLC (the "Merger Agreement"), to reflect the effect of the Merger and the Parent Share Consolidation (as defined in the Merger Agreement), and is being amended, effective as of the date of the Company's annual meeting in 2017 (the "2017 Restatement Date"), to consolidate the permissible performance measures and individual award limits for all Participants. The amendment and restatement in connection with the Merger was intended to reflect the assumption into this Plan of the remaining share reserves under the Johnson Controls, Inc. 2012 Omnibus Incentive Plan and the Johnson Controls, Inc. 2003 Stock Plan for Outside Directors (the "Legacy Johnson Controls Plans") as of the Amendment Effective Date. Following the Amendment Effective Date, no further awards may be made under the Legacy Johnson Controls Plans.

ARTICLE 2
DEFINITIONS

For purposes of the Plan, the following terms have the following meanings, unless another definition is clearly indicated by particular usage and context:

"*Acquired Company*" means any business, corporation or other entity acquired by the Company or any Subsidiary.

"*Acquired Grantee*" means the grantee of a share-based award of an Acquired Company and may include a current or former Director of an Acquired Company.

"*Award*" means any form of incentive or performance award granted under the Plan, whether singly or in combination, to a Participant by the Committee pursuant to any terms and conditions that the Committee may establish and set forth in the applicable Award Certificate. Awards granted under the Plan may consist of:

(a) "*Share Options*" awarded pursuant to Section 4.3;

(b) "*Share Appreciation Rights*" awarded pursuant to Section 4.3;

(c) "*Short-Term Performance Awards*" awarded pursuant to Section 4.4;

(d) "*Long-Term Performance Awards*" awarded pursuant to Section 4.5;

(e) "*Other Share-Based Awards*" awarded pursuant to Section 4.6;

(f) "*Nonemployee Director Awards*" awarded pursuant to Section 4.7; and

(g) "*Substitute Awards*" awarded pursuant to Section 4.8.

"*Award Certificate*" means the document issued, either in writing or an electronic medium, by the Committee to a Participant evidencing the grant of an Award.

"*Board*" means the Board of Directors of the Company.

"*Cause*" means (a) for Awards granted prior to the Amendment Effective Date, misconduct that is willfully or wantonly harmful to the Company or any of its Subsidiaries, monetarily or otherwise; and (b) for Awards granted on or after the Amendment Effective Date, (i) if the Participant is subject to an employment agreement with the Company or a Subsidiary that contains a definition of "cause", such definition, or (ii) otherwise, except as otherwise determined by the Committee and set forth in an Award Certificate, any of the following as determined by the Committee: (A) violation of the provisions of any employment agreement, non-competition agreement, confidentiality agreement, or similar agreement with the Company or a Subsidiary, or the Company's or a Subsidiary's code of ethics, as then in effect, (B) conduct rising to the level of gross negligence or willful misconduct in the course of employment with the Company or a Subsidiary, (C) commission of an act of dishonesty or disloyalty involving the Company or a Subsidiary, (D) violation of any federal, state or local law in connection with the Participant's employment or service, or (E) breach of any fiduciary duty to the Company or a Subsidiary.

"*Change in Control*" means the Merger and, subsequent to the Merger, the first to occur of any of the following events:

(a) any "person" (as defined in Section 13(d) and 14(d) of the Exchange Act), excluding for this purpose, (i) the Company or any Subsidiary or (ii) any employee benefit plan (or related trust) sponsored or maintained by the Company or any Subsidiary is or becomes the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act) directly or indirectly of securities of the Company representing more than 30 percent of the combined voting power of the Company's then outstanding securities; provided, however, that no Change in Control will be deemed to have occurred as a result of a change in ownership percentage resulting solely from an acquisition of securities by the Company; or

(b) persons who, as of immediately following the Merger constitute the Board (the "Incumbent Directors") cease for any reason (including without limitation, as a result of a tender offer, proxy contest, merger or similar transaction) to constitute at least a majority thereof, provided that any person becoming a director of the Company subsequent to the Merger shall be considered an Incumbent Director if such person's election or nomination for election was approved by a vote of at least 50 percent of the Incumbent Directors; but provided further, that any such person whose initial assumption of office is in connection with an actual or threatened proxy contest relating to the election of members of the Board or other actual or threatened solicitation of proxies or consents by or on behalf of a "person" (as defined in Section 13(d) and 14(d) of the Exchange Act) other than the Board, including by reason of agreement intended to avoid or settle any such actual or threatened contest or solicitation, shall not be considered an Incumbent Director; or

(c) consummation of a reorganization, merger or consolidation or sale or other disposition of at least 80 percent of the assets of the Company (a "Business Combination"), in each case, unless, following such Business Combination, all or substantially all of the individuals and entities who were the beneficial owners of outstanding voting securities of the Company immediately prior to such Business Combination beneficially own directly or indirectly more than 50 percent of the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors, of the company resulting from such Business Combination (including, without limitation, a company which, as a result of such transaction, owns the Company or all or substantially all of the Company's assets either directly or through one or more Subsidiaries) in substantially the same proportions as their ownership, immediately prior to such Business Combination, of the outstanding voting securities of the Company; or

(d) approval by the shareholders of the Company of a complete liquidation or dissolution of the Company.

"*Change in Control Termination*" shall mean a Participant's Involuntary Termination that occurs during the period beginning 60 days prior to the date of a Change in Control and ending two years after the date of such Change in Control.

"*Code*" means the United States Internal Revenue Code of 1986, as amended. Any reference to a specific provision of the Code includes any successor provision and the regulations promulgated under such provision.

"*Committee*" means the Compensation and Human Resources Committee of the Board or any successor thereof or any subcommittee of the Board to which the Board has delegated power to act under or pursuant to the provisions of the Plan.

"*Company*" means Johnson Controls International plc, or any successor thereto.

"*Consultant*" means an individual who provides bona fide services to the Company or any Subsidiary, other than an Employee or Director.

"*Deferred Share Unit*" means a Unit granted under Section 4.6 or 4.7 to acquire Shares upon Termination of Employment or Termination of Directorship, subject to any restrictions that the Committee, in its discretion, may determine.

"*Director*" means a member of the Board.

"*Disabled*" or "*Disability*" means (a) for Awards granted prior to the Amendment Effective Date, the inability of the Director or Employee to perform the material duties pertaining to such Director's directorship or such Employee's employment due to a physical or mental injury, infirmity or incapacity for 180 days (including weekends and holidays) in any 365-day period, the existence or nonexistence of a Disability being determined by an independent physician selected by the Company and reasonably acceptable to the Director or Employee; and (b) for Awards granted on or after the Amendment Effective Date, except as otherwise determined by the Committee and set forth in an Award agreement: (i) with respect to an Incentive Share Option, the meaning given in Code Section 22(e)(3), and (ii) with respect to all other Awards, the inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of at least twelve (12) months, as determined by the Committee, the determination of Disability being made by the Committee, which may request such evidence of disability as it reasonably determines.

"*Dividend Equivalent*" means an amount equal to the cash dividend or the Fair Market Value of the share dividend that would be paid on each Share underlying an Award if the Share were duly issued and outstanding on the date on which the dividend is payable.

"*Employee*" means any individual who performs services as an officer or employee of the Company or a Subsidiary (including any Director who is also an Employee).

"*Exchange Act*" means the United States Securities Exchange Act of 1934, as amended.

"*Exercise Price*" means the price of a Share, as fixed by the Committee, which may be purchased under a Share Option or with respect to which the amount of any payment pursuant to a Share Appreciation Right is determined.

"*Fair Market Value*" means, on a given date, (i) the closing sale price of the Shares on the New York Stock Exchange (NYSE) Composite Tape on such date (or the next preceding day if no sales were reported for such date), or (ii) if the Shares are not listed or admitted on the NYSE, but are traded on another national securities exchange or in an over-the-counter market, the last sales price on such date, or if no last sales price is reported, the average of the closing bid and ask price for the Shares on such date (or the next preceding day if no such information was reported for such date) or (iii) if the Shares are neither listed on a national securities exchange nor traded in an over-the-counter market, a price determined by the Committee by the reasonable application of a reasonable valuation method.

"*Fair Market Value Share Option*" means a Share Option with an Exercise Price that is fixed by the Committee at a price equal to the Fair Market Value of a Share on the date of grant.

"*GAAP*" means United States generally accepted accounting principles.

"*Incentive Share Option*" means a Share Option granted under Section 4.3 of the Plan that meets the requirements of Code Section 422 and any related regulations and is designated in the Award Certificate to be an Incentive Share Option.

"*Involuntary Termination*" means a Termination of Employment of the Participant initiated by the Company or a Subsidiary for any reason other than Cause, Disability or death.

"*Key Employee*" means an Employee who is a "covered employee" within the meaning of Code Section 162(m)(3).

"*Long-Term Performance Award*" means an Award granted under Section 4.5 of the Plan.

"*Non-Employee Director*" means any member of the Board, elected or appointed, who is not an Employee of the Company or a Subsidiary.

"*Nonqualified Share Option*" means any Share Option granted under Section 4.3 of the Plan that is not an Incentive Share Option.

"*Participant*" means an Employee, a Director, a prospective Employee or Director, and a Consultant who, in each case, is selected by the Committee to participate in the Plan. Participant shall also include any Acquired Grantee.

"*Performance Cycle*" means, with respect to any Award that is intended to be a Short-Term Performance Award or Long-Term Performance Award, a period of no less than six months over which the level of performance will be assessed.

"*Performance Measure*" means, with respect to any Short-Term Performance Award or Long-Term Performance Award, the business criteria selected by the Committee to measure the level of performance during the Performance Cycle. The Performance Measures, which must be objective, shall be based on one or more of the following criteria:

a. Basic earnings per common share for the Company on a consolidated basis;

b. Diluted earnings per common share for the Company on a consolidated basis;

c. Earnings (including earnings before or after interest and the provision for income taxes (EBIT) and earnings before or after interest, the provision for income taxes, depreciation, and amortization (EBITDA));

d. Total shareholder return;

e. Share price or Fair Market Value of shares;

f. Revenues, sales or net sales;

g. Costs or cost of sales;

h. Expense management, including selling, general and administrative expenses;

i. Gross profit;

j. Profitability of an identifiable business unit or product;

k. Economic value added, or other measure of profitability that considers the cost of capital employed;

l. Maintenance or improvement of profit margins;

m. Operating income;

n. Segment EBIT;

o. Net income;

p. Accounts receivable;

q. Inventories;

r. Credit rating;

s. Working capital or trade working capital;

t. Changes in net assets (whether or not multiplied by a constant percentage intended to represent the cost of capital);

u. Improvements in capital structure;

v. Return on invested capital and/or return on investment before or after cost of capital;

w. Return on equity or return on shareholder equity;

x. Return on assets;

y. Return on sales;

z. Cash flow or free cash flow;

aa. Net cash provided by operating activities;

bb. Net increase (decrease) in cash and cash equivalents;

cc. Customer satisfaction, which may include customer backlog and/or relationships;

dd. Market share;

ee. Quality;

ff. Safety;

gg. Independent industry ratings or assessments;

hh. Realization or creation of innovation projects or products;

ii. Employee engagement;

jj. Employee retention;

kk. Improvement in employee, workforce and/or supplier diversity;

ll. Sustainability measures, such as reduction in greenhouse gases;

mm. Closing of corporation transactions and/or completion of integration of acquired businesses;

nn. Strategic plan development and implementation and/or strategic activities; and

oo. Development, completion and implementation of succession planning.

Any Performance Measure used may be measured, as applicable, (i) in absolute terms, (ii) in relative terms (including the passage of time and/or against other companies or financial metrics), (iii) on a per share basis, (iv) against the performance of the Company as a whole or against particular entities, segments, operating units or products of the Company, (v) on a pre-tax or after-tax basis, and (vi) in tandem with any other Performance Measure. Awards issued to persons who are not Key Employees on the date of grant may take into account any other factors deemed appropriate by the Committee.

"*Performance Unit*" means a Long-Term Performance Award or Short-Term Performance Award denominated in dollars or Units (other than a performance based Share Option).

"*Plan*" means the Johnson Controls International plc 2012 Share and Incentive Plan, as it may be amended from time to time.

"*Premium-Priced Share Option*" means a Share Option, the Exercise Price of which is fixed by the Committee at a price that exceeds the Fair Market Value of a Share on the date of grant.

"*Reporting Person*" means a Director or an Employee who is subject to the reporting requirements of Section 16(a) of the Exchange Act.

"*Restricted Shares*" means Shares issued pursuant to Section 4.6 that are subject to any restrictions that the Committee, in its discretion, may impose.

"*Restricted Unit*" means a Unit granted under Section 4.6 to acquire Shares or an equivalent amount in cash, which Unit is subject to any restrictions that the Committee, in its discretion, may impose.

"*Retirement*" means, with respect to Awards granted on or after the Amendment Effective Date, and except as otherwise determined by the Committee and set forth in the Award Certificate, termination of employment from the Company and its Subsidiaries (for other than Cause) on or after attainment of age fifty-five (55) and completion of five (5) years of continuous service with the Company and its Subsidiaries (including, for Participants who were employed, immediately prior to the Merger, by Johnson Controls, Inc. or its direct or indirect subsidiaries, service with Johnson Controls, Inc. and its affiliates prior to the Merger).

"*Securities Act*" means the United States Securities Act of 1933, as amended.

"*Share*" means an ordinary share in the capital of the Company and such other securities or property as may become subject to Awards pursuant to an adjustment made under Sections 5.3 and 5.4 of the Plan. References in Award Certificates or ancillary documentation related to this Plan to "stock" shall be construed as references to "Shares" for the purposes of this Plan.

"*Short-Term Performance Award*" means an Award of cash or Shares granted under Section 4.4 of the Plan.

"*Share Appreciation Right*" means a right granted under Section 4.3 of the Plan in an amount in cash or Shares equal to any difference between the Fair Market Value of the Shares as of the date on which the right is exercised and the Exercise Price.

"*Share-Based Award*" means an Award granted under Section 4.6 of the Plan and denominated in Shares.

"*Share Option*" means a right to purchase from the Company a stated number of Shares at a specified price for a defined period of time. Share Options awarded under the Plan may be in the form of Incentive Share Options or Nonqualified Share Options.

"*Subsidiary*" means any corporation or other entity a majority of whose outstanding voting share or voting power is beneficially owned directly or indirectly by the Company.

"*Target Amount*" means, for any Short-Term Performance Award or Long-Term Performance Award, the targeted amount of compensation that would be achieved if the relevant Performance Measure is fully (100%) attained, as determined by the Committee.

"*Target Vesting Percentage*" means the percentage of any Short-Term Performance Award or Long-Term Performance Award that would vest assuming the Performance Measure(s) applicable to such Award are fully (100%) attained, as determined by the Committee.

"*Termination of Directorship*" means the date of cessation of a Director's membership on the Board for any reason, with or without Cause, as determined by the Company.

"*Termination of Employment*" means the date of cessation of a Participant's employment or consulting relationship (or directorship in the case of a Nonemployee Director) with the Company or a Subsidiary for any reason, with or without Cause, as determined by the Company.

"*Unit*" means, for purposes of Performance Units, the potential right to an Award equal to a specified amount denominated in such form as is deemed appropriate in the discretion of the Committee and, for purposes of Restricted Units or Deferred Share Units, the potential right to acquire one Share.

ARTICLE III
ADMINISTRATION

3.1 *Committee.* The Plan will be administered by the Committee.

3.2 *Authority of the Committee*. The Committee or, to the extent required by applicable law, the Board, will have the authority, in its sole and absolute discretion and subject to the terms of the Plan, to:

(a) Interpret and administer the Plan and any instrument or agreement relating to the Plan;

(b) Prescribe the rules and regulations that it deems necessary for the proper operation and administration of the Plan, and amend or rescind any existing rules or regulations relating to the Plan;

(c) Select Participants to receive Awards under the Plan;

(d) Determine the form of an Award, the number of Shares subject to each Award, all the terms and conditions of an Award, including, without limitation, the conditions on exercise or vesting, the designation of Share Options as Incentive Share Options or Nonqualified Share Options, and the circumstances in which an Award may be settled in cash or Shares or may be cancelled, forfeited or suspended, and the terms of the Award Certificate;

(e) Determine whether Awards will be granted singly, in combination or in tandem;

(f) Establish and interpret Performance Measures in connection with Short-Term Performance Awards and Long-Term Performance Awards, evaluate the level of performance over a Performance Cycle and certify the level of performance attained with respect to Performance Measures;

(g) Subject to Section 6.1 and 4.3(g), waive or amend any terms, conditions, restriction or limitation in the Plan or in an Award Certificate, or correct any defect, supply any omission or reconcile any inconsistency in the Plan or any Award Certificate;

(h) Make any adjustments to the Plan (including but not limited to adjustment of the number of Shares available under the Plan or any Award) and any Award granted under the Plan as may be appropriate pursuant to Sections 5.3 and 5.4;

(i) Determine and set forth in the applicable Award Certificate the circumstances under which Awards may be deferred and the extent to which a deferral will be credited with dividend equivalents and interest thereon;

(j) Subject to Section 7.1, determine whether an Award may be transferable;

(k) Establish any subplans and make any modifications to the Plan or to Awards made hereunder (including the establishment of terms and conditions not otherwise inconsistent with the terms of the Plan) that the Committee may determine to be necessary or advisable for grants made in countries outside the United States to comply with, or to achieve favorable tax treatment under, applicable foreign laws or regulations;

(l) Appoint such agents as it shall deem appropriate for proper administration of the Plan; and

(m) Take any and all other actions it deems necessary or advisable for the proper operation or administration of the Plan.

3.3 *Effect of Determinations*. All determinations of the Committee will be final, binding and conclusive on all persons having an interest in the Plan.

3.4 *Delegation of Authority*. The Board or the Committee, in its discretion and consistent with applicable law and regulations, may delegate to the Chief Executive Officer of the Company or any other officer or group of officers as it deems to be advisable, the authority to select Participants to receive an Award and to determine the number of Shares under any such Award, subject to any terms and conditions that the Board or the Committee may establish. When the Board or the Committee delegates authority pursuant to the foregoing sentence, it will limit, in its discretion, the number of Shares or aggregate value that may be subject to Awards that the delegate may grant. Only the Committee will have authority to grant and administer Awards to Directors, Key Employees and other Reporting Persons or to delegates of the Committee, and to establish and certify Performance Measures.

3.5 *Employment of Advisors*. The Committee may employ attorneys, consultants, accountants and other advisors, including Employees, and the Committee, the Company and the officers and directors of the Company may rely upon the advice, opinions or valuations of the advisors so employed.

3.6 *No Liability; Indemnification*. No member of the Committee or any person acting as a delegate of the Committee with respect to the Plan will be liable for any losses resulting from any action, interpretation or construction made in good faith with respect to the Plan or any Award granted under the Plan. To the maximum extent permitted by applicable laws, each member of the Committee shall be indemnified and held harmless by the Company against and from (i) any loss, cost, liability, or expense that may be imposed upon or reasonable incurred by him or her in connection with or resulting from any claim, action, suit or proceeding to which he or she may be a party or in which he or she may be involved by any reason of any action taken or failure to act under the Plan or any Award, and (ii) from any and all amounts paid by him or her in settlement thereof, with the Company's approval, or paid by him or her in satisfaction of any judgment in any such claim, action, suit or proceeding against him or her, provided he or she shall give the Company an opportunity, at its own expense, to handle and defend the same before he or she undertakes to defend it on his or her own behalf. The foregoing right of indemnification shall not be exclusive of any other rights of indemnification to which such persons may be entitled under the Company's charter documents, by contract, as a matter of law, or otherwise, or under any power that the Company may have to indemnify them or hold them harmless.

ARTICLE IV
AWARDS

4.1 *Eligibility*. All Participants and Employees are eligible to be designated to receive Awards granted under the Plan, except as otherwise provided in this Article IV.

4.2 *Form of Awards*. Awards will be in the form determined by the Committee, in its discretion, and will be evidenced by an Award Certificate. Awards may be granted singly or in combination or in tandem with other Awards.

4.3 *Share Options and Share Appreciation Rights*. The Committee may grant Share Options and Share Appreciation Rights under the Plan to those Participants whom the Committee may from time to time select, in the amounts and pursuant to the other terms and conditions that the

Committee, in its discretion, may determine and set forth in the Award Certificate, subject to the provisions below:

(a) *Form*. Share Options granted under the Plan will, at the discretion of the Committee and as set forth in the Award Certificate, be in the form of Incentive Share Options, Nonqualified Share Options or a combination of the two. If an Incentive Share Option and a Nonqualified Share Option are granted to the same Participant under the Plan at the same time, the form of each will be clearly identified, and they will be deemed to have been granted in separate grants. In no event will the exercise of one Award affect the right to exercise the other Award. Share Appreciation Rights may be granted either alone or in connection with concurrently or previously granted Nonqualified Share Options.

(b) *Exercise Price*. The Committee will set the Exercise Price of Fair Market Value Share Options or Share Appreciation Rights granted under the Plan at a price that is equal to the Fair Market Value of a Share on the date of grant, subject to adjustment as provided in Sections 5.3 and 5.4. The Committee will set the Exercise Price of Premium-Priced Share Options at a price that is higher than the Fair Market Value of a Share as of the date of grant. The Exercise Price of Incentive Share Options will be equal to or greater than 110 percent of the Fair Market Value of a Share as of the date of grant if the Participant receiving such Share Options owns shares possessing more than 10 percent of the total combined voting power of all classes of shares of the Company or any Subsidiary, as defined in Code Section 424. The Exercise Price of a Share Appreciation Right granted in tandem with a Share Option will equal the Exercise Price of the related Share Option. The Committee will set forth the Exercise Price of a Share Option or Share Appreciation Right in the Award Certificate. Share Options granted under the Plan will, at the discretion of the Committee and as set forth in the Award Certificate, be Fair Market Value Share Options, Premium-Priced Share Options or a combination of Fair Market Value Share Options and Premium-Priced Share Options.

(c) *Term and Timing of Exercise*. Each Share Option or Share Appreciation Right granted under the Plan will be exercisable in whole or in part, subject to the following conditions, unless determined otherwise by the Committee:

(i) The Committee will determine and set forth in the Award Certificate the date on which any Award of Share Options or Share Appreciation Rights to a Participant may first be exercised. For Awards granted prior to the Amendment Effective Date, unless the applicable Award Certificate provides otherwise, a Share Option or Share Appreciation Right will become exercisable in equal annual installments over a period of four years from the date of grant, and will lapse 10 years after the date of grant, except as otherwise provided herein.

(ii) Except as set forth in Sections 5.4 and 5.5, upon a Participant's Termination of Employment, any unvested Share Options or Share Appreciation Rights will be forfeited unless the Award Certificate provides otherwise. For Awards granted prior to the Amendment Effective Date, any Share Options or Share Appreciation Rights that are vested as of such Termination of Employment will lapse, and will not thereafter be exercisable, upon the earlier of (A) their original expiration date or (B) the date that is 90 (ninety) days after the date of such Termination of Employment, unless the Award Certificate provides otherwise.

(iii) Share Options and Share Appreciation Rights of a deceased Participant may be exercised only by the estate of the Participant or by the person given authority to exercise the Share Options or Share Appreciation Rights by the Participant's will or by operation of law. If a Share Option or Share Appreciation Right is exercised by the executor or administrator of a deceased Participant, or by the person or persons to whom the Share Option or Share Appreciation Right has been transferred by the Participant's will or the applicable laws of descent and distribution, the Company will be under no obligation to deliver Shares or cash until the Company is satisfied that the person exercising the Share Option or Share Appreciation Right is the duly appointed executor or administrator of the deceased Participant or the person to whom the Share Option or Share Appreciation Right has been transferred by the Participant's will or by applicable laws of descent and distribution.

(iv) Unless the applicable Award Certificate provides otherwise, a Share Appreciation Right granted in tandem with a Share Option is subject to the same terms and conditions as the related Share Option and will be exercisable only to the extent that the related Share Option is exercisable.

(d) *Payment of Exercise Price*. The Exercise Price of a Share Option must be paid in full when the Share Option is exercised. Payment of the Exercise Price may be made in cash or by certified check, bank draft, wire transfer, or postal or express money order, provided that the format is approved by the Company or a designated third-party administrator. The Committee, in its discretion may also allow payment to be made by any of the following methods, as set forth in the Award Certificate:

(i) Delivering a properly executed exercise notice to the Company or its agent, together with irrevocable instructions to a broker to deliver to the Company, within the typical settlement cycle for the sale of equity securities on the relevant trading market (or otherwise in accordance with the provisions of Regulation T issued by the Federal Reserve Board), the amount of sale proceeds with respect to the portion of the Shares to be acquired having a Fair Market Value on the date of exercise equal to the sum of the applicable portion of the Exercise Price being so paid;

(ii) Tendering (actually or by attestation) to the Company previously acquired Shares that have been held by the Participant for at least six months, subject to paragraph (iv), and that have a Fair Market Value on the date of exercise equal to the applicable portion of the Exercise Price being so paid; or

(iii) Provided such payment method has been expressly authorized by the Board or the Committee in advance and subject to any requirements of applicable law and regulations, instructing the Company to reduce the number of Shares that would otherwise be issued by such number of Shares as have in the aggregate a Fair Market Value on the date of exercise equal to the applicable portion of the Exercise Price being so paid.

(iv) The Committee, in consideration of applicable accounting standards, may waive any holding period on Shares required to tender pursuant to clause (ii).

(e) *Incentive Share Options*. Incentive Share Options granted under the Plan will be subject to the following additional conditions, limitations and restrictions:

(i) Eligibility. Incentive Share Options may be granted only to Employees of the Company or a Subsidiary that is a subsidiary of the Company within the meaning of Code Section 424.

(ii) Timing of Grant. No Incentive Share Option will be granted under the Plan after the 10-year anniversary of the date on which the Plan was adopted by the Board or, if earlier, the latest date on which the Plan was approved by the Company's shareholders.

(iii) Amount of Award. Subject to Sections 5.3 and 5.4 of the Plan, no more than 9,550,000 Shares may be available for grant in the form of Incentive Share Options.

(iv) Transfer Restrictions. In no event will the Committee permit an Incentive Share Option to be transferred by an Employee other than by will or the laws of descent and distribution, and any Incentive Share Option awarded under this Plan will be exercisable only by the Employee during the Employee's lifetime.

(v) Any Incentive Share Option awarded to a Participant who owns shares possessing more than 10 percent of the total combined voting power of all classes of shares of the Company or any Subsidiary, as defined in Code Section 424, shall terminate on a date not later than the day preceding the fifth anniversary of the date the Incentive Share Option was granted.

(f) *Exercise of Share Appreciation Rights*. Upon exercise of a Participant's Share Appreciation Rights, the Company will pay cash or Shares or a combination of cash and Shares, in the discretion of the Committee and as described in the Award Certificate. Cash payments will be equal to the excess of the Fair Market Value of a Share on the date of exercise over the Exercise Price, for each Share for which a Share Appreciation Right was exercised. If Shares are paid for the Share Appreciation Right, the Participant will receive a number of whole Shares equal to the quotient of the cash payment amount divided by the Fair Market Value of a Share on the date of exercise.

(g) *No Repricing*. Except in connection with a corporate transaction involving the Company (including, without limitation, any share dividend, share split, extraordinary cash dividend, recapitalization, reorganization, merger, consolidation, split-up, spin-off, combination, or exchange of shares), the terms of outstanding Awards may not be amended to reduce the Exercise Price of outstanding Share Options or Share Appreciation Rights or to cancel outstanding Share Options or Share Appreciation rights in exchange for cash, other Awards or Share Options or Share Appreciation Rights with an exercise price that is less than the exercise price of the original Share Options or Share Appreciation Rights without shareholder approval.

4.4 *Short-Term Performance Awards*. The Committee may grant Short-Term Performance Awards to Participants in the form of cash or Shares (including Share Options) that are subject to Performance Measures and other terms and conditions that the Committee shall determine and set forth in the applicable Award Certificate; provided, that any Short-Term Performance Awards granted to Key Employees shall be subject to the provisions below:

(a) *Performance Cycles*. Short-Term Performance Awards shall be awarded in connection with a Performance Cycle of no longer than 12 months.

(b) *Eligible Participants*. Within 90 days after the commencement of a Performance Cycle, or such shorter period as complies with the applicable requirements of Code Section 162(m), the Committee will determine the Key Employees who are eligible to receive a Short-Term Performance Award.

(c) *Performance Measures; Targets; Award Criteria*.

(i) Within 90 days after the commencement of a Performance Cycle, or such shorter period as complies with the applicable requirements of Code Section 162 (m), the Committee will fix and establish in writing (A) the Performance Measures that will apply to that Performance Cycle; (B) the Target Amount applicable to each Award; and (C) subject to subsection (d) below, the criteria for computing the amount that will be paid with respect to each level of attained performance. The Committee will also set forth the minimum level of performance, based on objective factors, that must be attained during the Performance Cycle before any Short-Term Performance Award will be paid and the percentage of the Target Amount that will become payable upon attainment of various levels of performance that equal or exceed the minimum required level. In applying Performance Measures, the Committee may, in its discretion, exclude unusual, infrequently occurring or other items that it deems appropriate (including any event listed in Sections 5.3 and 5.4 and the cumulative effect of changes in the law, regulations or accounting rules) in compliance with the applicable requirements of Code Section 162(m).

(ii) The Committee may reduce, but not increase, the amount payable to any Key Employee with respect to any given Performance Cycle.

(d) *Payment, Certification*. No Short-Term Performance Award will vest with respect to any Key Employee until the Committee certifies in writing the level of performance attained for the Performance Cycle in relation to the applicable Performance Measures.

(e) *Form of Payment*. Short-Term Performance Awards may be paid in cash or full Shares, in the discretion of the Committee, and as set forth in the Award Certificate. All such Awards shall be paid no later than the 15th day of the third month following the end of the calendar year (or, if later, following the end of the Company's fiscal year) in which such Awards are no longer subject to a substantial risk of forfeiture (as determined for purposes of Code Section 409A), except to the extent that a Participant has elected to defer payment under the terms of a duly authorized deferred compensation arrangement, in which case the terms of such arrangement shall govern.

(f) *Acceleration*. Unless the applicable Award Certificate or the terms of an Award provides otherwise, each Participant who has been granted a Short-Term Performance Award prior to the Amendment Effective Date that is outstanding as of the date of a Change in Control will be deemed to have achieved a level of performance, as of the date of Change in Control, that would cause all (100%) of the Participant's Target Amount to become payable.

4.5 *Long-Term Performance Awards*. The Committee may grant Long-Term Performance Awards to Participants in the form of cash or Shares (including Share Options) that are subject to Performance Measures and other terms and conditions that the Committee shall determine and set forth in the applicable Award Certificate; provided, that any Long-Term Performance Awards granted to Key Employees shall be subject to the provisions below:

(a) *Performance Cycles*. Long-Term Performance Awards will be awarded in connection with a Performance Cycle that is no shorter than 12 months and no longer than 5 years.

(b) *Eligible Participants*. Within 90 days after the commencement of a Performance Cycle, the Committee will determine the Key Employees who will be eligible to receive a Long-Term Performance Award for the Performance Cycle.

(c) *Performance Measures; Targets; Award Criteria*.

(i) Within 90 days after the commencement of a Performance Cycle, the Committee will fix and establish in writing (A) the Performance Measures that will apply to that Performance Cycle; (B) the Target Amounts and/or Target Vesting Percentages applicable to each Award; and (C) subject to subsection (d) below, the criteria for computing the amount that will be paid or will vest with respect to each level of attained performance. The Committee will also set forth the minimum level of performance, based on objective factors, that must be attained during the Performance Cycle before any Long-Term Performance Award will be paid or will vest, and the percentage of the Awards that will become payable or will vest upon attainment of various levels of performance that equal or exceed the minimum required level. In applying Performance Measures, the Committee may, in its discretion, exclude unusual, infrequently occurring or other items that it deems appropriate (including any event listed in Sections 5.3 and 5.4 and the cumulative effect of changes in the law, regulations or accounting rules) in compliance with the applicable requirements of Code Section 162(m).

(ii) The Committee may reduce, but not increase, the amount of Long-Term Performance Awards payable to any Key Employee with respect to any given Performance Cycle.

(d) *Payment, Certification*. No Long-Term Performance Award will vest with respect to any Key Employee until the Committee certifies in writing the level of performance attained for the Performance Cycle in relation to the applicable Performance Measures.

(e) *Form of Payment*. Long-Term Performance Awards may be paid in cash or full Shares, in the discretion of the Committee, and as set forth in the Award Certificate. All such Long-Term Performance Awards shall be paid no later than the 15th day of the third month following the end of the applicable Performance Cycle, except as otherwise provided in the applicable Award Certificate or to the extent that a Participant has elected to defer payment under the terms of a duly authorized deferred compensation arrangement, in which case the terms of such arrangement shall govern.

4.6 *Other Share-Based Awards*. The Committee may, from time to time, grant Awards (other than Share Options, Share Appreciation Rights, Short-Term Performance Awards or Long-Term Performance Awards) to any Participant who the Committee may from time to time select, which Awards consist of, or are denominated in, payable in, valued in whole or in part by reference to, or otherwise related to, Shares. These Awards may include, among other forms, Restricted Shares, Restricted Units, or Deferred Share Units. The Committee will determine, in its discretion, the terms and conditions that will apply to Awards granted pursuant to this Section 4.6, which terms and conditions will be set forth in the applicable Award Certificate.

(a) *Vesting*. The Award Certificate will set forth the vesting schedule or other conditions required for restrictions on Share-Based Awards to lapse; provided that, for Share-Based Awards granted under this Section 4.6 prior to the Amendment Effective Date, unless the Award Certificate provides otherwise, restrictions will lapse in equal annual installments over a period of four years beginning immediately after the date of grant. Except as set forth in Sections 5.4 and 5.5, if the restrictions on Share-Based Awards have not lapsed or been satisfied as of the Participant's Termination of Employment, such Awards will be forfeited by the Participant, and, as the case may be, the Participant shall be required to retransfer any Shares to the Company previously delivered to the Company in respect of such Awards.

(b) *Grant of Restricted Shares*. The Committee may grant Restricted Shares to any Participant. The Participant will have all rights of a shareholder with respect to the Shares, including the right to vote and to receive dividends or other distributions, except that the Shares may be subject to a vesting schedule and will be forfeited if the Participant attempts to sell, transfer, assign, pledge or otherwise encumber or dispose of the Shares before the restrictions are satisfied or lapse. Upon forfeiture, the Participant shall be required to retransfer the Shares to the Company.

(c) *Grant of Restricted Units*. The Committee may grant Restricted Units to any Participant, which Units will be paid in cash or whole Shares or a combination of cash and Shares, in the discretion of the Committee, when the restrictions on the Units lapse and any other conditions set forth in the Award Certificate have been satisfied. For each Restricted Unit that vests, one Share will be paid or an amount in cash equal to the Fair Market Value of a Share as of the date on which the Restricted Unit vests.

(d) *Grant of Deferred Share Units*. The Committee may grant Deferred Share Units to any Participant, which Units will be paid in whole Shares if the restrictions on the Units have lapsed. One Share will be paid for each Deferred Share Unit that becomes payable.

4.7 *Nonemployee Director Awards*.

(a) *Annual Awards*. Annually, the Committee shall grant an Award to each Nonemployee Director in such an amount as the Board, in its discretion, may approve in advance; provided that the fair market value (as determined under GAAP) on the grant date of such Award does not exceed $600,000. Unless the Committee determines otherwise, the form of such Awards shall be Restricted Share Units with a one year vesting period, and shall be granted on the business day following the annual general meeting of shareholders.

(b) *Additional Awards*. In addition to the annual Awards provided for above, the Committee may, in its discretion, grant additional Awards to Nonemployee Directors or prospective Nonemployee Directors, provided that in no event shall the fair market value (as determined under GAAP) on the grant date, when combined with any Awards granted under Section 4.7(a) in the same fiscal year, exceed $600,000 in any fiscal year.

4.8 *Substitute Awards*. The Committee may make Awards under the Plan to Acquired Grantees through the assumption of, or in substitution for, outstanding share-based awards previously granted to such Acquired Grantees. Unless otherwise agreed in the relevant documentation related to the acquisition, such assumed or substituted Awards will be subject to the terms and conditions of the original awards made by the Acquired Company, with such adjustments therein as the Committee considers appropriate to give effect to the relevant provisions of the acquisition agreement. Any grant of Incentive Share Options pursuant to this Section 4.8 will be made in accordance with Code Section 424 and any final regulations published thereunder.

4.9 *Limits on Individual Grants*. Subject to Sections 5.1, 5.3 and 5.4, on and after the 2017 Restatement Date, no Participant may: (a) be granted Share Options, Share Appreciation Rights, Other Share-Based Awards or Substitute Awards that, in each case, are not Short-Term Performance Awards or Long-Term Performance Awards, with respect to more than 5,730,000 Shares in any calendar year; (b) be paid more than $6 million per calendar year (whether in cash or Shares) with respect to Short-Term Performance Awards; (c) be paid more than 5,730,000 Shares per calendar year (less the number of Shares related to any other Awards granted in the same calendar year) with respect to Long-Term Performance Awards payable in Shares; or (d) be paid more than $6 million per calendar year with respect to Long-Term Performance Awards payable in cash; provided, that additional Awards in excess of the limitations in clauses (a), (b), (c) and (d) relating to up to 9,550,000 Shares may be granted to a Reporting Person who has been hired within the calendar year so long as such additional Awards are made in the form of Share Options, Share Appreciation Rights or Long-Term Performance Based Awards. Awards granted prior to the 2017 Restatement Date will be governed by the limits set forth in the Plan as in effect at the time such Awards were granted.

4.10 *Termination for Cause*. Notwithstanding anything to the contrary herein, if a Participant incurs a Termination of Directorship or Termination of Employment for Cause, then all of such Participant's Awards will immediately be cancelled. The exercise of any Share Option or Share Appreciation Right or the payment of any Award may be delayed, in the Committee's discretion, in the event that a potential termination for Cause is pending.

ARTICLE V
SHARES SUBJECT TO THE PLAN; ADJUSTMENTS

5.1 *Shares Available*. The Shares issuable under the Plan may consist of Shares issued from the Company's authorized share capital or conditional share capital or treasury shares of the Company (including, for the avoidance of doubt, Shares owned by any Subsidiary). The total number of Shares reserved for Awards under the Plan is the sum of (a) 47,750,000; (b) any Shares subject, as of October 1, 2012, to the outstanding awards under the Tyco International Ltd. 2004 Share and Incentive Plan that cease for any reason to be subject to such awards (other than by reason of exercise or settlement of the awards to the extent they are exercised for or settled in vested and nonforfeitable Shares) as may be adjusted by Sections 5.3 and 5.4; and (c) a number of Shares equal to the number of shares of Johnson Controls, Inc. common stock remaining available under the Legacy Johnson Controls Plans as of the Merger (the "Legacy Johnson Controls Shares"). Notwithstanding anything in the Plan to the contrary, in accordance with the New York Stock Exchange Listed Company Manual and interpretive guidance thereunder, including Rule 303A.08, (i) Awards in respect of Legacy Johnson Controls Shares granted following the Merger may be granted only to persons other than any individuals who were employed, immediately before the Merger, by the Company or entities that were its subsidiaries immediately before the Merger and (ii) the time during which the Legacy Johnson Controls Shares are available for grant under the Plan will not be extended beyond the period when they would have been available for grant under the Legacy Johnson Controls Plans. Awards denominated in Shares that are granted as Share Options or Share Appreciation Rights shall at the time of grant, reduce, on a 1-for-1 basis, the number of Shares available under the Plan. Awards denominated in Shares that are granted as Restricted Shares, Restricted Units, Performance Units, Other Share-Based Awards, or in respect of Short-Term Performance Awards or Long-Term Performance Awards (other than performance based Share Options) shall at the time of grant, reduce the number of Shares available under the Plan on (x) if the Award is denominated in Shares that are not Legacy Johnson Controls Shares (as determined by the Committee or its designee), a 1-for-3.32 basis, or (y) if the Award is denominated in Shares that are Legacy Johnson Controls Shares (as determined by the Committee or its designee), a 1-for-2.65 basis.

5.2 *Counting Rules*. The following Shares related to Awards under this Plan shall restore Shares available in the same amount in which the Award reduced the Shares available set forth in Section 5.1:

(a) Shares related to Awards paid in cash;

(b) Shares related to Awards that expire, are forfeited or cancelled, or terminate for any other reason without issuance of Shares;

(c) Any Shares issuable in connection with Awards that are assumed, converted or substituted as a result of the acquisition of an Acquired Company by the Company or a combination of the Company with another company; and

(d) Any Restricted Shares that are returned to the Company as Restricted Shares.

Any Shares that become issuable under the Plan as a result of an adjustment to an outstanding Award in connection with the Company's spin-offs of The ADT Corporation and Tyco Flow Control International Ltd. and related transactions (the "Separation") shall not be counted against the number of Shares available set forth in Section 5.1. For the avoidance of doubt, the full number of Share Appreciation Rights granted that are to be settled by the issuance of Shares shall be counted at the time of grant against the number of Shares available set forth in Section 5.1, regardless of the number of Shares actually issued upon settlement of such Share Appreciation Rights. Furthermore, any Shares withheld to satisfy tax withholding obligations on an Award issued under the Plan, Shares tendered to pay the exercise price of an Award under the Plan, and Shares repurchased on the open market with the proceeds of an Option exercise shall not restore Shares available for grant under this Plan.

5.3 *Adjustments*. In the event of a change in the outstanding Shares by reason of a share split, reverse share split, dividend or other distribution (whether in the form of cash, Shares, other securities or other property), extraordinary cash dividend, recapitalization, merger, consolidation, split-up, spin-off, reorganization, combination, repurchase or exchange of Shares or other securities or similar corporate transaction or event, the Committee shall make appropriate adjustments to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the Plan (including adjustments to Shares available).

5.4 *Change in Control*.

(a) For Awards Granted Prior to the Amendment Effective Date. For Awards granted prior to the Amendment Effective Date, the following shall apply:

(i) *Acceleration*. Unless the applicable Award Certificate provides otherwise, for any Participant who incurs a Change in Control Termination, all unvested Share Options and Share Appreciation Rights will become exercisable as of the later of (i) the effective date of the Change in Control and (ii) the effective date of the Change in Control Termination, and all conditions to vesting will be waived with respect to all other unvested Awards that are denominated in Shares. In such a case, with respect to Short-Term Performance Awards and Long-Term Performance Awards, performance will be deemed to have been achieved at a level of performance, as determined in the sole discretion of the Committee, at the higher of 100% of the Participant's Target Amount and the level of actual performance as of the date of the Change in Control.

(ii) *Adjustment, Conversion and Payment*. In addition to the foregoing, no later than 90 days after the date of Change in Control, the Committee (as constituted prior to the date of Change in Control) shall provide for the following actions to apply to each Award that is outstanding as of the date of Change in Control: (i) an adjustment to such Award as the Committee deems appropriate to reflect such Change in Control, (ii) the acquisition of such Award, or substitution of a new right therefor, by the acquiring or surviving entity after such Change in Control, or (iii) the purchase of such Award for an amount of cash equal to the amount that could have been attained upon the exercise or redemption of such Award immediately prior to the Change in Control had such Award been exercisable or payable at such time. Any payment made pursuant to this Section 5.4(a)(ii) shall include the value of any dividend equivalents credited with respect to such Award and accrued interest on such dividend equivalents. The Committee may specify how an Award will be treated in the event of a Change in Control either when the Award is granted or at any time thereafter, except as otherwise provided herein.

(b) *For Awards Granted on or after the Amendment Effective Date.* For Awards granted on or after the Amendment Effective Date, if the Participant has in effect an employment, retention, change of control, severance or similar agreement with the Company or any Subsidiary that discusses the effect of a Change in Control on the Participant's Awards, then such agreement shall control. In all other cases, unless provided otherwise in an Award Certificate or by the Committee prior to the date of the Change in Control, in the event of a Change in Control:

(i) If the purchaser, successor or surviving corporation (or parent thereof) (the "Survivor") so agrees, some or all outstanding Awards shall be assumed, or replaced with the same type of award with similar terms and conditions, by the Survivor in the Change in Control transaction. If applicable, each Award which is assumed by the Survivor shall be appropriately adjusted, immediately after such Change in Control, to apply to the number and class of securities which would have been issuable to the Participant upon the consummation of such Change in Control had the Award been exercised, vested or earned immediately prior to such Change in Control, and other appropriate adjustments in the terms and conditions of the Award shall be made.

(ii) To the extent the Survivor in the Change in Control transaction does not agree to assume the Awards or issue replacement awards as provided in clause (i), immediately prior to the date of the Change in Control:

(A) Each Share Option or Share Appreciation Right that is then held by a Participant who is employed by or in the service of the Company or a Subsidiary shall become immediately and fully vested, and, unless otherwise determined by the Board or Committee, all Share Options and Share Appreciation Right shall be cancelled on the date of the Change in Control in exchange for a cash payment equal to the excess of the Change in Control price of the Shares covered by the Share Option or Share Appreciation Right that is so cancelled over the purchase or grant price of such Shares under the Award.

(B) All Restricted Shares, Restricted Units and Deferred Share Units (that are not Short-Term Performance Awards or Long-Term Performance Awards) that are not then vested shall vest.

(C) All Short-Term Performance Awards and Long-Term Performance Awards that are earned but not yet paid shall be paid and all Short-Term Performance Awards and Long-Term Performance Awards for which the performance period has not expired shall be deemed to have been earned in an amount equal to (1) the target value payable to the Participant under such Award and (2) a fraction, the numerator of which is the number of days after the first day of the performance period on which the Change in Control occurs and the denominator of which is the number of days in the performance period, and shall be cancelled in exchange for a cash payment equal to such earned amount within thirty (30) days of the Change in Control.

(D) All dividend equivalent units that are not vested shall vest and be paid in cash, and all other Awards that are not vested shall vest and if an amount is payable under such vested Award, such amount shall be paid in cash based on the value of the Award.

(iii) In the event that (A) the Survivor terminates the Participant’s employment or service without cause (as defined in the agreement relating to the Award or, if not defined therein, as defined by the Administrator) or (B) if the Participant has in effect an employment, retention, change of control, severance or similar agreement with the Company or any Subsidiary that contemplates the termination of his or her employment or service for good reason, and the Participant terminates his or her employment or service for good reason (as defined in such agreement), in the case of either (A) or (B) within twenty-four (24) months following a Change in Control, then the following provisions shall apply to any assumed Awards or replacement awards described in clause (i) and any Awards not cancelled in connection with the Change in Control pursuant to clause (ii):

(A) Effective upon the date of the Participant's termination of employment or service, all outstanding Awards or replacement awards automatically shall vest in full or, if provided below, on a pro rata basis (assuming in either case for any Award the vesting of which is subject to Performance Measures, that such goals had been met at the target level).

(B) With respect to Share Options or Share Appreciation Rights, at the election of the Participant, such Awards or replacement awards shall be cancelled as of the date of such termination in exchange for a payment in cash and/or Shares (which may include shares or other securities of the Survivor) equal to the excess of the Fair Market Value of the Shares on the date of such termination covered by the portion of the Share Option or Share Appreciation Right that has not been exercised over the exercise or grant price of such Shares under the Award.

(C) With respect to Restricted Shares, Restricted Units and Deferred Share Units (that are not Short-Term Performance Awards or Long-Term Performance Awards), at the election of the Participant, such Awards or replacement awards shall be cancelled as of the date of such termination in exchange for a payment in cash and/or Shares (which may include shares or other securities of the Survivor) equal to the Fair Market Value of a Share on the date of such termination.

(D) With respect to Short-Term Performance Awards or Long-Term Performance Awards that are earned but not yet paid, such Awards or replacement awards shall be paid upon the termination of employment or service, and with respect to Short-Term Performance Awards or Long-Term Performance Awards for which the performance period has not expired, such Awards shall be cancelled in exchange for a cash payment to be made within thirty (30) days after the date of termination equal to the product of (1) the target value payable to the Participant under the Award and (2) a fraction, the numerator of which is the number of days after the first day of the performance period on which the termination occurs and the denominator of which is the number of days in the performance period.

(E) With respect to other Awards, such Awards or replacement awards shall be cancelled as of the date of such termination in exchange for a payment in cash in an amount equal to the value of the Award.

(iv) Notwithstanding anything to the contrary in the foregoing, the Participant has a deferral election in effect with respect to any amount payable under this Section 5.4(b), such amount shall be deferred pursuant to such election and shall not be paid in a lump sum as provided herein; provided that, with respect to amounts payable to a Participant (or the Participant's beneficiary or estate) who is entitled to a payment hereunder because the Participant's employment terminated as a result of death or Disability, or payable to a Participant who has met the requirements for Retirement (without regard to whether the Participant has terminated employment), no payment shall be made unless the Change in Control also constitutes a change in control event within the meaning of Code Section 409A.

(v) If the value of an Award is based on the Fair Market Value of a Share, Fair Market Value shall be deemed to mean the per share Change in Control price. The Committee shall determine the per share Change in Control price paid or deemed paid in the Change in Control transaction.

(vi) Except as otherwise expressly provided in any agreement between a Participant and the Company or a Subsidiary, if the receipt of any payment by a Participant under the circumstances described above would result in the payment by the Participant of any excise tax provided for in Section 280G and Section 4999 of the Code, then the amount of such payment shall be reduced to the extent required to prevent the imposition of such excise tax.

5.5 *Effect on Awards of Death, Disability or Certain Terminations of Employment*.

(a) For Awards granted prior to the Amendment Effective Date, unless the applicable Award Certificate provides otherwise:

(i) upon the death or Disability of a Participant, all unvested Awards held by such Participant shall vest, and with respect to all of such Participant's Share Options and Share Appreciation Rights, such Awards will be exercisable until the earlier of (A) their original expiration date and (B) the date that is three years after the date on which the Participant dies or incurs a Disability.

(ii) upon the Termination of Employment of a Participant for any reason other than the Participant's death or Disability or due to a Change in Control, if the Participant has attained age 55, and the sum of the Participant's age and years of service with the Company is 60 or higher, a pro rata portion of each Award held by such Participant shall vest based on the number of full months of service completed commencing on the grant date of such Award and ending on the date of Termination of Employment divided by the full number of months required to achieve complete vesting. With respect to all of such Participant's Share Options and Share Appreciation Rights, such Awards will be exercisable until the earlier of (A) their original expiration date and (B) the date that is three years after the date of Termination of Employment.

(b) For Awards granted on or after the Amendment Effective Date, the Committee will determine the effect of the death, Disability or Termination of Employment of a Participant on such Participant's Awards.

5.6 *Fractional Shares*. The Committee may, in its discretion, determine whether fractional shares may be settled in cash, shares or cancelled.

5.7 *Dividends and Dividend Equivalents*. At the discretion of the Committee and as set forth in the applicable Award Certificate, dividends issued on Shares may be credited with respect to any Award other than a Share Option or Share Appreciation Right in the form of dividend equivalents. Dividend equivalents will be subject to such vesting and other terms as are determined by the Committee and set forth in the applicable Award Certificate. For any Award that is entitled to dividend equivalents, (i) unless the Award Certificate provides otherwise, such dividend equivalent shall equal, on a per Share basis, the quotient produced by dividing the cash value of the dividend by the Fair Market Value of one Share as of the date the dividend is paid, (ii) such dividend equivalent shall vest at the same time, and only to the extent that, the underlying Award vests (taking into account any applicable performance conditions).

ARTICLE VI
AMENDMENT AND TERMINATION

6.1 *Amendment*. The Plan may be amended at any time and from time to time by the Board or the Committee without the approval of shareholders of the Company, except that no material revision to the terms of the Plan will be effective until the amendment is approved by the shareholders of the Company. A revision is "material" for this purpose if it materially increases the number of Shares that may be issued under the Plan (other than an increase pursuant to Sections 5.3 and 5.4 of the Plan), expands the types of Awards available under the Plan, materially expands the class of persons eligible to receive Awards under the Plan, materially extends the term of the Plan, materially decreases the Exercise Price at which Share Options or Share Appreciation Rights may be granted, reduces the Exercise Price of outstanding Share Options or Share Appreciation Rights, results in the replacement of outstanding Share Options and Share Appreciation Rights with new Awards that have an Exercise Price that is lower than the Exercise Price of the replaced Share Options and Share Appreciation Rights, or otherwise requires the consent of shareholders under applicable law, regulation or exchange listing standard; provided, that the Board may, in its discretion, amend Section 4.7 to increase the maximum amount of Awards permitted to be granted to Nonemployee Directors in any calendar year. With respect to Awards granted prior to the Amendment Effective Date, no amendment of the Plan or any outstanding Award made without the Participant's written consent may adversely affect any right of a Participant with respect to an outstanding Award. With respect to Awards granted on or after the Amendment Effective Date, the Board or the Committee may amend such Awards; provided that no amendment of the Plan or any outstanding Award made without the Participant's written consent may adversely affect any right of a Participant with respect to an outstanding Award, except that the Committee need not obtain Participant (or other interested party) consent for the modification, amendment or cancellation of an Award pursuant to the provisions of Section 5.3 or 5.4 of the Plan or as follows: (a) to the extent the Committee deems such action necessary to comply with any applicable law or the listing requirements of any principal securities exchange or market on which the Shares are then traded; (b) to the extent the Committee deems necessary to preserve favorable accounting or tax treatment of any Award for the Company; or (c) to the extent the Committee determines that such action does not materially and adversely affect the value of an Award or that such action is in the best interest of the affected Participant or any other person(s) as may then have an interest in the Award.

6.2 *Termination*. The Plan will terminate upon the earlier of the following dates or events to occur:

(a) the adoption of a resolution of the Board terminating the Plan; or

(b) the day before the 10th anniversary of the most recent effective date following shareholder approval of the Plan.

No Awards will be granted under this Plan after it has terminated. The termination of the Plan, however, will not alter or impair any of the rights or obligations of any person under any Award previously granted under the Plan without such person's consent. After the termination of the Plan, any previously granted Awards will remain in effect and will continue to be governed by the terms of the Plan and the applicable Award Certificate.

ARTICLE VII
GENERAL PROVISIONS

7.1 *Nontransferability of Awards*. No Award under the Plan will be subject in any manner to alienation, anticipation, sale, assignment, pledge, encumbrance or transfer, and no other persons will otherwise acquire any rights therein, except as provided below.

(a) Any Award may be transferred by will or by the laws of descent or distribution.

(b) The Committee may provide in the applicable Award Certificate that all or any part of an Award (other than an Incentive Share Option) may be transferred to a family member. For purposes of this subsection (b), "family member" includes any child, stepchild, grandchild, parent, stepparent, grandparent, spouse, former spouse, sibling, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law of the Participant, including adoptive relationships, any person sharing the Participant's household (other than a tenant or employee), a trust in which these persons have more than fifty percent of the beneficial interest, a foundation in which these persons (or the Participant) control the management of assets, and any other entity in which these persons (or the Participant) own more than fifty percent of the voting interests.

Any transferred Award will be subject to all of the same terms and conditions as provided in the Plan and the applicable Award Certificate. The Participant or the Participant's estate will remain liable for any withholding tax that may be imposed by any federal, state or local tax authority. The Committee may, in its discretion, disallow all or a part of any transfer of an Award pursuant to this subsection (b) unless and until the Participant makes arrangements satisfactory to the Committee for the payment of any withholding tax.

(c) Except as otherwise provided in the applicable Award Certificate, any Nonqualified Share Option transferred by a Participant pursuant to this subsection (c) may be exercised by the transferee only to the extent that the Award would have been exercisable by the Participant had no transfer occurred. The transfer of Shares upon exercise of the Award will be conditioned on the payment of any withholding tax.

(d) Restricted Shares may be freely transferred after the restrictions lapse or are satisfied and the Shares are delivered, and, if applicable, in compliance with Rule 144 under the Securities Act, or pursuant to an effective registration for resale under the Securities Act.

(e) In no event may a Participant transfer an Incentive Share Option other than by will or the laws of descent and distribution.

7.2 *Withholding of Taxes*. The Committee, in its discretion, may satisfy the Company's or a Participant's tax withholding obligations by any of the following methods or any method as it determines to be in accordance with the laws of the jurisdiction in which the Participant resides, has domicile or performs services.

(a) *Share Options and Share Appreciation Rights*. As a condition to the delivery of Shares pursuant to the exercise of a Share Option or Share Appreciation Right, the Committee may require that the Participant, at the time of exercise, pay to the Company by cash, certified check, bank draft, wire transfer or postal or express money order an amount sufficient to satisfy any applicable tax withholding obligations. The Committee may also, in its discretion, accept payment of tax withholding obligations through any of the Exercise Price payment methods described in Section 4.3(d); provided that, to the extent Shares are withheld to satisfy taxes, the amount to be withheld may not exceed the total minimum statutory tax withholding obligations associated with the transaction to the extent needed for the Company and its Subsidiaries to avoid an accounting charge until Accounting Standards Update 2016-09 applies to the Company, after which time the amount to be withheld may not exceed the total maximum statutory tax rates associated with the transaction.

(b) *Other Awards Payable in Shares*. The Participant shall satisfy the applicable tax withholding obligations arising in connection with Restricted Units, Restricted Shares and other Share-Based Awards by payment to the Company in cash or by certified check, bank draft, wire transfer or postal or express money order, provided that the format is approved by the Company or a designated third-party administrator. However, subject to any requirements of applicable law, the Participant may also satisfy the tax withholding obligations by other methods, including selling or withholding Shares that would otherwise be available for delivery, provided that the Board or the Committee has specifically approved such payment method in advance; provided that, to the extent Shares are withheld to satisfy taxes, the amount to be withheld may not exceed the total minimum statutory tax withholding obligations associated with the transaction to the extent needed for the Company and its Subsidiaries to avoid an accounting charge until Accounting Standards Update 2016-09 applies to the Company, after which time the amount to be withheld may not exceed the total maximum statutory tax rates associated with the transaction.

(c) *Awards Paid in Cash*. The Company may satisfy a Participant's tax withholding obligation arising in connection with the payment of any Award in cash by withholding cash from such payment.

7.3 *Code Section 162(m)*. The Committee or, to the extent required by applicable law, the Board, may, in its discretion grant Awards that are intended to be "performance-based compensation" under Section 162(m). The Committee or, to the extent required by applicable law, the Board, will have the authority, in its sole and absolute discretion, to interpret and administer the Plan consistent with Code Section 162(m) with respect to Key Employees. For the purposes of the Plan, it shall be presumed, unless the Committee indicates to the contrary, that all Awards to Key Employees are intended to qualify as "performance-based compensation" under Code Section 162(m). If the Committee does not intend an Award to a Participant to qualify as performance-based compensation under Code Section 162(m), the Committee shall reflect its intent in its records in such manner as the Committee determines to be appropriate

7.4 No Implied Rights. A Participant's rights, if any, in respect of or in connection with any Award are derived solely from the discretionary decision of the Company to permit the individual to participate in the Plan and to benefit from a discretionary Award. By accepting an Award under the Plan, a Participant expressly acknowledges that there is no obligation on the part of the Company to continue the Plan and/or grant any additional Awards. Any Award granted hereunder is not intended to be compensation of a continuing or recurring nature, or part of a Participant's normal or expected compensation, and in no way represents any portion of a Participant's salary, compensation, or other remuneration for purposes of pension benefits, severance, redundancy, resignation or any other purpose.

Neither the Plan, nor any Award granted under the Plan, shall be deemed to give any individual a right to remain an Employee or Director of the Company or any Subsidiary. The Company and its Subsidiaries reserve the right to terminate the service of any person at any time, and for any reason, subject to applicable laws, the Company's charter documents and any other applicable written agreement (if any), and such terminated person shall be deemed irrevocably to have waived any claim to damages or specific performance for breach of contract or dismissal, compensation for loss of office, tort or otherwise with respect to the Plan or any outstanding Award that is forfeited and/or is terminated by its terms or to any future Award.

7.5 *No Obligation to Exercise Awards*. The grant of a Share Option or Share Appreciation Right will impose no obligation upon the Participant to exercise the Award.

7.6 No Rights as Shareholders. Except as otherwise specifically provided herein or in the applicable Award Certificate, a Participant who is granted an Award under the Plan will have no rights as a shareholder of the Company with respect to the Award unless and until the Shares underlying the Award are issued in the Participant as evidenced by an appropriate entry on the books of the Company or a duly authorized transfer agent of the Company. The right of any Participant to receive an Award by virtue of participation in the Plan will be no greater than the right of any unsecured general creditor of the Company.

7.7 *No Required Segregation of Assets*. Neither the Company nor any Subsidiary will be required to segregate any assets that may at any time be represented by Awards granted pursuant to the Plan.

7.8 *Nature of Payments*. All Awards made pursuant to the Plan are in consideration of services for the Company or a Subsidiary. Any gain realized pursuant to Awards under the Plan constitutes a special incentive payment to the Participant and will not be taken into account as compensation for purposes of any other employee benefit plan of the Company or a Subsidiary, except as the Committee otherwise provides. The adoption of the Plan will have no effect on awards made or to be made under any other benefit plan covering an employee of the Company or a Subsidiary or any predecessor or successor of the Company or a Subsidiary.

7.9 *Securities Law Compliance*. Awards under the Plan are intended to satisfy the requirements of Rule 16b-3 under the Exchange Act. If any provision of this Plan or any grant of an Award would otherwise frustrate or conflict with this intent, that provision will be interpreted and deemed amended so as to avoid conflict. No Participant will be entitled to a grant, exercise, transfer or payment of any Award if the grant, exercise, transfer or payment would violate the provisions of the Sarbanes-Oxley Act of 2002 or any other applicable law.

7.10 *Section 409A of the Code*. Notwithstanding other provisions of the Plan, or any applicable Award Certificate, no Award shall be granted, deferred, accelerated, extended, paid out or modified under this Plan in a manner that would result in the imposition of an additional tax upon a Participant under Code Section 409A. In the event that it is reasonably determined by the Committee that, as a result of Code Section 409A, payments in respect of any Award under the Plan may not be made at a time contemplated by the terms of the Plan or the applicable Award Certificate, as the case may be, without causing the Participant holding such Award to be subject to taxation under Code Section 409A, the Company shall make such payment on the first day that would not result in the Participant incurring any tax liability under Code Section 409A. References under the Plan or the terms of the applicable Award Certificate to the Participant's termination of employment shall be deemed to refer to the date upon which the Participant has experienced a "separation from service" within the meaning of Code Section 409A. Notwithstanding anything herein to the contrary, (a) if at the time of the Participant's separation from service with any service recipient, the Participant is a "specified employee" as defined in Code Section 409A, and the deferral of the commencement of any payments or benefits otherwise payable hereunder as a result of such separation from service is necessary in order to prevent the imposition of any accelerated or additional tax under Code Section 409A, then the Company will defer the commencement of the payment of any such payments or benefits hereunder to the minimum extent necessary to satisfy Code Section 409A until the date that is six months and one day following the Participant's separation from service with all service recipients (or the earliest date that is permitted under Code Section 409A), if such payment or benefit is payable upon a termination of employment, and (b) if any other payments of money or other benefits due to the Participant hereunder would cause the application of an accelerated or additional tax under Code Section 409A, such payments or other benefits shall be deferred, if deferral will make such payment or other benefits compliant under Code Section 409A, or otherwise such payment or other benefits shall be restructured, to the minimum extent necessary, in a manner, reasonably determined by the Committee, that does not cause such an accelerated or additional tax or result in an additional cost to the Company.

7.11 *Governing Law, Severability*. The Plan and all determinations made and actions taken under the Plan will be governed by the law of the Company's place of incorporation and construed accordingly. If any provision of the Plan is held unlawful or otherwise invalid or unenforceable in whole or in part, the unlawfulness, invalidity or unenforceability will not affect any other parts of the Plan, which parts will remain in full force and effect.

7.12 *Forfeiture; Clawback*. The Committee may, in its discretion, provide in an Award Certificate provisions it deems appropriate related to non-competition, non-solicitation, confidentiality, anti-disparagement and similar matters. The Committee may, in its discretion, specify in an Award or a policy that will be incorporated into an Award agreement by reference, that the

Participant's rights, payments, and benefits with respect to an Award shall be subject to reduction, cancellation, forfeiture or recoupment upon the occurrence of certain specified events, in addition to any otherwise applicable vesting or performance conditions of an Award. Such events may include, but shall not be limited to, termination of Employment for cause, termination of the Participant's provision of services to the Company or any of its Subsidiaries, breach of noncompetition, confidentiality, or other restrictive covenants that may apply to the Participant, or restatement of the Company's financial statements to reflect adverse results from those previously released financial statements, as a consequence of errors, omissions, fraud, or misconduct. In addition, for Awards granted on or after the Amendment Effective Date, (a) any such Awards, and any Shares issued or cash paid pursuant to such Awards, shall be subject to (i) any recoupment, clawback, equity holding, share ownership or similar policies adopted by the Company from time to time and (ii) any recoupment, clawback, equity holding, share ownership or similar requirements made applicable by law, regulation or listing standards to the Company from time to time, (b) unless the Award Certificate specifies otherwise, the Committee may cancel any Award at any time if the Participant is not in compliance with all applicable provisions of the Award Certificate and the Plan and (c) the Company shall have the right to offset, from any amount payable or shares deliverable hereunder, any amount that the Participant owes to the Company or any Subsidiary without the consent of the Participant or any individual with a right to the Participant's Award.

7.13 *Employment and Service*. Except to the extent determined otherwise by the Committee or required for compliance with Code Section 409A, for purposes of the Plan and all Awards granted on or after the Amendment Effective Date, (a) a Participant who transfers employment between the Company and its Subsidiaries, or between Subsidiaries, will not be considered to have terminated employment; and (b) a Participant employed by a Subsidiary will be considered to have terminated employment when such entity ceases to be a Subsidiary.

7.14 No Guarantee of Tax Treatment. Notwithstanding any provisions of the Plan, the Company does not guarantee to any Participant or any other person with an interest in an Award granted on or after the Amendment Effective Date that (a) any such Award intended to be exempt from Code Section 409A shall be so exempt, (b) any such Award intended to comply with Code Section 409A or Code Section 422 shall so comply, or (c) any such Award shall otherwise receive a specific tax treatment under any other applicable tax law, nor in any such case will the Company or any Subsidiary be required to indemnify, defend or hold harmless any individual with respect to the tax consequences of any Award.

7.15 *Participant Responsibilities*. With respect to Awards granted on or after the Amendmetn Effective Date, if a Participant shall dispose of Shares acquired through exercise of an Incentive Share Option within either (i) two (2) years after the date the Incentive Share Option is granted or (ii) one (1) year after the date the Incentive Share Option is exercised (i.e., in a disqualifying disposition), such Participant shall notify the Company within seven (7) days of the date of such disqualifying disposition. In addition, if a Participant elects, under Code Section 83, to be taxed at the time an Award of Restricted Shares (or other property subject to such Code section) is made, rather than at the time the Award vests, such Participant shall notify the Company within seven (7) days of the date the Participant makes such an election.

7.16 Dispute Resolution. Notwithstanding anything to the contrary herein, with respect to Awards granted on or after the Amendment Effective Date, if any individual (other than the Company) brings a claim involving the Company or a Subsidiary, regardless of the basis of the claim (including but not limited to claims relating to wrongful discharge, Title VII discrimination, the Participant's employment or service with the Company or its Subsidiaries or the termination thereof, benefits under this Plan or other matters), such claim shall be settled by final binding arbitration in accordance with the rules of the American Arbitration Association ("AAA") and the following provisions, and judgment upon the award rendered by the arbitrator may be entered in any court having jurisdiction thereof.

a) *Initiation of Action.* Arbitration must be initiated by serving or mailing a written notice of the complaint to the other party. Normally, such written notice should be provided to the other party within one year (365 days) after the day the complaining party first knew or should have known of the events giving rise to the complaint. However, this time frame may be extended if the applicable statute of limitation provides for a longer period of time. If the complaint is not properly submitted within the appropriate time frame, all rights and claims that the complaining party has or may have against the other party shall be waived and void. Any notice sent to the Company shall be delivered to:

Office of General Counsel
Johnson Controls International plc
5757 North Green Bay Avenue
P.O. Box 591
Milwaukee, WI 53201-0591

The notice must identify and describe the nature of all complaints asserted and the facts upon which such complaints are based. Notice will be deemed given according to the date of any postmark or the date of time of any personal delivery.

(b) *Compliance with Personnel Policies*. Before proceeding to arbitration on a complaint, the claimant must initiate and participate in any complaint resolution procedure identified in the personnel policies of the Company or a Subsidiary, as applicable. If the claimant has not initiated the complaint resolution procedure before initiating arbitration on a complaint, the initiation of the arbitration shall be deemed to begin the complaint resolution procedure. No arbitration hearing shall be held on a complaint until any complaint resolution procedure of the Company or a Subsidiary, as applicable, has been completed.

(c) *Rules of Arbitration*. All arbitration will be conducted by a single arbitrator according to the Employment Dispute Arbitration Rules of the AAA. The arbitrator will have authority to award any remedy or relief that a court of competent jurisdiction could order or grant including, without limitation, specific performance of any obligation created under the award or policy, the awarding of punitive damages, the issuance of any injunction, costs and attorney's fees to the extent permitted by law, or the imposition of sanctions for abuse of the arbitration process. The arbitrator's award must be rendered in a writing that sets forth the essential findings and conclusions on which the arbitrator's award is based.

(d) *Representation and Costs*. Each party may be represented in the arbitration by an attorney or other representative selected by the party. The Company or Subsidiary shall be responsible for its own costs, the AAA filing fee and all other fees, costs and expenses of the arbitrator and AAA for administering the arbitration. The claimant shall be responsible for his attorney's or representative's fees, if any. However, if any party prevails on a statutory claim which allows the prevailing party costs and/or attorneys' fees, the arbitrator may award costs and reasonable attorneys' fees as provided by such statute.

(e) *Discovery; Location; Rules of Evidence*. Discovery will be allowed to the same extent afforded under the Federal Rules of Civil Procedure. Arbitration will be held at a location selected by the Company. AAA rules notwithstanding, the admissibility of evidence offered at the arbitration shall be determined by the arbitrator who shall be the judge of its materiality and relevance. Legal rules of evidence will not be controlling, and the standard for admissibility of evidence will generally be whether it is the type of information that responsible people rely upon in making important decisions.

(f) *Confidentiality*. The existence, content or results of any arbitration may not be disclosed by a party or arbitrator without the prior written consent of both parties. Witnesses who are not a party to the arbitration shall be excluded from the hearing except to testify.

Exhibit 31.1

CERTIFICATIONS

I, Alex A. Molinaroli, 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: May 4, 2017

/s/ Alex A. Molinaroli

Alex A. Molinaroli
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: May 4, 2017

/s/ Brian J. Stief

Brian J. Stief
Executive Vice President and
Chief Financial Officer

Exhibit 32.1

CERTIFICATION OF PERIODIC FINANCIAL REPORTS

We, Alex A. Molinaroli and Brian J. Stief, of Johnson Controls International plc, certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. the Quarterly Report on Form 10-Q for the quarter ended March 31, 2017 (Periodic Report) to which this statement is an exhibit fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)) and

2. information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of Johnson Controls International plc.

Date: May 4, 2017

/s/ Alex A. Molinaroli

Alex A. Molinaroli
Chairman and Chief Executive Officer

/s/ Brian J. Stief

Brian J. Stief
Executive Vice President and
Chief Financial Officer