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

Form 10-Q

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

For the quarterly period ended June 30, 2023

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, T12 X8N	6	(353) 21-423-5000
(Address of Principal Executive Offices and Postal	Code)	(Registrant's Telephone Number)
Securities Regist	ered 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
1.000% Senior Notes due 2023	JCI23A	New York Stock Exchange
3.625% Senior Notes due 2024	JCI24A	New York Stock Exchange
1.375% Notes due 2025	JCI25A	New York Stock Exchange
3.900% Notes due 2026	JCI26A	New York Stock Exchange
0.375% Senior Notes due 2027	JCI27	New York Stock Exchange
3.000% Senior Notes due 2028	JCI28	New York Stock Exchange
1.750% Senior Notes due 2030	JCI30	New York Stock Exchange
2.000% Sustainability-Linked Senior Notes due 2031	JCI31	New York Stock Exchange
1.000% Senior Notes due 2032	JCI32	New York Stock Exchange
4.900% Senior Notes due 2032	JCI32A	New York Stock Exchange
4.250% Senior Notes due 2035	JCI35	New York Stock Exchange
6.000% Notes due 2036	JCI36A	New York Stock Exchange
5.70% Senior Notes due 2041	JCI41B	New York Stock Exchange
5.250% Senior Notes due 2041	JCI41C	New York Stock Exchange
4.625% Senior Notes due 2044	JCI44A	New York Stock Exchange
5.125% Notes due 2045	JCI45B	New York Stock Exchange
6.950% Debentures due December 1, 2045	JCI45A	New York Stock Exchange
4.500% Senior Notes due 2047	JCI47	New York Stock Exchange
4.950% Senior Notes due 2064	JCI64A	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 \square No \square Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes \square No \square

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	\checkmark	Accelerated filer	Smaller reporting company	
Non-accelerated filer			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 \Box No \square 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, 2023
Ordinary Shares, \$0.01 par value per share	680,320,034

JOHNSON CONTROLS INTERNATIONAL PLC

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PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

Johnson Controls International plc Consolidated Statements of Income

(in millions, except per share data; unaudited)

	Three Months Ended June 30,					Nine Months Ended June 30,				
		2023		2022		2023		2022		
Net sales										
Products and systems	\$	5,431	\$	5,082	\$	15,070	\$	14,119		
Services		1,702		1,532		4,817		4,455		
		7,133		6,614		19,887		18,574		
Cost of sales										
Products and systems		3,708		3,549		10,337		9,996		
Services		994		865		2,787		2,530		
		4,702		4,414		13,124		12,526		
Gross profit		2,431		2,200		6,763		6,048		
Selling, general and administrative expenses		(1,555)		(1,589)		(4,705)		(4,412)		
Restructuring and impairment costs		(81)		(121)		(844)		(554)		
Net financing charges		(80)		(49)		(218)		(153)		
Equity income		78		63		190		175		
Income before income taxes		793		504		1,186		1,104		
Income tax (benefit) provision		(329)		61		(266)		190		
Net income		1,122		443		1,452		914		
Income attributable to noncontrolling interests		73		64		152		143		
Net income attributable to Johnson Controls	\$	1,049	\$	379	\$	1,300	\$	771		
Earnings per share attributable to Johnson Controls										
Basic	\$	1.54	\$	0.55	\$	1.90	\$	1.10		
Diluted		1.53		0.55		1.89		1.10		

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

(III IIIIII0II3	s, unaudited)	
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	Three Months Ended June 30,					Nine Months Ended June 30,			
		2023		.022		2023		2022	
Net income	\$	1,122	\$	443	\$	1,452	\$	914	
Other comprehensive income (loss), net of tax:									
Foreign currency translation adjustments		(72)		(356)		28		(286)	
Realized and unrealized gains (losses) on derivatives		4		(22)		7		(5)	
Pension and postretirement plans		(1)				(2)		(2)	
Other comprehensive income (loss)		(69)		(378)		33		(293)	
Total comprehensive income		1,053		65		1,485		621	
Comprehensive income attributable to noncontrolling interests:									
Net income		73		64		152		143	
Other comprehensive income (loss), net of tax:									
Foreign currency translation adjustments		(47)		(58)		(5)		(66)	
Realized and unrealized gains (losses) on derivatives		2		(3)		(3)		1	
Other comprehensive loss		(45)		(61)		(8)		(65)	
Comprehensive income attributable to noncontrolling interests		28		3		144		78	
Comprehensive income attributable to Johnson Controls	\$	1,025	\$	62	\$	1,341	\$	543	

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

	June 30, 2023			September 30, 2022		
Assets						
Cash and cash equivalents	\$	1,057	\$	2,031		
Accounts receivable, less allowance for expected credit losses of \$89 and \$66, respectively		6,540		5,727		
Inventories		3,092		2,665		
Other current assets		1,317		1,262		
Current assets		12,006		11,685		
Property, plant and equipment - net		3,187		3,131		
Goodwill		17,644		17,350		
Other intangible assets - net		4,831		5,155		
Investments in partially-owned affiliates		988		963		
Other noncurrent assets		4,124		3,874		
Total assets	\$	42,780	\$	42,158		
Liabilities and Equity						
Short-term debt	\$	186	\$	669		
Current portion of long-term debt		1,081		865		
Accounts payable		4,296		4,368		
Accrued compensation and benefits		954		1,003		
Deferred revenue		1,918		1,804		
Other current liabilities		2,693		2,530		
Current liabilities		11,128		11,239		
Long-term debt		8,497		7,426		
Pension and postretirement benefits		334		358		
Other noncurrent liabilities		5,358		5,733		
Long-term liabilities		14,189		13,517		
Commitments and contingencies (Note 21)						
Ordinary shares, \$0.01 par value		7		7		
Ordinary A shares, €1.00 par value				—		
Preferred shares, \$0.01 par value				—		
Ordinary shares held in treasury, at cost		(1,237)		(1,203)		
Capital in excess of par value		17,325		17,224		
Retained earnings		1,099		1,151		
Accumulated other comprehensive loss		(870)		(911)		
Shareholders' equity attributable to Johnson Controls		16,324		16,268		
Noncontrolling interests		1,139		1,134		
Total equity		17,463		17,402		
Total liabilities and equity	\$	42,780	\$	42,158		

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

	Nine Months Ended June 30,						
	2023	2022					
Operating Activities of Continuing Operations							
Net income attributable to Johnson Controls	\$ 1,300	\$ 771					
Income attributable to noncontrolling interests	152	143					
Net income	1,452	914					
Adjustments to reconcile net income to cash provided by operating activities:							
Depreciation and amortization	621	633					
Pension and postretirement benefit expense (income)	(23)	8					
Pension and postretirement contributions	(38)	(83)					
Equity in earnings of partially-owned affiliates, net of dividends received	(27)	(25)					
Deferred income taxes	(270)	(241)					
Noncash restructuring and impairment charges	701	430					
Equity-based compensation	92	79					
Other - net	(104)	(47)					
Changes in assets and liabilities, excluding acquisitions and divestitures:							
Accounts receivable	(667)	(637)					
Inventories	(383)	(761)					
Other assets	(214)	(276)					
Restructuring reserves	33	(2)					
Accounts payable and accrued liabilities	(127)	788					
Accrued income taxes	(215)	31					
Cash provided by operating activities from continuing operations	831	811					
Investing Activities of Continuing Operations							
Capital expenditures	(366)	(430)					
Sale of property, plant and equipment	28	38					
Acquisition of businesses, net of cash acquired	(260)	(236)					
Other - net	22	40					
Cash used by investing activities from continuing operations	(576)	(588)					
Financing Activities of Continuing Operations							
Net proceeds from borrowings with maturities less than three months	(248)	1,693					
Proceeds from debt	1,171	544					
Repayments of debt	(536)	(3)					
Stock repurchases and retirements	(613)	(1,427)					
Payment of cash dividends	(729)	(674)					
Dividends paid to noncontrolling interests	(149)	(121)					
Other - net	(7)	17					
Cash provided (used) by financing activities from continuing operations		29					
Discontinued Operations - Cash used by operating activities	_	(4)					
Effect of exchange rate changes on cash, cash equivalents and restricted cash	(67)	(49)					
Increase (decrease) in cash, cash equivalents and restricted cash	(923)	199					
Cash, cash equivalents and restricted cash at beginning of period	2,066	1,342					
Cash, cash equivalents and restricted cash at end of period	1,143	1,541					
Less: Restricted cash	86	35					
Cash and cash equivalents at end of period	\$ 1,057	\$ 1,506					

Johnson Controls International plc Consolidated Statements of Shareholders' Equity (in millions, except per share data unpudited)

(in millions, except per share data; unaudited)

	Three Mor June	Ended	Nine Months Ended June 30,				
	 2023		2022		2023		2022
Shareholders' Equity Attributable to Johnson Controls							
Beginning Balance	\$ 15,890	\$	16,536	\$	16,268	\$	17,562
Ordinary Shares - Beginning and ending balance	7		7		7		7
Ordinary Shares Held in Treasury, at Cost							
Beginning balance	(1,235)		(1,200)		(1,203)		(1,152)
Employee equity-based compensation withholding taxes	 (2)		(1)		(34)		(49)
Ending balance	 (1,237)		(1,201)		(1,237)		(1,201)
Capital in Excess of Par Value							
Beginning balance	17,295		17,174		17,224		17,116
Share-based compensation expense	22				66		_
Other, including options exercised	8		25		35		83
Ending balance	 17,325		17,199		17,325		17,199
Retained Earnings							
Beginning balance	669		900		1,151		2,025
Net income attributable to Johnson Controls	1,049		379		1,300		771
Cash dividends declared	(253)		(242)		(739)		(724)
Repurchases and retirements of ordinary shares	(366)		(392)		(613)		(1,427)
Ending balance	 1,099		645		1,099		645
Accumulated Other Comprehensive Income (Loss)							
Beginning balance	(846)		(345)		(911)		(434)
Other comprehensive income	(24)		(317)		41		(228)
Ending balance	(870)		(662)		(870)		(662)
Ending Balance	 16,324		15,988		16,324		15,988
Shareholders' Equity Attributable to Noncontrolling Interests							
Beginning Balance	1,188		1,152		1,134		1,191
Comprehensive income attributable to noncontrolling interests	28		3		144		78
Dividends attributable to noncontrolling interests	(77)				(139)		(121)
Change in noncontrolling interest share	_		_		_		7
Ending Balance	1,139		1,155		1,139		1,155
Total Shareholders' Equity	\$ 17,463	\$	17,143	\$	17,463	\$	17,143
Cash Dividends Declared per Ordinary Share	\$ 0.37	\$	0.35	\$	1.08	\$	1.04

1. Basis of Presentation

The consolidated financial statements include the consolidated accounts of Johnson Controls International plc, a public limited company 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, 2022 filed with the SEC on November 15, 2022. The results of operations for the three and nine month periods ended June 30, 2023 are not necessarily indicative of results for the Company's 2023 fiscal year because of seasonal and other factors.

Assets and liabilities of the Global Retail business which were classified as held for sale in prior periods have been reclassified to conform with the current period presentation. Refer to Note 4, "Assets and Liabilities Held for Sale," of the notes to the consolidated financial statements for further details.

Nature of Operations

Johnson Controls International plc, headquartered in Cork, Ireland, is a global leader in smart, healthy and sustainable buildings, serving a wide range of customers in more than 150 countries. The Company's products, services, systems and solutions advance the safety, comfort and intelligence of spaces to serve people, places and the planet. 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 leader in engineering, manufacturing, commissioning and retrofitting building products and systems, including residential and commercial heating, ventilating, air-conditioning ("HVAC") equipment, industrial refrigeration systems, controls, security systems, fire-detection systems and fire-suppression solutions. The Company further serves customers by providing technical services, including maintenance, management, repair, retrofit and replacement of equipment (in the HVAC, industrial refrigeration, controls, security and fire-protection space), energy-management consulting and data-driven "smart building" services and solutions powered by its OpenBlue software platform and capabilities. The Company partners with customers by leveraging its broad product portfolio and digital capabilities powered by OpenBlue, together with its direct channel service and solutions capabilities, to deliver outcome-based solutions across the lifecycle of a building that address customers' needs to improve energy efficiency, enhance security, create healthy environments and reduce greenhouse gas emissions.

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 reporting period 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 exercises significant influence, which typically occurs when its ownership interest exceeds 20%, and the Company does not have a controlling interest.

The Company consolidates variable interest entities ("VIE") when it has the power to direct the significant activities of the entity and the obligation to absorb losses or receive benefits from the entity that may be significant. The Company did not have any material consolidated or nonconsolidated VIE's for the presented reporting periods.

Restricted Cash

Restricted cash relates to amounts restricted for payment of asbestos liabilities and certain litigation and environmental matters. Restricted cash is recorded primarily within other current assets in the consolidated statements of financial position and totaled \$86 million and \$35 million at June 30, 2023 and September 30, 2022, respectively.

Prior Period Revision – Statement of Cash Flows

The Company revised the amounts previously reported as net proceeds from borrowings with maturities less than three months and proceeds from debt for certain short-term debt transactions that were incorrectly presented on a net basis within the financing activities section of the consolidated statements of cash flows for the nine months ended June 30, 2022. Interim and annual amounts for the year ended September 30, 2022 and annual amounts for the years ended September 30, 2021 and 2020 were similarly impacted. Prior period amounts will be revised with future Quarterly Reports on Form 10-Q and Annual Report on Form 10-K filings. Cash provided by financing activities and the total increase (decrease) in cash, cash equivalents and restricted cash were unchanged for all affected periods. The Company does not believe the impact of incorrect presentation is material to any periods.

2. New Accounting Standards

Recently Issued Accounting Pronouncements

In September 2022, the FASB issued ASU 2022-04, "Disclosure of Supplier Finance Program Obligations," which is intended to enhance the transparency surrounding the use of supplier finance programs. Supplier finance programs may also be referred to as reverse factoring, payables finance, or structured payables arrangements. The amendments require a buyer that uses supplier finance programs to make annual disclosures about the program's key terms, the balance sheet presentation of related amounts, the confirmed amount outstanding at the end of the period, and associated rollforward information. Only the amount outstanding at the end of the period must be disclosed in interim periods. The Company expects to adopt the new disclosures, other than the rollforward disclosure, as required at the beginning of fiscal 2024. The rollforward disclosures will be adopted as required at the beginning of fiscal 2025.

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

3. Acquisitions and Divestitures

During the first nine months of fiscal 2023, the Company completed certain acquisitions for a combined purchase price, net of cash acquired, of \$306 million, of which \$260 million was paid as of June 30, 2023. In connection with the acquisitions, the Company recorded goodwill of \$51 million within the Building Solutions Asia Pacific segment, \$12 million within the Building Solutions EMEA/LA segment and \$121 million within the Global Products segment. These amounts are based on the preliminary purchase price allocations and are subject to change as the purchase price allocations are completed.

The Company completed no divestitures during the first nine months of fiscal 2023.

During the first nine months of fiscal 2022, the Company completed certain acquisitions for a combined purchase price, net of cash acquired, of \$287 million, of which \$236 million was paid as of June 30, 2022. In connection with the acquisitions, the Company recorded goodwill of \$45 million within the Building Solutions Asia Pacific segment, \$68 million within the Building Solutions EMEA/LA segment, \$24 million within the Building Solutions North America segment and \$45 million with the Global Products segment.

During the first nine months of fiscal 2022, the Company completed a divestiture within the Buildings Solutions EMEA/ LA segment. The selling price, net of cash divested, was \$18 million, of which \$16 million was received as of June 30, 2022. In connection with the divestiture, the Company reduced goodwill by \$5 million.

Acquisitions and divestitures were not material individually or in the aggregate during the first nine months of fiscal 2023 or 2022.

Subsequent Event

On July 13, 2023, the Company acquired FM:Systems, a leading digital workplace management and Internet of Things (IoT) solutions provider for facilities and real estate professionals. The base purchase price for the transaction was \$455 million, plus up to \$155 million in payments to be made subject to the achievement of post-closing earn-out milestones over the next two years. Preliminary purchase accounting is not yet available due to the timing of close of the transaction.

4. Assets and Liabilities Held for Sale

During fiscal 2022, the Company determined that its Global Retail business within its Building Solutions North America, Building Solutions Asia Pacific and Building Solutions EMEA/LA segments and a business within the Building Solutions Asia Pacific segment both met the criteria to be classified as held for sale. The assets and liabilities of both businesses were presented as held for sale in the Company's consolidated statements of financial position as of September 30, 2022 and in previously filed quarterly financial statements. Assets and liabilities held for sale are recorded at the lower of carrying value or fair value, less costs to sell in accordance with ASC 360-10-15, "Impairment or Disposal of Long-Lived Assets." The carrying amount of any assets, including goodwill, that are part of the disposal group, but not in the scope of ASC 360-10, are tested for impairment under the relevant guidance prior to measuring the disposal group at fair value, less cost to sell. The businesses did not meet the criteria to be classified as discontinued operations as neither planned divestiture represented a strategic shift that would have a major effect on the Company's operations and financial results.

During the third quarter of fiscal 2023, the Company concluded that its Global Retail business no longer met the criteria to be classified as held for sale, as it is no longer probable that it will be sold in the next 12 months. As a result, the assets and liabilities were reclassified to held and used on the consolidated statements of financial position as of both June 30, 2023 and September 30, 2022. The net assets were reclassified to held and used at the lower of fair value or adjusted carrying value in the current period, and due to prior period impairment charges recorded, there was no impact to the consolidated statements of income as a result of this reclassification.

No impairment charges were recorded during the three months ended June 30, 2023. During the nine months ended June 30, 2023, the Company recorded impairment charges for the Global Retail business of \$438 million and the Building Solutions Asia Pacific segment of \$60 million. The impairment charges were primarily due to reductions in the estimated fair values of the businesses to be disposed as a result of negotiations with potential buyers and were recorded within restructuring and impairment costs in the consolidated statements of income.

The business in the Building Solutions Asia Pacific segment was sold on August 1, 2023. The net assets were not significant to the consolidated statements of financial position. The Company is finalizing its accounting for the transaction and any gain or loss on sale is not expected to be significant.

5. Revenue Recognition

Disaggregated Revenue

The following tables present the Company's revenues disaggregated by segment and by Products & Systems and Services revenue (in millions):

	Three Months Ended June 30,											
			2023		2022							
	-	ducts & /stems	S	Services Total		Products & Systems		Services			Total	
Building Solutions North America	\$	1,636	\$	1,029	\$	2,665	\$	1,481	\$	945	\$	2,426
Building Solutions EMEA/LA		571		474		1,045		537		415		952
Building Solutions Asia Pacific		537		199		736		493		172		665
Global Products		2,687				2,687		2,571				2,571
Total	\$	5,431	\$	1,702	\$	7,133	\$	5,082	\$	1,532	\$	6,614

	Nine Months Ended June 30,													
	2023							2022						
		oducts & ystems	Services Total		Products & Systems S		Se	services		Total				
Building Solutions North America	\$	4,641	\$	2,911	\$	7,552	\$	4,123	\$	2,682	\$	6,805		
Building Solutions EMEA/LA		1,705		1,346		3,051		1,617		1,252		2,869		
Building Solutions Asia Pacific		1,489		560		2,049		1,442		521		1,963		
Global Products		7,235		—		7,235		6,937				6,937		
Total	\$	15,070	\$	4,817	\$	19,887	\$	14,119	\$	4,455	\$	18,574		

The following table presents further disaggregation of Global Products segment revenues by product type (in millions):

	 Three Mo Jun	nths I e 30,	Ended	 Nine Months Ended June 30,						
	2023		2022	2023	2022					
HVAC	\$ 1,973	\$	1,889	\$ 5,170	\$	5,030				
Fire & Security	626		610	1,819		1,732				
Industrial Refrigeration	 88		72	 246		175				
Total	\$ 2,687	\$	2,571	\$ 7,235	\$	6,937				

Contract Balances

Contract assets relate to the Company's right to consideration for performance obligations satisfied but not billed. Contract liabilities relate to customer payments received in advance of satisfaction of performance obligations under the contract. 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	Ju	ne 30, 2023	September 30, 2022		
Contract assets - current	Accounts receivable - net	\$	2,080	\$	2,067	
Contract assets - noncurrent	Other noncurrent assets		79		79	
Contract liabilities - current	Deferred revenue		1,918		1,804	
Contract liabilities - noncurrent	Other noncurrent liabilities		292		282	

For the three months ended June 30, 2023 and 2022, the Company recognized revenue of \$222 million and \$193 million, respectively, that was included in the beginning of period contract liability balance. For the nine months ended June 30, 2023 and 2022, the Company recognized revenue of \$1,387 million and \$1,252 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 at a point in time or over time. The timing of satisfying the performance obligation is typically stipulated by the terms of the contract. As of June 30, 2023, the aggregate amount of the transaction price allocated to remaining performance obligations was approximately \$19.2 billion, of which approximately 65% 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 excludes the value of remaining performance obligations for service 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 design costs that relate to a contract or an anticipated contract that we expect to recover. Costs to obtain or fulfill a contract are capitalized and amortized over the period of contract performance.

The following table presents the location and amount of costs to obtain or fulfill a contract recorded in the Company's consolidated statements of financial position (in millions):

	June	30, 2023	September 30, 2022			
Other current assets	\$	159	\$	139		
Other noncurrent assets		212		174		
Total	\$	371	\$	313		

During the three months ended June 30, 2023 and 2022, the Company recognized amortization expense of \$66 million and \$48 million, respectively, related to costs to obtain or fulfill a contract. During the nine months ended June 30, 2023 and 2022, the Company recognized amortization expense of \$188 million and \$145 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, 2023 and 2022.

6. Accounts Receivable

The Company enters into various factoring agreements to sell certain accounts receivable to third-party financial institutions. For the majority of these agreements, for ease of administration, the Company collects customer payments related to the factored receivables on behalf of the financial institutions but otherwise maintains no continuing involvement with respect to the factored receivables. Sales of accounts receivable are reflected as a reduction of accounts receivable in the consolidated statements of financial position and the proceeds are included in cash flows from operating activities in the consolidated statements of cash flows. The Company sold \$425 million and \$1,261 million of accounts receivable under these factoring agreements during the three and nine months ended June 30, 2023, respectively. The Company sold \$244 million and \$612 million of accounts receivable under these factoring agreements during the three and nine months ended June 30, 2022, respectively. The cost of factoring such receivables was not material. Previously sold receivables still outstanding were \$397 million and \$476 million as of June 30, 2023 and September 30, 2022, respectively.

7. Inventories

Inventories consisted of the following (in millions):

	June 3	Septem	ber 30, 2022	
Raw materials and supplies	\$	1,261	\$	1,040
Work-in-process		259		203
Finished goods		1,572		1,422
Inventories	\$	3,092	\$	2,665

8. Goodwill and Other Intangible Assets

The changes in the carrying amount of goodwill in each of the Company's reportable segments were as follows (in millions):

				Nine Months	s En	ded June 30,	2023	5	
	Building Solutions North America		Building Solutions EMEA/LA		Building Solutions Asia Pacific		Global Products		 Total
Goodwill	\$	9,630	\$	1,794	\$	1,116	\$	5,591	18,131
Accumulated impairment loss		(659)		(47)				(75)	 (781)
Balance at beginning of period		8,971		1,747		1,116		5,516	17,350
Acquisitions ⁽¹⁾				12		51		121	184
Impairments		_				—		(184)	(184)
Foreign currency translation and other		17		174		21		82	 294
Balance at end of period	\$	8,988	\$	1,933	\$	1,188	\$	5,535	\$ 17,644

⁽¹⁾ Includes measurement period adjustments

The Company tests goodwill for impairment annually as of July 31 or more frequently if events or changes in circumstances indicate the asset might be impaired. In the second quarter of fiscal 2023, management completed an updated comprehensive review of the Silent-Aire reporting unit, including its current quarter results and its nearer term

forecast. Due to actual results being lower than its business plan, and the nearer term forecast being revised to reflect lower margins and earnings, the Company determined a triggering event had occurred and a quantitative test of goodwill for possible impairment was necessary. As a result of the goodwill impairment test, the Company recorded a non-cash impairment charge of \$184 million within restructuring and impairment costs in the consolidated statements of income in the second quarter of fiscal 2023, which was determined by comparing the carrying amount of the reporting unit to its fair value. The Silent-Aire reporting unit has no remaining goodwill balance as of June 30, 2023. The Company used a discounted cash flow model to estimate the fair value of the reporting unit. The primary assumptions used in the model were management's internal projections of future cash flows, the weighted-average cost of capital and the long-term growth rate, which are classified as Level 3 inputs within the fair value hierarchy as defined in ASC 820, "Fair Value Measurement." There were no other triggering events requiring that an impairment assessment be conducted in the nine months ended June 30, 2023. However, it is possible that future changes in circumstances would require the Company to record additional non-cash impairment charges.

The Company's other intangible assets, primarily from business acquisitions, consisted of (in millions):

			e 30, 2023		September 30, 2022							
	C	Gross arrying mount		Accumulated Amortization Net		Gross Carrying Accumulated Amount Amortization			Net			
Definite-lived intangible assets												
Technology	\$	1,479	\$	(771)	\$	708	\$	1,481	\$	(728)	\$	753
Customer relationships		2,975		(1,451)		1,524		3,011		(1,340)		1,671
Miscellaneous		878		(422)		456		949		(425)		524
		5,332		(2,644)		2,688		5,441		(2,493)		2,948
Indefinite-lived intangible assets												
Trademarks/trade names		2,143				2,143		2,207		_		2,207
		2,143				2,143		2,207				2,207
Total intangible assets	\$	7,475	\$	(2,644)	\$	4,831	\$	7,648	\$	(2,493)	\$	5,155

Amortization of other intangible assets for the three-month periods ended June 30, 2023 and 2022 was \$111 million and \$102 million, respectively. Amortization of other intangible assets for the nine month periods ended June 30, 2023 and 2022 was \$319 million and \$326 million, respectively.

The Company tests indefinite-lived intangible assets for impairment annually as of July 31 or more frequently if events or changes in circumstances indicate the asset might be impaired. There were no triggering events requiring that an impairment assessment be conducted in the nine months ended June 30, 2023. However, it is possible that future changes in circumstances would require the Company to record additional non-cash impairment charges.

9. Leases

The following table presents supplemental consolidated statement of financial position information (in millions):

	Location of lease balances	Jı	une 30, 2023	September 30, 2022		
Operating lease right-of-use assets	Other noncurrent assets	\$	1,423	\$	1,332	
Operating lease liabilities - current	Other current liabilities		321		288	
Operating lease liabilities - noncurrent	Other noncurrent liabilities		1,111		1,040	

The following table presents supplemental noncash operating lease activity, excluding leases acquired in business combinations (in millions):

		Nine Mor June	ths E e 30,	Inded
	2	.023		2022
Right-of-use assets obtained in exchange for operating lease liabilities	\$	347	\$	263

10. Debt and Financing Arrangements

Short-term debt consisted of the following (in millions):

	June 30,	September 30,
	 2023	 2022
Bank borrowings	\$ 23	\$ 10
Commercial paper		172
Term loans	 163	 487
	\$ 186	\$ 669
Weighted average interest rate on short-term debt outstanding	 3.8 %	0.5 %

As of June 30, 2023, the Company had a syndicated \$2.5 billion committed revolving credit facility, which is scheduled to expire in December 2024, and a syndicated \$500 million committed revolving credit facility, which is scheduled to expire in November 2023. As of June 30, 2023, there were no draws on the facilities.

Financing Activity

The Company entered into the following financing activities during the current fiscal year:

- October 2022
 - Repaid a €200 million (\$196 million as of September 30, 2022) term loan with an interest rate of EURIBOR plus 0.5%
 - Issued a €150 million (\$163 million as of March 31, 2023) term loan with an interest rate of EURIBOR plus 0.7% which is due in April 2024
- January 2023 Repaid \$32 million of outstanding 4.625% Notes due 2023
- March 2023
 - Repaid a €150 million (\$147 million as of September 30, 2022) term loan with an interest rate of 0.0%
 - Repaid a €135 million (\$133 million as of September 30, 2022) term loan with an interest rate of EURIBOR plus 0.5%
 - Issued a €150 million (\$163 million as of March 31, 2023) term loan with an interest rate of EURIBOR plus 0.4% which is due March 2024
- May 2023 Together with its wholly owned subsidiary, Tyco Fire & Security Finance S.C.A., co-issued an €800 million (\$868 million as of June 30, 2023) bond with an interest rate of 4.25% which is due May 2035.

Net Financing Charges

Net financing charges consisted of the following (in millions):

	Three Months Ended June 30,					Nine Months Ended June 30,			
	2023		2022		2023		2022		
Interest expense, net of capitalized interest costs	\$	79	\$	54	\$	219	\$	165	
Other financing charges		13		6		34		16	
Interest income		(10)		(2)		(17)		(5)	
Net foreign exchange results for financing activities		(2)		(9)		(18)		(23)	
Net financing charges	\$	80	\$	49	\$	218	\$	153	

11. Derivative Instruments and Hedging Activities

The Company selectively uses derivative instruments to reduce market risk associated with changes in foreign currency, commodities 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 12, "Fair Value Measurements," of the notes to the 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 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 forward contracts. The Company hedges 70% to 90% of the notional amount of each of its known foreign exchange transactional exposures.

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 copper and aluminum in cases where commodity price risk cannot be naturally offset or hedged through supply base fixed price contracts. Commodity risks are systematically managed pursuant to policy guidelines. The maturities of the commodity hedge contracts coincide with the expected purchase of the commodities.

As cash flow hedges under ASC 815, "Derivatives and Hedging," hedge gains or losses due to changes in fair value are initially recorded as a component of accumulated other comprehensive income (loss) ("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, 2023 and 2022.

The Company had the following outstanding contracts to hedge forecasted commodity purchases (in metric tons):

	Volume Outstanding as of								
Commodity	June 30, 2023	September 30, 2022							
Copper	3,493	3,629							
Aluminum	7,860	6,758							

In March, April and May 2023, the Company entered into forward-starting interest rate swaps with a combined notional amount of €400 million to reduce the market risk associated with changes in interest rates on future potential debt

issuances. The swaps were terminated in May 2023 when the anticipated debt was issued. Accumulated amounts recorded in AOCI as of the date of the debt issuance are amortized to interest expense over the life of the respective debt.

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 AOCI attributable to Johnson Controls ordinary shareholders where they offset currency gains and losses recorded on the Company's net investments globally.

The following table summarizes net investment hedges (in billions):

	Jı	ine 30,	Se	eptember 30,
		2023		2022
Euro-denominated bonds designated as net investment hedges in Europe	€	2.9	€	2.9
Yen-denominated debt designated as a net investment hedge in Japan	¥	30	¥	30

Derivatives Not Designated as Hedging Instruments

The Company holds certain foreign currency forward contracts not designated as hedging instruments under ASC 815 to hedge foreign currency exposure resulting from monetary assets and liabilities denominated in nonfunctional currencies. The changes in fair value of these foreign currency forward exchange derivatives are recorded in the consolidated statements of income where they offset foreign currency transactional gains and losses on the nonfunctional currency denominated assets and liabilities being hedged.

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):

	ignated as He	dging In		Derivatives and Hedging Activities No Designated as Hedging Instruments under ASC 815				
J	une 30,	Septe	ember 30,	Jun	ie 30,	September 30,		
2023		_	2022	2	023	20)22	
\$	14	\$	30	\$	34	\$	24	
\$	14	\$	30	\$	34	\$	24	
\$	18	\$	24	\$	21	\$	27	
	4		10				_	
	3,376		3,077				_	
\$	3,398	\$	3,111	\$	21	\$	27	
	Des J 	Designated as He under A June 30, 2023 \$ 14 \$ 14 \$ 14 \$ 18 4 3,376	Designated as Hedging In: under ASC 815 June 30, Septer 2023 Septer \$ 14 \$ \$ 14 \$ \$ 14 \$ \$ 14 \$ \$ 18 \$ 3,376	June 30, 2023 September 30, 2022 $$$ 14 $$$ 30 $$$ 14 $$$ 30 $$$ 14 $$$ 30 $$$ 14 $$$ 30 $$$ 18 $$$ 24 4 10 3,376 3,077	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	Designated as Hedging Instruments under ASC 815Designated as Hedging Instruments under ASC 815June 30, 2023September 30, 2022June 30, 2023Septem $\frac{\$}{14}$ $\$$ 30 $\$$ 34 $\$$ $\$$ 14 $\$$ 30 $\$$ 34 $\$$ $\$$ 14 $\$$ 30 $\$$ 34 $\$$ $\$$ 14 $\$$ 30 $\$$ 21 $\$$ $\$$ 18 $\$$ 24 $\$$ 21 $\$$ 4 10 $$ $$ $3,376$ $3,077$ $$	

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 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.

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

	Fair Value of Assets					Fair Value of Liabilities				
	June 30,		Se	eptember 30,	June 30,		Se	ptember 30,		
	2023			2022	2023		2022			
Gross amount recognized	\$	48	\$	54	\$	3,419	\$	3,138		
Gross amount eligible for offsetting		(16)		(42)		(16)		(42)		
Net amount	\$	32	\$	12	\$	3,403	\$	3,096		

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 (in millions):

Derivatives in ASC 815 Cash Flow	Th	nths e 30,	Nine Months Ended Jur 30,					
Hedging Relationships	20	023		2022		2023		2022
Foreign currency exchange derivatives	\$	3	\$	3	\$	(9)	\$	26
Commodity derivatives		(6)		(24)		1		(20)
Interest rate swaps		1				6		
Total	\$	(2)	\$	(21)	\$	(2)	\$	6

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 (in millions):

Location of Gain (Location of Gain ASC 815 Cash Flow		Three Months Ended June 30,					Nine Months End June 30,			
Hedging Relationships	Income	20	023	2	022	2	023	2	022	
Foreign currency exchange derivatives	Cost of sales	\$	(6)	\$	14	\$	(2)	\$	25	
Commodity derivatives	Cost of sales		1		(4)		(7)		(9)	
Interest rate swaps	Net financing charges		—		(1)				(2)	
Total		\$	(5)	\$	9	\$	(9)	\$	14	

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 (in millions):

Derivatives Not Designated as	Location of Gain Recognized in Income on Derivative						Ni	Ended	
Hedging Instruments under ASC 815			023	2	2022		2023	2022	
Foreign currency exchange derivatives	Cost of sales	\$	(9)	\$	1	\$	(17)	\$	8
Foreign currency exchange derivatives	Net financing charges		(54)		(16)		(118)		72
Equity swap	Selling, general and administrative		_		(4)				(5)
Total		\$	(63)	\$	(19)	\$	(135)	\$	75

Pre-tax gains (losses) on net investment hedges recorded as foreign currency translation adjustments ("CTA") within other comprehensive income (loss) were \$30 million and \$192 million for the three months ended June 30, 2023 and 2022, respectively. Pre-tax gains (losses) on net investment hedges recorded as CTA within other comprehensive income (loss) were \$(299) million and \$315 million for the nine months ended June 30, 2023 and 2022, respectively. No gains or losses were reclassified from CTA into income during the three and nine months ended June 30, 2023 and 2022.

12. 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 (in millions):

	F	air	Value Measure	eme	ents Using:		
	Total as of June 30, 2023	(Quoted Prices in Active Markets (Level 1)		Significant Other Observable Inputs (Level 2)	t	Significant Inobservable Inputs (Level 3)
Other current assets							
Foreign currency exchange derivatives	\$ 48	\$		\$	48	\$	
Other noncurrent assets							
Deferred compensation plan assets	46		46		—		
Exchange traded funds (fixed income) ⁽¹⁾	80		80		—		
Exchange traded funds (equity) ⁽¹⁾	 160		160		—		
Total assets	\$ 334	\$	286	\$	48	\$	
Other current liabilities							
Foreign currency exchange derivatives	\$ 39	\$		\$	39	\$	
Commodity derivatives	4				4		
Contingent earn-out liabilities	35						35
Other noncurrent liabilities							
Contingent earn-out liabilities	 22						22
Total liabilities	\$ 100	\$		\$	43	\$	57

		Fair Value Measurements Using:								
	Sept	Total as of tember 30, 2022	Ç	Quoted Prices in Active Markets (Level 1)		Significant Other Observable Inputs (Level 2)		Significant Inobservable Inputs (Level 3)		
Other current assets										
Foreign currency exchange derivatives	\$	54	\$	—	\$	54	\$			
Exchange traded funds (fixed income) ⁽¹⁾		22		22		—		—		
Other noncurrent assets										
Deferred compensation plan assets		46		46		—				
Exchange traded funds (fixed income) ⁽¹⁾		86		86		—				
Exchange traded funds (equity) ⁽¹⁾		131		131						
Total assets	\$	339	\$	285	\$	54	\$			
Other current liabilities										
Foreign currency exchange derivatives	\$	51	\$		\$	51	\$			
Commodity derivatives		10		—		10				
Contingent earn-out liabilities		30		—		_		30		
Other noncurrent liabilities										
Contingent earn-out liabilities		30						30		
Total liabilities	\$	121	\$		\$	61	\$	60		

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

The following table summarizes the changes in contingent earn-out liabilities, which are valued using significant unobservable inputs (Level 3) (in millions):

Balance at September 30, 2022	\$ 60
Acquisitions	36
Payments	(4)
Reduction for change in estimates	(36)
Currency translation	1
Balance at June 30, 2023	\$ 57

Valuation Methods

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

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

Interest rate swaps: The fair value of interest rate swaps represent the difference between the swap's reference rate and the interest rate for a similar instrument as of the reporting period. Interest rate swaps are valued under a market approach using publicized prices.

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. Unrealized gains (losses) on the deferred compensation plan assets are recognized in the consolidated statements of income where they offset unrealized gains and losses on the related deferred compensation plan liability.

Investments in exchange traded funds: Investments in exchange traded funds are valued using a market approach based on quoted market prices, where available, or broker/dealer quotes of identical or comparable instruments. Refer to Note 21, "Commitments and Contingencies," of the notes to the consolidated financial statements for further information.

Contingent earn-out liabilities: The contingent earn-out liabilities were established using a Monte Carlo simulation based on the forecasted operating results and the earn-out formula specified in the purchase agreements.

The following table presents the portion of unrealized gains (losses) recognized in the consolidated statements of income that relate to equity securities still held at June 30, 2023 and 2022 (in millions):

	Thr	Three Months Ended June 30,			1	Nine Months Ended June 30,			
	20)23	2022			2023		2022	
Deferred compensation plan assets	\$	1	\$	(7)	\$	6	\$	(7)	
Investments in exchange traded funds		11		(61)		34		(67)	

All of the gains (losses) on investments in exchange traded funds related to restricted investments.

The fair values of cash and cash equivalents, accounts receivable, short-term debt and accounts payable approximate their carrying values. At June 30, 2023, the fair value of long-term debt was \$8.7 billion, including public debt of \$8.5 billion and other long-term debt of \$0.2 billion. At September 30, 2022, the fair value of long-term debt was \$7.3 billion, including public debt of \$7.1 billion and other long-term debt of \$0.2 billion. The fair value of public debt was determined primarily using market quotes which are classified as Level 1 inputs within the ASC 820 fair value hierarchy. The fair value of other long-term debt was determined using quoted market prices for similar instruments and are classified as Level 2 inputs within the ASC 820 fair value hierarchy.

13. Stock-Based Compensation

The Johnson Controls International plc 2021 Equity and Incentive Plan authorizes stock options, stock appreciation rights, restricted (non-vested) stock/units, performance share units and other stock-based awards. The Compensation and Talent Development 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 is presented below:

		Nine Months Ended June 30,								
	20	23	20	022						
	Number Granted	Weighted Average Grant Date Fair Value	Number Granted	Weighted Average Grant Date Fair Value						
Restricted stock/units	1,799,240	\$ 66.28	1,431,550	\$ 75.62						
Performance shares	339,191	79.54	482,030	82.88						
Stock options	570,140	18.21	548,398	18.59						

Performance Share Awards

The following table summarizes the assumptions used in determining the fair value of performance share units granted:

		Nine Months Ended June 30,					
	2023	2022					
Risk-free interest rate	4.04%	0.99%					
Expected volatility of the Company's stock	33.5%	30.0%					

Stock Options

The following table summarizes the assumptions used in determining the fair value of stock options granted:

	Nine Months Ended June 30,				
	2023	2022			
Expected life of option (years)	5.8	6.0			
Risk-free interest rate	3.59%	1.35%			
Expected volatility of the Company's stock	29.4%	27.8%			
Expected dividend yield on the Company's stock	2.10%	1.71%			

14. Earnings Per Share

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

	Three Mor June	nths Ended e 30,	Nine Months Ended June 30,				
	2023	2022	2023	2022			
Net income attributable to Johnson Controls	\$ 1,049	\$ 379	\$ 1,300	\$ 771			
Weighted Average Shares Outstanding							
Basic weighted average shares outstanding	683.3	692.2	685.7	698.6			
Effect of dilutive securities:							
Stock options, unvested restricted stock and unvested performance share awards	2.9	2.7	3.1	3.8			
Diluted weighted average shares outstanding	686.2	694.9	688.8	702.4			
Antidilutive Securities Stock options and unvested restricted stock	0.2	0.6	0.3	0.3			

15. Equity

Share repurchase program

During the three and nine months ended June 30, 2023, the Company repurchased and immediately retired \$366 million and \$613 million of its ordinary shares, respectively. For the three and nine months ended June 30, 2022, the Company repurchased and immediately retired \$392 million and \$1,427 million of its ordinary shares, respectively. As of June 30, 2023, approximately \$3.0 billion remains available under the Company's share repurchase program, which was approved by the Company's Board of Directors in March 2021. 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.

Accumulated Other Comprehensive Income (Loss)

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

	Three Months June 30	2022 (343) (298) (641)				
	2023	2022				
Foreign currency translation adjustments						
Balance at beginning of period	\$ (843) \$	(343)				
Aggregate adjustment for the period (net of tax effect of \$0 and \$0)	(25)	(298)				
Balance at end of period	 (868)	(641)				
Realized and unrealized gains (losses) on derivatives						
Balance at beginning of period	(3)	(4)				
Current period changes in fair value (net of tax effect of \$0 and \$(4))	(1)	(13)				
Reclassification to income (net of tax effect of $1 \text{ and } (3)$) ⁽¹⁾	3	(6)				
Balance at end of period	 (1)	(23)				
Pension and postretirement plans						
Balance at beginning of period	_	2				
Reclassification to income (net of tax effect of \$0 and \$0)	(1)	_				
Balance at end of period	 (1)	2				
Accumulated other comprehensive loss, end of period	\$ (870) \$	(662)				

	Nine Months June 30	
	2023	2022
Foreign currency translation adjustments		
Balance at beginning of period	\$ (901) \$	(421)
Aggregate adjustment for the period (net of tax effect of \$0 and \$0)	33	(220)
Balance at end of period	 (868)	(641)
Realized and unrealized gains (losses) on derivatives		
Balance at beginning of period	(11)	(17)
Current period changes in fair value (net of tax effect of \$1 and \$2)	3	3
Reclassification to income (net of tax effect of \$1 and (5)) ⁽¹⁾	7	(9)
Balance at end of period	 (1)	(23)
Pension and postretirement plans		
Balance at beginning of period	1	4
Reclassification to income (net of tax effect of \$(1) and \$(1))	(2)	(2)
Balance at end of period	 (1)	2
Accumulated other comprehensive loss, end of period	\$ (870) \$	(662)

⁽¹⁾ Refer to Note 11, "Derivative Instruments and Hedging Activities," of the notes to the 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.

16. Pension and Postretirement Plans

The components of the Company's net periodic benefit cost (credit) 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,			
	2	023		2022		2023		2022		
Interest cost	\$	21	\$	17	\$	62	\$	38		
Expected return on plan assets		(34)		(37)		(101)		(119)		
Net actuarial loss (gain)		(6)		106		17		124		
Settlement loss				2		1		3		
Net periodic benefit cost (credit)	\$	(19)	\$	88	\$	(21)	\$	46		

	Non-U.S. Pension Plans									
	Three Months Ended June 30,						onths Ended ne 30,			
		2023 2022				2023	2022			
Service cost	\$	4	\$	5	\$	11	\$	16		
Interest cost		18		10		51		30		
Expected return on plan assets		(20)		(20)		(57)		(62)		
Net actuarial gain		_		(19)		—		(20)		
Settlement loss (gain)				(1)				7		
Net periodic benefit cost (credit)	\$	2	\$	(25)	\$	5	\$	(29)		

	Postretirement Benefits										
	Three Months Ended June 30,						onths Ended ne 30,				
	20	023	2	022	2	2023		2022			
Interest cost	\$	1	\$	_	\$	3	\$	1			
Expected return on plan assets		(3)		(3)		(7)		(7)			
Amortization of prior service credit		(1)		(1)		(3)		(3)			
Net periodic benefit credit	\$	(3)	\$	(4)	\$	(7)	\$	(9)			

Cumulative fiscal 2023 lump sum payouts triggered remeasurement events for certain pension plans in each quarter of fiscal 2023. During the three months ended June 30, 2023, the Company recognized net actuarial gains of \$6 million, primarily due to increases in discount rates, partially offset by unfavorable asset performance. During the nine months ended June 30, 2023, the Company recognized net actuarial losses of \$17 million, primarily due to net decreases in discount rates, partially offset by net favorable plan asset performance.

Cumulative fiscal 2022 lump sum payouts triggered remeasurement events for certain pension plans in each quarter of fiscal 2022. During the three and nine months ended June 30, 2022, the Company recognized net actuarial losses of \$87 million and \$104 million, respectively, primarily due to unfavorable plan asset performance, partially offset by increases in discount rates.

17. Restructuring 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 various restructuring activities as necessary. Restructuring activities generally result in charges for workforce reductions, plant closures, asset impairments and other related costs which are reported as restructuring and impairment costs in the Company's consolidated statements of income. The Company expects the restructuring activities to reduce cost of sales and selling, general and administrative expenses ("SG&A") due to reduced employee-related costs, depreciation and amortization expense.

In the third quarter of fiscal 2023, the Company began developing a restructuring plan with certain actions focused on continued scaling of SG&A expenses to its planned growth. Early actions of this plan were committed to during the third quarter and charges, primarily related to workforce reductions, were recorded to restructuring and impairment costs in the consolidated statements of income, and additional restructuring charges are expected in subsequent quarters. The scope of the plan is expected to be finalized during the fourth quarter of fiscal 2023. Restructuring charges incurred during the first and second quarters of fiscal 2023 were the result of other segment and Corporate-level restructuring plans.

Refer to Note 4, "Assets and Liabilities Held for Sale," and Note 8, "Goodwill and Other Intangible Assets," of the notes to the consolidated financial statements for disclosure of other impairment costs.

The following table summarizes restructuring costs (in millions):

	Three Months Ended June 30, 2023			
Building Solutions North America	\$	10	\$ 1	6
Building Solutions EMEA/LA		40	6	1
Building Solutions Asia Pacific		6	1	2
Global Products		15	4	-2
Corporate		10	3	1
Total	\$	81	\$ 16	2

The following table summarizes changes in the restructuring reserve, which is included within other current liabilities in the consolidated statements of financial position, for new restructuring actions taken in the nine months ended June 30, 2023 (in millions):

	Sever Tern	ployee ance and nination enefits	Ă	g-Lived Asset airments	 Other	 Total		
Restructuring costs	\$	114	\$	20	\$ 28	\$ 162		
Utilized—cash		(51)			(15)	(66)		
Utilized—noncash				(20)	 (2)	 (22)		
Balance at June 30, 2023	\$	63	\$		\$ 11	\$ 74		

18. 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, 2023, the Company's effective tax rate was (41.5%) and was lower than the statutory tax rate of 12.5% primarily due to reserve adjustments resulting from tax audit developments and the benefits of continuing global tax planning, partially offset by tax rate differentials.

For the nine months ended June 30, 2023, the Company's effective tax rate was (22.4%) and was lower than the statutory tax rate of 12.5% primarily due to reserve adjustments resulting from tax audit developments and the benefits of continuing global tax planning, partially offset by the tax impact of an impairment charge and tax rate differentials.

For the three months ended June 30, 2022, the Company's effective tax rate was 12.1% and was lower than the statutory tax rate of 12.5% primarily due to the income tax effects of mark-to-market adjustments and the benefits of continuing global tax planning initiatives, partially offset by the establishment of a deferred tax liability on the outside basis difference of the Company's investment in certain subsidiaries as a result of the planned divestitures and tax rate differentials.

For the nine months ended June 30, 2022, the Company's effective tax rate was 17.2% and was higher than the statutory tax rate of 12.5% primarily due to the tax impact of an impairment charge, the establishment of a deferred tax liability on the

outside basis difference of the Company's investment in certain subsidiaries as a result of the planned divestitures and tax rate differentials, partially offset by the income tax effects of mark-to-market adjustments and the benefits of continuing global tax planning initiatives.

Valuation Allowance

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

Uncertain Tax Positions

At September 30, 2022, the Company had gross tax-effected unrecognized tax benefits of \$2,537 million, of which \$1,973 million, if recognized, would impact the effective tax rate. Accrued interest, net at September 30, 2022 was approximately \$284 million (net of tax benefit). Interest accrued during the nine months ended June 30, 2023 and 2022 was approximately \$33 million (net of tax benefit) and approximately \$40 million (net of tax benefit), respectively. The Company recognizes interest and penalties related to unrecognized tax benefits as a component of income tax expense.

During the three months ended June 30, 2023, as the result of tax audit resolutions, statute expirations, and remeasurements of ongoing controversy matters in various jurisdictions, the Company adjusted its reserve for uncertain tax positions which resulted in a \$438 million net benefit to income tax expense.

In the U.S., fiscal years 2017 through 2018 are currently under exam by the Internal Revenue Service ("IRS") for certain legal entities and the Company intends to take any unagreed issues that may result through the administrative appeals process. Additionally, the Company is currently under exam in the following major non-U.S. jurisdictions:

Tax Years Covered
2015 - 2021
2007 - 2021
2017 - 2018
2015 - 2017
2014 - 2015; 2018; 2020 - 2021

It is reasonably possible that 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.

Other Tax Matters

The Company recorded restructuring and impairment costs of \$81 million, which generated an \$11 million tax benefit, during the three months ended June 30, 2023 and \$121 million, which generated a \$15 million tax benefit, during the three months ended June 30, 2022.

The Company recorded restructuring and impairment costs of \$844 million, which generated a \$98 million tax benefit, during the nine months ended June 30, 2023 and \$554 million, which generated a \$29 million tax benefit, during the nine months ended June 30, 2022.

Tax expenses and benefits for the above transactions reflect the Company's current tax positions in the impacted jurisdictions. Refer to Note 17, "Restructuring and Related Costs," of the notes to the consolidated financial statements for additional information.

Impacts of Tax Legislation

During the nine months ended June 30, 2023 and 2022, tax legislation was adopted in various jurisdictions. These law changes did not have a material impact on the Company's consolidated financial statements.

19. 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:* Building Solutions North America designs, sells, installs, and services HVAC, controls, building management, refrigeration, integrated electronic security, and integrated fire detection and suppression systems for commercial, industrial, retail, small business, institutional and governmental customers in the United States and Canada. 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, as well as data-driven "smart building" solutions, to non-residential building and industrial applications in the United States and Canadian marketplace.
- *Building Solutions EMEA/LA:* Building Solutions EMEA/LA designs, sells, installs and services HVAC, controls, building management, refrigeration, integrated electronic security, integrated fire detection and suppression systems, and provides technical services, including data-driven "smart building" solutions, to markets in Europe, the Middle East, Africa and Latin America.
- *Building Solutions Asia Pacific:* Building Solutions Asia Pacific designs, sells, installs and services HVAC, controls, building management, refrigeration, integrated electronic security, integrated fire-detection and suppression systems, and provides technical services, including data-driven "smart building" solutions, in the Asia Pacific marketplace.
- *Global Products:* Global Products designs, manufactures and sells HVAC equipment, controls software and software services for residential and commercial applications to commercial, industrial, retail, residential, small business, institutional and governmental customers worldwide. In addition, Global Products designs, manufactures and sells refrigeration equipment and controls globally. The Global Products business also designs, manufactures and sells fire protection, fire suppression and security products, including intrusion security, anti-theft devices, access control, and video surveillance and management systems, for commercial, industrial, retail, residential, small business, institutional and governmental customers worldwide. Global Products also includes the Johnson Controls-Hitachi joint venture.

Management evaluates the performance of its business segments primarily on segment earnings before interest, taxes and amortization ("EBITA"), which represents income 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,					
	2023			2023			2022		2023		2022
Building Solutions North America	\$	2,665	\$	2,426	\$	7,552	\$	6,805			
Building Solutions EMEA/LA		1,045		952		3,051		2,869			
Building Solutions Asia Pacific		736		665		2,049		1,963			
Global Products	_	2,687		2,571		7,235		6,937			
Total net sales	\$	7,133	\$	6,614	\$	19,887	\$	18,574			

	Segment EBITA								
	Three Months Ended June 30,					Nine Months Ended June 30,			
	2023 2022			2023		2022			
Building Solutions North America	\$	385	\$	260	\$	967	\$	745	
Building Solutions EMEA/LA		90		83		234		266	
Building Solutions Asia Pacific		102		85		249		227	
Global Products	593		570		1,463			1,283	
Total segment EBITA		1,170		998		2,913		2,521	
Corporate expenses		(122)		(96)		(362)		(226)	
Amortization of intangible assets		(111)		(102)		(319)		(326)	
Restructuring and impairment costs		(81)		(121)		(844)		(554)	
Net mark-to-market adjustments		17		(126)		16		(158)	
Net financing charges		(80)		(49) (21		(218)	3) (153)		
Income before income taxes	\$	793	\$	504	\$	1,186	\$	1,104	

20. Guarantees

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

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

The Company's product warranty liability is recorded in the consolidated statements of financial position in other current liabilities if the warranty is less than one year and in other non-current liabilities if the warranty extends longer than one year.

The changes in the carrying amount of the Company's total product warranty liability were as follows (in millions):

		Nine Mor June	ths Ende e 30,	d
	2	023	2	022
Balance at beginning of period	\$	180	\$	192
Accruals for warranties issued during the period		99		82
Settlements made (in cash or in kind) during the period		(79)		(79)
Changes in estimates to pre-existing warranties		12		(9)
Currency translation		1		(7)
Balance at end of period	\$	213	\$	179

21. Commitments and Contingencies

Environmental Matters

The Company accrues for potential environmental liabilities when it is probable a liability has been incurred and the amount of the liability is reasonably estimable. The following table presents the location and amount of reserves for environmental liabilities in the Company's consolidated statements of financial position (in millions):

	June 3	0, 2023	Septem	ber 30, 2022
Other current liabilities	\$	38	\$	66
Other noncurrent liabilities		214		220
Total reserves for environmental liabilities	\$	252	\$	286

The Company periodically examines whether the contingent liabilities related to the environmental matters described below are probable and reasonably estimable based on experience and ongoing developments in those matters, including continued study and analysis of ongoing remediation obligations. During the three months ended September 30, 2022, with the assistance of independent environmental consultants and taking into consideration investigation and remediation actions previously completed, new information available to the Company during the fourth quarter of fiscal 2022 and ongoing discussions with the Wisconsin Department of Natural Resources ("WDNR"), the Company completed a comprehensive long-term analysis and cost assessment related to the Company's ongoing environmental remediation obligations. As a result of this analysis, the Company increased its accrual for environmental liabilities by \$228 million in the fourth quarter of fiscal 2022, which are recorded on an undiscounted basis. The Company expects that it will pay the amounts recorded over an estimated period of up to 20 years. The Company is not able to estimate a possible loss or range of loss, if any, in excess of the established accruals for environmental liabilities at this time.

A substantial portion of the increase to the Company's environmental reserves relates to ongoing long-term remediation efforts to address contamination relating to fire-fighting foams containing perfluorooctane sulfonate ("PFOS"), perfluorooctanoic acid ("PFOA"), and/or other per- and poly-fluoroalkyl substances ("PFAS") at or near the Tyco Fire Products L.P. ("Tyco Fire Products") Fire Technology Center ("FTC") located in Marinette, Wisconsin and surrounding areas in the City of Marinette and Town of Peshtigo, Wisconsin, as well as the continued remediation of PFAS, arsenic and other contaminants at the Tyco Fire Products Stanton Street manufacturing facility also located in Marinette, Wisconsin (the "Stanton Street Facility"). The increase in reserves was recorded as a result of several events that occurred in the three months ended September 30, 2022, including the completion and testing of the Groundwater Extraction and Treatment System ("GETS") at the FTC (as further discussed below), the completion of resident surveys in Peshtigo regarding longterm drinking water solutions, correspondence with regulators on planned remediation activities, finalization of cost estimates for system upgrades and related long-term run rate costs in response to new permit requirements at the Stanton Street Facility, and the development of additional information through ongoing investigation and analysis. These events allowed the Company to develop estimates of costs associated with the long-term remediation actions expected to be performed over an estimated period of up to 20 years, including the continued operation of the GETS, the implementation of long-term drinking water solutions, continued monitoring and testing of the wells, the operation and wind-down of other legacy remediation and treatment systems and the completion of ongoing investigation obligations.

The use of fire-fighting foams at the FTC was primarily for training and testing purposes 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. In May 2021, as part of Tyco Fire Products' ongoing investigation and remediation program, the WDNR approved Tyco Fire Products' proposed GETS, a permanent groundwater remediation system that extracts groundwater containing PFAS, treats it using advanced filtration systems, and returns the treated water to the environment. Tyco Fire Products has completed construction of the GETS, which is now in operation. Tyco Fire Products has also completed the removal and disposal of PFAS-affected soil from the FTC. Tyco Fire Products is also in the process of implementing a long-term drinking water solution in the form of deep aquifer private drinking wells for certain Peshtigo residents. On July 18, 2023, Tyco Fire Products announced that it plans to

discontinue the production and sale of fluorinated firefighting foams by June 2024, including AFFF products, and will transition to non-fluorinated foam alternatives.

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 ("EPA") 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. In addition to ongoing remediation activities, the Company is also working with the WDNR to investigate and remediate the presence of PFAS at or near the Stanton Street Facility as part of the evaluation and remediation of PFAS in the Marinette region.

PFOA, PFOS, and other PFAS compounds are being studied by EPA and other environmental and health agencies and researchers. EPA initially stated that it would propose regulatory standards for PFOS and PFOA in drinking water by the end of 2019, in accordance with its PFAS Action Plan released in February 2019, and issued interim recommendations for addressing PFOA and PFOS in groundwater in December 2019. In March 2021, EPA published its final determination to regulate PFOS and PFOA in drinking water and in June 2022 an updated set of interim health advisory levels for PFOA and PFOS in drinking water, as well as final health advisory levels for two other types of PFAS (PFBS and GenX chemicals). In November 2022, EPA added a class definition of PFAS to the final version of EPA's fifth Contaminant Candidate List ("CCL 5"), which is a list of substances not currently subject to national drinking water regulation, but which EPA believes may require future regulation. In March 2023, EPA announced a proposed National Primary Drinking Water Regulation ("NPDWR") for six PFAS compounds including PFOA and PFOS. The NPDWR proposes establishing legally enforceable levels, called Maximum Contaminant Levels, of 4.0 parts per trillion for each of PFOA and PFOS. EPA indicated that it anticipates finalizing the regulation by the end of 2023.

In October 2021, EPA released its "PFAS Strategic Roadmap: EPA's Commitments to Action 2021-2024." The 2021-2024 Roadmap sets timelines by which EPA plans to take specific actions, including, among other items, publishing a national PFAS testing strategy, proposing to designate PFOA and PFOS as Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") hazardous substances, restricting PFAS discharges from industrial sources through Effluent Limitations Guidelines, publishing the final toxicity assessment for five additional PFAS, requiring water systems to test for 29 PFAS under the Safe Drinking Water Act, and publishing improved analytical methods in eight different environmental matrices to monitor 40 PFAS present in wastewater and stormwater discharges. 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. In August 2022, EPA published a proposed rule that would designate PFOA and PFOS as "hazardous substances" under CERCLA. In April 2023, EPA issued an Advanced Notice of Proposed Rulemaking ("ANPR") seeking input on whether it should expand the proposed rule to designate as "hazardous substances" under CERCLA: (1) seven additional PFAS; (2) the precursors to PFOA, PFOS, and the seven additional PFAS; or (3) entire categories of PFAS.

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 financial viability of other potentially responsible parties and third-party indemnitors, the uncertainty as to the nature and scope of the investigations and remediation to be conducted, changes in environmental regulations, changes in permissible levels of specific compounds in drinking water sources, or changes in enforcement theories and policies, including efforts to recover natural resource damages, 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. Conditional asset retirement obligations were \$13 million and \$17 million at June 30, 2023 and September 30, 2022, respectively.

FTC-Related Remediation and Litigation

On June 21, 2019, the WDNR announced that it had received from the Wisconsin Department of Health Services ("WDHS") a recommendation for groundwater quality standards as to, among other compounds, PFOA and PFOS. The WDHS recommended a groundwater enforcement standard for PFOA and PFOS of 20 parts per trillion. Although Wisconsin approved final regulatory standards for PFOA and PFOS in drinking water and surface water in February 2022, the Wisconsin Natural Resources Board did not approve WDNR's proposed standards for PFOA and PFOS in groundwater. In December 2022, the Governor of Wisconsin and WDNR approved a scope statement setting out parameters for the WDNR to draft a final rule regarding groundwater quality standards for PFOA and PFOS. The WDNR is now in the process of drafting the rule.

In July 2019, the Company received a letter from the WDNR directing the expansion of the evaluation of PFAS in the Marinette region to include (1) biosolids sludge produced by the City of Marinette Waste Water Treatment Plant and spread on certain fields in the area and (2) the Menominee and Peshtigo Rivers. Tyco Fire Products responded to the WDNR's letter by requesting additional necessary information. On October 16, 2019, the WDNR issued a "Notice of Noncompliance" to Tyco Fire Products and Johnson Controls, Inc. regarding the WDNR's July 3, 2019 letter. The WDNR issued a further letter regarding the issue on November 4, 2019. In February 2020, the WDNR sent a letter to Tyco Fire Products and Johnson Controls, Inc. further directing the expansion of the evaluation of PFAS in the Marinette region to include investigation activities south and west of the previously defined FTC study area. In September 2021, the WDNR sent an additional "Notice of Noncompliance" to Tyco Fire Products and Johnson Controls, Inc. concerning land-applied biosolids, which reviewed and responded to the Company's biosolids investigation conducted to that date. Tyco Fire Products responded to the WDNR's September 2021 notice by the December 27, 2021 deadline set by WDNR and submitted additional updates to WDNR on October 25, 2022 and February 16, 2023. On April 10, 2023, the WDNR issued a third "Notice of Noncompliance" to Tyco Fire Products and Johnson Controls, Inc. concerning land-applied biosolids in the Marinette region. Tyco Fire Products and Johnson Controls, Inc. believe that they have complied with all applicable environmental laws and regulations. The Company cannot predict what regulatory or enforcement actions, if any, might result from the WDNR's actions, or the consequences of any such actions.

In March 2022, the Wisconsin Department of Justice ("WDOJ") filed a civil enforcement action against Johnson Controls Inc. and Tyco Fire Products in Wisconsin state court relating to environmental matters at the FTC (*State of Wisconsin v. Tyco Fire Products, LP and Johnson Controls, Inc.*, Case No. 22-CX-1 (filed March 14, 2022 in Circuit Court in Marinette County, Wisconsin)). The WDOJ alleges that the Company failed to timely report the presence of PFAS chemicals at the FTC, and that the Company has not sufficiently investigated or remediated PFAS at or near the FTC. The WDOJ seeks monetary penalties and an injunction ordering these two subsidiaries to complete a site investigation and cleanup of PFAS contamination in accordance with the WDNR's requests. The parties are proceeding with fact discovery and the court has set a trial date of December 3, 2024. The Company is vigorously defending this civil enforcement action and believes that it has meritorious defenses, but the Company is presently unable to predict the duration, scope, or outcome of this action.

In October 2022, the Town of Peshtigo filed a tort action in Wisconsin state court against Tyco Fire Products, Johnson Controls Inc., Chemguard, Inc., and ChemDesign, Inc. relating to environmental matters at the FTC (*Town of Peshtigo v. Tyco Fire Products L.P. et al.*, Case No. 2022CV000234 (filed October 18, 2022 in Circuit Court in Marinette County, Wisconsin)). The Town alleges that use of AFFF products at the FTC caused contamination of water supplies in Peshtigo. The Town seeks monetary penalties and an injunction ordering abatement of PFAS contamination in Peshtigo. The case has been removed to federal court and transferred to a multi-district litigation ("MDL") before the United States District Court for the District of South Carolina. The Company plans to vigorously defend against this case and believes that it has meritorious defenses, but the Company is presently unable to predict the duration, scope, or outcome of this action.

In November 2022, individuals filed six actions in Dane County, Wisconsin alleging personal injury and/or property damage against Tyco Fire Products, Johnson Controls Inc., Chemguard, Inc., and other unaffiliated defendants related to environmental matters at the FTC. Plaintiffs allege that use of AFFF products at the FTC and activities by third parties unrelated to the Company contaminated nearby drinking water sources, surface waters, and other natural resources and properties, including their personal properties. The individuals seek monetary damages for their personal injury and/or property damage. These lawsuits have been transferred to the MDL. Subsequently, several additional plaintiffs have direct-filed in the MDL complaints with similar allegations. These lawsuits are presently at the beginning stages of litigation. The Company is vigorously defending these cases and believes that it has meritorious defenses, but the Company is presently unable to predict the duration, scope, or outcome of this action.

Aqueous Film-Forming Foam ("AFFF") Litigation

Two of the Company's subsidiaries, Chemguard and Tyco Fire Products, have been named, along with other defendant manufacturers, suppliers and distributors, and, in some cases, certain subsidiaries of the Company affiliated with Chemguard and Tyco Fire Products, 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 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. Plaintiffs generally seek compensatory damages, including damages for alleged personal injuries, medical monitoring, diminution in property values, investigation and remediation costs, and natural resources damages, and also seek punitive damages and injunctive relief to address remediation of the alleged contamination.

In September 2018, Tyco Fire Products and Chemguard 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 the MDL. Additional cases have been identified for transfer to or are being directly filed in the MDL.

AFFF Putative Class Actions

Chemguard and Tyco Fire Products are named in 41 pending putative class actions in federal courts originating from 16 states and territories. All but one of these cases have been direct-filed in or transferred to the MDL and it is anticipated that the remaining case will be transferred to the MDL.

AFFF Individual or Mass Actions

There are more than 4,700 individual or "mass" actions pending that were filed in state or federal courts originating from 52 states and territories 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 plaintiffs from various states including approximately 7,000 plaintiffs in Colorado and more than 4,700 other plaintiffs. The vast majority of these matters have been tagged for transfer to, transferred to, or directly-filed in the MDL, and it is anticipated that several newly filed state court actions will be similarly tagged and transferred. There are several matters that are proceeding in state courts, including actions in Arizona and Illinois.

Tyco and Chemguard are also periodically notified by other individuals that they may assert claims regarding PFOS and/or PFOA contamination allegedly resulting from the use of AFFF.

AFFF Municipal and Water Provider Cases

Chemguard and Tyco Fire Products have been named as defendants in more than 600 cases involving municipal or water provider plaintiffs that were filed in state or federal courts originating from 33 states. The vast majority of these cases have been transferred to or were directly filed in the MDL, and it is anticipated that the remaining cases will be transferred to the

MDL. These municipal and water provider 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 or Air Force bases released PFOS and PFOA into public water supply wells and/or other public property, allegedly requiring remediation. The MDL court set the first case for trial on June 5, 2023 (*City of Stuart (Florida) v. 3M Co. et al.*). On April 26, 2023, the parties entered a stipulation dismissing Chemguard with prejudice from the *City of Stuart* case, and on May 4, 2023 the parties entered into a stipulation dismissing Tyco with prejudice from the *City of Stuart* case. On June 5, 2023, the MDL court continued the trial date for the City of Stuart case, and the parties remaining in that case later reached settlement. The parties in the MDL are working to identify potential water provider and personal injury cases for additional bellwether phases.

Tyco and Chemguard are also periodically notified by other municipal entities that those entities may assert claims regarding PFOS and/or PFOA contamination allegedly resulting from the use of AFFF.

State or U.S. Territory 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 transferred 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 suit has been removed to the United States District Court for the Northern District of New York and transferred to the MDL. In November 2019, the State of New York This suit has been removed to the United States District Court for the Northern District of New York and transferred to the MDL. In November 2019, the State of New York filed a fourth 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 et al. (N.Y. Sup. Ct., Albany County)), against a number of manufacturers, including affiliates of the Company et al. (N.Y. Sup. Ct., Albany County)), against a number of manufacturers, including affiliates of the 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 suit has been removed to federal court and transferred to the MDL.

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.*; *State of the Sum and transferred to the MDL.*

In September 2019, the government of Guam filed a lawsuit in the superior court of Guam 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 locations within its jurisdiction. This complaint has been removed to federal court and transferred to the MDL.

In November 2019, the government of the Commonwealth of the Northern Mariana Islands filed a lawsuit in the superior court of the Northern Mariana Islands 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 locations within its jurisdiction. This complaint has been removed to federal court and transferred to the MDL.

In August 2020, Attorney General of the State of Michigan filed two substantially similar lawsuits—one in federal court and one in state court—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 locations within the State. The federal action has been transferred to the MDL, and the state court action has been removed to federal court and transferred to the MDL.

In December 2020, the State of Mississippi filed a lawsuit against a number of manufacturers and other defendants, including affiliates of the Company, with respect to PFOS and PFOA damage of the State's land and natural resources allegedly resulting from the use of firefighting foams at various locations throughout the State. This complaint was direct-filed in the MDL in South Carolina.

In April 2021, the State of Alaska filed a lawsuit in the superior court of the State of Alaska against a number of manufacturers and other defendants, including affiliates of the Company, with respect to PFOS and PFOA damage of the State's land and natural resources allegedly resulting from the use of firefighting foams at various locations throughout the State. The State's case has been removed to federal court and transferred to the MDL. The State of Alaska has also named a number of manufacturers and other defendants, including affiliates of the Company, as third-party defendants in two cases brought by individuals against the State. These two cases have also been transferred to the MDL.

In early November 2021, the Attorney General of the State of North Carolina filed four individual lawsuits in the superior courts of the State of North Carolina against a number of manufacturers and other defendants, including affiliates of the Company, with respect to PFOS and PFOA damage of the State's land, natural resources, and property allegedly resulting from the use of firefighting foams at four separate locations throughout the State. These four cases have been removed to federal court and transferred to the MDL. In October 2022, the Attorney General filed two similar lawsuits in the superior courts of the State of North Carolina regarding alleged PFAS damages at two additional locations. It is anticipated that these two cases will be removed to federal court and transferred to the MDL.

In February 2022, the Attorney General of the State of Colorado filed a lawsuit in Colorado state court against a number of manufacturers and other defendants, including affiliates of the Company, with respect to PFOS and PFOA damage of the State's land and natural resources, public health, and State property allegedly resulting from the use of firefighting foams at various locations throughout the State. This complaint has been removed to federal court and transferred to the MDL.

In April 2022, the Attorney General of the State of Florida filed a lawsuit in Florida state court against a number of manufacturers and other defendants, including affiliates of the Company, with respect to PFOS and PFOA damage to the State's natural resources and public health allegedly resulting from the use of firefighting foams at various locations throughout the State. This complaint has been removed to federal court and transferred to the MDL.

In May 2022, the Attorney General of the Commonwealth of Massachusetts filed a lawsuit against a number of manufacturers and other defendants, including affiliates of the Company, with respect to PFOS and PFOA damage of the State's natural resources, property, residents, and consumers allegedly resulting from the use of firefighting foams at various locations throughout the State. This complaint was direct-filed in the MDL in South Carolina.

In July 2022, the Attorney General of the State of Wisconsin filed a lawsuit in Wisconsin state court against a number of manufacturers and other defendants, including affiliates of the Company, with respect to PFAS damage to the State's natural resources and public health allegedly resulting, in part, from the use of firefighting foams at various locations throughout the State. This complaint has been removed to federal court and transferred to the MDL.

In November 2022, the Attorney General of the State of California filed a lawsuit in California state court against a number of manufacturers and other defendants, including affiliates of the Company, with respect to PFOS and PFOA damage of the State's land and natural resources allegedly resulting from the manufacture, use, marketing, or sale of PFAS-containing products, including firefighting foams, at various locations throughout the State. This complaint has been removed to federal court and transferred to the MDL.

In March 2023, the Attorney General of the State of Maine filed a lawsuit in Maine state court against a number of manufacturers and other defendants, including affiliates of the Company, with respect to PFAS damage of the State's natural resources allegedly resulting from the manufacture, distribution, release, promotion, sale, and use of PFAS-containing AFFF within the state. This complaint has been removed to federal court and transferred to the MDL.

In March 2023, the Attorney General of the State of Illinois filed a lawsuit in Illinois state court against a number of manufacturers and other defendants, including affiliates of the Company, with respect to PFAS damage of the State's environmental and natural resources allegedly resulting from the manufacture, storage, sale, distribution, marketing, and use of PFAS-containing AFFF within the State. This complaint has been removed to federal court, and the JPML is considering Illinois's opposition to transfer to the MDL.

In May and June 2023, eleven other states and territories filed lawsuits, ten in their respective state courts, and one directfiled in the MDL, 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 Arizona v. The 3M Company et al.; State of Arkansas v. The 3M Company et al.; Commonwealth of Kentucky v. The 3M Company et al.; State of Maryland v. The 3M Company et al.; State of New Mexico v. The 3M Company et al.; State of Oregon v. The 3M Company et al.; Commonwealth of Puerto Rico v. The 3M Company et al.; State of Rhode Island v. The 3M Company et al.; State of Tennessee v. The 3M Company et al.; State of Texas v. The 3M Company et al.; State of Washington v. The 3M Company et al.*). It is anticipated the ten state court-filed complaints will be removed to federal court and transferred to the MDL.

In July 2023, the Attorney General of the District of Columbia filed a lawsuit in superior court in the District, against a number of manufacturers, including affiliates of the Company, with respect to PFAS damage of the District's natural resources and public health allegedly resulting from the manufacture, distribution, release, and use of PFAS-containing AFFF within and adjacent to it (*District of Columbia v. The 3M Company et al.*). It is anticipated that this complaint will be removed to federal court and transferred to the MDL.

Other AFFF Related Matters

In March 2020, the Kalispel Tribe of Indians (a federally recognized Tribe) and two tribal corporations filed a lawsuit in the United States District Court for the Eastern District of Washington against a number of manufacturers, including affiliates of the Company, and the United States with respect to PFAS contamination allegedly resulting from the use and disposal of AFFF by the United States Air Force at and around Fairchild Air Force Base in eastern Washington. This case has been transferred to the MDL.

In October 2022, the Red Cliff Band of Lake Superior Chippewa Indians (a federally recognized tribe) filed a lawsuit in the United States District Court for the Western District of Wisconsin against a number of manufacturers, including affiliates of the Company, with respect to PFAS contamination allegedly resulting from the use and disposal of AFFF at Duluth Air National Guard Base in Duluth, Minnesota. This complaint has been transferred to the MDL.

In July 2023, the Fond du Lac Band of Lake Superior Chippewa (a federally recognized tribe) direct-filed a lawsuit in the MDL against a number of manufacturers, including affiliates of the Company, with respect to PFAS contamination allegedly resulting from the use and disposal of AFFF at Duluth Air National Guard Base in Duluth, Minnesota.

The Company is vigorously defending all of the above AFFF matters and believes that it has meritorious defenses to class certification and the claims asserted, including statutes of limitations, the government contractor defense, various medical and scientific defenses, and other factual and legal defenses. The government contractor defense is a form of immunity

available to government contractors that produced products for the United States government pursuant to the government's specifications. In September 2022, the AFFF MDL Court declined to grant summary judgment on the government contractor defense, ruling that various factual issues relevant to the defense must be decided by a jury rather than the Court. Tyco and Chemguard have insurance that has been in place for many years and the Company is pursuing this coverage for these matters in the event the Company is required to pay claims. 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, and there can be no assurance that any such exposure will not be material.

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.

The Company estimates the asbestos-related liability for pending and future claims and related defense costs on a discounted basis. In connection with the recognition of liabilities for asbestos-related matters, the Company records asbestos-related insurance recoveries that are probable.

The following table presents the location and amount of asbestos-related assets and liabilities in the Company's consolidated statements of financial position (in millions):

	June 3	Septemb	ber 30, 2022	
Other current liabilities	\$	58	\$	58
Other noncurrent liabilities		363		380
Total asbestos-related liabilities		421		438
Other current assets		34		37
Other noncurrent assets		283		263
Total asbestos-related assets		317		300
Net asbestos-related liabilities	\$	104	\$	138

The following table presents the components of asbestos-related assets (in millions):

	June	June 30, 2023		
Restricted				
Cash	\$	26	\$	6
Investments		240		239
Total restricted assets		266		245
Insurance receivables for asbestos-related liabilities		51		55
Total asbestos-related assets	\$	317	\$	300

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 paid by Company affiliates). Estimated 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 paid through 2068. 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 may 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.

Self-Insured Liabilities

The Company records liabilities for its workers' compensation, product, general, 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. The Company maintains captive insurance companies to manage its self-insured liabilities.

The following table presents the location and amount of self-insured liabilities in the Company's consolidated statements of financial position (in millions):

	June 30, 20	Septembe	er 30, 2022	
Other current liabilities	\$	77	\$	89
Accrued compensation and benefits		22		22
Other noncurrent liabilities		232		230
Total self-insured liabilities	\$	331	\$	341

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

	June 30, 2023		September 30, 2022		
Other current assets	\$	10	\$	10	
Other noncurrent assets		20		20	
Total insurance receivables	\$	30	\$	30	

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.

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 the Company's future financial position, sales, costs, earnings, cash flows, other measures of results of operations, synergies and integration opportunities, capital expenditures, debt levels and market outlook 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. The Company cautions that these statements are subject to numerous important risks, uncertainties, assumptions and other factors, some of which are beyond the Company's control, that could cause the Company's actual results to differ materially from those expressed or implied by such forward-looking statements, including, among others, risks related to: The Company's ability to manage general economic, business and capital market conditions, including the impact of recessions and economic downturns; the ability to manage macroeconomic and geopolitical volatility, including global price inflation, shortages impacting the availability of raw materials and component products and the conflict between Russia and Ukraine; the ability to develop or acquire new products and technologies that achieve market acceptance and meet applicable quality and regulatory requirements; the ability to innovate and adapt to emerging technologies, ideas and trends in the marketplace; the strength of the U.S. or other economies; fluctuations in currency exchange rates; changes or uncertainty in laws, regulations, rates, policies or interpretations that impact the Company's business operations or tax status; changes to laws or policies governing foreign trade, including economic sanctions, tariffs or trade restrictions; maintaining and improving the capacity, reliability and security of the Company's enterprise information technology infrastructure; the ability to manage the lifecycle cybersecurity risk in the development, deployment and operation of the Company's digital platforms and services; the outcome of litigation and governmental proceedings; the risk of infringement or expiration of intellectual property rights; the Company's ability to manage the impacts of natural disasters, climate change, pandemics and outbreaks of contagious diseases and other adverse public health developments, such as the COVID-19 pandemic; the ability of the Company to drive organizational improvement; any delay or inability of the Company to realize the expected benefits and synergies of recent portfolio transactions; the ability to hire and retain senior management and other key personnel; the tax treatment of recent portfolio transactions; significant transaction costs and/or unknown liabilities associated with such transactions; labor shortages, work stoppages, union negotiations, labor disputes and other matters associated with the labor force; and the cancellation of or changes to commercial arrangements. 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, 2022 filed with the United States Securities and Exchange Commission ("SEC") on November 15, 2022, which is available at www.sec.gov and www.johnsoncontrols.com under the "Investors" tab. 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 leader in smart, healthy and sustainable buildings, serving a wide range of customers in more than 150 countries. The Company's products, services, systems and solutions advance the safety, comfort and intelligence of spaces to serve people, places and the planet. 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 leader in engineering, manufacturing, commissioning and retrofitting building products and systems, including residential and commercial heating, ventilating, air-conditioning ("HVAC") equipment, industrial refrigeration systems, controls, security systems, fire-detection systems and fire-suppression solutions. The Company further serves customers by providing technical services, including maintenance, management, repair, retrofit and replacement of equipment (in the HVAC, industrial refrigeration, controls, security and fire-protection space), energy-management consulting and data-driven "smart building" services and solutions powered by its OpenBlue software platform and capabilities. The Company

partners with customers by leveraging its broad product portfolio and digital capabilities powered by OpenBlue, together with its direct channel service and solutions capabilities, to deliver outcome-based solutions across the lifecycle of a building that address customers' needs to improve energy efficiency, enhance security, create healthy environments and reduce greenhouse gas emissions.

The following information should be read in conjunction with the September 30, 2022 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, 2022 filed with the SEC on November 15, 2022. References in the following discussion and analysis to "Three Months" (or similar language) refer to the three months ended June 30, 2023 compared to the three months ended June 30, 2022, while "Year-to-Date" refers to the nine months ended June 30, 2023.

Macroeconomic Trends

Much of the demand for the Company's products and solutions is driven by construction, facility expansion, retrofit and maintenance projects within the commercial, institutional, industrial, data center, governmental and residential sectors. Construction projects are heavily dependent on general economic conditions, localized demand for real estate and the availability of credit, public funding or other financing sources. Positive or negative fluctuations in construction, industrial facility expansion, retrofit activity, maintenance projects and other capital investments in buildings within the sectors that the Company serves, as well as availability of credit, financing or funding for such projects, could have a corresponding impact on the Company's financial condition, results of operations and cash flows.

As a result of the Company's global presence, a significant portion of its revenues and expenses is denominated in currencies other than the U.S. dollar. The Company is therefore subject to non-U.S. currency risks and non-U.S. exchange exposure. While the Company employs financial instruments to hedge some of its transactional foreign exchange exposure, these activities do not insulate it completely from those exposures. In addition, the currency exposure from the translation of non-U.S. dollar functional currency subsidiaries are not able to be hedged. Exchange rates can be volatile and a substantial weakening or strengthening of foreign currencies against the U.S. dollar could increase or reduce the Company's profit margin, respectively, and impact the comparability of results from period to period. During the three and nine months ended June 30, 2023, revenue and profits were adversely impacted due to the strengthening of the U.S. dollar against foreign currencies.

The Company continues to observe trends demonstrating increased interest and demand for its products and services that enable smart, safe, efficient and sustainable buildings. This demand is driven in part by government tax incentives, building performance standards and other regulations designed to limit emissions and combat climate change. In particular, legislative and regulatory initiatives such as the U.S. Climate Smart Buildings Initiative, U.S. Inflation Reduction Act and EU Energy Performance of Buildings Directive include provisions designed to fund and encourage investment in decarbonization and digital technologies for buildings. This demand is supplemented by an increase in commitments in both the public and private sectors to reduce emissions and/or achieve net zero emissions. The Company seeks to capitalize on these trends to drive growth by developing and delivering technologies and solutions to create smart, sustainable and healthy buildings. The Company is investing in new digital and product capabilities, including its OpenBlue platform, to enable it to deliver sustainable, high-efficiency products and tailored services to enable customers to achieve their sustainability goals. The Company is leveraging its install base, together with data-driven products and services, to offer outcome-based solutions to customers with a focus on generating accelerated growth in services and recurring revenue.

The Company has experienced, and could continue to experience, increased material cost inflation and component shortages, as well as disruptions and delays in its supply chain, as a result of global macroeconomic trends, including increased global demand, geopolitical and economic tensions, including the conflict between Russia and Ukraine, and labor shortages. Actions taken by the Company to mitigate supply chain disruptions and inflation, including expanding and redistributing its supplier network, supplier financing, price increases and productivity improvements, have generally been successful in offsetting some, but not all, of the impact of these trends. The collective impact of these trends has been favorable to revenue due to increased demand and price increases to offset inflation, while negatively impacting margins due to supply chain disruptions and cost pressures. However, the Company continues to observe improved margins as supply chain disruptions ease and higher priced backlog is converted to sales. Although the Company has experienced recent improvement in its supply chain, the Company could experience further disruptions, shortages and cost increases in the future, the effect of which will depend on the Company's ability to successfully mitigate and offset the impact of these events.

During the second quarter of fiscal 2022, the Company suspended its operations in Russia in response to the conflict between Russia and Ukraine, with existing contractual obligations being fulfilled in a manner that fully complies with all sanctions and trade controls. The Company has subsequently reduced its business presence and operations in Russia. Although these actions have not had and are not expected to have a material impact on the Company's operating results, the broader consequences of the ongoing conflict, including heightened supply chain disruption, inflation, economic instability and other factors have and could continue to adversely impact the Company's results of operations.

The extent to which the Company's results of operations and financial condition are impacted by these and other factors in the future will depend on developments that are highly uncertain and cannot be predicted. See the section entitled "Risk Factors" in Johnson Controls' Annual Report on Form 10-K for the year ended September 30, 2022 filed with the United States Securities and Exchange Commission ("SEC") on November 15, 2022.

Restructuring Activities

To better align its resources with its growth strategies and reduce the cost structure of its global operations, the Company commits to restructuring plans as necessary. In the third quarter of fiscal 2023, the Company began developing a restructuring plan with certain actions focused on continued scaling of selling, general and administrative expenses ("SG&A") to its planned growth. Early actions of this plan were committed to during the third quarter and charges, primarily related to workforce reductions, were recorded to restructuring and impairment costs in the consolidated statements of income, and additional restructuring charges are expected in subsequent quarters. Anticipated savings from the restructuring plan are not yet estimable, as the scope of the plan is expected to be finalized during the fourth quarter of fiscal 2023.

Net Sales

		Nine Mor June					
(in millions)	2023	 2022	Change	 2023		2022	Change
Net sales	\$ 7,133	\$ 6,614	8%	\$ 19,887	\$	18,574	7%

The increase in consolidated net sales for the three months ended June 30, 2023 was due to higher organic sales (\$595 million) and the net impact of acquisitions and divestitures (\$24 million), partially offset by the unfavorable impact of foreign currency translation (\$100 million). Excluding the impact of foreign currency translation and business acquisitions and divestitures, consolidated net sales increased 9% as compared to the prior year, primarily attributable to increased pricing in response to inflation pressures and higher volumes. Refer to the "Segment Analysis" below within this Item 2 for a discussion of net sales by segment.

The increase in consolidated net sales for the nine months ended June 30, 2023 was due to higher organic sales (\$1,854 million) and the net impact of acquisitions and divestitures (\$57 million), partially offset by the unfavorable impact of foreign currency translation (\$598 million). Excluding the impact of foreign currency translation and business acquisitions and divestitures, consolidated net sales increased 10% as compared to the prior year, attributable to increased pricing in response to inflation pressures and higher volumes. Refer to the "Segment Analysis" below within this Item 2 for a discussion of net sales by segment.

Cost of Sales / Gross Profit

	Three Mo Jun	nths e 30			Nine Mo Jun			
(in millions)	 2023		2022	Change	 2023		2022	Change
Cost of sales	\$ 4,702	\$	4,414	7%	\$ 13,124	\$	12,526	5%
Gross profit	2,431		2,200	11%	6,763		6,048	12%
% of sales	34.1%		33.3%		34.0%		32.6%	

Cost of sales and gross profit increased for the three-month period ended June 30, 2023, and gross profit as a percentage of sales increased by 80 basis points. Gross profit increased due to sales growth and favorable price/cost, partially offset by

unfavorable foreign currency translation (\$33 million). Gross profit as a percentage of sales increased primarily due to favorable price/cost. Refer to the "Segment Analysis" below within this Item 2 for a discussion of segment earnings before interest, taxes and amortization ("EBITA").

Cost of sales and gross profit increased for the nine-month period ended June 30, 2023, and gross profit as a percentage of sales increased by 140 basis points. Gross profit increased due to sales growth and favorable price/cost, partially offset by unfavorable foreign currency translation (\$189 million). Gross profit as a percentage of sales increased primarily due to favorable price/cost. Refer to the "Segment Analysis" below within this Item 2 for a discussion of segment earnings before interest, taxes and amortization ("EBITA").

Selling, General and Administrative Expenses

	Three Mo Jun	nths e 30			Nine Months Ended June 30,					
(in millions)	2023		2022	Change		2023		2022	Change	
Selling, general and administrative expenses	\$ 1,555	\$	1,589	-2%	\$	4,705	\$	4,412	7%	
% of sales	21.8%		24.0%			23.7%		23.8%		

SG&A for the three-month period ended June 30, 2023 decreased \$34 million, and SG&A as a percentage of sales decreased by 220 basis points. The decrease in SG&A was primarily due to the favorable year-over-year impact of net mark-to-market adjustments and favorable foreign currency translation (\$17 million), partially offset by certain investments to support growth and one-time transaction and separation costs. Refer to the "Segment Analysis" below within this Item 2 for a discussion of segment EBITA.

SG&A for the nine-month period ended June 30, 2023 increased \$293 million, and SG&A as a percentage of sales decreased by 10 basis points. The increase in SG&A was primarily due to certain investments to support growth, one-time transaction and separation costs and a loss associated with a fire at a leased warehouse facility, partially offset by the favorable year-over-year impact of net mark-to-market adjustments and favorable foreign currency translation (\$122 million). Refer to the "Segment Analysis" below within this Item 2 for a discussion of segment EBITA.

Restructuring and Impairment Costs

		Three Mor June	nths e 30			Nine Months Ended June 30,				
(in millions)	2023 2022			Change		2023		2022	Change	
Restructuring and impairment costs	\$	81	\$	121	-33%	\$	844	\$	554	52%

Restructuring and impairment costs for the three-month period ended June 30, 2023 included \$67 million in severance charges and \$14 million in other long-lived asset impairments and other restructuring costs.

Restructuring and impairment costs for the nine-month period ended June 30, 2023 included \$498 million of impairment costs related to businesses classified or previously classified as held-for-sale, \$184 million of goodwill impairment costs related to the Silent-Aire reporting unit, \$114 million in severance charges and \$48 million in other long-lived asset impairments and other restructuring costs.

Restructuring and impairment costs for the three-month period ended June 30, 2022 included \$60 million of impairment costs related to businesses classified as held-for-sale, \$52 million of severance charges, \$7 million of other long-lived asset impairments and other restructuring costs and \$2 million of impairment related to internal-use software projects that were no longer probable of being completed.

Restructuring and impairment costs for the nine-month period ended June 30, 2022 included \$235 million of goodwill impairment costs related to the North America Retail reporting unit, \$146 million of impairment costs related to businesses classified or previously classified as held-for-sale, \$89 million of severance charges, \$46 million of other long-lived asset

impairments and other restructuring costs, and \$38 million of impairment related to internal-use software projects that were no longer probable of being completed.

Refer to Note 4, "Assets and Liabilities Held for Sale," Note 8, "Goodwill and Other Intangible Assets," and Note 17, "Restructuring and Related Costs," of the notes to the consolidated financial statements for further disclosure related to the Company's restructuring plans and impairment costs.

Net Financing Charges

	T	hree Mo Jun			Nine Months Ended June 30,				
(in millions)	2	023	 2022	Change		2023		2022	Change
Net financing charges	\$	80	\$ 49	63%	\$	218	\$	153	42%

Refer to Note 10, "Debt and Financing Arrangements," of the notes to the consolidated financial statements for further disclosure related to the Company's net financing charges.

Equity Income

	Ended		Nine Months Ended June 30,							
(in millions)	2	2023		2022	Change		2023		2022	Change
Equity income	\$	78	\$	63	24%	\$	190	\$	175	9%

The increase in equity income for the three and nine months ended June 30, 2023 was primarily due to higher income at certain partially-owned affiliates of the Johnson Controls - Hitachi joint venture. Refer to the "Segment Analysis" below within this Item 2 for a discussion of segment EBITA.

Income Tax (Benefit) Provision

	 Three Mo Jun	nths e 30				 Nine Mor Jun		
(in millions)	 2023		2022	Change	_	 2023	 2022	Change
Income tax (benefit) provision	\$ (329)	\$	61		*	\$ (266)	\$ 190	*
Effective tax rate	(41.5%)		12.1%			(22.4%)	17.2%	

* Measure not meaningful

The decrease in the effective tax rate for the three and nine months ended June 30, 2023 was primarily due to reserve adjustments for uncertain tax positions resulting from tax audit developments and statute expirations, higher prior year tax impacts of impairment charges and the prior year establishment of a deferred tax liability on the outside basis difference of the Company's investment in certain subsidiaries as a result of the planned divestiture of its Global Retail business. Refer to Note 18, "Income Taxes," of the notes to the consolidated financial statements for further detail.

Income Attributable to Noncontrolling Interests

	 Three Mo Jun	nths e 30				Nine Mor June			
(in millions)	 2023		2022	Change	_	2023		2022	Change
Income attributable to noncontrolling interests	\$ 73	\$	64	14%	\$	152	\$	143	6%

The increase in income attributable to noncontrolling interests for the three and nine months ended June 30, 2023 was primarily due to higher net income at certain partially-owned affiliates within the Global Products segment.

Net Income Attributable to Johnson Controls

	 Three Mo Jun	nths e 30				Nine Mor June				
(in millions)	 2023		2022	Change		2023	 2022	Change		
Net income attributable to Johnson Controls	\$ 1,049	\$	379		*	\$ 1,300	\$ 771	69%		
* Measure not meaningful										

The increase in net income attributable to Johnson Controls for the three months ended June 30, 2023 was primarily due to lower income tax provision and higher gross profit, both of which are discussed above. The increase in net income attributable to Johnson Controls for the nine months ended June 30, 2023 was primarily due to higher gross profit and lower income tax provision, partially offset by higher SG&A and restructuring and impairment costs, all of which are discussed above.

Diluted earnings per share attributable to Johnson Controls for the three months ended June 30, 2023 was \$1.53 compared to \$0.55 for the three months ended June 30, 2022. Diluted earnings per share attributable to Johnson Controls for the nine months ended June 30, 2023 was \$1.89 compared to \$1.10 for the nine months ended June 30, 2022.

Comprehensive Income Attributable to Johnson Controls

	Three Mo Jun	nths e 30				Nine Months Ended June 30,				
(in millions)	2023		2022	Change			2023		2022	Change
Comprehensive income attributable to Johnson Controls	\$ 1,025	\$	62		*	\$	1,341	\$	543	*
* Magazing wat magazingfal										

* Measure not meaningful

The increase in comprehensive income attributable to Johnson Controls for the three months ended June 30, 2023 was due to higher net income attributable to Johnson Controls (\$670 million) and an increase in other comprehensive income attributable to Johnson Controls (\$293 million) primarily resulting from currency translation adjustments.

The increase in comprehensive income attributable to Johnson Controls for the nine months ended June 30, 2023 was due to higher net income attributable to Johnson Controls (\$529 million) and an increase in other comprehensive income attributable to Johnson Controls (\$269 million) primarily resulting from currency translation adjustments.

Segment Analysis

Management evaluates the performance of its business units based primarily on segment EBITA, which represents income 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

		Three Mon June			 Nine Mor Jun	nths l e 30,	Ended	
(in millions)	2023 2022		Change	 2023		2022	Change	
Building Solutions North America	\$	2,665	\$ 2,426	10%	\$ 7,552	\$	6,805	11%
Building Solutions EMEA/LA		1,045	952	10%	3,051		2,869	6%
Building Solutions Asia Pacific		736	665	11%	2,049		1,963	4%
Global Products		2,687	 2,571	5%	 7,235		6,937	4%
	\$	7,133	\$ 6,614	8%	\$ 19,887	\$	18,574	7%

Three Months:

- The increase in Building Solutions North America was due to higher prices and volumes (\$246 million) and incremental sales related to business acquisitions (\$5 million), partially offset by the unfavorable impact of foreign currency translation (\$12 million). Excluding the impacts of business acquisitions and foreign currency translation, sales growth was led by low-teens growth in HVAC & Controls and high single-digit growth in Fire & Security.
- The increase in Building Solutions EMEA/LA was due to higher prices (\$89 million) and the net impact of business
 acquisitions and divestitures (\$6 million), partially offset by the unfavorable impact of foreign currency translation (\$2
 million). Excluding the impacts of foreign currency translation and business acquisitions and divestitures, sales growth
 was led by mid-teens growth in service and high single-digit growth in HVAC & Controls and Fire & Security. By
 region, there was strong organic growth in Europe and Latin America, with more modest growth in the Middle East.
- The increase in Building Solutions Asia Pacific was due to higher prices and volumes (\$98 million) and incremental sales related to business acquisitions (\$8 million), partially offset by the unfavorable impact of foreign currency translation (\$35 million). Excluding the impacts of foreign currency translation and business acquisitions, sales growth was led by high-teen growth in service and continued momentum for HVAC & Controls. By region, sales in China grew over 25%, with strong double-digit growth in the service and install businesses as China rebounded from COVID-19 shutdowns in the prior year.
- The increase in Global Products was due to higher prices (\$162 million) and incremental sales related to business acquisitions (\$5 million), partially offset by the unfavorable impact of foreign currency translation (\$51 million). Excluding the impacts of foreign currency translation and business acquisitions, sales growth was driven by growth in Applied, Fire Detection, Industrial Refrigeration and Commercial Ducted HVAC products.

Year-to-Date:

- The increase in Building Solutions North America was due to higher prices and volumes (\$771 million) and incremental sales related to business acquisitions (\$17 million), partially offset by the unfavorable impact of foreign currency translation (\$41 million). Excluding the impacts of business acquisitions and foreign currency translation, sales growth was led by growth in HVAC & Controls and Fire & Security.
- The increase in Building Solutions EMEA/LA was due to higher prices (\$296 million) and the net impact of business acquisitions and divestitures (\$27 million), partially offset by the unfavorable impact of foreign currency translation (\$141 million). Excluding the impacts of foreign currency translation and business acquisitions and divestitures, sales growth was led by growth in Fire & Security and HVAC & Controls. By region, there was strong organic growth in Europe and Latin America, with more modest growth in the Middle East.
- The increase in Building Solutions Asia Pacific was due to higher prices and volumes (\$225 million) and incremental sales related to business acquisitions (\$8 million), partially offset by the unfavorable impact of foreign currency translation (\$147 million). Excluding the impacts of foreign currency translation and business acquisitions, sales growth was led by continued demand for HVAC & Controls. By region, sales in China grew, with strong growth in the service and install businesses.

• The increase in Global Products was due to the net impact of higher prices and lower volumes (\$562 million) and incremental sales related to business acquisitions (\$5 million), partially offset by the unfavorable impact of foreign currency translation (\$269 million). Excluding the impacts of foreign currency translation and business acquisitions, sales growth was driven by strong price realization and growth in Applied, Fire Detection, Industrial Refrigeration and Commercial HVAC products.

Segment EBITA

		Three Mon June				Nine Mor June						
(in millions)	2023		 2022	Change	2023		2022		Change			
Building Solutions North America	\$	385	\$ 260	48%	\$	967	\$	745	30%			
Building Solutions EMEA/LA		90	83	8%		234		266	-12%			
Building Solutions Asia Pacific		102	85	20%		249		227	10%			
Global Products		593	570	4%		1,463		1,283	14%			
	\$	1,170	\$ 998	17%	\$	2,913	\$	2,521	16%			

Three Months:

- The increase in Building Solutions North America was primarily due to favorable price/cost, ongoing productivity savings and growth in service.
- The increase in Building Solutions EMEA/LA was primarily due to favorable price/cost and productivity improvements.
- The increase in Building Solutions Asia Pacific was primarily due to service performance, favorable price/cost and productivity savings.
- The increase in Global Products was primarily due to favorable price/cost and productivity savings, partially offset by the unfavorable impact of continued weakness in the residential North America market and foreign currency translation (\$11 million).

Year-to-Date:

- The increase in Building Solutions North America was primarily due to favorable price/cost, volume leverage and productivity savings, partially offset by unfavorable project mix.
- The decrease in Building Solutions EMEA/LA was primarily due to the unfavorable impact of foreign currency translation (\$16 million) and unfavorable project mix, partially offset by favorable price/cost and productivity savings.
- The increase in Building Solutions Asia Pacific was primarily due to favorable price/cost and productivity savings, partially offset by the unfavorable impact of foreign currency translation (\$21 million).
- The increase in Global Products was primarily due to favorable price/cost and productivity savings, partially offset by unfavorable mix, an uninsured loss associated with a fire at a leased warehouse facility and the unfavorable impact of foreign currency translation (\$36 million).

Backlog

The Company's backlog is applicable to its sales of systems and services. At June 30, 2023, the backlog was \$13.3 billion, of which \$12.0 billion was attributable to the building solutions (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.

At June 30, 2023, remaining performance obligations were \$19.2 billion, which is \$5.9 billion higher than the Company's backlog of \$13.3 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 average 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;
- Remaining performance obligations exclude certain customer contracts with a term of one year or less or contracts that are cancellable without substantial penalty versus backlog which includes short-term and cancellable contracts; and
- Remaining performance obligations include the full remaining term of service contracts with substantial termination penalties versus backlog which includes only one year for all outstanding service contracts.

The Company reports 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, 2023	Sej	otember 30, 2022	Change	
Current assets	\$	12,006	\$	11,685		
Current liabilities		(11,128)		(11,239)		
		878		446	97%	
Less: Cash and cash equivalents		(1,057)		(2,031)		
Add: Short-term debt		186		669		
Add: Current portion of long-term debt		1,081		865		
Working capital (as defined)	\$	1,088	\$	(51)	*	
Accounts receivable - net	\$	6,540	\$	5,727	14%	
Inventories		3,092		2,665	16%	
Accounts payable		4,296		4,368	(2%)	

* Measure not meaningful

- Working capital is a non-GAAP financial measure. The Company defines working capital as current assets less current liabilities, excluding cash, short-term debt, the current portion of long-term debt, and current 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, 2023 as compared to September 30, 2022, was primarily due to increases in accounts receivable due to increased sales and timing of collections and increases in inventory due to seasonality factors and softer demand in the residential end market.
- The Company's days sales in accounts receivable at June 30, 2023 and September 30, 2022 were 58 days and 51 days, respectively. There have 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, 2023 were lower than the comparable period ended September 30, 2022 primarily due to softer demand in the residential end market and certain other project delays.
- Days in accounts payable were 83 days at June 30, 2023 and 88 days at September 30, 2022.

Cash Flows From Continuing Operations

	N	Nine Months Ended June 30,				
(in millions)	2	023		2022		
Cash provided by operating activities	\$	831	\$	811		
Cash used by investing activities		(576)		(588)		
Cash provided (used) by financing activities		(1,111)		29		

- The increase in cash provided by operating activities reflects higher net income and lower cash payments for inventory, partially offset by the timing of accounts payable and accrued liabilities payments.
- The decrease in cash used by investing activities was primarily due to lower capital expenditures, partially offset by higher cash paid for acquisitions.
- The decrease in cash provided by financing activities was primarily due to lower net cash inflows from debt and borrowings, partially offset by lower cash outflows for stock repurchases.

Capitalization

(in millions)		June 30, 2023	Sep	otember 30, 2022	Change	
Short-term debt	\$	186	\$	669		
Current portion of long-term debt		1,081		865		
Long-term debt		8,497		7,426		
Total debt		9,764		8,960	9 %	
Less: Cash and cash equivalents		1,057		2,031		
Total net debt		8,707		6,929	26 %	
Shareholders' equity attributable to Johnson Controls ordinary shareholders		16,324		16,268	<u> </u>	
Total capitalization	\$	25,031	\$	23,197	8 %	
Total net debt as a % of total capitalization		34.8%		29.9%		

- 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 view of the extent to which the Company relies on external debt financing for its funding and is a measure of risk to its shareholders.
- The Company's material cash requirements primarily consist of working capital requirements, repayments of long-term debt and related interest, operating leases, dividends, capital expenditures, potential acquisitions and share repurchases.
- As of June 30, 2023, approximately \$3.0 billion remains available under the Company's share repurchase authorization, which does not have an expiration date and may be amended or terminated by the Board of Directors at any time without prior notice. The Company expects to repurchase outstanding shares from time to time depending on market conditions, alternate uses of capital, liquidity, and the economic environment.
- The Company declared a dividend of \$0.37 per common share in the quarter ended June 30, 2023 and intends to continue paying dividends throughout fiscal 2023.
- The Company believes its capital resources and liquidity position, including cash and cash equivalents of \$1.1 billion at June 30, 2023, are adequate to fund operations and meet its obligations for the foreseeable future. The Company expects

requirements for working capital, capital expenditures, dividends, minimum pension contributions, debt maturities and any potential acquisitions or stock repurchases in the remainder of fiscal 2023 will be funded from operations, supplemented by short- and long-term borrowings, if required.

- The Company manages its short-term debt position in the U.S. and euro commercial paper and bank loan markets. No commercial paper was outstanding as of June 30, 2023. Commercial paper outstanding totaled \$172 million as of September 30, 2022.
- The Company maintains a shelf registration statement with the SEC under which it may issue additional debt securities, ordinary shares, preferred shares, depository shares, warrants purchase contracts and units that may be offered in one or more offerings on terms to be determined at the time of the offering. The Company anticipates that the proceeds of any offering would be used for general corporate purposes, including repayment of indebtedness, acquisitions, additions to working capital, repurchases of ordinary shares, dividends, capital expenditures and investments in the Company's subsidiaries.
- The Company also has the ability to draw on its \$2.5 billion revolving credit facility which expires in December 2024 or its \$0.5 billion 364-day revolving credit facility which expires in November 2023. There were no draws on the revolving credit facilities as of June 30, 2023 and September 30, 2022.
- The Company's ability to access the global capital markets and the related cost of financing is dependent upon, among other factors, the Company's credit ratings. As of June 30, 2023, the Company's credit ratings and outlook were as follows:

Rating Agency	Short-Term Rating	Long-Term Rating	Outlook
S&P	A-2	BBB+	Stable
Moody's	P-2	Baa2	Positive

The security ratings set forth above are issued by unaffiliated third party rating agencies and are not a recommendation to buy, sell or hold securities. The ratings may be subject to revision or withdrawal by the assigning rating organization at any time.

- Financial covenants in the Company's revolving credit facilities 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 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, 2023, the Company was in compliance with all covenants and other requirements set forth in its credit agreements and the indentures governing its notes, and expects 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 2023, the Company believes the long-term rate of return will approximate 8.25%, 3.70% and 6.65% for U.S. pension, non-U.S. pension and postretirement plans, respectively. During the first nine months of fiscal 2023, the Company made approximately \$38 million in total pension and postretirement contributions. In total, the Company expects to contribute approximately \$38 million in cash to its defined benefit pension plans and \$3 million in cash to its postretirement plans in fiscal 2023.
- The Company earns a significant amount of its income outside of the parent company. Outside basis differences in these subsidiaries are deemed to be permanently reinvested except in limited circumstances. The Company currently does not intend nor foresee a need to repatriate undistributed earnings included in the outside basis differences other than in tax efficient manners. The Company's intent is to reduce basis differences only when it would be tax efficient. The Company expects existing U.S. cash and liquidity to continue to be sufficient to fund the Company's U.S. operating activities and cash commitments for investing and financing activities for at least the next twelve months and thereafter for the foreseeable future. In 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 its Luxembourg and Ireland holding and financing entities, other than amounts that can be provided in tax efficient methods, the Company could also elect to raise capital through debt or equity issuances. These alternatives could result in increased interest expense or other dilution of the Company's earnings.

- The Company may from time to time purchase its outstanding debt through open market purchases, privately negotiated transactions or otherwise. Purchases or retirement of debt, if any, will depend on prevailing market conditions, liquidity requirements, contractual restrictions and other factors. The amounts involved may be material.
- Refer to Note 10, "Debt and Financing Arrangements," of the notes to the consolidated financial statements for additional information on debt activity and items impacting capitalization.

Co-Issued Securities: Summarized Financial Information

The following information is provided in compliance with Rule 13-01 of Regulation S-X under the Securities Exchange Act of 1934 with respect to the following unsecured, unsubordinated senior notes (collectively, ("the Notes) which were issued by Johnson Controls International plc ("Parent Company") and Tyco Fire & Security Finance S.C.A. ("TFSCA"):

- €500 million aggregate principal amount of 0.375% Senior Notes due 2027
- €600 million aggregate principal amount of 3.000% Senior Notes due 2028
- \$625 million aggregate principal amount of 1.750% Senior Notes due 2030
- \$500 million aggregate principal amount of 2.000% Sustainability-Linked Senior Notes due 2031
- \$400 million aggregate principal amount of 4.900% Senior Notes due 2032
- €500 million aggregate principal amount of 1.000% Senior Notes due 2032
- €800 million aggregate principal amount of 4.25% Senior Notes due 2035

TFSCA is a corporate partnership limited by shares (*société en commandite par actions*) incorporated and organized under the laws of the Grand Duchy of Luxembourg ("Luxembourg") and is a wholly-owned consolidated subsidiary of the Company that is 99.924% owned directly by the Parent Company and 0.076% owned by TFSCA's sole general partner and manager, Tyco Fire & Security S.à r.l., which is itself wholly-owned by the Company. The Parent Company is incorporated and organized under the laws of Ireland. TFSCA is incorporated and organized under the laws of Luxembourg. The bankruptcy, insolvency, administrative, debtor relief and other laws of Luxembourg or Ireland, as applicable, may be materially different from, or in conflict with, those of the United States, including in the areas of rights of creditors, priority of governmental and other creditors, ability to obtain post-petition interest and duration of the proceeding. The application of these laws, or any conflict among them, could adversely affect noteholders' ability to enforce their rights under the Notes in those jurisdictions or limit any amounts that they may receive.

The tables below set forth summarized financial information of the Parent Company and TFSCA (collectively, the "Obligor Group") on a combined basis after intercompany transactions have been eliminated, including adjustments to remove the receivable and payable balances, investment in, and equity in earnings from, those subsidiaries of the Parent Company other than TFSCA (collectively, the "Non-Obligor Subsidiaries").

The following table presents summarized income statement information (in millions):

	e Months Ended une 30, 2023	Year Ended September 30, 2022	
Net sales	\$ —	\$	
Gross profit	—	—	
Net loss	(390)	(268)	
Income attributable to noncontrolling interests	—	—	
Net loss attributable to the entity	(390)	(268)	

Excluded from the table above are intercompany transactions between the Obligor Group and Non-Obligor Subsidiaries as follows (in millions):

	 onths Ended 30, 2023	Year Ended September 30, 2022	
Net sales	\$ —	\$	
Gross profit	_		—
Net income (loss)	(81)		92
Income attributable to noncontrolling interests			
Net income (loss) attributable to the entity	(81)		92

The following table presents summarized balance sheet information as of June 30, 2023 and September 30, 2022 (in millions):

	Ju	ine 30, 2023	September 30, 2022		
Current assets	\$	207	\$	1,231	
Noncurrent assets		243		243	
Current liabilities		2,314		5,463	
Noncurrent liabilities		8,232		7,176	
Noncontrolling interests					

Excluded from the table above are intercompany balances between the Obligor Group and Non-Obligor Subsidiaries as follows (in millions):

	 June 30, 2023	September 30, 2022		
Current assets	\$ 1,812	\$	455	
Noncurrent assets	1,951		2,952	
Current liabilities	6,921		2,538	
Noncurrent liabilities	6,346		6,228	
Noncontrolling interests				

The same accounting policies as described in Note 1, "Summary of Significant Accounting Policies," of the Company's Annual Report on 10-K for the year ended September 30, 2022 are used by the Parent Company and each of its subsidiaries in connection with the summarized financial information presented above.

New Accounting Standards

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

Critical Accounting Estimates

The Company prepares its consolidated financial statements in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP"). This requires management to make estimates and assumptions that affect reported amounts and related disclosures. Actual results could differ from those estimates. The Company's critical accounting estimates requiring significant judgement that could materially impact the Company's results of operations, financial position and cash flows are described in Management's Discussion and Analysis of Financial Condition and Results of Operations included in the Company's Annual Report on Form 10-K for the year ended September 30, 2022. Since the date of the Company's most recent Annual Report, there have been no material changes in the Company's critical accounting estimates or assumptions.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

As of June 30, 2023, the Company had not experienced any adverse changes in market risk exposures that materially affected the quantitative and qualitative disclosures presented in its Annual Report on Form 10-K for the year ended September 30, 2022.

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, 2023 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, 2023 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

Gumm v. Molinaroli, et al.

On August 16, 2016, a putative class action lawsuit, *Gumm v. Molinaroli, et al.*, Case No. 16-cv-1093, was filed in the United States District Court for the Eastern District of Wisconsin, naming Johnson Controls, Inc., the individual members of its board of directors at the time of the merger with the Company's merger subsidiary and certain of its officers, the Company and the Company's merger subsidiary as defendants. The complaint asserted various causes of action under the federal securities laws, state law and the Taxpayer Bill of Rights, including that the individual defendants allegedly breached their fiduciary duties and unjustly enriched themselves by structuring the merger among the Company, Tyco and the merger subsidiary in a manner that would result in a United States federal income tax realization event for the putative class of certain Johnson Controls, Inc. shareholders and allegedly result in certain benefits to the defendants, as well as related claims regarding alleged misstatements in the proxy statement/prospectus distributed to the Johnson Controls, Inc. shareholders, conversion and breach of contract. The complaint also asserted that Johnson Controls, Inc., the Company and the Company's merger subsidiary aided and abetted the individual defendants in their breach of fiduciary duties and unjust enrichment. The complaint seeks, among other things, disgorgement of profits and damages. Plaintiffs filed an amended complaint. Plaintiffs have appealed to the United States Court of Appeals for the Seventh Circuit. Briefing on the appeal is completed. Oral argument has yet to be scheduled by the court.

Refer to Note 21, "Commitments and Contingencies," of the notes to the consolidated financial statements for discussion of environmental, asbestos, self-insured 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

There have been no material changes to the disclosure regarding risk factors presented in Part I, Item 1A, of the Company's Annual Report on Form 10-K for the year ended September 30, 2022.

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

As of June 30, 2023, approximately \$3.0 billion remains available under the share repurchase program which was authorized by the Company's Board of Directors in March 2021. The share repurchase authorization 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 and nine months ended June 30, 2023, the Company repurchased approximately \$366 million and \$613 million of its ordinary shares on an open market.

The following table presents information regarding the repurchase of the Company's ordinary shares by the Company as part of its publicly announced program during the three months ended June 30, 2023.

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
4/01/23 - 4/30/23	1,832,478	\$ 57.80	1,832,478	3,261,601,104
5/01/23 - 5/31/23	2,170,203	61.33	2,170,203	3,128,511,988
6/01/23 - 06/30/23	1,985,277	63.98	1,985,277	3,001,499,914

During the three months ended June 30, 2023, 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 5. OTHER INFORMATION

Officer Rule 10b5-1 Plans

During the three months ended June 30, 2023, the following officers adopted, amended or terminated a contract, instruction or written plan for the purchase or sale of securities of the Company intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) (a "Rule 10b5-1 trading arrangement"):

On May 8, 2023, John Donofrio, the Company's Executive Vice President and General Counsel, terminated a pre-existing Rule 10b5–1 trading arrangement (the "Donofrio 10b5-1 Plan"). The Donofrio 10b5-1 Plan was originally entered into on December 7, 2022 during the Company's first quarter open trading window and contemplated the sale of up to 14,253 ordinary shares of Company stock issued upon the vesting of restricted stock units and performance stock units, provided that the price of Company's ordinary shares exceeded the limit price set forth in the Donofrio 10b5-1 Plan. Prior to its termination, the Donofrio 10b5-1 Plan was scheduled to terminate upon the earlier of the sale of all shares contemplated under the Donofrio 10b5-1 Plan or December 1, 2023. No Company shares were sold under the Donofrio 10b5-1 Plan prior to its termination.

On May 24, 2023, George Oliver, Chairman and Chief Executive Officer of the Company, entered into a Rule 10b5–1 trading arrangement with respect to 309,996 ordinary shares of Company stock issuable upon the exercise of option awards scheduled to expire in 2023 (the "Oliver 10b5-1 Plan"). The Oliver 10b5-1 Plan was executed during the Company's most recent open trading window and is expected to become effective on or about August 23, 2023. Under the Oliver 10b5-1 Plan, the options are expected to be exercised in regular intervals between the plan's start date and termination date, provided that the market price of the Company's ordinary shares exceeds the exercise price of the option at the time of exercise. With respect to the options to be

exercised, a portion of the ordinary shares are expected to be sold in the market to cover the exercise price and taxes associated with the exercise of the options. The remaining ordinary shares underlying the options will be sold in the open market at the times and prices specified in the plan. All transactions under the Oliver 10b5-1 Plan, if they occur, are expected to be completed by or before November 20, 2023. The Oliver 10b5-1 Plan will automatically terminate upon the earlier of the completion of all transactions contemplated under the plan or November 20, 2023.

Satisfaction of Performance Targets Under Sustainability-Linked Bond

On July 31, 2023, the Company and Tyco Fire & Security Finance S.C.A. (together, the "Issuers") delivered an officer's certificate to U.S. Bank Trust Company, National Association (as successor in interest to U.S. Bank National Association), as trustee (the "Trustee") with respect to the Issuers' 2.000% Sustainability-Linked Senior Notes due 2031 (the "Notes") certifying that, pursuant to the Indenture (the "Base Indenture"), dated as of December 28, 2016, between the Company and the Trustee, as supplemented by the Seventh Supplemental Indenture, dated September 16, 2021, among the Issuers and the Trustee (the "Seventh Supplemental Indenture, as so supplemented, the "Indenture"), the Issuers have satisfied the Scope 1 and Scope 2 Emissions Sustainability Performance Target and Scope 3 Emissions Sustainability Performance Target and received a related Assurance Letter from the External Verifier.

Pursuant to the terms of the Notes and the Indenture, the Sustainability Performance Targets applicable to the Notes have been satisfied and the interest rate payable on the Notes is no longer subject to increase.

All capitalized terms used above and not otherwise defined have the meaning given to such terms in the Seventh Supplemental Indenture, which is filed as <u>Exhibit 4.7</u> to the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 2022.

ITEM 6. EXHIBITS

INDEX TO EXHIBITS

Exhibit No. Description

- 4.1 Tenth Supplemental Indenture, dated as of May 23, 2023, among Johnson Controls International plc. Tyco Fire & Security Finance S.C.A., U.S. Bank Trust Company, National Association, as trustee and Elavon Financial Services DAC, as paying agent (attaching form of the 4.250% Senior Notes due 2035). (incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed on May 23, 2023)
- 31.1 <u>Certification by the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</u> (filed herewith)
- 31.2 <u>Certification by the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</u> (filed herewith)
- 32.1 <u>Certification of Periodic Financial Report by the Chief Executive Officer and Chief Financial Officer</u> pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith)
- 101 The following materials from Johnson Controls International plc's Quarterly Report on Form 10-Q for the quarter ended June 30, 2023, 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, (iv) the Consolidated Statements of Cash Flows, (v) the Consolidated Statements of Shareholders' Equity and (vi) Notes to Consolidated Financial Statements.
- 104 Cover Page Interactive Data File (formatted in iXBRL and contained in Exhibit 101)

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 2, 2023

By: /s/ Olivier Leonetti

Olivier Leonetti Executive Vice President and Chief Financial Officer

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;
- 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;
 - 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 2, 2023

/s/ George R. Oliver

George R. Oliver Chairman and Chief Executive Officer

CERTIFICATIONS

- I, Olivier Leonetti, of Johnson Controls International plc, certify that:
- 1. I have reviewed this quarterly report on Form 10-Q of Johnson Controls International plc;
- 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;
 - 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 2, 2023

/s/ Olivier Leonetti

Olivier Leonetti Executive Vice President and Chief Financial Officer

CERTIFICATION OF PERIODIC FINANCIAL REPORTS

We, George R. Oliver and Olivier Leonetti, 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, 2023 (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 2, 2023

/s/ George R. Oliver

George R. Oliver Chairman and Chief Executive Officer

/s/ Olivier Leonetti

Olivier Leonetti Executive Vice President and Chief Financial Officer