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 June 30, 2019
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	**Not Applicable**
(Registrant's telephone number)	**(Former name, former address and former fiscal year, if changed since last report)**

Securities Registered Pursuant to Section 12(b) of the Exchange Act:

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Ordinary Shares, Par Value $0.01	JCI	New York Stock Exchange

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 every Interactive Data File required to be submitted 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 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	☐	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 June 30, 2019
Ordinary Shares, $0.01 par value per share	795,706,564

JOHNSON CONTROLS INTERNATIONAL PLC

FORM 10-Q

Report Index

PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

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

	June 30, 2019	September 30, 2018
Assets		
Cash and cash equivalents	$ 3,685	$ 185
Accounts receivable - net	6,033	5,622
Inventories	2,050	1,819
Assets held for sale	95	3,015
Other current assets	1,179	1,182
Current assets	13,042	11,823
Property, plant and equipment - net	3,282	3,300
Goodwill	18,312	18,381
Other intangible assets - net	5,739	6,187
Investments in partially-owned affiliates	848	848
Noncurrent assets held for sale	59	5,188
Other noncurrent assets	1,787	3,070
Total assets	$ 43,069	$ 48,797
Liabilities and Equity		
Short-term debt	$ 20	$ 1,306
Current portion of long-term debt	501	1
Accounts payable	3,671	3,407
Accrued compensation and benefits	781	1,021
Deferred revenue	1,389	1,326
Liabilities held for sale	46	1,791
Other current liabilities	2,834	2,398
Current liabilities	9,242	11,250
Long-term debt	6,804	9,623
Pension and postretirement benefits	493	616
Noncurrent liabilities held for sale	—	207
Other noncurrent liabilities	5,121	4,643
Long-term liabilities	12,418	15,089
Commitments and contingencies (Note 20)		
Ordinary shares, $0.01 par value	9	10
Ordinary A shares, €1.00 par value	—	—
Preferred shares, $0.01 par value	—	—
Ordinary shares held in treasury, at cost	(2,168)	(1,053)
Capital in excess of par value	16,720	16,549
Retained earnings	6,366	6,604
Accumulated other comprehensive loss	(564)	(946)
Shareholders’ equity attributable to Johnson Controls	20,363	21,164
Noncontrolling interests	1,046	1,294
Total equity	21,409	22,458
Total liabilities and equity	$ 43,069	$ 48,797

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 June 30, 2019	Three Months Ended June 30, 2018	Nine Months Ended June 30, 2019	Nine Months Ended June 30, 2018
Net sales				
Products and systems	$ 4,896	$ 4,727	$ 13,058	$ 12,694
Services	1,555	1,555	4,636	4,523
	6,451	6,282	17,694	17,217
Cost of sales				
Products and systems	3,380	3,324	9,233	9,082
Services	927	870	2,748	2,525
	4,307	4,194	11,981	11,607
Gross profit	2,144	2,088	5,713	5,610
Selling, general and administrative expenses	(1,388)	(1,441)	(4,284)	(4,250)
Restructuring and impairment costs	(235)	—	(235)	(154)
Net financing charges	(119)	(95)	(302)	(304)
Equity income	62	55	137	129
Income from continuing operations before income taxes	464	607	1,029	1,031
Income tax provision	239	61	394	314
Income from continuing operations	225	546	635	717
Income from discontinued operations, net of tax (Note 4)	4,051	258	4,598	841
Net income	4,276	804	5,233	1,558
Income from continuing operations attributable to noncontrolling interests	84	72	147	134
Income from discontinued operations attributable to noncontrolling interests	—	9	24	33
Net income attributable to Johnson Controls	$ 4,192	$ 723	$ 5,062	$ 1,391
Amounts attributable to Johnson Controls ordinary shareholders:				
Income from continuing operations	$ 141	$ 474	$ 488	$ 583
Income from discontinued operations	4,051	249	4,574	808
Net income	$ 4,192	$ 723	$ 5,062	$ 1,391
Basic earnings per share attributable to Johnson Controls				
Continuing operations	$ 0.16	$ 0.51	$ 0.54	$ 0.63
Discontinued operations	4.65	0.27	5.09	0.87
Net income	$ 4.81	$ 0.78	$ 5.63	$ 1.50
Diluted earnings per share attributable to Johnson Controls				
Continuing operations	$ 0.16	$ 0.51	$ 0.54	$ 0.63
Discontinued operations	4.63	0.27	5.07	0.87
Net income *	$ 4.79	$ 0.78	$ 5.61	$ 1.49

* 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 June 30,		Nine Months Ended June 30,	
	2019	2018	2019	2018
Net income	$ 4,276	$ 804	$ 5,233	$ 1,558
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments	(94)	(614)	(95)	(331)
Realized and unrealized gains (losses) on derivatives	(9)	1	10	(10)
Realized and unrealized losses on marketable securities	—	—	—	(2)
Other comprehensive loss	(103)	(613)	(85)	(343)
Total comprehensive income	4,173	191	5,148	1,215
Comprehensive income attributable to noncontrolling interests	76	22	179	159
Comprehensive income attributable to Johnson Controls	$ 4,097	$ 169	$ 4,969	$ 1,056

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

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

	Nine Months Ended June 30, 2019	Nine Months Ended June 30, 2018
Operating Activities of Continuing Operations		
Net income from continuing operations attributable to Johnson Controls	$ 488	$ 583
Income from continuing operations attributable to noncontrolling interests	147	134
Net income from continuing operations	635	717
Adjustments to reconcile net income from continuing operations to cash provided by operating activities:		
Depreciation and amortization	625	649
Pension and postretirement benefit income	(85)	(108)
Pension and postretirement contributions	(51)	(53)
Equity in earnings of partially-owned affiliates, net of dividends received	6	(84)
Deferred income taxes	382	(78)
Non-cash restructuring and impairment charges	235	28
Gain on Scott Safety business divestiture	—	(114)
Equity-based compensation	66	77
Other - net	42	(6)
Changes in assets and liabilities, excluding acquisitions and divestitures:		
Accounts receivable	(494)	(454)
Inventories	(289)	(211)
Other assets	(62)	(245)
Restructuring reserves	(84)	(55)
Accounts payable and accrued liabilities	(36)	268
Accrued income taxes	(179)	366
Cash provided by operating activities from continuing operations	711	697
Investing Activities of Continuing Operations		
Capital expenditures	(401)	(481)
Sale of property, plant and equipment	15	23
Acquisition of businesses, net of cash acquired	(16)	(24)
Business divestitures, net of cash divested	12	2,101
Proceeds (payments) for equity swap	14	(15)
Changes in long-term investments	13	(3)
Cash provided (used) by investing activities from continuing operations	(363)	1,601
Financing Activities of Continuing Operations		
Increase (decrease) in short-term debt - net	(1,286)	347
Increase in long-term debt	—	886
Repayment of long-term debt	(2,333)	(2,743)
Debt financing costs	—	(4)
Stock repurchases and retirements	(5,122)	(255)
Payment of cash dividends	(712)	(714)
Proceeds from the exercise of stock options	111	39
Employee equity-based compensation withholding taxes	(26)	(38)
Dividends paid to noncontrolling interests	(132)	(43)
Cash used by financing activities from continuing operations	(9,500)	(2,525)
Discontinued Operations		
Cash provided by operating activities	117	567
Cash provided (used) by investing activities	12,580	(312)
Cash used by financing activities	(35)	(3)
Cash provided by discontinued operations	12,662	252
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(24)	(84)
Change in cash held for sale	15	13
Increase (decrease) in cash, cash equivalents and restricted cash	3,501	(46)
Cash, cash equivalents and restricted cash at beginning of period	200	332
Cash, cash equivalents and restricted cash at end of period	3,701	286
Less: Restricted cash	16	19
Cash and cash equivalents at end of period	$ 3,685	$ 267

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

Johnson Controls International plc
Consolidated Statements of Shareholders' Equity Attributable to Johnson Controls Ordinary Shareholders
(in millions, except per share data; unaudited)

	Nine Months Ended June 30, 2019					
	Total	Ordinary Shares	Capital in Excess of Par Value	Retained Earnings	Treasury Stock, at Cost	Accumulated Other Comprehensive Loss
At September 30, 2018	$ 21,164	$ 10	$ 16,549	$ 6,604	$ (1,053)	$ (946)
Comprehensive income (loss)	4,969	—	—	5,062	—	(93)
Cash dividends Ordinary ($0.78 per share)	(683)	—	—	(683)	—	—
Repurchases and retirements of ordinary shares	(5,122)	(1)	—	(4,034)	(1,087)	—
Divestiture of Power Solutions	483	—	—	—	—	483
Adoption of ASC 606	(45)	—	—	(45)	—	—
Adoption of ASU 2016-01	—	—	—	8	—	(8)
Adoption of ASU 2016-16	(546)	—	—	(546)	—	—
Other, including options exercised	143	—	171	—	(28)	—
At June 30, 2019	$ 20,363	$ 9	$ 16,720	$ 6,366	$ (2,168)	$ (564)

	Three Months Ended June 30, 2019					
	Total	Ordinary Shares	Capital in Excess of Par Value	Retained Earnings	Treasury Stock, at Cost	Accumulated Other Comprehensive Loss
At March 31, 2019	$ 20,036	$ 10	$ 16,640	$ 6,416	$ (2,078)	$ (952)
Comprehensive income (loss)	4,097	—	—	4,192	—	(95)
Cash dividends Ordinary ($0.26 per share)	(208)	—	—	(208)	—	—
Repurchases and retirements of ordinary shares	(4,122)	(1)	—	(4,034)	(87)	—
Divestiture of Power Solutions	483	—	—	—	—	483
Other, including options exercised	77	—	80	—	(3)	—
At June 30, 2019	$ 20,363	$ 9	$ 16,720	$ 6,366	$ (2,168)	$ (564)

	Nine Months Ended June 30, 2018					
	Total	Ordinary Shares	Capital in Excess of Par Value	Retained Earnings	Treasury Stock, at Cost	Accumulated Other Comprehensive Loss
At September 30, 2017	$ 20,447	$ 9	$ 16,390	$ 5,231	$ (710)	$ (473)
Comprehensive income (loss)	1,056	—	—	1,391	—	(335)
Cash dividends Ordinary ($0.78 per share)	(722)	—	—	(722)	—	—
Repurchases of ordinary shares	(255)	—	—	—	(255)	—
Adoption of ASU 2016-09	179	—	—	179	—	—
Other, including options exercised	68	—	111	(4)	(39)	—
At June 30, 2018	$ 20,773	$ 9	$ 16,501	$ 6,075	$ (1,004)	$ (808)

	Three Months Ended June 30, 2018					
	Total	Ordinary Shares	Capital in Excess of Par Value	Retained Earnings	Treasury Stock, at Cost	Accumulated Other Comprehensive Loss
At March 31, 2018	$ 20,874	$ 9	$ 16,471	$ 5,594	$ (946)	$ (254)
Comprehensive income (loss)	169	—	—	723	—	(554)
Cash dividends Ordinary ($0.26 per share)	(240)	—	—	(240)	—	—
Repurchases of ordinary shares	(56)	—	—	—	(56)	—
Other, including options exercised	26	—	30	(2)	(2)	—
At June 30, 2018	$ 20,773	$ 9	$ 16,501	$ 6,075	$ (1,004)	$ (808)

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, 2018 filed with the SEC on November 20, 2018. The results of operations for the three and nine month periods ended June 30, 2019 are not necessarily indicative of results for the Company’s 2019 fiscal year because of seasonal and other factors.

Nature of Operations

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

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

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") Accounting Standards Codification ("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.

The Company did not have a significant variable interest in any consolidated or nonconsolidated VIEs in its continuing operations for the presented reporting periods.

Restricted Cash

At June 30, 2019, the Company held restricted cash of approximately $16 million, all of which was recorded within other current assets in the consolidated statements of financial position. These amounts were related to cash restricted for payment of asbestos liabilities. At September 30, 2018, the Company held restricted cash of approximately $15 million, of which $6 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.

Retrospective Changes

During the first quarter of fiscal 2019, the Company determined that its Power Solutions 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 4, "Discontinued Operations" of the notes to consolidated financial statements for further information regarding the Company's discontinued operations.

In November 2016, the FASB issued Accounting Standards Update ("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. ASU No. 2016-18 was effective retrospectively for the quarter ended December 31, 2018. The impact of this guidance did not have a significant impact on the Company's consolidated financial statements for the periods presented.

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 was effective retrospectively for the Company for the quarter ending December 31, 2018. The adoption of this guidance had an impact on the presentation of equity swap funding and settlement activities since the activity changed from an operating activity to an investing activity.

2. New Accounting Standards

Recently Adopted Accounting Pronouncements

On August 17, 2018, the SEC issued the final rule under SEC Release No. 33-10532, "Disclosure Update and Simplification," that amends certain of its disclosure requirements that have become redundant, duplicative, overlapping, outdated or superseded. The final rule extends to interim periods the annual disclosure requirement of presenting changes in each caption of stockholders' equity and the amount of dividends per share. These disclosures are required to be provided for the current and comparative interim periods. As a result, the Company has included the Consolidated Statements of Shareholders' Equity Attributable to Johnson Controls Ordinary Shareholders for the three and nine month periods ended June 30, 2019 and 2018 in this quarterly report on Form 10-Q.

In March 2018, the FASB issued ASU No. 2018-05, "Income Taxes (Topic 740): Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118," to add various SEC paragraphs pursuant to the issuance of SEC Staff Accounting Bulletin No. 118 ("SAB 118") to ASC 740 "Income Taxes." SAB 118 was issued by the SEC in December 2017 to provide immediate guidance for accounting implications of U.S. Tax Reform under the "Tax Cuts and Jobs Act" in the period of enactment. SAB 118 provides for a provisional one year measurement period for entities to finalize their accounting for certain income tax effects related to the "Tax Cuts and Jobs Act." The Company applied this guidance to its consolidated financial statements and related disclosures beginning in the first quarter of fiscal 2018. In the first quarter of fiscal 2019, the Company completed its analysis of all enactment-date income tax effects of the U.S. tax law change. Refer to Note 9, "Income Taxes," of the notes to consolidated financial statements for further information.

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. ASU No. 2017-07 was effective for the quarter ended December 31, 2018. The guidance was effective retrospectively except for the capitalization of the service cost component which was applied prospectively. The adoption of this guidance did not have a significant impact on the Company's consolidated financial statements as the Company does not present a subtotal of income from operations within its consolidated statements of income.

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 was effective for the Company for the quarter ending December 31, 2018. The changes were applied by means of a cumulative-effect adjustment which resulted in a reduction to retained earnings and other noncurrent assets of $546 million.

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. Additionally in February 2018, the FASB issued ASU No. 2018-03, "Technical Corrections and Improvements to Financial Instruments—Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities," which provides additional clarification on certain topics addressed in ASU No. 2016-01. ASU No. 2016-01 and ASU No. 2018-03 were effective for the Company for the quarter ending December 31, 2018. The changes were applied by means of a cumulative-effect adjustment which resulted in an increase to retained earnings of $8 million. The new standard requires the mark-to-market of marketable securities investments previously recorded within accumulated other comprehensive income on the statement of financial position be recorded in the statement of income on a prospective basis beginning as of the adoption date. As these restricted investments do not relate to the underlying operating performance of its business, the Company's definition of segment earnings excludes the mark-to-market adjustments beginning in the first quarter of fiscal 2019. Refer to Note 18, "Segment Information," of the notes to consolidated financial statements for further information.

In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)." ASU No. 2014-09 and its related amendments (collectively, the "New Revenue Standard") clarify 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 Company adopted the New Revenue Standard on October 1, 2018 using a modified retrospective approach. Under the New Revenue Standard, revenue recognition is mostly consistent with the previous guidance, with the exception of the Power Solutions business, which is now reported as a discontinued operation beginning in the first quarter of fiscal 2019. Within the Power Solutions business, certain customers return battery cores which are now included in the transaction price as noncash consideration. The New Revenue Standard did not have a material impact on the Company's consolidated statements of financial position, consolidated statements of income or its consolidated statements of cash flows. As of October 1, 2018, the Company applied the New Revenue Standard to contracts that were not completed as of this date and recognized a cumulative-effect adjustment of a reduction to retained earnings of $45 million, which relates primarily to deferred revenue recorded for certain battery core returns that represent a material right provided to customers. The prior period comparative information has not been restated and continues to be reported under the previous guidance.

The impact of adoption of the New Revenue Standard to the Company's consolidated statement of income for the nine months ended June 30, 2019 for continuing operations was an increase to net sales of approximately $1 million, with the impact to income before taxes of less than $1 million. The impact of adoption of the New Revenue Standard to the Company's consolidated statement of income for the three and nine months ended June 30, 2019 for discontinued operations was an increase to net sales of $77 million and $667 million, respectively, with the impact to income from discontinued operations, net of tax, of approximately $1 million and $26 million, respectively.

The impact of adoption of the New Revenue Standard to the Company's consolidated statement of financial position as of June 30, 2019 is as follows (in millions):

	June 30, 2019		
Consolidated Statement of Financial Position	**As reported**	**Under previous accounting guidance**	**Impact from adopting the New Revenue Standard**
Assets			
Accounts receivable - net	$ 6,033	$ 6,065	$ (32)
Inventories	2,050	2,064	(14)
Other current assets	1,179	1,204	(25)
Property, plant and equipment - net	3,282	3,242	40
Other noncurrent assets	1,787	1,758	29
Liabilities and Equity			
Deferred revenue	1,389	1,380	9
Retained earnings	6,366	6,377	(11)

Recently Issued Accounting Pronouncements

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. The original standard was effective retrospectively for the Company for the quarter ending December 31, 2019 with early adoption permitted; however in July 2018 the FASB issued ASU No. 2018-11, "Leases (Topic 842): Targeted Improvements," which provides an additional transition method that permits changes 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 has elected this transition method at the adoption date of October 1, 2019. The FASB further amended Topic 842 by issuing ASU No. 2018-01, "Leases (Topic 842): Land Easement Practical Expedient for Transition to Topic 842," which provides an optional transition practical expedient for existing or expired land easements that were not previously recorded as leases, ASU No. 2018-10, "Codification Improvements to Topic 842, Leases," ASU No. 2018-20, "Leases (Topic 842): Narrow-Scope Improvements for Lessors," and ASU No. 2019-01, "Leases (Topic 842): Codification Improvements." The Company is in the process of populating its leases into new lease accounting software and designing and implementing new processes and controls for the accounting for leases under the new guidance. 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 is finalizing its assessment of the impact adoption of this guidance will have on its consolidated financial statements. 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 and its consolidated statements of cash flows.

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

3. Acquisitions and Divestitures

On April 30, 2019, the Company completed the sale of its Power Solutions business to BCP Acquisitions LLC for a purchase price of $13.2 billion. The net cash proceeds after tax and transaction-related expenses were $11.6 billion. In connection with the sale, the Company recorded a gain, net of transaction and other costs, of $5.2 billion ($4.0 billion after tax), subject to post-closing working capital and net debt adjustments, within income from discontinued operations, net of tax, in the consolidated statements of income. During the first quarter of fiscal 2019, the Company determined that its Power Solutions business met the criteria to be classified as a discontinued operation and, as a result, Power Solutions' historical financial results are reflected in the Company's consolidated financial statements as a discontinued operation. Refer to Note 4, "Discontinued Operations," of the notes to consolidated financial statements for further disclosure related to the Company's discontinued operations.

During the first nine months of fiscal 2019, the Company completed certain divestitures within the Global Products and Building Solutions EMEA/LA businesses. The combined selling price was $18 million, $12 million of which was received as of June 30, 2019. In connection with the sale, the Company reduced goodwill by $1 million within the Building Solutions EMEA/LA segment. The divestitures were not material to the Company's consolidated financial statements.

During the first nine months of fiscal 2019, the Company completed certain acquisitions for a combined purchase price of $16 million, all of which was paid as of June 30, 2019. The acquisitions were not material to the Company's consolidated financial statements. In connection with the acquisitions, the Company recorded goodwill of $9 million within the Global Products segment and $1 million within the Building Solutions EMEA/LA segment.

During the first nine months of fiscal 2018, the Company completed certain acquisitions for a combined purchase price of $24 million, all of which was paid as of June 30, 2018. The acquisitions were not material to the Company’s consolidated financial statements. In connection with the acquisitions, the Company recorded goodwill of $12 million within the Global Products segment.

In the second quarter of fiscal 2018, the Company completed the sale of a certain Global Products business. The selling price was $103 million, all of which was received in the three months ended March 31, 2018. In connection with the sale, the Company reduced goodwill by $20 million. The divestiture was not material to the Company's consolidated financial statements.

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

4. Discontinued Operations

On November 13, 2018, the Company entered into a Stock and Asset Purchase Agreement (“Purchase Agreement”) with BCP Acquisitions LLC (“Purchaser”). The Purchaser is a newly-formed entity controlled by investment funds managed by Brookfield Capital Partners LLC. Pursuant to the Purchase Agreement, on the terms and subject to the conditions therein, the Company agreed to sell, and Purchaser agreed to acquire, the Company’s Power Solutions business for a purchase price of $13.2 billion. The transaction closed on April 30, 2019 with net cash proceeds of $11.6 billion after tax and transaction-related expenses.

During the first quarter of fiscal 2019, the Company determined that its Power Solutions business met the criteria to be classified as a discontinued operation and, as a result, Power Solutions' 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 Power Solutions reclassified as discontinued operations for the three and nine month periods ended June 30, 2019 and 2018 (in millions). As the Power Solutions sale occurred on April 30, 2019, there is only one month of Power Solutions results included in the three month period ended June 30, 2019, and only seven months included in the nine month period ended June 30, 2019.

	Three Months Ended June 30,		Nine Months Ended June 30,	
	2019	2018	2019	2018
Net sales	$ 562	$ 1,838	$ 5,001	$ 5,813
Income from discontinued operations before income taxes	5,315	303	6,039	978
Provision for income taxes on discontinued operations	(1,264)	(45)	(1,441)	(137)
Income from discontinued operations attributable to noncontrolling interests, net of tax	—	(9)	(24)	(33)
Income from discontinued operations	$ 4,051	$ 249	$ 4,574	$ 808

For the three months ended June 30, 2019, income from discontinued operations before income taxes included a gain on sale of the Power Solutions business, net of transaction and other costs, of $5.2 billion and a favorable impact of $21 million for ceasing depreciation and amortization expense as the business was held for sale. For the nine months ended June 30, 2019, income from discontinued operations before income taxes included a gain on sale of the Power Solutions business, net of transaction and other costs, of $5.2 billion and a favorable impact of $117 million for ceasing depreciation and amortization expense as the business was held for sale.

For the three and nine months ended June 30, 2019, the effective tax rate was more than the Irish statutory rate of 12.5% primarily due to the tax impacts of the divestiture of the Power Solutions business and tax rate differentials. For the three and nine months ended June 30, 2018, the effective tax rate was more than the Irish statutory rate of 12.5% primarily due to tax rate differentials.

Assets and Liabilities Held for Sale

The following table summarizes the carrying value of the Power Solutions assets and liabilities held for sale at September 30, 2018 (in millions):

		September 30, 2018
Cash	$	15
Accounts receivable - net		1,443
Inventories		1,405
Other current assets		152
Assets held for sale	$	3,015
Property, plant and equipment - net	$	2,871
Goodwill		1,092
Other intangible assets - net		161
Investments in partially-owned affiliates		453
Other noncurrent assets		611
Noncurrent assets held for sale	$	5,188
Short-term debt	$	9
Current portion of long-term debt		25
Accounts payable		1,237
Accrued compensation and benefits		125
Other current liabilities		395
Liabilities held for sale	$	1,791
Long-term debt	$	31
Pension and postretirement benefits		101
Other noncurrent liabilities		75
Noncurrent liabilities held for sale	$	207

During the third quarter of fiscal 2019, the Company determined that a business within its Global Products segment met the criteria to be classified as held for sale. The assets and liabilities of this business are presented as held for sale in the consolidated statements of financial position as of June 30, 2019. Assets and liabilities held for sale are required to be recorded at the lower of carrying value or fair value less any costs to sell. Accordingly, the Company recorded an impairment charge of $235 million within restructuring and impairment costs in the consolidated statements of income in the third quarter of fiscal 2019 to write down the carrying value of the assets held for sale to fair value less any costs to sell. Refer to Note 17, "Impairment of Long-Lived Assets" of the notes to consolidated financial statements for further information regarding the impairment charge. The divestiture of the business held for sale could result in a gain or loss on sale to the extent the ultimate selling price differs from the current carrying value of the net assets recorded. The business did not meet the criteria to be classified as a discontinued operation as the divestiture of the business will not have a major effect on the Company's operations and financial results.

5. Revenue Recognition

The Company designs, manufactures and installs building products and systems around the world, including HVAC equipment, HVAC controls, energy-management systems, security systems, fire detection systems and fire suppression solutions. The Company also provides energy efficiency solutions and technical services, including inspection, scheduled maintenance, and repair and replacement of mechanical and control systems.

The Company recognizes revenue from certain long-term contracts to design, manufacture and install building products and systems as well as unscheduled repair or replacement services on an over time basis, with progress towards completion measured using a cost-to-cost input method based on the relationship between actual costs incurred and total estimated costs at completion. The cost-to-cost input method is used as it best depicts the transfer of control to the customer that occurs as the Company incurs costs. Changes to the original estimates may be required during the life of the contract and such estimates are reviewed monthly. If contract modifications result in additional goods or services that are distinct from those transferred before the modification, they are accounted for prospectively as if the Company entered into a new contract. If the goods or services in the modification are not distinct from those in the original contract, sales and gross profit are adjusted using the cumulative catch-up method for revisions in estimated total contract costs and contract values. Estimated losses are recorded when identified. The Company elected the practical expedient which permits the promised amount of consideration to not be adjusted for the effects of a significant financing component as at contract inception the Company expects to receive the payment within the twelve months of transfer of goods or services.

The Company enters into extended warranties and long-term service and maintenance agreements with certain customers. For these arrangements, revenue is recognized over time on a straight-line basis over the respective contract term.

The Company also sells certain HVAC and refrigeration products and services in bundled arrangements with multiple performance obligations, such as equipment, commissioning, service labor and extended warranties. Approximately four to twelve months separate the timing of the first deliverable until the last piece of equipment is delivered, and there may be extended warranty arrangements with duration of one to five years commencing upon the end of the standard warranty period. In addition, the Company sells security monitoring systems that may have multiple performance obligations, including equipment, installation, monitoring services and maintenance agreements. Revenues associated with sale of equipment and related installations are recognized over time on a cost-to-cost input method, while the revenue for monitoring and maintenance services are recognized over time as services are rendered. The transaction price is allocated to each performance obligation based on the relative selling price method. In order to estimate relative selling price, market data and transfer price studies are utilized. If the standalone selling price is not directly observable, the Company estimates the standalone selling price using an adjusted market assessment approach or expected cost plus margin approach. Revenue recognized for security monitoring equipment and installation is limited to the lesser of their allocated amounts under the estimated selling price hierarchy or the non-contingent up-front consideration received at the time of installation, since collection of future amounts under the arrangement with the customer is contingent upon the delivery of monitoring and maintenance services. For transactions in which the Company retains ownership of the subscriber system asset, fees for monitoring and maintenance services are recognized over time on a straight-line basis over the contract term. Non-refundable fees received in connection with the initiation of a monitoring contract, along with associated direct and incremental selling costs, are deferred and amortized over the estimated life of the contract.

In all other cases, the Company recognizes revenue at the point in time when control over the goods or services transfers to the customer.

The Company considers the contractual consideration payable by the customer and assess variable consideration that may affect the total transaction price, including discounts, rebates, refunds, credits or other similar sources of variable consideration, when determining the transaction price of each contract. The Company includes variable consideration in the estimated transaction price when it is probable that significant reversal of revenue recognized would not occur when the uncertainty associated with variable consideration is subsequently resolved. These estimates are based on the amount of consideration that the Company expects to be entitled to.

Shipping and handling costs billed to customers are included in sales and the related costs are included in cost of sales when control transfers to the customer. The Company has elected to present amounts collected from customers for sales and other taxes net of the related amounts remitted.

Disaggregated Revenue

The following table presents the Company's revenues disaggregated by segment and by product versus services revenue for the three and nine months ended June 30, 2019 (in millions):

	Three Months Ended June 30, 2019			Nine Months Ended June 30, 2019		
	Products & Systems	Services	Total	Products & Systems	Services	Total
Building Solutions North America	$ 1,494	$ 833	$ 2,327	$ 4,202	$ 2,428	$ 6,630
Building Solutions EMEA/LA	464	458	922	1,297	1,410	2,707
Building Solutions Asia Pacific	427	264	691	1,134	798	1,932
Global Products	2,511	—	2,511	6,425	—	6,425
Total	$ 4,896	$ 1,555	$ 6,451	$ 13,058	$ 4,636	$ 17,694

The following table presents further disaggregation of Global Products segment revenues by product type for the three and nine months ended June 30, 2019 (in millions):

	Three Months Ended June 30,	Nine Months Ended June 30,
	2019	2019
Building Management	$ 342	$ 943
HVAC & Refrigeration Equipment	1,869	4,628
Specialty	300	854
Total Global Products	$ 2,511	$ 6,425

Contract Balances

Contract assets relate to the Company's right to consideration for performance obligations satisfied but not billed and consist of unbilled receivable and costs in excess of billings. Contract liabilities relate to customer payments received in advance of satisfaction of performance obligations under the contract. Contract liabilities consist of deferred revenue. Contract balances are classified as assets or liabilities on a contract-by-contract basis at the end of each reporting period.

The following table presents the location and amount of contract balances in the Company's consolidated statements of financial position (in millions):

	Location of contract balances	June 30, 2019	October 1, 2018
Contract assets - current	Accounts receivable - net	$ 1,428	$ 1,261
Contract assets - noncurrent	Other noncurrent assets	85	85
Contract liabilities - current	Deferred revenue	(1,389)	(1,335)
Contract liabilities - noncurrent	Other noncurrent liabilities	(125)	(113)
Total		$ (1)	$ (102)

For the three and nine months ended June 30, 2019, the Company recognized revenue of $130 million and $1,056 million, respectively, that was included in the beginning of period contract liability balance.

Performance Obligations

A performance obligation is a distinct good, service, or a bundle of goods and services promised in a contract. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied. When contracts with customers require significant and complex integration, contain goods or services which are highly interdependent or interrelated, or are goods or services which significantly modify or customize other promises in the contracts and, therefore, are not distinct, then the entire contract is accounted for as a single performance obligation. For any contracts with multiple performance obligations, the contract's transaction price is allocated to each performance obligation based on the estimated relative standalone selling price of each distinct good or service in the contract. For product sales, each product sold to a customer typically represents a distinct performance obligation.

Performance obligations are satisfied as of a point in time or over time. Performance obligations are supported by contracts with customers, providing a framework for the nature of the distinct goods, services, or bundle of goods and services. The timing of satisfying the performance obligation is typically indicated by the terms of the contract. As of June 30, 2019, the aggregate amount of the transaction price allocated to remaining performance obligations was approximately $14.2 billion, of which approximately 60% is expected to be recognized as revenue over the next two years. The remaining performance obligations expected to be recognized in revenue beyond two years primarily relate to large, multi-purpose contracts to construct hospitals, schools and other governmental buildings, which include services to be performed over the building's lifetime, with initial contract terms of 25 to 35 years. Future contract modifications could affect both the timing and the amount of the remaining performance obligations. The Company has applied the practical expedient for certain revenue streams to exclude the value of remaining performance obligations for contracts with an original expected duration of one year or less.

Costs to Obtain or Fulfill a Contract

The Company recognizes the incremental costs incurred to obtain or fulfill a contract with a customer as an asset when these costs are recoverable. These costs consist primarily of sales commissions and bid/proposal costs. Costs to obtain or fulfill a contract are capitalized and amortized to revenue over the period of contract performance.

As of June 30, 2019, the Company recorded the costs to obtain or fulfill a contract of $190 million, of which $100 million is recorded within other current assets and $90 million is recorded within other noncurrent assets in the consolidated statements of financial position.

During the three and nine months ended June 30, 2019, the Company recognized amortization expense of $50 million and $119 million, respectively related to costs to obtain or fulfill a contract. There were no impairment losses recognized in the three and nine months ended June 30, 2019.

6. Inventories

Inventories consisted of the following (in millions):

	June 30, 2019	September 30, 2018
Raw materials and supplies	$ 685	$ 606
Work-in-process	215	155
Finished goods	1,150	1,058
Inventories	$ 2,050	$ 1,819

7. Goodwill and Other Intangible Assets

The changes in the carrying amount of goodwill in each of the Company's reportable segments for the nine month period ended June 30, 2019 were as follows (in millions):

	September 30, 2018	Business Acquisitions	Business Divestitures	Currency Translation and Other	June 30, 2019
Building Solutions North America	$ 9,603	$ —	$ —	$ (5)	$ 9,598
Building Solutions EMEA/LA	1,950	1	(1)	(40)	1,910
Building Solutions Asia Pacific	1,235	—	—	(9)	1,226
Global Products	5,593	9	(22)	(2)	5,578
Total	$ 18,381	$ 10	$ (23)	$ (56)	$ 18,312

The fiscal 2019 Global Products business divestiture amount includes $22 million of goodwill transferred to noncurrent assets held for sale on the consolidated statements of financial position related to plans to dispose of a business within the Global Products segment.

At September 30, 2018, accumulated goodwill impairment charges included $47 million related to the Building Solutions EMEA/LA - Latin America reporting unit.

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

	June 30, 2019			September 30, 2018		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Amortized intangible assets						
Technology	$ 1,316	$ (342)	$ 974	$ 1,317	$ (251)	$ 1,066
Customer relationships	2,745	(714)	2,031	2,941	(599)	2,342
Miscellaneous	566	(228)	338	458	(185)	273
Total amortized intangible assets	4,627	(1,284)	3,343	4,716	(1,035)	3,681
Unamortized intangible assets						
Trademarks/trade names	2,306	—	2,306	2,386	—	2,386
Miscellaneous	90	—	90	120	—	120
	2,396	—	2,396	2,506	—	2,506
Total intangible assets	$ 7,023	$ (1,284)	$ 5,739	$ 7,222	$ (1,035)	$ 6,187

Amortization of other intangible assets included within continuing operations for the three month periods ended June 30, 2019 and 2018 was $93 million and $98 million, respectively. Amortization of other intangible assets included within continuing operations for the nine month periods ended June 30, 2019 and 2018 was $288 million and $282 million, respectively. Excluding the impact of any future acquisitions, the Company anticipates amortization for fiscal 2020, 2021, 2022, 2023 and 2024 will be approximately $399 million, $389 million, $378 million, $365 million and $352 million per year, respectively.

8. Significant Restructuring and Impairment Costs

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

In fiscal 2018, the Company committed to a significant restructuring plan (2018 Plan) and recorded $255 million of restructuring and impairment costs for continuing operations in the consolidated statements of income. This was the total amount incurred to date and the total amount expected to be incurred for this restructuring plan. The restructuring actions related to cost reduction initiatives in the Company's Building Technologies & Solutions businesses and at Corporate. The costs consist primarily of workforce reductions, plant closures and asset impairments. Of the restructuring and impairment costs recorded, $113 million related to the Global Products segment, $56 million related to the Building Solutions EMEA/LA segment, $50 million related to Corporate, $20 million related to the Building Solutions North America segment and $16 million related to the Building Solutions Asia Pacific segment. The restructuring actions are expected to be substantially complete in 2020.

Additionally, the Company recorded $8 million of restructuring and impairment costs related to Power Solutions in fiscal 2018. This is reported within discontinued operations.

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

	Employee Severance and Termination Benefits	Long-Lived Asset Impairments	Other	Total
Original reserve	$ 209	$ 42	$ 12	$ 263
Utilized—cash	(45)	—	(2)	(47)
Utilized—noncash	—	(42)	—	(42)
Balance at September 30, 2018	$ 164	$ —	$ 10	$ 174
Utilized—cash	(59)	—	(5)	(64)
Transfer to liabilities held for sale	(4)	—	—	(4)
Balance at June 30, 2019	$ 101	$ —	$ 5	$ 106

In fiscal 2017, the Company committed to a significant restructuring plan (2017 Plan) and recorded $347 million of restructuring and impairment costs for continuing operations in the consolidated statements of income. This was the total amount incurred to date and the total amount expected to be incurred for this restructuring plan. The restructuring actions related to cost reduction initiatives in the Company's Building Technologies & Solutions businesses and at Corporate. The costs consist primarily of workforce reductions, plant closures and asset impairments. Of the restructuring and impairment costs recorded, $166 million related to Corporate, $74 million related to the Building Solutions EMEA/LA segment, $59 million related to the Building Solutions North America segment, $32 million related to the Global Products segment and $16 million related to the Building Solutions Asia Pacific segment. The restructuring actions are expected to be substantially complete in fiscal 2019.

Additionally, the Company recorded $20 million of restructuring and impairment costs related to Power Solutions in fiscal 2017. This is reported within discontinued operations.

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	Currency Translation	Total
Original reserve	$ 276	$ 77	$ 14	$ —	$ 367
Utilized—cash	(75)	—	—	—	(75)
Utilized—noncash	—	(77)	(1)	—	(78)
Adjustment to restructuring reserves	25	—	—	—	25
Balance at September 30, 2017	$ 226	$ —	$ 13	$ —	$ 239
Utilized—cash	(152)	—	(6)	—	(158)
Utilized—noncash	—	—	—	(1)	(1)
Balance at September 30, 2018	$ 74	$ —	$ 7	$ (1)	$ 80
Utilized—cash	(5)	—	(1)	—	(6)
Utilized—noncash	—	—	—	(2)	(2)
Transfer to liabilities held for sale	(3)	—	—	—	(3)
Balance at June 30, 2019	$ 66	$ —	$ 6	$ (3)	$ 69

In fiscal 2016, the Company committed to a significant restructuring plan (2016 Plan) and recorded $222 million of restructuring and impairment costs for continuing operations in the consolidated statements of income. This was the total amount incurred to date and the total amount expected to be incurred for this restructuring plan. The restructuring actions related to cost reduction initiatives in the Company's Building Technologies & Solutions 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, $44 million related to the Global Products segment and $17 million related to the Building Solutions EMEA/LA segment. The restructuring actions are expected to be substantially complete in fiscal 2019. Included in the reserve is $56 million of committed restructuring actions taken by Tyco for liabilities assumed as part of the Tyco acquisition.

Additionally, the Company recorded $398 million of restructuring and impairment costs related to Adient and Power Solutions in fiscal 2016. This is reported within discontinued operations.

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

	Employee Severance and Termination Benefits	Long-Lived Asset Impairments	Other	Currency Translation	Total
Original reserve	$ 368	$ 190	$ 62	$ —	$ 620
Acquired Tyco restructuring reserves	78	—	—	—	78
Utilized—cash	(32)	—	—	—	(32)
Utilized—noncash	—	(190)	(32)	1	(221)
Balance at September 30, 2016	$ 414	$ —	$ 30	$ 1	$ 445
Adient spin-off impact	(194)	—	(22)	—	(216)
Utilized—cash	(86)	—	(2)	—	(88)
Utilized—noncash	—	—	—	1	1
Adjustment to restructuring reserves	(25)	—	—	—	(25)
Transfer to liabilities held for sale	(3)	—	—	—	(3)
Adjustment to acquired Tyco restructuring reserves	(22)	—	—	—	(22)
Balance at September 30, 2017	$ 84	$ —	$ 6	$ 2	$ 92
Utilized—cash	(17)	—	(2)	—	(19)
Balance at September 30, 2018	$ 67	$ —	$ 4	$ 2	$ 73
Utilized—cash	(14)	—	—	—	(14)
Balance at June 30, 2019	$ 53	$ —	$ 4	$ 2	$ 59

The Company's fiscal 2018, 2017 and 2016 restructuring plans included workforce reductions of approximately 11,300 employees (9,100 for the Building Technologies & Solutions business and 2,200 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 June 30, 2019, approximately 5,200 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 June 30, 2019, ten 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.

9. Income Taxes

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

The statutory tax rate in Ireland is being used as a comparison since the Company is domiciled in Ireland. For the three months ended June 30, 2019, the Company's effective tax rate for continuing operations was 52% and was higher than the statutory tax rate of 12.5% primarily due to a discrete tax charge related to newly enacted regulations related to U.S. Tax Reform, non-U.S. tax audit reserve adjustments and tax rate differentials, partially offset by a tax indemnification reserve release, the tax benefits of an asset held for sale impairment charge and continuing global tax planning initiatives. For the nine months ended June 30, 2019, the Company's effective tax rate for continuing operations was 38% and was higher than the statutory tax rate of 12.5% primarily due to valuation allowance adjustments as a result of tax law changes, a discrete tax charge related to newly enacted regulations related to U.S. Tax Reform, non-U.S. tax audit reserve adjustments and tax rate differentials, partially offset by a tax indemnification reserve release, the tax benefits of an asset held for sale impairment charge and continuing global tax planning initiatives. For the three months ended June 30, 2018, the Company's effective tax rate for continuing operations was 10% and was lower than the statutory tax rate of 12.5% primarily due to the benefits of continuing global tax planning initiatives. For the nine months ended June 30, 2018, the Company's effective tax rate for continuing operations was 30% and was higher than the statutory tax rate of 12.5% primarily due to the discrete net impacts of U.S. Tax Reform, the tax impact of the divestiture of the Scott Safety business and tax rate differentials, partially offset by the benefits of continuing global tax planning initiatives and tax audit closures.

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.

In the first quarter of fiscal 2019, as a result of changes to U.S. tax law, the Company recorded a discrete tax charge of $76 million related to valuation allowances on certain U.S. deferred tax assets.

Uncertain Tax Positions

At September 30, 2018, the Company had gross tax effected unrecognized tax benefits of $2,358 million, of which $2,225 million, if recognized, would impact the effective tax rate. Total net accrued interest at September 30, 2018 was approximately $119 million (net of tax benefit). The interest and penalties accrued during the nine months ended June 30, 2019 was approximately $49 million (net of tax benefit). Interest and penalties accrued during the nine months ended June 30, 2018 were immaterial. The Company recognizes interest and penalties related to unrecognized tax benefits as a component of income tax expense.

In the third quarter of fiscal 2019, the Company recorded a discrete charge of $199 million related to newly enacted regulations related to U.S. Tax Reform which impacted the Company's reserves for uncertain tax positions.

In the third quarter of fiscal 2019, the Company recorded a discrete charge of $27 million related to non-U.S. tax examinations.

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

In the U.S., fiscal years 2015 through 2016 are currently under exam by the Internal Revenue Service ("IRS") for certain legal entities. Additionally, the Company is currently under exam in the following major non-U.S. jurisdictions:

Tax Jurisdiction	Tax Years Covered
Belgium	2015 - 2017
China	2008 - 2016
France	2010 - 2012; 2015 - 2016
Germany	2007 - 2016
Japan	2015 - 2018
United Kingdom	2012 - 2015

It is reasonably possible that certain tax examinations and/or tax litigation will conclude within the next twelve months, which could have a material impact on tax expense. Based upon the circumstances surrounding these examinations, the impact is not currently quantifiable.

Impacts of Tax Legislation

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

In connection with the Company’s analysis of the impact of the U.S. tax law changes, the Company recorded a provisional net tax charge of $108 million during fiscal 2018 consistent with guidance prescribed by Staff Accounting Bulletin 118. This provisional net tax charge arises from a benefit of $108 million due to the remeasurement of U.S. deferred tax assets and liabilities, offset by the Company’s tax charge relating to the one-time transition tax on deemed repatriated earnings, inclusive of all relevant taxes, of $216 million. The Company’s estimated benefit of the remeasurement of U.S. deferred tax assets and liabilities increased from $101 million as of December 31, 2017 to $108 million as of September 30, 2018 due to calculation refinement of the Company’s estimated impact. The Company remeasured certain deferred tax assets and liabilities based on the rates at which they are expected to reverse in the future, which is generally 21% or the blended fiscal 2018 rate of 24.5%. The Company’s tax charge for transition tax decreased from $305 million as of December 31, 2017 to $216 million as of September 30, 2018 due to further analysis of the Company’s post-1986 non-U.S. earnings and profits (“E&P”) previously deferred from U.S. federal taxation and refinement of the estimated impact of tax law changes. In the first quarter of fiscal 2019, the Company completed its analysis of all enactment-date income tax effects of the U.S. tax law change with no further adjustment to the provisional amounts recorded as of September 30, 2018.

During the nine months ended June 30, 2019 and 2018, 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 third quarter of fiscal 2019, the Company recorded a $235 million impairment charge related to assets held for sale. Refer to Note 17, "Impairment of Long-Lived Assets," of the notes to consolidated financial statements for further information regarding the impairment charge. The impairment charge generated a $53 million tax benefit.

In the third quarter of fiscal 2019, the Company released a $226 million tax indemnification reserve. Refer to Note 19, "Guarantees," of the notes to consolidated financial statements for further information regarding the reserve release. The reserve release generated no income tax expense.

In the first quarter of fiscal 2018, the Company completed the sale of its Scott Safety business to 3M Company. Refer to Note 3, "Acquisitions and Divestitures," of the notes to consolidated financial statements for additional information. In connection with the sale, the Company recorded a pre-tax gain of $114 million and income tax expense of $30 million.

In the first quarter of fiscal 2018, the Company recorded $154 million of significant restructuring and impairment costs. Refer to Note 8, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The restructuring costs generated a $23 million tax benefit, which reflects the Company’s current tax position in these jurisdictions.

10. Pension and Postretirement Plans

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

	U.S. Pension Plans			
	Three Months Ended June 30,		Nine Months Ended June 30,	
	2019	2018	2019	2018
Service cost	$ —	$ —	$ —	$ 1
Interest cost	25	23	75	69
Expected return on plan assets	(46)	(49)	(138)	(149)
Net periodic benefit credit	$ (21)	$ (26)	$ (63)	$ (79)

	Non-U.S. Pension Plans			
	Three Months Ended June 30,		Nine Months Ended June 30,	
	2019	2018	2019	2018
Service cost	$ 5	$ 6	$ 16	$ 17
Interest cost	14	14	40	42
Expected return on plan assets	(26)	(29)	(78)	(86)
Settlement loss	—	—	1	—
Net periodic benefit credit	$ (7)	$ (9)	$ (21)	$ (27)

	Postretirement Benefits			
	Three Months Ended June 30,		Nine Months Ended June 30,	
	2019	2018	2019	2018
Service cost	$ —	$ —	$ 1	$ 1
Interest cost	2	1	5	4
Expected return on plan assets	(2)	(2)	(7)	(7)
Net periodic benefit credit	$ —	$ (1)	$ (1)	$ (2)

11. Debt and Financing Arrangements

In June 2019, TSarl, a subsidiary of the Company, terminated its $1.25 billion committed revolving credit facility scheduled to expire in August 2020. In connection with the termination, the Company repaid all of the outstanding obligations in respect of principal, interest and fees under the credit facility. In relation to the termination of the credit facility, TSarl completed all of its obligations under the Term Loan Credit Agreement, dated as of March 10, 2016 (the "Term Facility") by repaying all of the outstanding obligations under the term facility, which included $364 million term loan scheduled to mature in March 2020. Other debt held at TSarl as of March 31, 2019 was also repaid, including a 364-day $250 million floating rate term loan scheduled to mature in March 2020 and an 18-month 215 million euro floating rate euro term loan scheduled to mature in July 2019. No amounts remain outstanding on the $4.0 billion TSarl merger-related debt as of June 30, 2019.

In June 2019, the Company repurchased at par, $2.5 million of its 5.25% fixed rate notes, plus accrued interest, scheduled to mature in 2041.

In May 2019, the Company completed the debt tender offer to purchase up to $1.5 billion in aggregate principal amount of certain of its outstanding notes for $1.6 billion total consideration. The Company recognized a loss on the extinguishment of debt of $60 million, which was recorded within net financing charges in the consolidated statements of income.

In May 2019, the Company repaid 10 billion yen of the 35 billion yen five-year syndicated floating rate term loan, plus accrued interest, scheduled to mature in September 2022.

In April 2019, the Company repurchased at a discount, 4.7 million euro of its 1.375% fixed rate euro notes, plus accrued interest, scheduled to mature in 2025.

In March 2019, a 364-day $250 million committed revolving credit facility expired. The Company entered into a new $250 million committed revolving credit facility scheduled to expire in March 2020. As of June 30, 2019 there were no draws on the facility.

In February 2019, the Company repurchased at a discount, $12 million of its 3.9% fixed rate notes, plus accrued interest, scheduled to mature in 2026.

In February 2019, a 364-day $150 million committed revolving credit facility expired. The Company entered into a new $150 million committed revolving credit facility scheduled to expire in February 2020. As of June 30, 2019 there were no draws on the facility.

In February 2019, a 364-day $150 million committed revolving credit facility expired. The Company entered into a new $150 million committed revolving credit facility scheduled to expire in February 2020. As of June 30, 2019 there were no draws on the facility.

In January 2019, the Company entered into a $750 million term loan due the earlier of January 2020 or five business days from the closing on the sale of the Power Solutions business. Proceeds from the term loan were used for general corporate purposes. Following the sale of the Power Solutions business, the loan was repaid in May 2019.

In January 2019, a 364-day $200 million committed revolving credit facility expired. The Company entered into a new $350 million committed revolving credit facility scheduled to expire in January 2020. As of June 30, 2019 there were no draws on the facility.

Net Financing Charges

The Company's net financing charges line item in the consolidated statements of income for the three and nine months ended June 30, 2019 and 2018 contained the following components (in millions):

	Three Months Ended June 30,		Nine Months Ended June 30,	
	2019	2018	2019	2018
Interest expense, net of capitalized interest costs	$ 81	$ 106	$ 269	$ 307
Banking fees and bond cost amortization	7	8	20	23
Loss on debt extinguishment	60	—	60	—
Interest income	(28)	(5)	(41)	(13)
Net foreign exchange results for financing activities	(1)	(14)	(6)	(13)
Net financing charges	$ 119	$ 95	$ 302	$ 304

12. Stock-Based Compensation

During September 2016, the Board of Directors of the Company approved amendments to the Johnson Controls International plc 2012 Share and Incentive Plan (the "Plan"). The types of awards authorized by the Plan comprise of stock options, stock appreciation rights, performance shares, performance units and other stock-based compensation awards. The Compensation Committee of the Company's Board of Directors determines the types of awards to be granted to individual participants and the terms and conditions of the awards. Awards are typically granted annually in the Company's fiscal first quarter. A summary of the stock-based awards granted during the nine month periods ended June 30, 2019 and 2018 is presented below:

	Nine Months Ended June 30,			
	2019		2018	
	Number Granted	Weighted Average Grant Date Fair Value	Number Granted	Weighted Average Grant Date Fair Value
Stock options	1,741,510	$ 5.56	1,376,807	$ 7.04
Restricted stock/units	2,334,423	33.50	2,188,131	37.26
Performance shares	583,989	36.28	496,478	36.31

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 2019 and fiscal 2018, the expected volatility is based on the historical volatility of the Company's stock since October 2016 blended with the historical volatility of certain peer companies' stock prior to October 2016 over the most recent period corresponding to the expected life as of the grant date. The expected dividend yield is based on the expected annual dividend as a percentage of the market value of the Company's ordinary shares as of the grant date. The Company uses historical data to estimate option exercises and employee terminations within the valuation model.

	Nine Months Ended June 30,	
	2019	2018
Expected life of option (years)	6.4	6.5
Risk-free interest rate	2.77%	2.28%
Expected volatility of the Company's stock	21.8%	23.7%
Expected dividend yield on the Company's stock	3.29%	2.78%

Restricted (Nonvested) Stock / Units

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

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 performance period of three years 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 with the use of a Monte Carlo simulation that uses the assumptions noted in the following table. The risk-free interest rate for periods during the contractual life of the PSU is based on the U.S. Treasury yield curve in effect at the time of grant. For fiscal 2019 and fiscal 2018, the expected volatility is based on the historical volatility of the Company’s stock since October 2016 blended with the historical volatility of certain peer companies’ stock prior to October 2016 over the most recent three-year period as of the grant date.

	Nine Months Ended June 30,	
	2019	2018
Risk-free interest rate	2.76%	1.92%
Expected volatility of the Company’s stock	22.9%	21.7%

13. Earnings Per Share

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

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

	Three Months Ended June 30,		Nine Months Ended June 30,	
	2019	2018	2019	2018
Income Available to Ordinary Shareholders				
Income from continuing operations	$ 141	$ 474	$ 488	$ 583
Income from discontinued operations	4,051	249	4,574	808
Basic and diluted income available to shareholders	$ 4,192	$ 723	$ 5,062	$ 1,391
Weighted Average Shares Outstanding				
Basic weighted average shares outstanding	870.9	925.6	898.4	926.0
Effect of dilutive securities:				
Stock options, unvested restricted stock and unvested performance share awards	4.3	5.1	3.8	6.1
Diluted weighted average shares outstanding	875.2	930.7	902.2	932.1
Antidilutive Securities				
Options to purchase shares	0.7	2.1	1.9	1.5

During the three months ended June 30, 2019 and 2018, the Company declared dividends of $0.26 per share. During the nine months ended June 30, 2019 and 2018, the Company declared dividends of $0.78 per share. The Company paid all dividends in the month subsequent to the end of each fiscal quarter.

14. Equity and Noncontrolling Interests

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

	Three Months Ended June 30, 2019			Three Months Ended June 30, 2018		
	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, March 31,	$ 20,036	$ 1,265	$ 21,301	$ 20,874	$ 1,006	$ 21,880
Total comprehensive income:						
Net income	4,192	84	4,276	723	71	794
Foreign currency translation adjustments	(90)	(4)	(94)	(557)	(44)	(601)
Realized and unrealized gains (losses) on derivatives	(5)	(4)	(9)	3	(1)	2
Other comprehensive loss	(95)	(8)	(103)	(554)	(45)	(599)
Comprehensive income	4,097	76	4,173	169	26	195
Other changes in equity:						
Cash dividends—ordinary shares	(208)	—	(208)	(240)	—	(240)
Repurchases and retirements of ordinary shares	(4,122)	—	(4,122)	(56)	—	(56)
Change in noncontrolling interest share	—	—	—	—	4	4
Divestiture of Power Solutions	483	(295)	188	—	—	—
Other, including options exercised	77	—	77	26	—	26
Ending balance, June 30	$ 20,363	$ 1,046	$ 21,409	$ 20,773	$ 1,036	$ 21,809

	Nine Months Ended June 30, 2019			Nine Months Ended June 30, 2018		
	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,	$ 21,164	$ 1,294	$ 22,458	$ 20,447	$ 920	$ 21,367
Total comprehensive income:						
Net income	5,062	171	5,233	1,391	132	1,523
Foreign currency translation adjustments	(103)	8	(95)	(331)	3	(328)
Realized and unrealized gains (losses) on derivatives	10	—	10	(2)	1	(1)
Realized and unrealized losses on marketable securities	—	—	—	(2)	—	(2)
Other comprehensive income (loss)	(93)	8	(85)	(335)	4	(331)
Comprehensive income	4,969	179	5,148	1,056	136	1,192
Other changes in equity:						
Cash dividends—ordinary shares	(683)	—	(683)	(722)	—	(722)
Dividends attributable to noncontrolling interests	—	(132)	(132)	—	(43)	(43)
Repurchases and retirements of ordinary shares	(5,122)	—	(5,122)	(255)	—	(255)
Change in noncontrolling interest share	—	—	—	—	23	23
Divestiture of Power Solutions	483	(295)	188	—	—	—
Adoption of ASC 606	(45)	—	(45)	—	—	—
Adoption of ASU 2016-16	(546)	—	(546)	—	—	—
Adoption of ASU 2016-09	—	—	—	179	—	179
Other, including options exercised	143	—	143	68	—	68
Ending balance, June 30	$ 20,363	$ 1,046	$ 21,409	$ 20,773	$ 1,036	$ 21,809

As previously disclosed, during the quarter ended December 31, 2018, the Company adopted ASC 606, "Revenue from Contracts with Customers." As a result, the Company recorded $45 million to beginning retained earnings, which relates primarily to deferred revenue recorded for the Power Solutions business for certain battery core returns that represent a material right provided to customers.

As previously disclosed, during the quarter ended December 31, 2018, the Company adopted ASU 2016-16, "Accounting for Income Taxes: Intra-Entity Asset Transfers of Assets Other Than Inventory." As a result, the Company recognized deferred taxes of $546 million related to the tax effects of all intra-entity sales of assets other than inventory on a modified retrospective basis through a cumulative-effect adjustment to retained earnings as of October 1, 2018.

As previously disclosed, during the quarter ended December 31, 2017, the Company adopted ASU No. 2016-09, "Compensation - Stock Compensation (Topic 718) Improvements to Employee Share-Based Payment Accounting." As a result, the Company recognized deferred tax assets of $179 million related to certain operating loss carryforwards resulting from the exercise of employee stock options and restricted stock vestings on a modified retrospective basis through a cumulative-effect adjustment to retained earnings as of October 1, 2017.

Following the Tyco Merger, the Company adopted, subject to the ongoing existence of sufficient distributable reserves, the existing Tyco International plc $1 billion share repurchase program in September 2016. In December 2017, the Company's Board of Directors approved a $1 billion increase to its share repurchase authorization. In November 2018, the Company's Board of Directors approved an additional $1 billion increase to its share repurchase authorization. In March 2019, the Company's Board of Directors approved an additional $8.5 billion increase to its share repurchase authorization, subject to the completion of the previously announced sale of the Company's Power Solutions business, which closed on April 30, 2019.

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.

On May 1, 2019, the Company announced a "modified Dutch auction" tender offer for up to $4.0 billion of its ordinary shares with a price range between $36.00 and $40.00 per share. The tender offer expired on May 31, 2019. Through the tender offer, the Company accepted for payment 102 million shares at a purchase price of $39.25 per share, for a total of approximately $4,035 million, including fees and commissions. The shares purchased through the tender offer were immediately retired. Ordinary shares were reduced by the number of shares retired at $0.01 par value per share. The excess purchase price over par value was recorded in retained earnings in the consolidated statements of financial position.

In addition to the equity tender offer described above, the Company repurchased $87 million and $1,087 million of its ordinary shares, respectively, during the three and nine months ended June 30, 2019. For the three and nine months ended June 30, 2018, the Company repurchased $56 million and $255 million of its ordinary shares, respectively. As of June 30, 2019, approximately $5.4 billion remains available under the share repurchase program.

The Company consolidates certain subsidiaries in which the noncontrolling interest party has within its control the right to require the Company to redeem all or a portion of its interest in the subsidiary. The redeemable noncontrolling interests are reported at their estimated redemption value. Any adjustment to the redemption value impacts retained earnings but does not impact net income. Redeemable noncontrolling interests which are redeemable only upon future events, the occurrence of which is not currently probable, are recorded at carrying value. Beginning in the fourth quarter of fiscal 2018, the Company does not have any subsidiaries for which the noncontrolling interest party has within their control the right to require the Company to redeem any portion of its interests.

The following schedule present changes in the redeemable noncontrolling interests for the three and nine months ended June 30, 2018 (in millions):

	Three Months Ended June 30, 2018
Beginning balance, March 31, 2018	$ 235
Net income	10
Foreign currency translation adjustments	(13)
Realized and unrealized losses on derivatives	(1)
Ending balance, June 30, 2018	$ 231

	Nine Months Ended June 30, 2018
Beginning balance, September 30, 2017	$ 211
Net income	35
Foreign currency translation adjustments	(3)
Realized and unrealized losses on derivatives	(9)
Dividends	(3)
Ending balance, June 30, 2018	$ 231

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

	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018
Foreign currency translation adjustments ("CTA")		
Balance at beginning of period	$ (952)	$ (255)
Divestiture of Power Solutions	479	—
Aggregate adjustment for the period (net of tax effect of $0)	(90)	(557)
Balance at end of period	(563)	(812)
Realized and unrealized gains (losses) on derivatives		
Balance at beginning of period	2	1
Divestiture of Power Solutions (net of tax effect of $1 and $0)	4	—
Current period changes in fair value (net of tax effect of $(3) and $1)	(4)	5
Reclassification to income (net of tax effect of $0 and $(2)) **	(1)	(2)
Balance at end of period	1	4
Realized and unrealized gains (losses) on marketable securities		
Balance at beginning of period	—	2
Current period changes in fair value (net of tax effect of $0)	—	1
Reclassification to income (net of tax effect of $0 and $(1))	—	(1)
Balance at end of period	—	2
Pension and postretirement plans		
Balance at beginning of period	(2)	(2)
Other changes	—	—
Balance at end of period	(2)	(2)
Accumulated other comprehensive loss, end of period	$ (564)	$ (808)

	Nine Months Ended June 30,	
	2019	2018
CTA		
Balance at beginning of period	$ (939)	$ (481)
Divestiture of Power Solutions	479	—
Aggregate adjustment for the period (net of tax effect of $0 and $1) *	(103)	(331)
Balance at end of period	(563)	(812)
Realized and unrealized gains (losses) on derivatives		
Balance at beginning of period	(13)	6
Divestiture of Power Solutions (net of tax effect of $1 and $0)	4	—
Current period changes in fair value (net of tax effect of $1 and $2)	4	7
Reclassification to income (net of tax effect of $3 and $(4)) **	6	(9)
Balance at end of period	1	4
Realized and unrealized gains (losses) on marketable securities		
Balance at beginning of period	8	4
Adoption of ASU 2016-01 ***	(8)	—
Current period changes in fair value (net of tax effect of $0)	—	(1)
Reclassification to income (net of tax effect of $(1)) ****	—	(1)
Balance at end of period	—	2
Pension and postretirement plans		
Balance at beginning of period	(2)	(2)
Other changes	—	—
Balance at end of period	(2)	(2)
Accumulated other comprehensive loss, end of period	$ (564)	$ (808)

* During the nine months ended June 30, 2018, $12 million of cumulative CTA was recognized as part of the divestiture-related gain recognized as part of the divestiture of Scott Safety.

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

*** As previously disclosed, during the quarter ended December 31, 2018, the Company adopted ASU 2016-01, "Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities." As a result the Company reclassified $8 million of unrealized gains on marketable securities to retained earnings as of October 1, 2018.

**** During the nine months ended June 30, 2018, the Company sold certain marketable common stock for approximately $3 million. As a result, the Company recorded $2 million of realized gains within selling, general and administrative expenses.

15. Derivative Instruments and Hedging Activities

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

Cash Flow Hedges

The Company has global operations and participates in the foreign exchange markets to minimize its risk of loss from fluctuations in foreign currency exchange rates. The Company selectively hedges anticipated transactions that are subject to foreign exchange rate risk primarily using foreign currency exchange hedge contracts. The Company hedges 70% to 90% of the nominal amount of each of its known foreign exchange transactional exposures. As cash flow hedges under ASC 815, "Derivatives and Hedging," the hedge gains or losses due to changes in fair value are initially recorded as a component of AOCI and are subsequently reclassified into earnings when the hedged transactions occur and affect earnings. These contracts were highly effective in hedging the variability in future cash flows attributable to changes in currency exchange rates during the three and nine months ended June 30, 2019 and 2018.

The Company selectively hedges anticipated transactions that are subject to commodity price risk, primarily using commodity hedge contracts, to minimize overall price risk associated with the Company's purchases of lead, copper, tin, aluminum and polypropylene in cases where commodity price risk cannot be naturally offset or hedged through supply base fixed price contracts. Commodity risks are systematically managed pursuant to policy guidelines. As cash flow hedges, the 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. 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 nine months ended June 30, 2019 and 2018.

The Company had the following outstanding contracts to hedge forecasted commodity purchases for continuing and discontinued operations (in metric tons):

	Volume Outstanding as of	
Commodity	June 30, 2019	September 30, 2018
Copper	3,357	3,175
Polypropylene	—	15,868
Lead	—	49,066
Aluminum	4,649	3,381
Tin	—	3,076

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 currency gains and losses recorded on the Company's net investments globally. At June 30, 2019, the Company had 888 million euro, 750 million euro, 423 million euro and 54 million euro in bonds designated as net investment hedges in the Company's net investment in Europe and 25 billion yen of foreign denominated debt designated as net investment hedge in the Company's net investment in Japan. Also, at September 30, 2018, the Company had one billion euro, 750 million euro, 423 million euro and 58 million euro in bonds and a 215 million euro term loan designated as net investment hedges in the Company's net investment in Europe and 35 billion yen of foreign denominated debt designated as net investment hedge in the Company's net investment in Japan.

Derivatives Not Designated as Hedging Instruments

The Company selectively uses equity swaps to reduce market risk associated with certain of its stock-based compensation plans, such as its deferred compensation plans. These equity compensation liabilities increase as the Company's stock price increases and decrease as the Company's stock price decreases. In contrast, the value of the swap agreement moves in the opposite direction of these liabilities, allowing the Company to fix a portion of the liabilities at a stated amount. As of June 30, 2019, the Company hedged approximately 1.4 million shares of its ordinary shares, which have a cost basis of $60 million. As of September 30, 2018, the Company hedged approximately 1.8 million shares of its ordinary shares, which have a cost basis of $73 million.

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

Fair Value of Derivative Instruments

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

	Derivatives and Hedging Activities Designated as Hedging Instruments under ASC 815		Derivatives and Hedging Activities Not Designated as Hedging Instruments under ASC 815	
	June 30, 2019	September 30, 2018	June 30, 2019	September 30, 2018
Other current assets				
Foreign currency exchange derivatives	$ 4	$ 6	$ 6	$ 10
Commodity derivatives	—	1	—	—
Other noncurrent assets				
Equity swap	—	—	59	63
Total assets	$ 4	$ 7	$ 65	$ 73
Other current liabilities				
Foreign currency exchange derivatives	$ 6	$ 10	$ 1	$ 2
Commodity derivatives	1	2	—	—
Liabilities held for sale				
Commodity derivatives	—	12	—	—
Long-term debt				
Foreign currency denominated debt	2,640	3,149	—	—
Total liabilities	$ 2,647	$ 3,173	$ 1	$ 2

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 June 30, 2019 and September 30, 2018, 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	
	June 30, 2019	September 30, 2018	June 30, 2019	September 30, 2018
Gross amount recognized	$ 69	$ 80	$ 2,648	$ 3,175
Gross amount eligible for offsetting	(6)	(12)	(6)	(12)
Net amount	$ 63	$ 68	$ 2,642	$ 3,163

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

The following table presents the pre-tax gains (losses) recorded in other comprehensive income (loss) related to cash flow hedges for the three and nine months ended June 30, 2019 and 2018 (in millions):

Derivatives in ASC 815 Cash Flow Hedging Relationships	Three Months Ended June 30,		Nine Months Ended June 30,	
	2019	2018	2019	2018
Foreign currency exchange derivatives	$ (2)	$ 6	$ 7	$ 7
Commodity derivatives	(5)	—	(2)	2
Total	$ (7)	$ 6	$ 5	$ 9

The following table presents the location and amount of the pre-tax gains (losses) on cash flow hedges reclassified from AOCI into the Company's consolidated statements of income for the three and nine months ended June 30, 2019 and 2018 (in millions):

Derivatives in ASC 815 Cash Flow Hedging Relationships	Location of Gain (Loss) Reclassified from AOCI into Income	Three Months Ended June 30,		Nine Months Ended June 30,	
		2019	2018	2019	2018
Foreign currency exchange derivatives	Cost of sales	$ 2	$ 1	$ 4	$ —
Foreign currency exchange derivatives	Income from discontinued operations	—	1	—	2
Commodity derivatives	Cost of sales	—	—	(3)	3
Commodity derivatives	Income from discontinued operations	(1)	2	(10)	8
Total		$ 1	$ 4	$ (9)	$ 13

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 nine months ended June 30, 2019 and 2018 (in millions):

Derivatives Not Designated as Hedging Instruments under ASC 815	Location of Gain (Loss) Recognized in Income on Derivative	Amount of Gain (Loss) Recognized in Income on Derivative			
		Three Months Ended June 30,		Nine Months Ended June 30,	
		2019	2018	2019	2018
Foreign currency exchange derivatives	Cost of sales	$ (3)	$ (4)	$ (9)	$ (5)
Foreign currency exchange derivatives	Net financing charges	(18)	(32)	(42)	(29)
Foreign currency exchange derivatives	Income from discontinued operations	(2)	5	52	4
Equity swap	Selling, general and administrative	7	(3)	10	(10)
Total		$ (16)	$ (34)	$ 11	$ (40)

The pre-tax gains (losses) recorded in CTA within other comprehensive income (loss) related to net investment hedges were $(36) million and $165 million for the three months ended June 30, 2019 and 2018, respectively. The pre-tax gains (losses) recorded in CTA within other comprehensive income (loss) related to net investment hedges were $48 million and $29 million for the nine months ended June 30, 2019 and 2018, respectively. For the three and nine months ended June 30, 2019 and 2018, no gains or losses were reclassified from CTA into income for the Company's outstanding net investment hedges.

16. Fair Value Measurements

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

Level 1: Observable inputs such as quoted prices in active markets for identical assets or liabilities;

Level 2: Quoted prices in active markets for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in markets that are not active, or inputs, other than quoted prices in active markets, that are observable either directly or indirectly; and

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

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

Recurring Fair Value Measurements

The following tables present the Company's fair value hierarchy for those assets and liabilities measured at fair value as of June 30, 2019 and September 30, 2018 (in millions):

		Fair Value Measurements Using:		
	Total as of June 30, 2019	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	$ 10	$ —	$ 10	$ —
Exchange traded funds (fixed income)[1]	19	19	—	—
Other noncurrent assets				
Investments in marketable common stock	1	1	—	—
Deferred compensation plan assets	69	69	—	—
Exchange traded funds (fixed income)[1]	138	138	—	—
Exchange traded funds (equity)[1]	115	115	—	—
Equity swap	59	—	59	—
Total assets	$ 411	$ 342	$ 69	$ —
Other current liabilities				
Foreign currency exchange derivatives	$ 7	$ —	$ 7	$ —
Commodity derivatives	1	—	1	—
Total liabilities	$ 8	$ —	$ 8	$ —

	Total as of September 30, 2018	Fair Value Measurements Using: 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	$ 16	$ —	$ 16	$ —
Commodity derivatives	1	—	1	—
Exchange traded funds (fixed income)[1]	14	14	—	—
Other noncurrent assets				
Investments in marketable common stock	1	1	—	—
Deferred compensation plan assets	100	100	—	—
Exchange traded funds (fixed income)[1]	148	148	—	—
Exchange traded funds (equity)[1]	119	119	—	—
Equity swap	63	—	63	—
Noncurrent assets held for sale				
Investments in marketable common stock	3	3	—	—
Total assets	$ 465	$ 385	$ 80	$ —
Other current liabilities				
Foreign currency exchange derivatives	$ 12	$ —	$ 12	$ —
Commodity derivatives	2	—	2	—
Liabilities held for sale				
Commodity derivatives	12	—	12	—
Total liabilities	$ 26	$ —	$ 26	$ —

[1] Classified as restricted investments for payment of asbestos liabilities. See Note 20, "Commitments and Contingencies," of the notes to consolidated financial statements for further details.

Valuation Methods

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

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

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

Deferred compensation plan assets: Assets held in the deferred compensation plans will be used to pay benefits under certain of the Company's non-qualified deferred compensation plans. The investments primarily consist of mutual funds which are publicly traded on stock exchanges and are valued using a market approach based on the quoted market prices. During the three and nine months ended June 30, 2019, the Company recognized no unrealized gains/losses and unrealized losses of $2 million, respectively, in the consolidated statements of income on these investments that were still held as of June 30, 2019, where they offset unrealized gains and losses on the related deferred compensation plan liability.

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. During the three and nine months ended June 30, 2019, the Company recognized unrealized gains of $9 million and $8 million, respectively, in the consolidated statements of income on these investments that were still held as of June 30, 2019, all of which related to restricted investments. Refer to Note 20, "Commitments and Contingencies," of the notes to consolidated financial statements for further information.

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 $7.5 billion at June 30, 2019 and $9.6 billion at September 30, 2018. The fair value of public debt was $7.3 billion at June 30, 2019 and $8.6 billion at September 30, 2018, 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 $0.2 billion at June 30, 2019 and $1.0 billion at September 30, 2018, which was determined based on quoted market prices for similar instruments classified as Level 2 inputs within the ASC 820 fair value hierarchy.

17. Impairment of Long-Lived Assets

The Company reviews long-lived assets, including tangible assets and other intangible assets with definitive lives, for impairment whenever events or changes in circumstances indicate that the asset's carrying amount may not be recoverable. The Company conducts its long-lived asset impairment analyses in accordance with ASC 360-10-15, "Impairment or Disposal of Long-Lived Assets," ASC 350-30, "General Intangibles Other than Goodwill" and ASC 985-20, "Costs of software to be sold, leased, or marketed." ASC 360-10-15 requires the Company to group assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities and evaluate the asset group against the sum of the undiscounted future cash flows. If the undiscounted cash flows do not indicate the carrying amount of the asset group is recoverable, an impairment charge is measured as the amount by which the carrying amount of the asset group exceeds its fair value based on discounted cash flow analysis or appraisals. ASC 350-30 requires intangible assets acquired in a business combination that are used in research and development activities to be considered indefinite lived until the completion or abandonment of the associated research and development efforts. During the period that those assets are considered indefinite lived, they shall not be amortized but shall be tested for impairment annually and more frequently if events or changes in circumstances indicate that it is more likely than not that the asset is impaired. If the carrying amount of an intangible asset exceeds its fair value, an entity shall recognize an impairment loss in an amount equal to that excess. ASC 985-20 requires the unamortized capitalized costs of a computer software product be compared to the net realizable value of that product. The amount by which the unamortized capitalized costs of a computer software product exceed the net realizable value of that asset shall be written off.

During the third quarter of fiscal 2019, the Company concluded it had a triggering event requiring assessment of impairment for certain of its long-lived assets in conjunction with the plans to dispose of a business within its Global Products segment that met the criteria to be classified as held for sale. Assets and liabilities held for sale are required to be recorded at the lower of carrying value or fair value less any costs to sell. Accordingly, the Company recorded an impairment charge of $235 million within restructuring and impairment costs in the consolidated statements of income in the third quarter of fiscal 2019 to write down the carrying value of the assets held for sale to fair value less any costs to sell. The inputs utilized in the analyses are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement."

In the first quarter of fiscal 2018, the Company concluded it had a triggering event requiring assessment of impairment for certain of its long-lived assets in conjunction with its restructuring actions announced in fiscal 2018. As a result, the Company reviewed the long-lived assets for impairment and recorded $28 million of asset impairment charges within restructuring and impairment costs in the consolidated statements of income. Of the total impairment charges, $23 million related to the Global Products segment and $5 million related to Corporate assets. In addition, the Company recorded $2 million of asset impairments within discontinued operations related to the Power Solutions segment in the first quarter of fiscal 2018. Refer to Note 8, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The impairments were measured under a market approach utilizing an appraisal to determine fair values of the impaired assets. This method is consistent with the methods the Company employed in prior periods to value other long-lived assets. The inputs utilized in the analyses are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement."

At June 30, 2019 and 2018, the Company concluded it did not have any other triggering events requiring assessment of impairment of its long-lived assets.

18. Segment Information

ASC 280, "Segment Reporting," establishes the standards for reporting information about segments in financial statements. In applying the criteria set forth in ASC 280, the Company has determined that it has four reportable segments for financial reporting purposes.

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

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

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

- Global Products designs and produces heating and air conditioning for residential and commercial applications, and markets products and refrigeration systems to replacement and new construction market customers globally. The Global Products business also designs, manufactures and sells fire protection and security products, including intrusion security, anti-theft devices, and access control and video management systems, for commercial, industrial, retail, residential, small business, institutional and governmental customers worldwide. Global Products also includes the Johnson Controls-Hitachi joint venture.

During the first quarter of fiscal 2019, the Company determined that the Power Solutions 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 4, "Discontinued Operations," of the notes to consolidated financial statements for further information regarding the Company's discontinued operations.

On October 1, 2018, the Company adopted ASU No. 2016-01, "Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities." The new standard requires the mark-to-market of marketable securities investments previously recorded within accumulated other comprehensive income on the statement of financial position be recorded in the statement of income on a prospective basis beginning as of the adoption date. As these restricted investments do not relate to the underlying operating performance of its business, the Company's definition of segment earnings excludes the mark-to-market adjustments beginning in the first quarter of fiscal 2019.

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

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

	Net Sales			
	Three Months Ended June 30,		Nine Months Ended June 30,	
	2019	2018	2019	2018
Building Solutions North America	$ 2,327	$ 2,246	$ 6,630	$ 6,355
Building Solutions EMEA/LA	922	926	2,707	2,748
Building Solutions Asia Pacific	691	681	1,932	1,864
Global Products	2,511	2,429	6,425	6,250
Total net sales	$ 6,451	$ 6,282	$ 17,694	$ 17,217

	Segment EBITA			
	Three Months Ended June 30,		Nine Months Ended June 30,	
	2019	2018	2019	2018
Building Solutions North America	$ 300	$ 314	$ 807	$ 780
Building Solutions EMEA/LA	101	96	258	242
Building Solutions Asia Pacific	98	97	240	242
Global Products	333	435	774	949
Total segment EBITA	$ 832	$ 942	$ 2,079	$ 2,213
Corporate expenses	$ 70	$ (142)	$ (233)	$ (442)
Amortization of intangible assets	(93)	(98)	(288)	(282)
Restructuring and impairment costs	(235)	—	(235)	(154)
Net mark-to-market adjustments	9	—	8	—
Net financing charges	(119)	(95)	(302)	(304)
Income from continuing operations before income taxes	$ 464	$ 607	$ 1,029	$ 1,031

19. Guarantees

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

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

The Company's product warranty liability for continuing operations is recorded in the consolidated statements of financial position in deferred revenue or 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 nine months ended June 30, 2019 and 2018 were as follows (in millions):

	Nine Months Ended June 30, 2019	Nine Months Ended June 30, 2018
Balance at beginning of period	$ 315	$ 323
Accruals for warranties issued during the period	85	73
Accruals from acquisition and divestitures	2	1
Accruals related to pre-existing warranties	(20)	(21)
Settlements made (in cash or in kind) during the period	(79)	(67)
Currency translation	1	—
Balance at end of period	$ 304	$ 309

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. The liabilities are recorded at fair value and relate to certain tax related matters borne by the buyer of previously divested subsidiaries of Tyco which Tyco has indemnified certain parties and the amounts are probable of being paid. At September 30, 2018, the Company recorded liabilities of $255 million, of which $235 million was 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 the third quarter of fiscal 2019, the majority of tax indemnification liabilities were resolved including a $226 million release as a result of changes to the likelihood of payments due to the expiration of certain statute of limitations.

20. 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 June 30, 2019, reserves for environmental liabilities for continuing operations totaled $163 million, of which $52 million was recorded within other current liabilities and $111 million was recorded within other noncurrent liabilities in the consolidated statements of financial position. Reserves for environmental liabilities for continuing operations totaled $37 million at September 30, 2018, of which $10 million was recorded within other current liabilities and $27 million was recorded within other noncurrent liabilities in the consolidated statements of financial position.

Tyco Fire Products L.P. ("Tyco Fire Products"), in coordination with the Wisconsin Department of Natural Resources ("WDNR"), has been conducting an environmental assessment of its Fire Technology Center ("FTC") located in Marinette, Wisconsin and surrounding areas in the City of Marinette and Town of Peshtigo, Wisconsin. In connection with the assessment, perfluorooctane sulfonate ("PFOS") and perfluorooctanoic acid ("PFOA") and/or other per- and poly fluorinated substances ("PFAS") have been detected at the FTC and in groundwater and surface water outside of the boundaries of the FTC. Tyco Fire Products continues to investigate the extent of potential migration of these compounds and is working closely with WDNR to address these issues insofar as they related to this migration.

The increase in reserves as of June 30, 2019 includes $140 million related to remediation efforts to be undertaken to address contamination relating to fire-fighting foams containing PFAS compounds at or near the FTC, as well as the continued remediation of arsenic and other contaminants at the Tyco Fire Products Stanton Street manufacturing facility also located in Marinette, Wisconsin (the "Stanton Street Facility"). The Company is not able to estimate a possible loss or range of loss in excess of the established accruals at this time.

A substantial portion of the increased reserves relates to remediation resulting from the use of fire-fighting foams containing PFAS at the FTC. The use of fire-fighting foams at the FTC was primarily for training and testing purposes in order to ensure that such products sold by the Company's affiliates, Chemguard, Inc. ("Chemguard") and Tyco Fire Products, were effective at suppressing high intensity fires that may occur at military installations, airports or elsewhere. The reserve was recorded in the quarter ended June 30, 2019 following a comprehensive review by independent environmental consultants related to the presence of PFAS at or near the FTC, as well as remediation discussions with the WDNR.

Tyco Fire Products has been engaged in remediation activities at the Stanton Street Facility since 1990. Its corporate predecessor, Ansul Incorporated ("Ansul") manufactured arsenic-based agricultural herbicides at the Stanton Street Facility, which resulted in significant arsenic contamination of soil and groundwater on the site and in parts of the adjoining Menominee River. In 2009, Ansul entered into an Administrative Consent Order (the "Consent Order") with the U.S. Environmental Protection Agency to address the presence of arsenic at the site. Under this agreement, Tyco Fire Products' principal obligations are to contain the arsenic contamination on the site, pump and treat on-site groundwater, dredge, treat and properly dispose of contaminated sediments in the adjoining river areas, and monitor contamination levels on an ongoing basis. Activities completed under the Consent Order since 2009 include the installation of a subsurface barrier wall around the facility to contain contaminated groundwater, the installation of a groundwater extraction and treatment system and the dredging and offsite disposal of treated river sediment. The increase in the reserve related to the Stanton Street Facility was recorded following a further review of the Consent Order, which resulted in the identification of several structural upgrades needed to preserve the effectiveness of prior remediation efforts.

Potential environmental 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. It is possible that technological, regulatory or enforcement developments, the results of additional environmental studies or other factors could change the Company's expectations with respect to future charges and cash outlays, and such changes could be material to the Company's future results of operations, financial condition or cash flows. Nevertheless, the Company does not currently believe that any claims, penalties or costs in addition to the amounts accrued 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 June 30, 2019 and September 30, 2018, the Company recorded conditional asset retirement obligations for continuing operations of $30 million and $29 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 June 30, 2019, the Company's estimated asbestos related net liability recorded on a discounted basis within the Company's consolidated statements of financial position was $167 million. The net liability within the consolidated statements of financial position was comprised of a liability for pending and future claims and related defense costs of $538 million, of which $55 million was recorded in other current liabilities and $483 million was recorded in other noncurrent liabilities. The Company also maintained separate cash, investments and receivables related to insurance recoveries within the consolidated statements of financial position of $371 million, of which $49 million was recorded in other current assets, and $322 million was recorded in other noncurrent assets. Assets included $16 million of cash and $272 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 June 30, 2019 was $83 million. As of September 30, 2018, the Company's estimated asbestos related net liability recorded on a discounted basis within the Company's consolidated statements of financial position was $173 million. The net liability within the consolidated statements of financial position was comprised of a liability for pending and future claims and related defense costs of $550 million, of which $55 million was recorded in other current liabilities and $495 million was recorded in other noncurrent liabilities. The

Company also maintained separate cash, investments and receivables related to insurance recoveries within the consolidated statements of financial position of $377 million, of which $33 million was recorded in other current assets, and $344 million was recorded in other noncurrent assets. Assets included $6 million of cash and $281 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, 2018 was $90 million.

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

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

Insurable Liabilities

The Company records liabilities for its workers' compensation, product, general, property and auto liabilities. The determination of these liabilities and related expenses is dependent on claims experience. For most of these liabilities, claims incurred but not yet reported are estimated by utilizing actuarial valuations based upon historical claims experience. At June 30, 2019 and September 30, 2018, the insurable liabilities totaled $451 million and $417 million, respectively, of which $118 million and $95 million was recorded within other current liabilities, $22 million and $22 million was recorded within accrued compensation and benefits, and $311 million and $300 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 June 30, 2019 and September 30, 2018 were $26 million, of which $6 million was recorded within other current assets and $20 million was recorded within other noncurrent assets, respectively. The Company maintains captive insurance companies to manage its insurable liabilities.

Aqueous Film-Forming Foam ("AFFF") Litigation

Two of our subsidiaries, Chemguard and Tyco Fire Products, have been named, along with other defendant manufacturers, in a number of class action and other lawsuits relating to the use of fire-fighting foam products by the U.S. Department of Defense (the "DOD") and others for fire suppression purposes and related training exercises. Plaintiffs generally allege that the firefighting foam products manufactured by defendants contain or break down into the chemicals PFOS and PFOA and/or other PFAS compounds and that the use of these products by others at various airbases, airports and other sites resulted in the release of these chemicals into the environment and ultimately into communities' drinking water supplies neighboring those airports, airbases and other sites. PFOA, PFOS, and other PFAS compounds are being studied by the United States Environmental Protection Agency ("EPA") and other environmental and health agencies and researchers. The EPA has not issued regulatory limits, however; while those studies continue, the EPA has issued a health advisory level for PFOA and PFOS in drinking water. Both PFOA and PFOS are types of synthetic chemical compounds that have been present in firefighting foam. However, both are also present in many existing consumer products. According to EPA, PFOA and PFOS have been used to make carpets, clothing, fabrics for furniture, paper packaging for food and other materials (e.g., cookware) that are resistant to water, grease or stains.

Plaintiffs generally seek compensatory damages, including damages for alleged personal injuries, medical monitoring, and alleged diminution in property values, and also seek punitive damages and injunctive relief to address remediation of the alleged contamination.

In September of 2018, the Company filed a Petition for Multidistrict Litigation with the United States Judicial Panel on Multidistrict Litigation ("JPML") seeking to consolidate all existing and future federal cases into one jurisdiction. On December 7, 2018, the JPML issued an order transferring various AFFF cases to a multi-district litigation ("MDL") before the United States District Court for the District of South Carolina. Additional cases have been identified for transfer to the MDL.

AFFF Putative Class Actions

Chemguard and Tyco Fire Products are named in 23 putative class actions in federal and state courts in Colorado, Delaware, Florida, Massachusetts, New York, Pennsylvania, Washington New Hampshire, and Michigan. Each of these cases has been transferred to the MDL. The following putative class actions were filed in fiscal year 2019:

- *Grubb v. The 3M Company et al.*, filed October 30, 2018 in the United States District Court, District of Delaware.
- *County of Dutchess v. The 3M Company et al.,* filed October 12, 2018 in the United States District Court, Southern District of New York.
- *Battisti et al. v. The 3M Company et al.*, filed December 20, 2018 in the United States District Court, Middle District of Florida.
- *Jackson et al. v. The 3M Company et al.*, filed February 5, 2019 in the United States District Court, Western District of Washington.
- *Smith et al. v. The 3M Company et al.*, filed May 24, 2019 in the United States District Court, District of New Hampshire.
- *Cadrette et al. v. The 3M Company et al.*, filed May 24, 2019 in the United States District Court, Eastern District of Michigan.

AFFF Individual or Mass Actions

There are approximately 60 individual or "mass" actions pending in federal court in Colorado (41 cases), New York (4 cases), Pennsylvania (11 cases), New Mexico (2 cases) and South Carolina (2 cases) against Chemguard and Tyco Fire Products and other defendants in which the plaintiffs generally seek compensatory damages, including damages for alleged personal injuries, medical monitoring, and alleged diminution in property values. The cases involve approximately 7,000 plaintiffs in Colorado, approximately 126 plaintiffs in New York, 15 plaintiffs in Pennsylvania and two plaintiffs in New Mexico. These matters have been transferred to or directly-filed in the MDL. The Company is also on notice of approximately 660 other possible individual product liability claims and three possible municipal claims by filings made in Pennsylvania state court, but complaints have not been filed in those matters, but the Company anticipates that they soon will be.

AFFF Municipal Cases

Chemguard and Tyco Fire Products are also defendants in 23 cases in federal and state courts involving municipal or water provider plaintiffs in Alaska, Arizona, Florida, Massachusetts, New Jersey, New York, Maryland, Ohio and South Carolina. These municipal plaintiffs generally allege that the use of the defendants' fire-fighting foam products at fire training academies, municipal airports, Air National Guard bases, or Navy bases released PFOS and PFOA into public water supply wells, allegedly requiring remediation of public property. All of these cases have been transferred to the MDL. The following municipal actions were filed in fiscal year 2019:

- *Dutchess County v. The 3M Company et al.* filed October 12, 2018 (removed to the United States District Court, Southern District of New York) and styled as a class action.
- *City of Dayton v. The 3M Company et al.,* filed October 3, 2018 in the United States District Court, Southern District of Ohio.
- *City of Stuart v. The 3M Company et al.,* filed October 18, 2018 in the United States District Court, Southern District of Florida.
- *City of Tucson and Town of Marana v. The 3M Company et al.,* filed November 8, 2018 in the Superior Court of the State of Arizona, County of Pima (removed to the United States District Court for the District of Arizona).
- *New Jersey-American Water Company, Inc. v. The 3M Company et al.,* filed November 8, 2018 in the United States District Court for the District of New Jersey.
- *Village of Farmingdale v. The 3M Company et al.,* filed December 19, 2018 in the Supreme Court of the State of New York, County of Nassau (removed to the United States District Court for the Eastern District of New York).
- *Town of East Hampton v. The 3M Company et al.*, filed December 28, 2018 in the Supreme Court of the State of New York, County of Suffolk.
- *Ridgewood Water v. The 3M Company et al.*, filed February 25, 2019, in the Superior Court of the State of New Jersey, Bergen County (removed to the United States District Court for the District of New Jersey).
- *Atlantic City Municipal Utilities Authority v. The 3M Company et al.*, filed April 10, 2019 in the United States District Court, District of New Jersey.
- *Town of Vienna v. The 3M Company et al.*, filed March 30, 2019 in the United States District Court, District of Maryland.
- *New York American Water Company, Inc. v. The 3M Company et al.*, filed April 11, 2019 in the United States District Court, Eastern District of New York.
- *City of Fairbanks v. The 3M Company et al.*, filed April 26, 2019 in the United States District Court, District of Alaska.
- *County of Westchester v. The 3M Company et al.*, filed May 24, 2019 in the United States District Court, Southern District of New York.
- *Diane Hebrank et al. v. City of Newburgh v. The 3M Company et al.*, third-party complaint filed June 10, 2019, in the Supreme Court of New York, Orange County.
- *California-American Water v. The 3M Company et al.*, direct-filed on June 21, 2019 in the MDL pending in the United States District Court, District of South Carolina.
- *City of Sioux Falls v. The 3M Company et al.*, direct-filed on June 26, 2019 in the MDL pending in the United States District Court, District of South Carolina.
- *Sioux Falls Regional Airport Authority v. The 3M Company et al.*, direct-filed on June 28, 2019 in the MDL pending in the United States District Court, District of South Carolina.

In May 2018, the Company was also notified by the Widefield Water and Sanitation District in Colorado Springs, Colorado that it may assert claims regarding its remediation costs in connection with PFOS and PFOA contamination allegedly resulting from the use of those products at the Peterson Air Force Base. In addition, three water districts in Pennsylvania, Horsham Water and Sewer Authority, Warminster Municipal Authority, and Warrington Township have filed praecipes for summons against Chemguard and Tyco Fire Products and other AFFF manufacturers relating to alleged PFOS and PFOA contamination. These praecipes are not active suits, but have the effect of tolling the statute of limitations.

State Attorneys General Litigation related to AFFF

In June 2018, the State of New York filed a lawsuit in New York state court (State of New York v. The 3M Company et al., No. 904029-18 (N.Y. Sup. Ct., Albany County)) against a number of manufacturers, including affiliates of the Company, with respect to alleged PFOS and PFOA contamination purportedly resulting from firefighting foams used at locations across New York, including Stewart Air National Guard Base in Newburgh and Gabreski Air National Guard Base in Southampton, Plattsburgh Air Force Base in Plattsburgh, Griffiss Air Force Base in Rome, and unspecified "other" sites throughout the State. The lawsuit seeks to recover costs and natural resource damages associated with contamination at these sites. This suit has been removed to the United States District Court for the Northern District of New York and transferred to the MDL.

In February 2019, the State of New York filed a second lawsuit in New York state court (State of New York v. The 3M Company et al., (N.Y. Sup. Ct., Albany County)), against a number of manufacturers, including affiliates of the Company, with respect to alleged PFOS and PFOA contamination purportedly resulting from firefighting foams used at additional locations across New York. This suit has been removed to the United States District Court for the Northern District of New York and tagged for transfer to the MDL. In July 2019, the State of New York filed a third lawsuit in New York state court (*State of New York v. The 3M Company et al.*, (N.Y. Sup. Ct., Albany County)), against a number of manufacturers, including affiliates of the Company, with respect to alleged PFOS and PFOA contamination purportedly resulting from firefighting foams used at further additional locations across New York. This third complaint has not been served.

In January 2019, the State of Ohio filed a lawsuit in Ohio state court (State of Ohio v. The 3M Company et al., No. G-4801-CI-021804752 -000 (Court of Common Pleas of Lucas County, Ohio)) against a number of manufacturers, including affiliates of the Company, with respect to PFOS and PFOA contamination allegedly resulting from the use of firefighting foams at various specified and unspecified locations across Ohio. The lawsuit seeks to recover costs and natural resource damages associated with the contamination. This lawsuit has been removed to the United States District Court for the Northern District of Ohio and transferred to the MDL.

In addition, in May and June 2019, three other states filed lawsuits in their respective state courts against a number of manufacturers, including affiliates of the Company, with respect to PFOS and PFOA contamination allegedly resulting from the use of firefighting foams at various specified and unspecified locations across their jurisdictions (*State of New Hampshire v. The 3M Company et al.*; *State of Vermont v. The 3M Company et al*.; *State of New Jersey v. The 3M Company et al*.). The State of New Jersey action has been removed to the United State District Court for the District of New Jersey and tagged for transfer to the MDL. The State of Vermont and State of New Hampshire actions were recently served.

AFFF Matters Related to the Tyco Fire Products Fire Technology Center in Marinette, Wisconsin

Tyco Fire Products and Chemguard are defendants in one lawsuit in Marinette County, Wisconsin alleging damages due to the historical use of AFFF products at Tyco's Fire Technology Center in Marinette, Wisconsin. The putative class action, *Joan & Richard Campbell for themselves and on behalf of other similarly situated v. Tyco Fire Products LP and Chemguard Inc., et al.* (Marinette County Circuit Court, filed Dec. 17, 2018) alleges PFOA/PFOS contaminated groundwater migrated off Tyco's property and into residential drinking water wells causing both personal injuries and property damage to the plaintiffs; Tyco and Chemguard removed this case to the United States District Court for the Eastern District of Wisconsin and it has been transferred to the MDL. A second lawsuit, *Duane and Janell Goldsmith individually and on behalf of H.G. and K.G v. Tyco Fire Products LP and Chemguard Inc., et al.* (Marinette County Circuit Court, filed Dec. 17, 2018) was also filed by a family alleging personal injuries due to contaminated groundwater; this case has been dismissed without prejudice.

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

Bosch Litigation

On March 15, 2019, a German subsidiary of the Company received a complaint from Robert Bosch GmbH ("Bosch"), filed in a German court. The complaint relates to an automotive starter batteries joint venture in which the Company and Bosch were 80/20 parties to this joint venture. At the time the complaint was filed, JCI's ownership interest in the joint venture was to be transferred to entities controlled by the Purchaser upon consummation of the previously announced sale of the Company's Power Solutions business.

The complaint alleges that certain internal Company reorganization transactions were not in compliance with the arrangements relating to such joint venture. The complaint seeks a declaration that such internal reorganization transactions are void. In the alternative, the complaint seeks a declaration of damages that represent an alleged difference between (i) the value ascribed to the joint venture interests in connection with the Power Solutions sale and (ii) the value that was assigned to those interests in connection with such internal reorganization transactions. The Company believes that it has several strong defenses to the substance of the complaint and that the complaint substantially overstates any reasonable valuation of the joint venture interests. The Company does not believe the complaint has merit, and intends to defend it vigorously. While litigation is inherently uncertain, the Company believes that any ultimate liability that may arise from this proceeding would be immaterial to its business, financial condition and results of operations.

Under the previously announced Stock and Asset Purchase Agreement dated November 13, 2018 between the Company and the Purchaser, the Company has agreed to indemnify the Purchaser for any damages that could arise from this litigation.

Other Matters

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

21. Related Party Transactions

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

The net sales to and purchases from related parties included in the consolidated statements of income for continuing operations were $65 million and $27 million, respectively, for the three months ended June 30, 2019; and $65 million and $19 million, respectively, for the three months ended June 30, 2018. The net sales to and purchases from related parties included in the consolidated statements of income for continuing operations were $162 million and $57 million, respectively, for the nine months ended June 30, 2019; and $169 million and $43 million, respectively, for the nine months ended June 30, 2018.

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

	June 30, 2019	September 30, 2018
Receivable from related parties	$ 55	$ 36
Payable to related parties	8	18

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 and the spin-off of Adient, changes in tax laws (including but not limited to the recently enacted Tax Cuts and Jobs Act), 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, changes to laws or policies governing foreign trade, including increased tariffs or trade restrictions, automotive vehicle production levels, mix and schedules, energy and commodity prices, the availability of raw materials and component products, currency rates and cancellation of or changes to commercial arrangements, and with respect to the disposition of the Power Solutions business, whether the strategic benefits of the Power Solutions transaction can be achieved. A detailed discussion of risks related to Johnson Controls' business is included in the section entitled "Risk Factors" in Johnson Controls' Annual Report on Form 10-K for the year ended September 30, 2018 filed with the United States Securities and Exchange Commission ("SEC") on November 20, 2018, and its Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2019 filed with the SEC on May 3, 2019, which is 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 made only 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 and integrated infrastructure that work seamlessly together to deliver on the promise of smart cities and communities. The Company is committed to helping its customers win and creating greater value for all of its stakeholders through its strategic focus on buildings.

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 2005, the Company acquired York International, a global supplier of heating, ventilating, air-conditioning and refrigeration equipment and services. In 2014, the Company acquired Air Distribution Technologies, Inc. ("ADTi"), one of the largest independent providers of air distribution and ventilation products in North America. On October 1, 2015, the Company formed a joint venture with Hitachi to expand its building product offerings.

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

Accordingly, the historical consolidated financial statements of JCI Inc. for periods prior to this transaction are considered to be the historic financial statements of the Company.

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

On November 13, 2018, the Company entered into a Stock and Asset Purchase Agreement ("Purchase Agreement") with BCP Acquisitions LLC ("Purchaser"). The Purchaser is a newly-formed entity controlled by investment funds managed by Brookfield Capital Partners LLC. Pursuant to the Purchase Agreement, on the terms and subject to the conditions therein, the Company agreed to sell, and Purchaser agreed to acquire, the Company's Power Solutions business for a purchase price of $13.2 billion. The transaction closed on April 30, 2019 with net cash proceeds of $11.6 billion after tax and transaction-related expenses.

During the first quarter of fiscal 2019, the Company determined that its Power Solutions business met the criteria to be classified as a discontinued operation and, as a result, Power Solutions' 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 following information should be read in conjunction with the September 30, 2018 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, 2018 filed with the SEC on November 20, 2018. References in the following discussion and analysis to "Three Months"(or similar language) refer to the three months ended June 30, 2019 compared to the three months ended June 30, 2018, while "Year-to-Date" refers to the nine months ended June 30, 2019 compared to the nine months ended June 30, 2018.

Net Sales

	Three Months Ended June 30,			Nine Months Ended June 30,		
(in millions)	2019	2018	Change	2019	2018	Change
Net sales	$ 6,451	$ 6,282	3%	$ 17,694	$ 17,217	3%

The increase in consolidated net sales for the three months ended June 30, 2019 was due to higher organic sales ($349 million) and acquisitions ($5 million), partially offset by the unfavorable impact of foreign currency translation ($141 million) and lower sales due to business divestitures ($44 million). The increase in organic sales related to higher volumes across all segments. Excluding the impact of foreign currency translation and business acquisitions and divestitures, consolidated net sales increased 6% 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 nine months ended June 30, 2019 was due to higher organic sales ($1,007 million) and acquisitions ($18 million), partially offset by the unfavorable impact of foreign currency translation ($406 million) and lower sales due to business divestitures ($142 million). The increase in organic sales related to higher volumes across all segments. Excluding the impact of foreign currency translation and business acquisitions and divestitures, consolidated net sales increased 6% as compared to the prior year. Refer to the "Segment Analysis" below within Item 2 for a discussion of net sales by segment.

Cost of Sales / Gross Profit

(in millions)	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Change	Nine Months Ended June 30, 2019	Nine Months Ended June 30, 2018	Change
Cost of sales	$ 4,307	$ 4,194	3%	$ 11,981	$ 11,607	3%
Gross profit	2,144	2,088	3%	5,713	5,610	2%
% of sales	33.2%	33.2%		32.3%	32.6%	

Cost of sales for the three month period ended June 30, 2019 increased as compared to the three month period ended June 30, 2018, and gross profit as a percentage of sales was unchanged. Foreign currency translation had a favorable impact on cost of sales of approximately $93 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 nine month period ended June 30, 2019 increased as compared to the nine month period ended June 30, 2018, and gross profit as a percentage of sales decreased by 30 basis points. Gross profit increased due to higher volumes across all segments, partially offset by business divestitures and higher operating costs. Foreign currency translation had a favorable impact on cost of sales of approximately $270 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 June 30, 2019	Three Months Ended June 30, 2018	Change	Nine Months Ended June 30, 2019	Nine Months Ended June 30, 2018	Change
Selling, general and administrative expenses	$ 1,388	$ 1,441	-4%	$ 4,284	$ 4,250	1%
% of sales	21.5%	22.9%		24.2%	24.7%	

Selling, general and administrative expenses ("SG&A") for the three month period ended June 30, 2019 decreased 4% as compared to the three month period ended June 30, 2018. The decrease in SG&A was primarily due to productivity savings and costs synergies, net of incremental investments, and a current year tax indemnification reserve release, partially offset by a current year environmental charge. Foreign currency translation had a favorable impact on SG&A of $27 million. Refer to the "Segment Analysis" below within Item 2 for a discussion of segment EBITA by segment.

SG&A for the nine month period ended June 30, 2019 increased 1% as compared to the nine month period ended June 30, 2018. The increase in SG&A was primarily due to a $114 million gain on sale of the Scott Safety business in the Global Products segment in the prior year, and a current year environmental charge, partially offset by productivity savings and costs synergies, net of incremental investments, and a current year tax indemnification reserve release. Foreign currency translation had a favorable impact on SG&A of $82 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 June 30, 2019	Three Months Ended June 30, 2018	Change	Nine Months Ended June 30, 2019	Nine Months Ended June 30, 2018	Change
Restructuring and impairment costs	$ 235	$ —	*	$ 235	$ 154	53%

* Measure not meaningful

Refer to Note 8, "Significant Restructuring and Impairment Costs," and Note 17, "Impairment of Long-Lived Assets," of the notes to consolidated financial statements for further disclosure related to the Company's restructuring plans and impairment costs.

Net Financing Charges

	Three Months Ended June 30,			Nine Months Ended June 30,		
(in millions)	2019	2018	Change	2019	2018	Change
Net financing charges	$ 119	$ 95	25%	$ 302	$ 304	-1%

Refer to Note 11, "Debt and Financing Arrangements," of the notes to consolidated financial statements for further disclosure related to the Company's net financing charges.

Equity Income

	Three Months Ended June 30,			Nine Months Ended June 30,		
(in millions)	2019	2018	Change	2019	2018	Change
Equity income	$ 62	$ 55	13%	$ 137	$ 129	6%

The increase in equity income for the three months ended June 30, 2019 was primarily due to higher income at a certain partially-owned affiliate of the Johnson Controls - Hitachi joint venture. The increase in equity income for the nine months ended June 30, 2019 was primarily due to higher income at certain partially-owned affiliates within Building Solutions EMEA/LA segment and the Johnson Controls - Hitachi joint venture. Refer to the "Segment Analysis" below within Item 2 for a discussion of segment EBITA by segment.

Income Tax Provision

	Three Months Ended June 30,			Nine Months Ended June 30,		
(in millions)	2019	2018	Change	2019	2018	Change
Income tax provision	$ 239	$ 61	*	$ 394	$ 314	25%
Effective tax rate	52%	10%		38%	30%	

* Measure not meaningful

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

The statutory tax rate in Ireland is being used as a comparison since the Company is domiciled in Ireland. For the three months ended June 30, 2019, the Company's effective tax rate for continuing operations was 52% and was higher than the statutory tax rate of 12.5% primarily due to a discrete tax charge related to newly enacted regulations related to U.S. Tax Reform, non-U.S. tax audit reserve adjustments and tax rate differentials, partially offset by a tax indemnification reserve release, the tax benefits of an asset held for sale impairment charge and continuing global tax planning initiatives. For the nine months ended June 30, 2019, the Company's effective tax rate for continuing operations was 38% and was higher than the statutory tax rate of 12.5% primarily due to valuation allowance adjustments as a result of tax law changes, a discrete tax charge related to newly enacted regulations related to U.S. Tax Reform, non-U.S. tax audit reserve adjustments, and tax rate differentials, partially offset by a tax indemnification reserve release, the tax benefits of an asset held for sale impairment charge and continuing global tax planning initiatives. For the three months ended June 30, 2018, the Company's effective tax rate for continuing operations was 10% and was lower than the statutory tax rate of 12.5% primarily due to the benefits of continuing global tax planning initiatives. For the nine months ended June 30, 2018, the Company's effective tax rate for continuing operations was 30% and was higher than the statutory tax rate of 12.5% primarily due to the discrete net impacts of U.S. Tax Reform, the tax impact of the divestiture of the Scott Safety business and tax rate differentials, partially offset by the benefits of continuing global tax planning initiatives and tax audit closures. The effective tax rate for the nine months ended June 30, 2019 increased as compared to the nine months ended June 30, 2018 primarily due to the discrete tax items described below and tax planning initiatives. The global tax planning initiatives related primarily to foreign tax credit planning, global financing structures and alignment of our global business functions in a tax efficient manner.

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

In connection with the Company’s analysis of the impact of the U.S. tax law changes, the Company recorded a provisional net tax charge of $108 million during fiscal 2018 consistent with guidance prescribed by Staff Accounting Bulletin 118. This provisional net tax charge arises from a benefit of $108 million due to the remeasurement of U.S. deferred tax assets and liabilities, offset by the Company’s tax charge relating to the one-time transition tax on deemed repatriated earnings, inclusive of all relevant taxes, of $216 million. The Company’s estimated benefit of the remeasurement of U.S. deferred tax assets and liabilities increased from $101 million as of December 31, 2017 to $108 million as of September 30, 2018 due to calculation refinement of the Company’s estimated impact. The Company remeasured certain deferred tax assets and liabilities based on the rates at which they are expected to reverse in the future, which is generally 21% or the blended fiscal 2018 rate of 24.5%. The Company’s tax charge for transition tax decreased from $305 million as of December 31, 2017 to $216 million as of September 30, 2018 due to further analysis of the Company’s post-1986 non-U.S. earnings and profits (“E&P”) previously deferred from U.S. federal taxation and refinement of the estimated impact of tax law changes. In the first quarter of fiscal 2019, the Company completed its analysis of all enactment-date income tax effects of the U.S. tax law change with no further adjustment to the provisional amounts recorded as of September 30, 2018.

In the third quarter of fiscal 2019, the Company recorded a discrete charge of $199 million related to newly enacted regulations related to U.S. Tax Reform which impacted the Company's reserves for uncertain tax positions.

In the third quarter of fiscal 2019, the Company recorded a discrete charge of $27 million related to non-U.S. tax examinations.

In the third quarter of fiscal 2019, the Company recorded a $235 million impairment charge related to assets held for sale. Refer to Note 17, "Impairment of Long-Lived Assets," of the notes to consolidated financial statements for further information regarding the impairment charge. The impairment charge generated a $53 million tax benefit.

In the third quarter of fiscal 2019, the Company released a $226 million tax indemnification reserve. Refer to Note 19, "Guarantees," of the notes to consolidated financial statements for further information regarding the reserve release. The reserve release generated no income tax expense.

In the first quarter of fiscal 2019, as a result of changes to U.S. tax law, the Company recorded a discrete tax charge of $76 million related to valuation allowances on certain U.S. deferred tax assets.

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

In the first quarter of fiscal 2018, the Company completed the sale of its Scott Safety business to 3M Company. Refer to Note 3, "Acquisitions and Divestitures," of the notes to consolidated financial statements for additional information. In connection with the sale, the Company recorded a pre-tax gain of $114 million and income tax expense of $30 million.

In the first quarter of fiscal 2018, the Company recorded $154 million of significant restructuring and impairment costs. Refer to Note 8, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements for additional information. The restructuring costs generated a $23 million tax benefit, which reflects the Company’s current tax position in these jurisdictions.

Income From Discontinued Operations, Net of Tax

(in millions)	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Change	Nine Months Ended June 30, 2019	Nine Months Ended June 30, 2018	Change
Income from discontinued operations, net of tax	$ 4,051	$ 258	*	$ 4,598	$ 841	*

* Measure not meaningful

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

Income Attributable to Noncontrolling Interests

(in millions)	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Change	Nine Months Ended June 30, 2019	Nine Months Ended June 30, 2018	Change
Income from continuing operations attributable to noncontrolling interests	$ 84	$ 72	17%	$ 147	$ 134	10%
Income from discontinued operations attributable to noncontrolling interests	—	9	*	24	33	-27%

* Measure not meaningful

The increase in income from continuing operations attributable to noncontrolling interests for the three and nine months ended June 30, 2019 was primarily due to higher net income at certain partially-owned affiliates within the Global Products segment.

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

Net Income Attributable to Johnson Controls

(in millions)	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Change	Nine Months Ended June 30, 2019	Nine Months Ended June 30, 2018	Change
Net income attributable to Johnson Controls	$ 4,192	$ 723	*	$ 5,062	$ 1,391	*

* Measure not meaningful

The increase in net income attributable to Johnson Controls for the three and nine months ended June 30, 2019 was primarily due to the gain on sale of the Power Solutions business and higher gross profit, partially offset by a non-cash impairment charge, and a higher income tax provision.

Diluted earnings per share attributable to Johnson Controls for the three months ended June 30, 2019 was $4.79 compared to $0.78 for the three months ended June 30, 2018. Diluted earnings per share attributable to Johnson Controls for the nine months ended June 30, 2019 was $5.61 compared to $1.49 for the nine months ended June 30, 2018.

Comprehensive Income Attributable to Johnson Controls

(in millions)	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Change	Nine Months Ended June 30, 2019	Nine Months Ended June 30, 2018	Change
Comprehensive income attributable to Johnson Controls	$ 4,097	$ 169	*	$ 4,969	$ 1,056	*

* Measure not meaningful

The increase in comprehensive income attributable to Johnson Controls for the three months ended June 30, 2019 was due to higher net income attributable to Johnson Controls ($3,469 million) and an increase in other comprehensive income attributable to Johnson Controls ($459 million) resulting primarily from favorable currency translation adjustments. The year-over-year favorable foreign currency translation adjustments were primarily driven by the weakening of the British pound and euro currencies against the U.S. dollar in the prior year.

The increase in comprehensive income attributable to Johnson Controls for the nine months ended June 30, 2019 was due to higher net income attributable to Johnson Controls ($3,671 million) and an increase in other comprehensive income attributable to Johnson Controls ($242 million) resulting primarily from favorable currency translation adjustments. The year-over-year favorable foreign currency translation adjustments were primarily driven by the weakening of the British pound and euro currencies against the U.S. dollar in the prior year.

Segment Analysis

On October 1, 2018, the Company adopted Accounting Standards Update ("ASU") No. 2016-01, "Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities." The new standard requires the mark-to-market of marketable securities investments previously recorded within accumulated other comprehensive income on the statement of financial position be recorded in the statement of income on a prospective basis beginning as of the adoption date. As these restricted investments do not relate to the underlying operating performance of its business, the Company’s definition of segment earnings excludes the mark-to-market adjustments beginning in the first quarter of fiscal 2019.

Management evaluates the performance of its business units based 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, restructuring and impairment costs, and net mark-to-market adjustments related to pension and postretirement plans and restricted asbestos investments.

Net Sales

(in millions)	Three Months Ended June 30, 2019	Three Months Ended June 30, 2018	Change	Nine Months Ended June 30, 2019	Nine Months Ended June 30, 2018	Change
Building Solutions North America	$ 2,327	$ 2,246	4%	$ 6,630	$ 6,355	4%
Building Solutions EMEA/LA	922	926	- %	2,707	2,748	-1%
Building Solutions Asia Pacific	691	681	1%	1,932	1,864	4%
Global Products	2,511	2,429	3%	6,425	6,250	3%
	$ 6,451	$ 6,282	3%	$ 17,694	$ 17,217	3%

Three Months:

- The increase in Building Solutions North America was due to higher volumes ($88 million), partially offset by the unfavorable impact of foreign currency translation ($7 million). The increase in volumes was primarily attributable to higher installation / service sales.

- The decrease in Building Solutions EMEA/LA was due to the unfavorable impact of foreign currency translation ($54 million) and lower volumes due to business divestitures ($3 million), partially offset by higher volumes ($51 million) and incremental sales related to a business acquisition ($2 million). The increase in volumes was primarily attributable to higher installation sales.

- The increase in Building Solutions Asia Pacific was due to higher volumes ($40 million) and incremental sales related to a business acquisition ($1 million), partially offset by the unfavorable impact of foreign currency translation ($31 million). The increase in volumes was primarily attributable to higher installation sales.

- The increase in Global Products was due to higher volumes ($170 million) and incremental sales related to business acquisitions ($2 million), partially offset by the unfavorable impact of foreign currency translation ($49 million) and lower volumes related to business divestitures ($41 million). The increase in volumes was across HVAC and refrigeration equipment, building management and specialty products businesses.

Year-to-Date:

- The increase in Building Solutions North America was due to higher volumes ($300 million), partially offset by the unfavorable impact of foreign currency translation ($25 million). The increase in volumes was primarily attributable to higher installation / service sales.

- The decrease in Building Solutions EMEA/LA was due to the unfavorable impact of foreign currency translation ($166 million) and lower volumes due to business divestitures ($3 million), partially offset by higher volumes ($124 million) and incremental sales related to a business acquisition ($4 million). The increase in volumes was primarily attributable to higher installation / service sales.

- The increase in Building Solutions Asia Pacific was due to higher volumes ($142 million) and incremental sales related to a business acquisition ($1 million), partially offset by the unfavorable impact of foreign currency translation ($75 million). The increase in volumes was primarily attributable to higher installation / service sales.

- The increase in Global Products was due to higher volumes ($441 million) and incremental sales related to business acquisitions ($13 million), partially offset by the unfavorable impact of foreign currency translation ($140 million) and lower volumes related to business divestitures ($139 million). The increase in volumes was primarily attributable to higher building management, HVAC and refrigeration equipment, and specialty products sales.

Segment EBITA

	Three Months Ended June 30,			Nine Months Ended June 30,		
(in millions)	2019	2018	Change	2019	2018	Change
Building Solutions North America	$ 300	$ 314	-4%	$ 807	$ 780	3%
Building Solutions EMEA/LA	101	96	5%	258	242	7%
Building Solutions Asia Pacific	98	97	1%	240	242	-1%
Global Products	333	435	-23%	774	949	-18%
	$ 832	$ 942	-12%	$ 2,079	$ 2,213	-6%

Three Months:

- The decrease in Building Solutions North America was due to higher SG&A, including incremental sales investments, and unfavorable mix ($31 million) and current year integration costs ($10 million), partially offset by favorable volumes ($23 million) and prior year integration costs ($4 million).

- The increase in Building Solutions EMEA/LA was due to favorable volumes ($19 million), prior year integration costs ($2 million) and higher equity income ($1 million), partially offset by the unfavorable impact of foreign currency translation ($9 million), higher SG&A, including incremental sales investments ($6 million), and current year integration costs ($2 million).

- The increase in Building Solutions Asia Pacific was due to higher volumes ($11 million), partially offset by higher SG&A, including incremental sales investments ($7 million), and the unfavorable impact of foreign currency translation ($3 million).

- The decrease in Global Products was due to a current year environmental charge ($140 million), higher SG&A and operating expenses, including product investments, net of productivity savings ($10 million), the unfavorable impact of foreign currency translation ($9 million), current year integration costs ($8 million) and lower income due to business divestitures ($4 million). These items were partially offset by favorable volumes / mix ($57 million), prior year integration costs ($6 million) and higher equity income ($6 million).

Year-to-Date:

- The increase in Building Solutions North America was due to favorable volumes ($78 million) and prior year integration costs ($18 million), partially offset by higher SG&A, including incremental sales investments, and unfavorable mix ($52 million), current year integration costs ($15 million) and the unfavorable impact of foreign currency translation ($2 million).

- The increase in Building Solutions EMEA/LA was due to favorable volumes / mix ($36 million), prior year integration costs ($5 million), higher equity income ($4 million) and incremental income related to a business acquisition ($1 million), partially offset by the unfavorable impact of foreign currency translation ($26 million), current year integration costs ($3 million) and higher SG&A, including incremental sales investments ($1 million).

- The decrease in Building Solutions Asia Pacific was due to unfavorable mix / margin rates ($20 million), higher SG&A, including incremental investments ($11 million) and the unfavorable impact of foreign currency translation ($7 million), partially offset by higher volumes ($36 million).

- The decrease in Global Products was due to a current year environmental charge ($140 million), a prior year gain on sale of Scott Safety ($114 million), higher SG&A and operating expenses, including product investments and a prior year insignificant gain on a business divestiture, net of productivity savings ($53 million), the unfavorable impact of foreign currency translation ($19 million), lower income due to business divestitures and acquisitions ($16 million) and current year integration costs ($16 million). These items were partially offset by favorable volumes / mix ($160 million), prior year integration costs ($21 million) and higher equity income ($2 million).

Backlog

The Company's backlog relating to the Building Technologies & Solutions business is applicable to its sales of systems and services. At June 30, 2019, the backlog was $9.3 billion, of which $9.0 billion is attributable to the field business. The backlog amount outstanding at any given time is not necessarily indicative of the amount of revenue to be earned in the upcoming fiscal year.

In the first quarter of fiscal 2019, the Company adopted ASC 606, "Revenue from Contracts with Customers," and as a result is required to disclose remaining performance obligations. At June 30, 2019, remaining performance obligations were $14.2 billion, which is $4.9 billion higher than the Company's backlog of $9.3 billion. Differences between the Company's remaining performance obligations and backlog are primarily due to:

- Remaining performance obligations include large, multi-purpose contracts to construct hospitals, schools and other governmental buildings, which are services to be performed over the building's lifetime with initial contract terms of 25 to 35 years for the entire term of the contract versus backlog which includes only the lifecycle period of these contracts which approximates five years;
- The Company has elected to exclude from remaining performance obligations certain contracts with customers with a term of one year or less or contracts that are cancelable without substantial penalty while these contracts are included within backlog; and
- Remaining performance obligations include the full remaining term of service contracts with substantial termination penalties versus backlog which includes one year for all outstanding service contracts.

The Company will continue to report backlog as it believes it is a useful measure of evaluating the Company's operational performance and relationship to total orders.

Liquidity and Capital Resources

Working Capital

(in millions)	June 30, 2019	September 30, 2018	Change
Current assets	$ 13,042	$ 11,823	
Current liabilities	(9,242)	(11,250)	
	3,800	573	*
Less: Cash	(3,685)	(185)	
Add: Short-term debt	20	1,306	
Add: Current portion of long-term debt	501	1	
Less: Assets held for sale	(95)	(3,015)	
Add: Liabilities held for sale	46	1,791	
Working capital (as defined)	$ 587	$ 471	25%
Accounts receivable - net	$ 6,033	$ 5,622	7%
Inventories	2,050	1,819	13%
Accounts payable	3,671	3,407	8%

* 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 portions of assets and liabilities held for sale. Management believes that this measure of working capital, which excludes financing-related items and businesses to be divested, provides a more useful measurement of the Company's operating performance.

- The increase in working capital at June 30, 2019 as compared to September 30, 2018, was primarily due to an increase in accounts receivable due to organic sales growth, an increase in inventory to meet anticipated customer demand and timing of employee benefit payments, partially offset by an increase in accounts payable due to timing and mix of supplier payments, and an increase in other current liabilities.

- The Company's days sales in accounts receivable at June 30, 2019 and September 30, 2018 were 68 days. There has been no significant adverse changes in the level of overdue receivables or significant changes in revenue recognition methods.

- The Company's inventory turns for the three months ended June 30, 2019 were the same as the comparable period ended September 30, 2018.

- Days in accounts payable at June 30, 2019 were 69 days, lower than 72 days at the comparable period ended September 30, 2018.

Cash Flows From Continuing Operations

(in millions)	Nine Months Ended June 30, 2019	2018
Cash provided by operating activities	$ 711	$ 697
Cash provided (used) by investing activities	(363)	1,601
Cash used by financing activities	(9,500)	(2,525)
Capital expenditures	(401)	(481)

- The increase in cash provided by operating activities for the nine months ended June 30, 2019 was primarily due favorable changes in other assets and higher partially-owned affiliate dividends, partially offset by unfavorable changes in accounts payable and accrued liabilities, and inventory.
- The increase in cash used by investing activities for the nine months ended June 30, 2019 was primarily due to net cash proceeds received from the Scott Safety business divestiture in the prior year, partially offset by lower capital expenditures.
- The increase in cash used by financing activities for the nine months ended June 30, 2019 was primarily due to higher stock repurchases and higher repayments of debt.
- The decrease in capital expenditures for the nine months ended June 30, 2019 primarily is due to timing of capital investment spend in the current year.

Capitalization

(in millions)	June 30, 2019	September 30, 2018	Change
Short-term debt	$ 20	$ 1,306	
Current portion of long-term debt	501	1	
Long-term debt	6,804	9,623	
Total debt	7,325	10,930	-33%
Less: cash and cash equivalents	3,685	185	
Total net debt	3,640	10,745	-66%
Shareholders' equity attributable to Johnson Controls ordinary shareholders	20,363	21,164	-4%
Total capitalization	$ 24,003	$ 31,909	-25%
Total net debt as a % of total capitalization	15.2%	33.7%	

- Net debt and net debt as a percentage of total capitalization are non-GAAP financial measures. The Company believes the percentage of total net debt to total capitalization is useful to understanding the Company's financial condition as it provides a review of the extent to which the Company relies on external debt financing for its funding and is a measure of risk to its shareholders.
- In the third quarter of fiscal 2019, the Company began deploying the net cash proceeds from the Power Solution sale, which included a reduction in debt of approximately $3.4 billion and share repurchases. The debt reduction included short-term and long-term debt repayments, including a $1.5 billion debt tender as further described below.
- The Company believes its capital resources and liquidity position at June 30, 2019 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 2019 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 is unable to issue commercial paper, it would have the ability to draw on its $2.0 billion revolving credit facility. The facility matures in August 2020. There were no draws on the revolving credit facility as of June 30, 2019 and September 30, 2018. The Company also selectively makes use of short-term credit lines other than its revolving credit facility. The Company, as of June 30, 2019, could borrow up to $2.8 billion based on committed credit lines. In addition, the Company held cash and cash equivalents of $3.6 billion as of June 30, 2019. As such, the Company believes it has sufficient financial resources to fund operations and meet its obligations for the foreseeable future.

- In June 2019, the Company completed a "modified Dutch auction" tender offer to repurchase approximately $4.0 billion of its ordinary shares at a price of $39.25 per share.

- In May 2019, the Company completed the debt tender offer to purchase up to $1.5 billion in aggregate principal amount of certain of its outstanding notes for $1.6 billion total consideration. The Company recognized a loss on the extinguishment of debt of $60 million, which was recorded within the net financing charges in the consolidated statements of income.

- The Company’s debt financial covenant in its revolving credit facility requires 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. As of June 30, 2019, the Company was in compliance with all covenants and other requirements set forth in its credit agreements and the indentures, governing its notes, and expect to remain in compliance for the foreseeable future. None of the Company’s debt agreements limit access to stated borrowing levels or require accelerated repayment in the event of a decrease in the Company'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 2019, the Company believes the long-term rate of return will approximate 7.10%, 5.20% and 5.65% for U.S. pension, non-U.S. pension and postretirement plans, respectively. During the first nine months of fiscal 2019, the Company made approximately $51 million in total pension and postretirement contributions for continuing operations. In total, the Company expects to contribute approximately $55 million in cash to its defined benefit pension plans in fiscal 2019 for continuing operations. The Company expects to contribute $15 million in cash to its postretirement plans in fiscal 2019 for continuing operations.

- The Company earns a significant amount of its operating income outside of the parent company. Outside basis differences in consolidated subsidiaries are deemed to be permanently reinvested except in limited circumstances. However, in fiscal 2019, the Company provided income tax expense related to a change in the Company's assertion over the outside basis differences of the Company’s investment in certain subsidiaries as a result of the planned divestiture of the Power Solutions business. Also, in fiscal 2018, due to U.S. Tax Reform, the Company provided income tax related to the change in the Company’s assertion over the outside basis difference of certain non-U.S. subsidiaries owned directly or indirectly by U.S. subsidiaries. Under U.S. Tax Reform, the U.S. has adopted a territorial tax system that provides an exemption for dividends received by U.S. corporations from 10% or more owned non-U.S. corporations. However, certain non-U.S, U.S. state and withholding taxes may still apply when closing an outside basis difference via distribution or other transactions. The Company currently does not intend nor foresee a need to repatriate undistributed earnings or reduce outside basis differences other than as noted above or in tax efficient manners. The Company expects existing U.S. cash and liquidity to continue to be sufficient to fund the Company’s U.S. operating activities and cash commitments for investing and financing activities for at least the next twelve months and thereafter for the foreseeable future. In the U.S., should the Company require more capital than is generated by its operations, the Company could elect to raise capital in the U.S. through debt or equity issuances. The Company has borrowed funds in the U.S. and continues to have the ability to borrow funds in the U.S. at reasonable interest rates. In addition, the Company expects existing non-U.S. cash, cash equivalents, short-term investments and cash flows from operations to continue to be sufficient to fund the Company’s non-U.S. operating activities and cash commitments for investing activities, such as material capital expenditures, for at least the next twelve months and thereafter for the foreseeable future. Should the Company require more capital at the Luxembourg and Ireland holding and financing entities, other than amounts that can be provided in a tax efficient manner, the Company could also elect to raise capital through debt or equity issuances. These alternatives could result in increased interest expense or other dilution of the Company’s earnings.

- To better align its resources with its growth strategies and reduce the cost structure of its global operations in certain underlying markets, the Company committed to a significant restructuring plan in fiscal 2018 and recorded $255 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 2018 restructuring plan will reduce annual operating costs for continuing operations by approximately $300 million, which is primarily the result of lower cost of sales and SG&A due to reduced employee-related costs, depreciation and amortization expense. The Company expects the annual benefit of these actions will be substantially realized in 2020. For fiscal 2019, the savings, net of execution costs, are expected to be approximately 70% of the expected annual operating cost reduction. The restructuring action is expected to be substantially complete in 2020. The restructuring plan reserve balance of $106 million at June 30, 2019 is expected to be paid in cash.

- To better align its resources with its growth strategies and reduce the cost structure of its global operations in certain underlying markets, the Company committed to a significant restructuring plan in fiscal 2017 and recorded $347 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 for continuing operations by approximately $260 million, which is primarily the result of lower cost of sales and SG&A due to reduced employee-related costs, depreciation and amortization expense. The Company expects the annual benefit of these actions will be substantially realized in fiscal 2019. The restructuring action is expected to be substantially complete in fiscal 2019. The restructuring plan reserve balance of $69 million at June 30, 2019 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 $222 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, 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 for continuing operations by approximately $127 million, which is primarily the result of lower cost of sales and SG&A due to reduced employee-related costs, depreciation and amortization expense. The Company expects the annual benefit of these actions will be substantially realized in fiscal 2019. The restructuring action is expected to be substantially complete in fiscal 2019. The restructuring plan reserve balance of $59 million at June 30, 2019 is expected to be paid in cash.

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

New Accounting Standards

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

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

As of June 30, 2019, 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, 2018.

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 June 30, 2019 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 June 30, 2019 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

<u>Gumm v. Molinaroli, et al.</u>

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. The court had scheduled an oral argument hearing on the motion to dismiss for October 17, 2019. Although the Company believes it has substantial defenses to plaintiffs’ claims, it is not able to predict the outcome of this action.

Refer to Note 20, "Commitments and Contingencies," of the notes to consolidated financial statements for discussion of environmental, asbestos, insurable liabilities and other litigation matters, which is incorporated by reference herein and is considered an integral part of Part II, Item 1, "Legal Proceedings."

ITEM 1A. RISK FACTORS

The description of certain risk factors described under “Risk Factors” in Part I, Item 1A, of the Company’s Annual Report on Form 10-K for the year ended September 30, 2018 was supplemented in Item 1A of Part II of Forms 10-Q for the quarterly period ending March 31, 2019 filed with the SEC on May 3, 2019. Other than as described in this Item 1A, there have been no other material changes to our risk factors from the risk factors previously disclosed in the 2018 Annual Report or the Second Quarter Form 10-Q.

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

Following the Tyco Merger, the Company adopted, subject to the ongoing existence of sufficient distributable reserves, the existing Tyco International plc $1 billion share repurchase program in September 2016. In December 2017, the Company's Board of Directors approved a $1 billion increase to its share repurchase authorization. In November 2018, the Company's Board of Directors approved an additional $1 billion increase to its share repurchase authorization. In March 2019, the Company's Board of Directors approved an additional $8.5 billion increase to its share repurchase authorization, subject to the completion of the previously announced sale of the Company's Power Solutions business, which closed on April 30, 2019. The share repurchase program does not have an expiration date and may be amended or terminated by the Board of Directors at any time without prior notice. During the three months ended June 30, 2019, the Company repurchased $4,122 million of its ordinary shares, of which $4,035 million of its ordinary shares were purchased through publicly announced "modified Dutch auction" tender offer and $87 million of its ordinary shares were purchased on an open market. During the nine months ended June 30, 2019, the Company repurchased $5,122 million of its ordinary shares, of which $4,035 million of its ordinary shares were purchased through publicly announced "modified Dutch auction" tender offer and $1,087 million of its ordinary shares were purchased on an open market. Refer to Note 14, "Equity and Noncontrolling Interests," of the notes to consolidated financial statements for additional information regarding the equity tender offer.

The following table presents information regarding the repurchase of the Company's ordinary shares by the Company as part of the publicly announced program during the three months ended June 30, 2019.

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
4/1/19 - 4/30/19				
Purchases by Company	—	$ —	—	$ 9,548,524,388
5/1/19 - 5/31/19				
Purchases by Company	—	—	—	9,548,524,388
6/1/19 - 6/30/19				
Purchases by Company	104,628,694	39.40	104,628,694	5,426,212,910

During the three months ended June 30, 2019, acquisitions of shares by the Company from certain employees in order to satisfy employee tax withholding requirements in connection with the vesting of restricted shares were not material.

ITEM 6. EXHIBITS

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

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: August 1, 2019

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
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 June 30, 2019, formatted in iXBRL (Inline 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, (v) the Consolidated Statements of Shareholders' Equity Attributable to Johnson Controls Ordinary Shareholders and (vi) Notes to Consolidated Financial Statements.

Exhibit 31.1

CERTIFICATIONS

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

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

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

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

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

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

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

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

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

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

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

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

Date: August 1, 2019

/s/ George R. Oliver

George R. Oliver
Chairman and Chief Executive Officer

Exhibit 31.2

CERTIFICATIONS

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

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

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

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

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

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

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

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

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

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

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

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

Date: August 1, 2019

/s/ Brian J. Stief

Brian J. Stief
Executive Vice President and
Chief Financial Officer

Exhibit 32.1

CERTIFICATION OF PERIODIC FINANCIAL REPORTS

We, George R. Oliver 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 June 30, 2019 (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: August 1, 2019

/s/ George R. Oliver

George R. Oliver
Chairman and Chief Executive Officer

/s/ Brian J. Stief

Brian J. Stief
Executive Vice President and
Chief Financial Officer