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 December 31, 2021

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 X8N6	**(353) 21-423-5000**
(Address of Principal Executive Offices and Postal Code)	(Registrant's Telephone Number)

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

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Ordinary Shares, Par Value $0.01	JCI	New York Stock Exchange
4.625% Notes due 2023	JCI23	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
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
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 ☑ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 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 ☑ No ☐

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

Large accelerated filer	☑	Accelerated filer	☐	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 ☐ No ☑

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

Class	Ordinary Shares Outstanding at December 31, 2021
Ordinary Shares, $0.01 par value per share	702,799,758

JOHNSON CONTROLS INTERNATIONAL PLC

FORM 10-Q

Report Index

PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

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

	December 31, 2021	September 30, 2021
Assets		
Cash and cash equivalents	$ 1,207	$ 1,336
Accounts receivable - net	5,671	5,613
Inventories	2,425	2,057
Other current assets	1,050	992
Current assets	10,353	9,998
Property, plant and equipment - net	3,213	3,228
Goodwill	18,386	18,335
Other intangible assets - net	5,505	5,549
Investments in partially-owned affiliates	1,102	1,066
Noncurrent assets held for sale	159	156
Other noncurrent assets	3,504	3,558
Total assets	$ 42,222	$ 41,890
Liabilities and Equity		
Short-term debt	$ 392	$ 8
Current portion of long-term debt	220	226
Accounts payable	4,083	3,746
Accrued compensation and benefits	926	1,008
Deferred revenue	1,845	1,637
Other current liabilities	2,521	2,473
Current liabilities	9,987	9,098
Long-term debt	7,437	7,506
Pension and postretirement benefits	499	628
Other noncurrent liabilities	5,809	5,905
Long-term liabilities	13,745	14,039
Commitments and contingencies (Note 22)		
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	(1,199)	(1,152)
Capital in excess of par value	17,150	17,116
Retained earnings	1,638	2,025
Accumulated other comprehensive loss	(347)	(434)
Shareholders’ equity attributable to Johnson Controls	17,249	17,562
Noncontrolling interests	1,241	1,191
Total equity	18,490	18,753
Total liabilities and equity	$ 42,222	$ 41,890

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

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

	Three Months Ended December 31, 2021	Three Months Ended December 31, 2020
Net sales		
Products and systems	$ 4,420	$ 3,799
Services	1,442	1,542
	5,862	5,341
Cost of sales		
Products and systems	3,153	2,719
Services	818	894
	3,971	3,613
Gross profit	1,891	1,728
Selling, general and administrative expenses	(1,369)	(1,294)
Restructuring and impairment costs	(49)	—
Net financing charges	(53)	(59)
Equity income	70	58
Income from continuing operations before income taxes	490	433
Income tax provision	71	61
Income from continuing operations	419	372
Income from discontinued operations, net of tax (Note 4)	—	124
Net income	419	496
Income from continuing operations attributable to noncontrolling interests	38	45
Net income attributable to Johnson Controls	$ 381	$ 451
Amounts attributable to Johnson Controls ordinary shareholders:		
Income from continuing operations	$ 381	$ 327
Income from discontinued operations	—	124
Net income	$ 381	$ 451
Basic earnings per share attributable to Johnson Controls		
Continuing operations	$ 0.54	$ 0.45
Discontinued operations	—	0.17
Net income	$ 0.54	$ 0.62
Diluted earnings per share attributable to Johnson Controls		
Continuing operations	$ 0.54	$ 0.45
Discontinued operations	—	0.17
Net income	$ 0.54	$ 0.62

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

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

	Three Months Ended December 31,	
	2021	2020
Net income	$ 419	$ 496
Other comprehensive income (loss), net of tax:		
Foreign currency translation adjustments	86	308
Realized and unrealized gains on derivatives	7	1
Pension and postretirement plans	(1)	(1)
Other comprehensive income	92	308
Total comprehensive income	511	804
Comprehensive income attributable to noncontrolling interests:		
Net income	38	45
Other comprehensive income, net of tax:		
Foreign currency translation adjustments	2	36
Realized and unrealized gains on derivatives	3	—
Other comprehensive income	5	36
Comprehensive income attributable to noncontrolling interests	43	81
Comprehensive income attributable to Johnson Controls	$ 468	$ 723

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

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

	Three Months Ended December 31, 2021	2020
Operating Activities of Continuing Operations		
Net income from continuing operations attributable to Johnson Controls	$ 381	$ 327
Income from continuing operations attributable to noncontrolling interests	38	45
Net income from continuing operations	419	372
Adjustments to reconcile net income from continuing operations to cash provided by operating activities:		
Depreciation and amortization	224	207
Pension and postretirement benefit income	(82)	(46)
Pension and postretirement contributions	(41)	(17)
Equity in earnings of partially-owned affiliates, net of dividends received	(18)	(52)
Deferred income taxes	(32)	(59)
Equity-based compensation	29	22
Other - net	(28)	(47)
Changes in assets and liabilities, excluding acquisitions and divestitures:		
Accounts receivable	(75)	224
Inventories	(376)	(98)
Other assets	(63)	(70)
Restructuring reserves	19	(34)
Accounts payable and accrued liabilities	333	91
Accrued income taxes	83	22
Cash provided by operating activities from continuing operations	392	515
Investing Activities of Continuing Operations		
Capital expenditures	(135)	(91)
Sale of property, plant and equipment	7	34
Acquisition of businesses, net of cash acquired	(108)	—
Business divestitures, net of cash divested	16	11
Changes in long-term investments	2	9
Cash used by investing activities from continuing operations	(218)	(37)
Financing Activities of Continuing Operations		
Increase (decrease) in short-term debt - net	394	(20)
Stock repurchases and retirements	(526)	(346)
Payment of cash dividends	(191)	(190)
Proceeds from the exercise of stock options	8	31
Employee equity-based compensation withholding taxes	(47)	(21)
Other - net	5	(1)
Cash used by financing activities from continuing operations	(357)	(547)
Discontinued Operations		
Cash used by operating activities	(4)	(36)
Cash used by discontinued operations	(4)	(36)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	67	(11)
Decrease in cash, cash equivalents and restricted cash	(120)	(116)
Cash, cash equivalents and restricted cash at beginning of period	1,342	1,960
Cash, cash equivalents and restricted cash at end of period	1,222	1,844
Less: Restricted cash	15	5
Cash and cash equivalents at end of period	$ 1,207	$ 1,839

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

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

	Three Months Ended December 31,	
	2021	2020
Shareholders' Equity Attributable to Johnson Controls		
Beginning Balance	$ 17,562	$ 17,447
Ordinary Shares		
Beginning balance	7	8
Repurchases and retirements of ordinary shares	—	(1)
Ending balance	7	7
Ordinary Shares Held in Treasury, at Cost		
Beginning balance	(1,152)	(1,119)
Other, including options exercised	(47)	(27)
Ending balance	(1,199)	(1,146)
Capital in Excess of Par Value		
Beginning balance	17,116	16,865
Other, including options exercised	34	52
Ending balance	17,150	16,917
Retained Earnings		
Beginning balance	2,025	2,469
Net income attributable to Johnson Controls	381	451
Cash dividends declared	(242)	(189)
Repurchases and retirements of ordinary shares	(526)	(345)
Adoption of ASU 2016-13	—	(4)
Ending balance	1,638	2,382
Accumulated Other Comprehensive Income (Loss)		
Beginning balance	(434)	(776)
Other comprehensive income	87	272
Ending balance	(347)	(504)
Ending Balance	17,249	17,656
Shareholders' Equity Attributable to Noncontrolling Interests		
Beginning Balance	1,191	1,086
Comprehensive income attributable to noncontrolling interests	43	81
Change in noncontrolling interest share	7	—
Ending Balance	1,241	1,167
Total Shareholders' Equity	$ 18,490	$ 18,823
Cash Dividends Declared per Ordinary Share	$ 0.34	$ 0.26

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, 2021 filed with the SEC on November 15, 2021. The results of operations for the three-month period ended December 31, 2021 are not necessarily indicative of results for the Company’s 2022 fiscal year because of seasonal and other factors.

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 and repair of equipment (in the HVAC, industrial refrigeration, 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 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 year are included in the consolidated financial statements from the effective date of acquisition or up to the date of disposal. Investments in partially-owned affiliates are accounted for by the equity method when the Company’s interest exceeds 20% and the Company does not have a controlling interest.

The Company consolidates variable interest entities ("VIE") in which the Company 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 a significant variable interest in any consolidated or nonconsolidated VIEs in its continuing operations for the presented reporting periods.

Restricted Cash

At December 31, 2021 and September 30, 2021, the Company held restricted cash of approximately $15 million and $6 million, respectively, all of which was recorded within other current assets in the consolidated statements of financial position. These amounts were related to cash restricted for payment of asbestos liabilities and certain litigation and environmental matters.

Retrospective Changes

Effective October 1, 2021, the Company's marine businesses previously included in the Building Solutions Asia Pacific and Global Products segments are now part of the Building Solutions EMEA/LA segment. Historical information has been re-cast to present the comparative periods on a consistent basis. This change was not material to the segment presentation. Refer to Note 8, "Goodwill and Other Intangible Assets," and Note 20, “Segment Information,” of the notes to consolidated financial statements for further information.

2. New Accounting Standards

Recently Adopted Accounting Pronouncements

In October 2021, the FASB issued ASU No. 2021-08, “Business Combinations (Topic 805), Accounting for Contract Assets and Contract Liabilities from Contracts with Customers,” which requires contract assets and contract liabilities (e.g. deferred revenue) acquired in a business combination to be recognized and measured by the acquirer on the acquisition date in accordance with ASC 606, “Revenue from Contracts with Customers.” Generally, this new guidance will result in the acquirer recognizing contract assets and contract liabilities at the same amounts recorded by the acquiree. Historically, such amounts were recognized by the acquirer at fair value in acquisition accounting. The guidance is applied prospectively to acquisitions occurring on or after the effective date. During the quarter ended December 31, 2021, the Company early adopted ASU No. 2021-08. The adoption of the new standard did not have a material impact on the Company's consolidated financial statements.

Recently Issued Accounting Pronouncements

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 quarter of fiscal 2022, the Company completed certain acquisitions for a combined purchase price, net of cash acquired, of $142 million, of which $108 million was paid as of December 31, 2021. In connection with the acquisitions, the Company recorded goodwill of $45 million within the Building Solutions Asia Pacific segment, $20 million within the Building Solutions North America segment, $19 million within the Building Solutions EMEA/LA segment and $10 million within the Global Products segment.

During the first quarter 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 December 31, 2021. In connection with the divestiture, the Company reduced goodwill by $5 million.

During the first quarter of fiscal 2021, the Company completed certain divestitures within the Buildings Solutions Asia Pacific segment. The combined selling price was $15 million, of which $11 million was received as of December 31, 2020. In connection with the divestitures, the Company reduced goodwill by $4 million.

Acquisitions and divestitures were not material to the Company's consolidated financial statements in the first quarter of fiscal 2022 or 2021.

4. Discontinued Operations

On April 30, 2019, the Company completed the sale of its Power Solutions business. In December 2020, the favorable resolution of certain post-closing working capital and net debt adjustments resulted in income from discontinued operations, net of tax, of $124 million due to a reversal of a reserve established in connection with the sale.

The following table summarizes the results of Power Solutions which are classified as discontinued operations for the three months ended December 31, 2020 (in millions):

	Three Months Ended December 31, 2020
Net sales	$ —
Income from discontinued operations before income taxes	150
Provision for income taxes on discontinued operations	(26)
Income from discontinued operations attributable to noncontrolling interests, net of tax	—
Income from discontinued operations	$ 124

There is no Power Solutions related activity for the three months ended December 31, 2021.

Assets and Liabilities Held for Sale

During the third quarter of fiscal 2020, the Company determined that certain assets of the Building Solutions Asia Pacific segment met the criteria to be classified as held for sale. The estimated fair value, less costs to sell, of these assets was $159 million at December 31, 2021 and $156 million at September 30, 2021.

5. Revenue Recognition

Disaggregated Revenue

The following tables present the Company's revenues disaggregated by segment and by products and systems versus services revenue for the three months ended December 31, 2021 and 2020 (in millions):

	Three Months Ended December 31, 2021			Three Months Ended December 31, 2020		
	Products & Systems	Services	Total	Products & Systems	Services	Total
Building Solutions North America	$ 1,299	$ 853	$ 2,152	$ 1,242	$ 792	$ 2,034
Building Solutions EMEA/LA	544	415	959	468	480	948
Building Solutions Asia Pacific	501	174	675	334	270	604
Global Products	2,076	—	2,076	1,755	—	1,755
Total	$ 4,420	$ 1,442	$ 5,862	$ 3,799	$ 1,542	$ 5,341

The following table presents further disaggregation of Global Products segment revenues by product type for the three months ended December 31, 2021 and 2020 (in millions):

	Three Months Ended December 31,	
	2021	2020
HVAC	$ 1,483	$ 1,218
Fire & Security	544	488
Industrial Refrigeration	49	49
Total	$ 2,076	$ 1,755

Contract Balances

Contract assets relate to the Company’s right to consideration for performance obligations satisfied but not billed and consist of unbilled receivables and costs in excess of billings. 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	December 31, 2021	September 30, 2021
Contract assets - current	Accounts receivable - net	$ 1,806	$ 1,718
Contract assets - noncurrent	Other noncurrent assets	98	99
Contract liabilities - current	Deferred revenue	(1,845)	(1,637)
Contract liabilities - noncurrent	Other noncurrent liabilities	(287)	(269)

For the three months ended December 31, 2021 and December 31, 2020, the Company recognized revenue of $751 million and $714 million, respectively, that was included in the beginning of period contract liability balance.

Performance Obligations

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

Performance obligations are satisfied as of a point in time or over time. The timing of satisfying the performance obligation is typically indicated by the terms of the contract. As of December 31, 2021, the aggregate amount of the transaction price allocated to remaining performance obligations was approximately $16.5 billion, of which approximately 60% is expected to be recognized as revenue over the next two years. The remaining performance obligations expected to be recognized in revenue beyond two years primarily relate to large, multi-purpose contracts to construct hospitals, schools and other governmental buildings, which include services to be performed over the building's lifetime, with initial contract terms of 25 to 35 years. Future contract modifications could affect both the timing and the amount of the remaining performance obligations. The Company excludes the value of remaining performance obligations for contracts with an original expected duration of one year or less.

Costs to Obtain or Fulfill a Contract

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

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):

	December 31, 2021	September 30, 2021
Other current assets	$ 149	$ 149
Other noncurrent assets	120	117
Total	$ 269	$ 266

During the three months ended December 31, 2021 and 2020, the Company recognized amortization expense of $50 million and $41 million, respectively, related to costs to obtain or fulfill a contract. There were no impairment losses recognized in the three months ended December 31, 2021 and 2020.

6. Accounts Receivable, Net

Receivables consist of amounts billed and currently due from customers and unbilled costs and accrued profits related to revenues on long-term contracts that have been recognized for accounting purposes but not yet billed to customers. The Company extends credit to customers in the normal course of business and maintains an allowance for expected credit losses resulting from the inability or unwillingness of customers to make required payments. The allowance for expected credit losses is based on historical experience, existing economic conditions, reasonable and supportable forecasts, and any specific customer collection issues the Company has identified. The Company evaluates the reasonableness of the allowance for credit losses on a quarterly basis.

The Company enters into various factoring agreements to sell certain accounts receivable to third-party financial institutions. 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. During the quarter ended December 31, 2021, the Company sold $134 million of accounts receivable under these factoring agreements, and the costs of factoring such receivables were not material. As of December, 31, 2021, the outstanding amount of account receivable sold under the factoring agreements was $135 million. No receivables were factored during the quarter ended December 31, 2020. 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.

Accounts receivable, net consisted of the following (in millions):

	December 31, 2021	September 30, 2021
Accounts receivable	$ 5,762	$ 5,723
Less: Allowance for expected credit losses	(91)	(110)
Accounts receivable, net	$ 5,671	$ 5,613

The changes in the allowance for expected credit losses related to accounts receivable for the three months ended December 31, 2021 and 2020 were as follows (in millions):

	Three Months Ended December 31, 2021	Three Months Ended December 31, 2020
Balance at beginning of period	$ 110	$ 173
Provision (benefit) for expected credit losses	(6)	7
Write-offs charged against the allowance for expected credit losses	(14)	(12)
Other	1	5
Balance at end of period	$ 91	$ 173

7. Inventories

Inventories consisted of the following (in millions):

	December 31, 2021	September 30, 2021
Raw materials and supplies	$ 967	$ 769
Work-in-process	195	166
Finished goods	1,263	1,122
Inventories	$ 2,425	$ 2,057

8. Goodwill and Other Intangible Assets

Effective October 1, 2021, the Company's marine businesses previously included in the Building Solutions Asia Pacific and Global Products reportable segments are now part of the Building Solutions EMEA/LA reportable segment. Historical information has been re-cast to present the comparative periods on a consistent basis. This change was not material to the segment presentation or the allocation of goodwill.

The changes in the carrying amount of goodwill in each of the Company's reportable segments for the three-month period ended December 31, 2021 were as follows (in millions):

	September 30, 2021	Business Acquisitions	Business Divestitures	Currency Translation and Other	December 31, 2021
Building Solutions North America	$ 9,215	$ 20	$ —	$ 1	$ 9,236
Building Solutions EMEA/LA	2,041	27	(5)	(29)	2,034
Building Solutions Asia Pacific	1,237	45	—	4	1,286
Global Products	5,842	10	—	(22)	5,830
Total	$ 18,335	$ 102	$ (5)	$ (46)	$ 18,386

At September 30, 2021 and December 31, 2021, accumulated goodwill impairment charges totaled $471 million, of which $424 million related to the North America Retail reporting unit and $47 million related to the Building Solutions EMEA/LA - Building Solutions reporting unit.

The Company reviews goodwill for impairment during the fourth fiscal quarter 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 three-month period ended December 31, 2021. 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 valued based on independent appraisals, consisted of (in millions):

	December 31, 2021			September 30, 2021		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Definite-lived intangible assets						
Technology	$ 1,505	$ (661)	$ 844	$ 1,464	$ (629)	$ 835
Customer relationships	3,105	(1,244)	1,861	3,097	(1,191)	1,906
Miscellaneous	772	(377)	395	750	(354)	396
	5,382	(2,282)	3,100	5,311	(2,174)	3,137
Indefinite-lived intangible assets						
Trademarks/trade names	2,325	—	2,325	2,332	—	2,332
Miscellaneous	80	—	80	80	—	80
	2,405	—	2,405	2,412	—	2,412
Total intangible assets	$ 7,787	$ (2,282)	$ 5,505	$ 7,723	$ (2,174)	$ 5,549

Amortization of other intangible assets included within continuing operations for the three-month periods ended December 31, 2021 and 2020 was $118 million and $104 million, respectively.

The Company reviews indefinite-lived intangible assets for impairment during the fourth fiscal quarter 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 three-month period ended December 31, 2021. 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 as of December 31, 2021 and September 30, 2021 (in millions):

	Location of lease balances	December 31, 2021	September 30, 2021
Operating lease right-of-use assets	Other noncurrent assets	$ 1,341	$ 1,376
Operating lease liabilities - current	Other current liabilities	314	319
Operating lease liabilities - noncurrent	Other noncurrent liabilities	1,022	1,055

The following table presents supplemental noncash operating lease activity, excluding leases acquired in business combinations, for the three months ended December 31, 2021 and 2020 (in millions):

	Three Months Ended December 31,	
	2021	2020
Right-of-use assets obtained in exchange for operating lease liabilities	$ 55	$ 175

10. Debt and Financing Arrangements

As of December 31, 2021, the Company has 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 was renewed in December 2021 and is now scheduled to expire in December 2022. As of December 31, 2021, there were no draws on the facilities.

In November 2021, the Company entered into a €200 million bank term loan which is due in October 2022.

The Company had $150 million of commercial paper outstanding as of December 31, 2021 and no commercial paper outstanding as of September 30, 2021.

Net Financing Charges

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

	Three Months Ended December 31,	
	2021	2020
Interest expense, net of capitalized interest costs	$ 55	$ 59
Banking fees and bond cost amortization	5	8
Interest income	(2)	(3)
Net foreign exchange results for financing activities	(5)	(5)
Net financing charges	$ 53	$ 59

11. Derivative Instruments and Hedging Activities

The Company selectively uses derivative instruments to reduce market risk associated with changes in foreign currency, commodities, stock-based compensation liabilities and interest rates. Under Company policy, the use of derivatives is restricted to those intended for hedging purposes; the use of any derivative instrument for speculative purposes is strictly prohibited. A description of each type of derivative utilized by the Company to manage risk is included in the following paragraphs. In addition, refer to Note 12, "Fair Value Measurements," of the notes to consolidated financial statements for information related to the fair value measurements and valuation methods utilized by the Company for each derivative type.

Cash Flow Hedges

The Company has global operations and participates in 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," the 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 months ended December 31, 2021 and 2020.

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

Commodity	Volume Outstanding as of December 31, 2021	Volume Outstanding as of September 30, 2021
Copper	3,314	2,656
Aluminum	7,193	5,159

In April 2021, the Company entered into two forward-starting interest rate swaps with a combined notional amount of $500 million, in conjunction with its anticipated $500 million note issuance. In September 2021, the Company terminated the swaps as the 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 related note to reflect the difference between the swap's reference rate and the fixed rate of the note.

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 Company had 2.3 billion of euro-denominated bonds designated as net investment hedges of a portion of its net investment in European subsidiaries and 25 billion of yen-denominated debt designated as a net investment hedge of a portion of its net investment in Japanese subsidiaries as of December 31, 2021 and September 30, 2021.

Derivatives Not Designated as Hedging Instruments

The Company selectively uses equity swaps to reduce market risk associated with certain of its stock-based compensation plans, such as its deferred compensation plans. These equity compensation liabilities increase as the Company's stock price increases and decrease as the Company's stock price decreases. In contrast, the value of the swap agreement moves in the opposite direction of these liabilities, allowing the Company to fix a portion of the liabilities at a stated amount. The Company hedged approximately 0.3 million of its ordinary shares, which have a cost basis of $23 million, as of December 31, 2021 and September 30, 2021.

The Company also 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):

	Derivatives and Hedging Activities Designated as Hedging Instruments under ASC 815		Derivatives and Hedging Activities Not Designated as Hedging Instruments under ASC 815	
	December 31, 2021	September 30, 2021	December 31, 2021	September 30, 2021
Other current assets				
Foreign currency exchange derivatives	$ 27	$ 15	$ 17	$ 17
Commodity derivatives	3	2	—	—
Other noncurrent assets				
Equity swap	—	—	28	23
Total assets	$ 30	$ 17	$ 45	$ 40
Other current liabilities				
Foreign currency exchange derivatives	$ 12	$ 11	$ 13	$ 6
Commodity derivatives	1	1	—	—
Long-term debt				
Foreign currency denominated debt	2,845	2,918	—	—
Total liabilities	$ 2,858	$ 2,930	$ 13	$ 6

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	
	December 31, 2021	September 30, 2021	December 31, 2021	September 30, 2021
Gross amount recognized	$ 75	$ 57	$ 2,871	$ 2,936
Gross amount eligible for offsetting	(17)	(16)	(17)	(16)
Net amount	$ 58	$ 41	$ 2,854	$ 2,920

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

The following table presents the pre-tax gains (losses) recorded in other comprehensive income (loss) related to cash flow hedges for the three months ended December 31, 2021 and 2020 (in millions):

Derivatives in ASC 815 Cash Flow Hedging Relationships	Three Months Ended December 31, 2021	Three Months Ended December 31, 2020
Foreign currency exchange derivatives	$ 13	$ 3
Commodity derivatives	(2)	1
Total	$ 11	$ 4

The following table presents the location and amount of the pre-tax gains (losses) on cash flow hedges reclassified from AOCI into the Company's consolidated statements of income for the three months ended December 31, 2021 and 2020 (in millions):

Derivatives in ASC 815 Cash Flow Hedging Relationships	Location of Gain (Loss) Reclassified from AOCI into Income	Three Months Ended December 31, 2021	Three Months Ended December 31, 2020
Foreign currency exchange derivatives	Cost of sales	$ 5	$ 2
Commodity derivatives	Cost of sales	(4)	(1)
Interest rate swaps	Net financing charges	(1)	—
Total		$ —	$ 1

The following table presents the location and amount of pre-tax gains (losses) on derivatives not designated as hedging instruments recognized in the Company's consolidated statements of income for the three months ended December 31, 2021 and 2020 (in millions):

Derivatives Not Designated as Hedging Instruments under ASC 815	Location of Gain (Loss) Recognized in Income on Derivative	Amount of Gain (Loss) Recognized in Income on Derivative — Three Months Ended December 31, 2021	Amount of Gain (Loss) Recognized in Income on Derivative — Three Months Ended December 31, 2020
Foreign currency exchange derivatives	Cost of sales	$ 10	$ 6
Foreign currency exchange derivatives	Selling, general and administrative	—	(2)
Foreign currency exchange derivatives	Net financing charges	87	(41)
Equity swap	Selling, general and administrative	5	6
Total		$ 102	$ (31)

Pre-tax gains (losses) on net investment hedges recorded as foreign currency translation adjustments ("CTA") within other comprehensive income (loss) were $73 million and $(135) million for the three months ended December 31, 2021 and 2020, respectively. For the three months ended December 31, 2021 and 2020, no gains or losses were reclassified from CTA into income.

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 as of December 31, 2021 and September 30, 2021 (in millions):

		Fair Value Measurements Using:		
	Total as of December 31, 2021	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Other current assets				
Foreign currency exchange derivatives	$ 44	$ —	$ 44	$ —
Commodity derivatives	3	—	3	—
Other noncurrent assets				
Deferred compensation plan assets	67	67	—	—
Exchange traded funds (fixed income)[1]	140	140	—	—
Exchange traded funds (equity)[1]	183	183	—	—
Equity swap	28	—	28	—
Total assets	$ 465	$ 390	$ 75	$ —
Other current liabilities				
Foreign currency exchange derivatives	$ 25	$ —	$ 25	$ —
Commodity derivatives	1	—	1	—
Contingent earn-out liabilities	48	—	—	48
Other noncurrent liabilities				
Contingent earn-out liabilities	55	—	—	55
Total liabilities	$ 129	$ —	$ 26	$ 103

The increases in the contingent earn-out liabilities during the three-month period ended December 31, 2021 were due to acquisitions.

	Total as of September 30, 2021	Fair Value Measurements Using: Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Other current assets				
Foreign currency exchange derivatives	$ 32	$ —	$ 32	$ —
Commodity derivatives	2	—	2	—
Other noncurrent assets				
Deferred compensation plan assets	63	63	—	—
Exchange traded funds (fixed income)[1]	146	146	—	—
Exchange traded funds (equity)[1]	168	168	—	—
Equity swap	23	—	23	—
Total assets	$ 434	$ 377	$ 57	$ —
Other current liabilities				
Foreign currency exchange derivatives	$ 17	$ —	$ 17	$ —
Commodity derivatives	1	—	1	—
Contingent earn-out liabilities	32	—	—	$ 32
Other noncurrent liabilities				
Contingent earn-out liabilities	50	—	—	50
Total liabilities	$ 100	$ —	$ 18	$ 82

[1] Classified as restricted investments for payment of asbestos liabilities. See Note 22, "Commitments and Contingencies," of the notes to consolidated financial statements for further details.

Valuation Methods

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

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

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

Deferred compensation plan assets: Assets held in the deferred compensation plans will be used to pay benefits under certain of the Company's non-qualified deferred compensation plans. The investments primarily consist of mutual funds which are publicly traded on stock exchanges and are valued using a market approach based on the quoted market prices. 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 22, "Commitments and Contingencies," of the notes to consolidated financial statements for further information.

Contingent earn-out liabilities: The contingent earn-out liabilities, which are primarily related to the Silent-Aire acquisition, were established using a Monte Carlo simulation based on the forecasted operating results and the earn-out formula specified in the purchase agreement.

The following table presents the portion of unrealized gains recognized in the consolidated statements of income for the three months ended December 31, 2021 and 2020 that relate to equity securities still held at December 31, 2021 and 2020 (in millions):

	Three Months Ended December 31,	
	2021	2020
Deferred compensation plan assets	$ 3	$ 5
Investments in exchange traded funds	14	21

All of the gains 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 December 31, 2021, the fair value of long-term debt was $8.4 billion, including public debt of $8.2 billion and other long-term debt of $0.2 billion. At September 30, 2021, the fair value of long-term debt was $8.5 billion, including public debt of $8.3 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

On March 10, 2021, the shareholders of the Company approved the Johnson Controls International plc 2021 Equity and Incentive Plan, which terminated the 2012 Share and Incentive Plan, as amended in September 2016 (collectively, the "Plans"). Both Plans authorize stock options, stock appreciation rights, restricted (non-vested) stock/units, performance shares, performance 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 during the three-month periods ended December 31, 2021 and 2020 is presented below:

	Three Months Ended December 31,			
	2021		2020	
	Number Granted	Weighted Average Grant Date Fair Value	Number Granted	Weighted Average Grant Date Fair Value
Stock options	548,398	$ 18.59	932,678	$ 9.36
Stock appreciation rights	19,768	18.59	35,254	9.36
Restricted stock/units	1,170,634	79.54	1,599,552	45.61
Performance shares	438,476	84.27	410,934	50.53

Stock Options

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

The fair value of each option is estimated on the date of grant using a Black-Scholes option valuation model that uses the assumptions noted in the following table. The expected life of options represents the period of time that options granted are expected to be outstanding, assessed separately for executives and non-executives. The risk-free interest rate for periods during the contractual life of the option is based on the U.S. Treasury yield curve in effect at the time of grant. The expected volatility is based on the historical volatility of the Company’s stock since October 2016 blended with the historical volatility of certain peer companies’ stock prior to October 2016 over the most recent period corresponding to the expected life as of the grant date. The expected dividend yield is based on the expected annual dividend as a percentage of the market value of the Company’s ordinary shares as of the grant date. The Company uses historical data to estimate option exercises and employee terminations within the valuation model.

	Three Months Ended December 31,	
	2021	2020
Expected life of option (years)	6.0	6.5
Risk-free interest rate	1.35%	0.6%
Expected volatility of the Company’s stock	27.8%	27.6%
Expected dividend yield on the Company’s stock	1.71%	2.28%

Stock Appreciation Rights (SARs)

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

Restricted (Non-vested) Stock / Units

Restricted stock or restricted stock units are typically share settled unless the employee is a non-U.S. employee, in which case the awards are settled in cash. Restricted awards typically vest over a period of three years from the grant date. The Plans allow for different vesting terms on specific grants with approval by the Compensation and Talent Development Committee. The fair value of each share-settled restricted award is based on the closing market value of the Company’s ordinary shares on the date of grant. The fair value of each cash-settled restricted award is recalculated at the end of each reporting period based on the closing market value of the Company's ordinary shares at the end of the reporting period, and the liability and expense are adjusted based on the new fair value.

Performance Share Awards

Performance-based share unit ("PSU") awards are generally contingent on the achievement of predetermined performance goals over a performance period of one to three years as well as on the award holder's continuous employment until the vesting date. The majority of PSUs are also indexed to the achievement of specified levels of total shareholder return versus a peer group over the performance period. Each PSU that is earned is settled with shares of the Company's ordinary shares following the completion of the performance period, unless the employee is a non-U.S. employee, in which case the awards are settled in cash.

The fair value of the portion of PSUs linked to the achievement of performance goals is based on the closing market value of the Company's ordinary shares on the date of grant. Share-based compensation expense for these PSUs is recognized over the performance period based on the probability of achieving the performance targets.

The fair value of the portion of PSUs indexed to total shareholder return is estimated on the date of grant using a Monte Carlo simulation that uses the assumptions noted in the following table. The risk-free interest rate for periods during the contractual life of the PSU is based on the U.S. Treasury yield curve in effect at the time of grant. The expected volatility is based on the historical volatility of the Company's stock over the most recent three-year period as of the grant date. Share-based compensation expense for these PSUs is not adjusted based upon performance subsequent to the grant date as the likelihood of achieving the market condition is incorporated in the grant date fair value of the award.

	Three Months Ended December 31,	
	2021	2020
Risk-free interest rate	0.99%	0.20%
Expected volatility of the Company’s stock	30.0%	30.9%

14. Earnings Per Share

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

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

	Three Months Ended December 31,	
	2021	2020
Income Available to Ordinary Shareholders		
Income from continuing operations	$ 381	$ 327
Income from discontinued operations	—	124
Basic and diluted income available to shareholders	$ 381	$ 451
Weighted Average Shares Outstanding		
Basic weighted average shares outstanding	704.3	723.1
Effect of dilutive securities:		
Stock options, unvested restricted stock and unvested performance share awards	5.2	3.4
Diluted weighted average shares outstanding	709.5	726.5
Antidilutive Securities		
Options to purchase shares	—	0.2

15. Equity

Share repurchase program

For the three months ended December 31, 2021 and 2020, the Company repurchased and immediately retired $526 million and $346 million of its ordinary shares, respectively. In March 2021, the Company's Board of Directors approved a $4 billion increase to the Company's share repurchase authorization, adding to the $2 billion remaining as of December 31, 2020 under the prior share repurchase authorization approved in 2019. As of December 31, 2021, approximately $4.5 billion remains available under the Company's share repurchase authorization.

Accumulated Other Comprehensive Income (Loss)

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

	Three Months Ended December 31,	
	2021	2020
Foreign currency translation adjustments		
Balance at beginning of period	$ (421)	$ (778)
Aggregate adjustment for the period (net of tax effect of $0 and $0)	84	272
Balance at end of period	(337)	(506)
Realized and unrealized gains (losses) on derivatives		
Balance at beginning of period	(17)	2
Current period changes in fair value (net of tax effect of $3 and $2)	4	2
Reclassification to income (net of tax effect of $0 and $0) *	—	(1)
Balance at end of period	(13)	3
Pension and postretirement plans		
Balance at beginning of period	4	—
Reclassification to income (net of tax effect of $0 and $0)	(1)	(1)
Balance at end of period	3	(1)
Accumulated other comprehensive loss, end of period	$ (347)	$ (504)

* Refer to Note 11, "Derivative Instruments and Hedging Activities," of the notes to consolidated financial statements for disclosure of the line items in the consolidated statements of income affected by reclassifications from AOCI into income related to derivatives.

16. Pension and Postretirement Plans

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

	U.S. Pension Plans	
	Three Months Ended December 31,	
	2021	2020
Interest cost	$ 10	$ 11
Expected return on plan assets	(41)	(42)
Net actuarial gain	(42)	—
Settlement gain	(1)	—
Net periodic benefit credit	$ (74)	$ (31)

	Non-U.S. Pension Plans	
	Three Months Ended December 31,	
	2021	2020
Service cost	$ 6	$ 7
Interest cost	10	8
Expected return on plan assets	(21)	(28)
Net periodic benefit credit	$ (5)	$ (13)

	Postretirement Benefits	
	Three Months Ended December 31,	
	2021	2020
Interest cost	$ —	$ 1
Expected return on plan assets	(2)	(2)
Amortization of prior service credit	(1)	(1)
Net periodic benefit credit	$ (3)	$ (2)

During the three months ended December 31, 2021, the amount of cumulative fiscal 2022 lump sum payouts triggered a remeasurement event for certain U.S. pension plans resulting in the recognition of net actuarial gains of $42 million, primarily due to favorable plan asset performance.

17. Significant Restructuring and Impairment Costs

To better align its resources with its growth strategies and reduce the cost structure of its global operations in certain underlying markets, the Company commits to various restructuring plans as necessary. Restructuring plans 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 other related costs consist primarily of consulting costs incurred as a direct result of the restructuring initiatives. The Company expects the restructuring actions to reduce cost of sales and SG&A due to reduced employee-related costs, depreciation and amortization expense.

In fiscal 2021, the Company committed to a significant multi-year restructuring plan ("2021 Plan") which is expected to be completed during fiscal 2023. During the three months ended December 31, 2021, the Company recorded $49 million of restructuring and impairment costs in the consolidated statements of income. The total amount expected to be incurred for this restructuring plan is $385 million across all segments and at Corporate. Of the restructuring and impairment costs recorded in the three months ended December 31, 2021, $24 million related to the Global Products segment, $9 million related to the Building Solutions North America segment, $8 million related to the Building Solutions Asia Pacific segment, $5 million related to the Building Solutions EMEA/LA segment and $3 million related to Corporate. In total, the Company has recorded $291 million of restructuring and impairment costs related to the 2021 Plan, including $115 million related to the Global Products segment, $79 million related to the Building Solutions North America segment, $36 million related to the Building Solutions Asia Pacific segment, $34 million related to the Building Solutions EMEA/LA segment and $27 million related to Corporate.

The following table summarizes the changes in the Company's 2021 Plan reserve, included within other current liabilities in the consolidated statements of financial position (in millions):

	Employee Severance and Termination Benefits	Long-Lived Asset Impairments	Other	Total
Original reserve	$ 68	$ 98	$ 76	$ 242
Utilized—cash	(28)	—	(51)	(79)
Utilized—noncash	—	(98)	—	(98)
Balance at September 30, 2021	40	—	25	65
Additional restructuring costs	28	—	21	49
Utilized—cash	(13)	—	(7)	(20)
Currency translation	(1)	—	—	(1)
Balance at December 31, 2021	$ 54	$ —	$ 39	$ 93

The 2021 Plan included workforce reductions of approximately 4,000 employees. Restructuring charges associated with employee severance and termination benefits are paid over the severance period granted to each employee or on a lump sum basis in accordance with individual severance agreements. As of December 31, 2021, approximately 1,800 of the employees have been separated from the Company pursuant to the 2021 Plan.

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

18. Impairment of Long-Lived Assets

The Company reviews long-lived assets, including right-of-use assets under operating leases, other tangible assets and intangible assets with definitive lives, for impairment whenever events or changes in circumstances indicate that the asset's carrying amount may not be recoverable. The Company conducts its long-lived asset impairment analyses in accordance with ASC 360-10-15, "Impairment or Disposal of Long-Lived Assets," ASC 350-30, "General Intangibles Other than Goodwill" and ASC 985-20, "Costs of Software to be Sold, Leased, or Marketed."

The Company groups assets and liabilities at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets and liabilities and evaluates the asset group against the sum of the undiscounted future cash flows. If the undiscounted cash flows do not indicate the carrying amount of the asset group is recoverable, an impairment charge is measured as the amount by which the carrying amount of the asset group exceeds its fair value based on a discounted cash flow analysis or appraisals. Intangible assets acquired in a business combination that are used in research and development activities are considered indefinite-lived until the completion or abandonment of the associated research and development efforts. During the period that those assets are considered indefinite lived, they are not amortized but are tested for impairment annually and more frequently if events or changes in circumstances indicate that it is more likely than not that the asset is impaired. If the carrying amount of an intangible asset exceeds its fair value, the Company recognizes an impairment loss in an amount equal to that excess. Unamortized capitalized costs of a computer software product are compared to the net realizable value of the product. The amount by which the unamortized capitalized costs of a computer software product exceed the net realizable value of that asset is written off.

At December 31, 2021 and 2020, the Company concluded it did not have any triggering events requiring assessment of impairment of its long-lived assets.

19. 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 December 31, 2021, the Company's effective tax rate for continuing operations was 14.5% and was higher than the statutory tax rate of 12.5% primarily due to the income tax effects of mark-to-market adjustments and tax rate differentials, partially offset by the benefits of continuing global tax planning initiatives. For the three months ended December 31, 2020, the Company's effective tax rate for continuing operations was 14.1% and was higher than the statutory tax rate of 12.5% primarily due to tax rate differentials, partially offset by 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, 2021, the Company had gross tax-effected unrecognized tax benefits of $2,726 million, of which $2,268 million, if recognized, would impact the effective tax rate. Total net accrued interest at September 30, 2021 was approximately $252 million (net of tax benefit). Total net accrued interest during the three months ended December 31, 2021 and 2020 was approximately $17 million (net of tax benefit) and approximately $15 million (net of tax benefit), respectively. The Company recognizes interest and penalties related to unrecognized tax benefits as a component of 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. Additionally, the Company is currently under exam in the following major non-U.S. jurisdictions for continuing operations:

Tax Jurisdiction	Tax Years Covered
Belgium	2015 - 2020
Germany	2007 - 2018
Luxembourg	2017 - 2018
Mexico	2015 - 2020
United Kingdom	2014 - 2015, 2017 - 2018

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

Other Tax Matters

In the first quarter of fiscal 2022, the Company recorded net mark-to-market gains of $57 million which generated tax expense of $14 million and restructuring and impairment costs of $49 million which generated a $7 million tax benefit.

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

Impacts of Tax Legislation

During the three months ended December 31, 2021, tax legislation was adopted in various jurisdictions. These law changes did not have a material impact on the Company's consolidated financial statements.

20. 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, to 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.

Effective October 1, 2021, the Company's marine businesses previously included in Building Solutions Asia Pacific and Global Products reportable segments are now part of Building Solutions EMEA/LA reportable segment. Historical information has been re-cast to present the comparative periods on a consistent basis. This change was not material to the segment presentation.

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

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

	Net Sales	
	Three Months Ended December 31,	
	2021	2020
Building Solutions North America	$ 2,152	$ 2,034
Building Solutions EMEA/LA	959	948
Building Solutions Asia Pacific	675	604
Global Products	2,076	1,755
Total net sales	$ 5,862	$ 5,341

	Segment EBITA	
	Three Months Ended December 31,	
	2021	2020
Building Solutions North America	$ 250	$ 255
Building Solutions EMEA/LA	104	98
Building Solutions Asia Pacific	68	77
Global Products	301	212
Total segment EBITA	723	642
Corporate expenses	(70)	(67)
Amortization of intangible assets	(118)	(104)
Restructuring and impairment costs	(49)	—
Net mark-to-market adjustments	57	21
Net financing charges	(53)	(59)
Income from continuing operations before income taxes	$ 490	$ 433

21. Guarantees

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

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

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

The changes in the carrying amount of the Company's total product warranty liability for continuing operations, for the three months ended December 31, 2021 and 2020 were as follows (in millions):

	Three Months Ended December 31,	
	2021	2020
Balance at beginning of period	$ 192	$ 167
Accruals for warranties issued during the period	22	22
Accruals related to pre-existing warranties	—	6
Settlements made (in cash or in kind) during the period	(29)	(17)
Currency translation	(1)	2
Balance at end of period	$ 184	$ 180

22. Commitments and Contingencies

Environmental Matters

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

	December 31, 2021	September 30, 2021
Other current liabilities	$ 64	$ 48
Other noncurrent liabilities	29	54
Total reserves for environmental liabilities	$ 93	$ 102

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

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

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

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. On August 22, 2019, the Governor of Wisconsin issued an executive order that, among other things, directed the WDNR to create a PFAS Coordinating Council and to work with other Wisconsin agencies (including WDHS) to establish final groundwater quality standards based on the WDHS's prior recommendation. On November 6, 2020, WDNR received further recommendations from WDHS regarding individual standards for 12 additional PFAS and a combined standard for four additional PFAS, PFOA, and PFOS.

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 voluntarily responded to the WDNR's letter to request 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 2019 letter. The letter stated that "if you fail to take the actions required by Wis. Stat. § 292.11 to address this contamination, the DNR will move forward under Wis. Stat. § 292.31 to implement the SI workplan and evaluate further environmental enforcement actions and cost recovery under Wis. Stat. § 292.31(8)." 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 date. Tyco Fire Products responded to the WDNR's September 2021 notice by the December 27, 2021 deadline set by WDNR. 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 May 2021, as part of Tyco Fire Products' ongoing investigation and remediation program, WDNR approved Tyco Fire Products' proposed Groundwater Extraction and Treatment System ("GETS"), a permanent groundwater remediation system that will extract groundwater that contains PFAS, treat it using advanced filtration systems, and return the treated water to the environment. Tyco Fire Products has commenced construction on the GETS. Tyco Fire Products also has started the process of removing PFAS-affected soil from the FTC.

In December 2020, the Company received a notice from the Wisconsin Department of Justice ("WDOJ") that the WDOJ was considering a potential civil enforcement action against the Company relating to environmental matters at the FTC including, but not limited to, the investigation and remediation of PFAS at or near the FTC as discussed above and the Company's alleged failure to timely report the presence of PFAS chemicals at the FTC. Such enforcement action could seek civil monetary penalties and/or injunctive relief. The Company is presently unable to predict the duration, scope, or results of any potential civil enforcement action that may result, the consequences of any such action, or the nature of any resolution of these potential claims with the WDOJ.

Tyco Fire Products has been engaged in remediation activities at the Stanton Street Facility since 1990. Its corporate predecessor, Ansul Incorporated (“Ansul”) manufactured arsenic-based agricultural herbicides at the Stanton Street Facility, which resulted in significant arsenic contamination of soil and groundwater on the site and in parts of the adjoining Menominee River. In 2009, Ansul entered into an Administrative Consent Order (the "Consent Order") with the U.S. Environmental Protection Agency to address the presence of arsenic at the site. Under this agreement, Tyco Fire Products’ principal obligations are to contain the arsenic contamination on the site, pump and treat on-site groundwater, dredge, treat and properly dispose of contaminated sediments in the adjoining river areas, and monitor contamination levels on an ongoing basis. Activities completed under the Consent Order since 2009 include the installation of a subsurface barrier wall around the facility to contain contaminated groundwater, the installation of a groundwater extraction and treatment system and the dredging and offsite disposal of treated river sediment. The increase in the reserve related to the Stanton Street Facility in the third quarter of 2019 was recorded following a further review of the Consent Order, which resulted in the identification of several structural upgrades needed to preserve the effectiveness of prior remediation efforts. In addition to ongoing remediation activities, the Company is also working with the WDNR to investigate the presence of PFAS at or near the Stanton Street Facility as part of the evaluation of PFAS in the Marinette region.

Potential environmental liabilities accrued by the Company do not take into consideration possible recoveries of future insurance proceeds. They do, however, take into account the likely share other parties will bear at remediation sites. It is difficult to estimate the Company’s ultimate level of liability at many remediation sites due to the large number of other parties that may be involved, the complexity of determining the relative liability among those parties, the uncertainty as to the nature and scope of the investigations and remediation to be conducted, the uncertainty in the application of law and risk assessment, the various choices and costs associated with diverse technologies that may be used in corrective actions at the sites, and the often quite lengthy periods over which eventual remediation may occur. It is possible that technological, regulatory or enforcement developments, the results of additional environmental studies or other factors could change the Company's expectations with respect to future charges and cash outlays, and such changes could be material to the Company's future results of operations, financial condition or cash flows. Nevertheless, the Company does not currently believe that any claims, penalties or costs in addition to the amounts accrued will have a material adverse effect on the Company’s financial position, results of operations or cash flows. In addition, the Company has identified asset retirement obligations for environmental matters that are expected to be addressed at the retirement, disposal, removal or abandonment of existing owned facilities. The Company recorded conditional asset retirement obligations for continuing operations of $29 million at both December 31, 2021 and September 30, 2021.

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):

	December 31, 2021	September 30, 2021
Other current liabilities	$ 58	$ 58
Other noncurrent liabilities	395	400
Total asbestos-related liabilities	453	458
Other current assets	15	13
Other noncurrent assets	373	365
Total asbestos-related assets	388	378
Net asbestos-related liabilities	$ 65	$ 80

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

	December 31, 2021	September 30, 2021
Restricted		
Cash	$ 7	$ 6
Investments	323	314
Total restricted assets	330	320
Insurance recoveries for asbestos-related liabilities	58	58
Total asbestos-related assets	$ 388	$ 378

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). 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. At least annually, the Company assesses the sufficiency of its estimated liability for pending and future claims and defense costs by evaluating actual experience regarding claims filed, settled and dismissed, and amounts paid in settlements. In addition to claims and settlement experience, the Company considers additional quantitative and qualitative factors such as changes in legislation, the legal environment, and the Company's defense strategy. The Company also evaluates the recoverability of its insurance receivable on an annual basis. The Company evaluates all of these factors and determines whether a change in the estimate of its liability for pending and future claims and defense costs or insurance receivable is warranted.

The amounts recorded by the Company for asbestos-related liabilities and insurance-related assets are based on the Company's strategies for resolving its asbestos claims, currently available information, and a number of estimates and assumptions. Key variables and assumptions include the number and type of new claims that are filed each year, the average cost of resolution of claims, the identity of defendants, the resolution of coverage issues with insurance carriers, amount of insurance, and the solvency risk with respect to the Company's insurance carriers. Many of these factors are closely linked, such that a change in one variable or assumption 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.

Insurable 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 insurable liabilities.

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

	December 31, 2021	September 30, 2021
Other current liabilities	$ 79	$ 77
Accrued compensation and benefits	22	22
Other noncurrent liabilities	218	226
Total insurable liabilities	$ 319	$ 325

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

	December 31, 2021	September 30, 2021
Other current assets	$ 5	$ 5
Other noncurrent assets	15	15
Total insurable receivables	$ 20	$ 20

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.

PFOA, PFOS, and other PFAS compounds are being studied by the United States Environmental Protection Agency ("EPA") and other environmental and health agencies and researchers. The EPA has not issued binding regulatory limits, but had 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. While those studies continue, the EPA has issued a health advisory level for PFOA and PFOS in drinking water. In March 2021, the EPA published its final determination to regulate PFOS and PFOA in drinking water. In October 2021, the EPA released its "PFAS Strategic Roadmap: EPA's Commitments to Action 2021-2024." The 2021-2024 Roadmap sets timelines by which the 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 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 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 a multi-district litigation ("MDL") before the United States District Court for the District of South Carolina. Additional cases have been identified for transfer to or are being directly filed in the MDL.

AFFF Putative Class Actions

Chemguard and Tyco Fire Products are named in 32 putative class actions in federal courts originating from Colorado, Delaware, Florida, Massachusetts, New York, Pennsylvania, Washington, New Hampshire, South Carolina, the District of Columbia, Guam, West Virginia, Michigan, Texas and South Dakota. All of these cases except one have been direct-filed in or transferred to the MDL.

AFFF Individual or Mass Actions

There are more than 1,900 individual or "mass" actions pending that were filed in state or federal court in various states including California, Colorado, New York, Pennsylvania, New Mexico, Missouri, Arizona, Texas, and South Carolina 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 1,900 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 three matters that are proceeding in state court: One case, *Young v. Chemguard et al.*, was filed in superior court in Maricopa County, Arizona, removed to the United States District Court, District of Arizona, and tagged to the MDL, but was remanded to state court prior to being transferred to the MDL. The decision to remand the case to state court is currently being appealed. The second case, *Forbach et al. v. Chemguard et al.*, was filed in superior court in Coconino County, Arizona, and is proceeding with initial discovery. The third case, *Ellison-Wood v. Chemguard, Inc., et al.*, was filed recently in district court in Tarrant County, Texas.

AFFF Municipal Cases

Chemguard and Tyco Fire Products have been named as defendants in approximately 168 cases in federal and state courts involving municipal or water provider plaintiffs in Alaska, Alabama, Arizona, California, Colorado, Connecticut, Florida, Idaho, Illinois, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Virginia, Washington, West Virginia, Wisconsin, the District of Columbia, and several municipalities or water providers from various states who direct-filed complaints in South Carolina. All but five of these cases have been transferred to or directly filed in the MDL, and it is anticipated that the remaining cases will be transferred to the MDL. These municipal plaintiffs generally allege that the use of the defendants' fire-fighting foam products at fire training academies, municipal airports, Air National Guard bases, or Navy or Air Force bases released PFOS and PFOA into public water supply wells, allegedly requiring remediation of public property.

The Company has periodically been 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 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, 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*.). All three of these suits have been removed to federal court 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.

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.

The Company is vigorously defending the above 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. Tyco and Chemguard have insurance that has been in place for many years and the Company is pursuing this coverage for these matters. 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.

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.

23. Related Party Transactions

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

The following table presents net sales to and purchases from related parties for the three months ended December 31, 2021 and 2020 (in millions):

	Three Months Ended December 31,	
	2021	2020
Net sales to related parties	$ 35	$ 44
Purchases from related parties	44	29

The following table presents receivables from and payables to related parties in the consolidated statements of financial position (in millions):

	December 31, 2021	September 30, 2021
Receivable from related parties	$ 58	$ 73
Payable to related parties	15	45

Additionally, the Company leases certain facilities used in its operations from a related party. As of December 31, 2021, the right-of-use asset and lease liability associated with these leases were $10 million. As of September 30, 2021, the right-of-use asset associated with these leases was $11 million and the lease liability was $10 million. Amounts paid for these leases were not material.

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, capital market and geopolitical conditions, including global price inflation and shortages impacting the availability of raw materials and component products; 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 strength of the U.S. or other economies; changes or uncertainty in laws, regulations, rates, policies or interpretations that impact the Company's business operations or tax status; the ability to develop or acquire new products and technologies that achieve market acceptance and meet applicable regulatory requirements; changes to laws or policies governing foreign trade, including increased tariffs or trade restrictions; maintaining 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 risk of infringement or expiration of intellectual property rights; any delay or inability of the Company to realize the expected benefits and synergies of recent portfolio transactions; the outcome of litigation and governmental proceedings; 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; fluctuations in currency exchange rates; 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, 2021 filed with the United States Securities and Exchange Commission ("SEC") on November 15, 2021, which is available at www.sec.gov and www.johnsoncontrols.com under the "Investors" tab. The description of certain of these risks is supplemented in Item 1A of Part II of this Quarterly Report on Form 10-Q. The forward-looking statements included in this document are 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 and commissioning building products and systems, including residential and commercial 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, security and fire-protection space), energy-management consulting and data-driven "smart building" services and solutions powered by its OpenBlue software platform and related digital 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 and reduce greenhouse gas emissions.

The following information should be read in conjunction with the September 30, 2021 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, 2021 filed with the SEC on November 15, 2021. References in the following discussion and analysis to "Three Months" (or similar language) refer to the three months ended December 31, 2021 compared to the three months ended December 31, 2020.

Macroeconomic Trends

Much of the demand for installation of the Company's products and solutions is driven by commercial and residential construction and industrial facility expansion and maintenance projects. Commercial and residential construction projects are heavily dependent on general economic conditions, localized demand for commercial and residential real estate and availability of credit. Positive or negative fluctuations in commercial and residential construction, industrial facility expansion and maintenance projects and other capital investments in buildings 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. 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 in various locations outside of the U.S. and impact the comparability of results from period to period.

The Company continues to observe trends demonstrating increased interest and demand for safe, efficient and sustainable buildings, and seeks to capitalize on these trends to drive growth by developing and delivering technologies and solutions to create smart and healthy buildings. In 2020, the Company launched its software platform, OpenBlue, enabling enterprises to manage all aspects of their physical spaces delivering sustainability, new occupant experiences, and safety and security by combining the Company's building expertise with cutting-edge technology, including AI-powered service solutions such as remote diagnostics, predictive maintenance, compliance monitoring and advanced risk assessments. The Company continues to leverage 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 for the Company. The Company has committed to investing in new product research and development in climate-related innovation to develop sustainable products and services.

The Company has experienced, and expects to continue to experience, increased input 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), government-mandated actions in response to COVID-19 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. These trends have continued to negatively impact the Company's revenue and margins during the first quarter of fiscal year 2022, and it is expected these trends will continue to be a headwind for the remainder of fiscal 2022. Therefore, the Company could experience further disruptions, shortages and price 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.

Impact of COVID-19 pandemic

The global outbreak of COVID-19 severely restricted the level of economic activity around the world and caused a significant contraction in the global economy.

The Company's affiliates, employees, suppliers, customers and others have been and may continue to be restricted or prevented from conducting normal business activities, including as a result of shutdowns, travel restrictions and other actions that may be requested or mandated by governmental authorities. Although shutdown orders and similar restrictions have been lifted in many jurisdictions in conjunction with the global distribution of vaccines, challenges in achieving sufficient vaccination levels and the spread of new variants of COVID-19 have caused some governments to extend or reinstitute restrictions in impacted areas. During the first quarter of fiscal 2022, the Company's facilities generally operated at normal levels.

The Company continues to focus its efforts on preserving the health and safety of its employees and customers, as well as maintaining the continuity of its operations. The Company modified its business practices in response to the COVID-19 outbreak, including restricting non-essential employee travel, implementing remote work protocols, and limiting physical participation in meetings, events and conferences. The Company also instituted preventive measures at its facilities, including enhanced health and safety protocols, temperature screening, requiring face coverings for all unvaccinated employees and encouraging employees to follow similar protocols when away from work. The Company has adopted and implemented a multifaceted framework to guide its decision making as it reopens its offices and facilities to employees, and will continue to monitor and audit its facilities to ensure that they are in compliance with the Company's COVID-19 safety requirements.

The Company has experienced increases in both demand and volumes as governments have distributed vaccines and lifted COVID-19-related restrictions, leading to increases in retrofit activity and, to a lesser extent, commercial building construction. The global pandemic has also provided the Company with the opportunity to help its customers by delivering solutions and support that enhance the safety and increase the efficiency of their operations. As a result of the pandemic, the Company has seen an increase in demand for its products and solutions that promote building health and optimize customers' infrastructure.

However, the Company continues to be influenced by COVID-19-related trends impacting site access and the labor force, which have and may continue to negatively impact the Company's revenues and margins. Challenges in reaching sufficient vaccination levels and the introduction of new variants of COVID-19 have caused some governments to extend or reinstitute lockdowns and similar restrictive measures, which, in some cases, have limited the Company's ability to access customer sites to install and maintain its products and deliver services. In addition, the Company has experienced and continues to experience labor shortages at certain facilities as the Company expands its production capacity to meet increased customer demand. Although the Company is mitigating these shortages through focused recruitment efforts and competitive compensation packages, the Company could continue to experience such shortages in the future. Recently, the U.S. Government has promulgated orders mandating vaccinations or regular COVID-19 testing for large employers and federal contractors. Similar mandates have also been imposed by local governments and certain of the Company's customers. The Company's efforts to comply with these mandates, including requiring that some or all of its employees be fully vaccinated against COVID-19, could result in increased labor attrition or disruption, and could adversely impact the Company's ability to deliver services to its customers.

The extent to which the COVID-19 pandemic continues to impact the Company's results of operations and financial condition will depend on future developments that are highly uncertain and cannot be predicted, including the resurgence of COVID-19 and its variants in regions recovering from the impacts of the pandemic, the effectiveness of COVID-19 vaccines and the speed at which populations are vaccinated around the globe, the impact of COVID-19 on economic activity, and regulatory actions taken to contain its impact on public health and the global economy. See Part I, Item 1A, of the Company's Annual Report on Form 10-K for the year ended September 30, 2021 for an additional discussion of risks related to COVID-19.

Restructuring and Cost Optimization Initiatives

To better align its resources with its growth strategies and reduce the cost structure of its global operations in certain underlying markets, the Company has committed to various restructuring plans. In fiscal 2021, the Company announced its plans to optimize its cost structure through broad-based SG&A actions focused on simplification, standardization and centralization, with the intent to deliver annualized savings of $300 million by fiscal 2023. Additionally, the Company announced cost of sales actions to drive $250 million in annual run rate savings by fiscal 2023. The Company believes it is on track to deliver the productivity savings by fiscal 2023. For more information on the Company's restructuring plans, see "Liquidity and Capital Resources—Restructuring."

Net Sales

(in millions)	Three Months Ended December 31, 2021	2020	Change
Net sales	$ 5,862	$ 5,341	10%

The increase in consolidated net sales for the three months ended December 31, 2021 was due to higher organic sales ($440 million) and incremental sales from acquisitions ($128 million), partially offset by the unfavorable impact of foreign currency translation ($45 million) and lower sales due to business divestitures ($2 million). Excluding the impact of foreign currency translation and business acquisitions and divestitures, consolidated net sales increased 8% as compared to the prior year, attributable to higher volumes and increased pricing in response to inflation pressures. Refer to the "Segment Analysis" below within this Item 2 for a discussion of net sales by segment.

Cost of Sales / Gross Profit

(in millions)	Three Months Ended December 31, 2021	2020	Change
Cost of sales	$ 3,971	$ 3,613	10%
Gross profit	1,891	1,728	9%
% of sales	32.3 %	32.4%	

Cost of sales and gross profit increased for the three-month period ended December 31, 2021, and gross profit as a percentage of sales decreased by 10 basis points. Gross profit increased due to organic sales growth, business acquisitions, favorable foreign currency translation ($34 million) and the favorable year-over-year impact of net mark-to-market adjustments on pension plans ($9 million). Gross profit as a percentage of sales decreased slightly as the benefit of volume leverage was more than offset by supply chain inefficiencies and price/cost pressures. 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

(in millions)	Three Months Ended December 31, 2021	2020	Change
Selling, general and administrative expenses	$ 1,369	$ 1,294	6%
% of sales	23.4 %	24.2%	

Selling, general and administrative expenses ("SG&A") for the three-month period ended December 31, 2021 increased $75 million, and SG&A as a percentage of sales decreased by 80 basis points. The increase in SG&A was primarily due to the absence of certain one-time cost mitigation actions, incremental sales investments and current year business acquisitions, partially offset by the favorable year-over-year impact of net mark-to-market adjustments on pension plans ($34 million). Foreign currency translation had a favorable impact on SG&A of $10 million. Refer to the "Segment Analysis" below within this Item 2 for a discussion of segment EBITA.

Restructuring and Impairment Costs

(in millions)	Three Months Ended December 31, 2021	2020	Change
Restructuring and impairment costs	$ 49	$ —	*

* Measure not meaningful

Refer to Note 17, "Significant Restructuring and Impairment Costs," of the notes to consolidated financial statements and "Restructuring" below within this Item 2 for further disclosure related to the Company's restructuring plans and impairment costs.

Net Financing Charges

(in millions)	Three Months Ended December 31, 2021	2020	Change
Net financing charges	$ 53	$ 59	-10%

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

Equity Income

(in millions)	Three Months Ended December 31, 2021	2020	Change
Equity income	$ 70	$ 58	21%

The increase in equity income for the three months ended December 31, 2021 was primarily due to higher income at certain partially-owned affiliates of the Johnson Controls - Hitachi joint venture and within the Building Solutions EMEA/LA segment. Refer to the "Segment Analysis" below within this Item 2 for a discussion of segment EBITA by segment.

Income Tax Provision

(in millions)	Three Months Ended December 31, 2021	2020	Change
Income tax provision	$ 71	$ 61	16%
Effective tax rate	14.5%	14.1%	

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 December 31, 2021, the Company's effective tax rate for continuing operations was 14.5% and was higher than the statutory tax rate of 12.5% primarily due to the income tax effects of mark-to-market adjustments and tax rate differentials, partially offset by the benefits of continuing global tax planning initiatives. For the three months ended December 31, 2020, the Company's effective tax rate for continuing operations was 14.1% and was higher than the statutory tax rate of 12.5% primarily due to tax rate differentials, partially offset by the benefits of continuing global tax planning initiatives. Refer to Note 19, "Income Taxes," of the notes to consolidated financial statements for further detail.

Income From Discontinued Operations, Net of Tax

(in millions)	Three Months Ended December 31, 2021	Three Months Ended December 31, 2020	Change
Income from discontinued operations, net of tax	$ —	$ 124	*

* Measure not meaningful

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

Income Attributable to Noncontrolling Interests

(in millions)	Three Months Ended December 31, 2021	Three Months Ended December 31, 2020	Change
Income from continuing operations attributable to noncontrolling interests	$ 38	$ 45	-16%

The decrease in income from continuing operations attributable to noncontrolling interests for the three months ended December 31, 2021 was primarily due to lower net income at certain partially-owned affiliates within the Global Products segment.

Net Income Attributable to Johnson Controls

(in millions)	Three Months Ended December 31, 2021	Three Months Ended December 31, 2020	Change
Net income attributable to Johnson Controls	$ 381	$ 451	-16%

The decrease in net income attributable to Johnson Controls for the three months ended December 31, 2021 was primarily due to the prior year income from discontinued operations, higher SG&A and higher restructuring and impairment costs, partially offset by higher gross profit.

Diluted earnings per share attributable to Johnson Controls for the three months ended December 31, 2021 was $0.54 compared to $0.62 for the three months ended December 31, 2020.

Comprehensive Income Attributable to Johnson Controls

(in millions)	Three Months Ended December 31, 2021	Three Months Ended December 31, 2020	Change
Comprehensive income attributable to Johnson Controls	$ 468	$ 723	-35%

The decrease in comprehensive income attributable to Johnson Controls for the three months ended December 31, 2021 was due to a decrease in other comprehensive income attributable to Johnson Controls ($185 million) resulting primarily from currency translation adjustments and lower net income attributable to Johnson Controls ($70 million). The year-over-year unfavorable foreign currency translation adjustments were primarily driven by the strengthening of the Brazilian real, British pound, euro and Mexican peso against the U.S. dollar in the prior year.

Segment Analysis

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

Effective October 1, 2021, the Company's marine businesses previously included in Building Solutions Asia Pacific and Global Products reportable segments are now part of Building Solutions EMEA/LA reportable segment. Historical information has been re-cast to present the comparative periods on a consistent basis. This change was not material to the segment presentation. Refer to Note 20, “Segment Information,” of the notes to consolidated financial statements for further information.

Beginning on October 1, 2021, the Company began reporting certain retrofit projects in Building Solutions EMEA/LA and Building Solutions Asia Pacific as products and systems revenue on a prospective basis as they have evolved to be more aligned with other install offerings.

Net Sales

	Three Months Ended December 31,		
(in millions)	2021	2020	Change
Building Solutions North America	$ 2,152	$ 2,034	6%
Building Solutions EMEA/LA	959	948	1%
Building Solutions Asia Pacific	675	604	12%
Global Products	2,076	1,755	18%
	$ 5,862	$ 5,341	10%

- The increase in Building Solutions North America was due to higher volumes and prices ($107 million), the favorable impact of foreign currency translation ($6 million) and incremental sales related to business acquisitions ($5 million). The sales increase was led by growth in service and HVAC & Controls.

- The increase in Building Solutions EMEA/LA was due to higher prices ($26 million) and incremental sales related to business acquisitions ($8 million), partially offset by the unfavorable impact of foreign currency translation ($22 million) and business divestitures ($1 million). The increase in sales is driven by balanced growth in both project installations and service activity, led by strength in Fire & Security. By region, sales growth outperformed in Europe and Latin America, partially offset by continued weakness in the Middle East.

- The increase in Building Solutions Asia Pacific was due to higher volumes and prices ($69 million) and incremental sales related to business acquisitions ($9 million), partially offset by the unfavorable impact of foreign currency translation ($6 million) and business divestitures ($1 million). The increase in sales was led by growth in project installations, driven by strong growth in Commercial Applied HVAC & Controls. China remains the primary source of growth, with growth stabilizing across the rest of the region.

- The increase in Global Products was due to higher volumes and prices ($238 million) and incremental sales related to business acquisitions ($106 million), partially offset by the unfavorable impact of foreign currency translation ($23 million). Sales growth was driven by broad-based strength across Commercial and Residential HVAC and Fire & Security products.

Segment EBITA

(in millions)	Three Months Ended December 31, 2021		2020	Change
Building Solutions North America	$ 250	$	255	-2%
Building Solutions EMEA/LA	104		98	6%
Building Solutions Asia Pacific	68		77	-12%
Global Products	301		212	42%
	$ 723	$	642	13%

- The decrease in Building Solutions North America was primarily due to supply chain disruptions and labor constraints, partially offset by favorable volumes, productivity savings and foreign currency translation.

- The increase in Building Solutions EMEA/LA was primarily due to favorable pricing and productivity savings, partially offset by unfavorable mix and the unfavorable impact of foreign currency translation.

- The decrease in Building Solutions Asia Pacific was primarily due to unfavorable mix, unfavorable price/cost and the unfavorable impact of foreign currency translation, partially offset by favorable volume leverage and productivity savings.

- The increase in Global Products was primarily due to favorable volumes and mix, productivity savings, higher equity income driven primarily by certain partially-owned affiliates of the Johnson Controls - Hitachi joint venture and the favorable impact of foreign currency translation, partially offset by unfavorable price/cost and supply chain disruptions.

Backlog

The Company’s backlog is applicable to its sales of systems and services. At December 31, 2021, the backlog was $10.9 billion, of which $10.5 billion was attributable to the field business. The backlog amount outstanding at any given time is not necessarily indicative of the amount of revenue to be earned in the upcoming fiscal year.

At December 31, 2021, remaining performance obligations were $16.5 billion, which is $5.6 billion higher than the Company's backlog of $10.9 billion. Differences between the Company’s remaining performance obligations and backlog are primarily due to:

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

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

Liquidity and Capital Resources

Working Capital

(in millions)	December 31, 2021	September 30, 2021	Change
Current assets	$ 10,353	$ 9,998	
Current liabilities	(9,987)	(9,098)	
	366	900	-59%
Less: Cash and cash equivalents	(1,207)	(1,336)	
Add: Short-term debt	392	8	
Add: Current portion of long-term debt	220	226	
Working capital (as defined)	$ (229)	$ (202)	13%
Accounts receivable - net	$ 5,671	$ 5,613	1%
Inventories	2,425	2,057	18%
Accounts payable	4,083	3,746	9%

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

- The decrease in working capital at December 31, 2021 as compared to September 30, 2021, was primarily due to an increase in accounts payable and deferred revenue, partially offset by an increase in inventory due to supply chain disruptions and a decrease in accrued compensation and benefits liabilities.

- The Company’s days sales in accounts receivable at December 31, 2021 and September 30, 2021 were 62 days and 58 days, respectively. There has been no significant adverse changes in the level of overdue receivables or significant changes in revenue recognition methods.

- The Company’s inventory turns for the three months ended December 31, 2021 were lower than the comparable period ended September 30, 2021, primarily due to supply chain disruptions.

- Days in accounts payable at December 31, 2021 were 90 days, higher than 76 days at the comparable period ended September 30, 2021, primarily due to timing.

Cash Flows From Continuing Operations

(in millions)	Three Months Ended December 31, 2021	2020
Cash provided by operating activities	$ 392	$ 515
Cash used by investing activities	(218)	(37)
Cash used by financing activities	(357)	(547)

- The decrease in cash provided by operating activities was primarily due to increases in accounts receivable and inventory, partially offset by favorable changes in accounts payable and accrued liabilities.

- The increase in cash used by investing activities was primarily due to higher cash payments made for acquisitions and higher capital expenditures.

- The decrease in cash used by financing activities was primarily due to higher net short-term debt borrowings, partially offset by higher stock repurchases.

Capitalization

(in millions)	December 31, 2021	September 30, 2021	Change
Short-term debt	$ 392	$ 8	
Current portion of long-term debt	220	226	
Long-term debt	7,437	7,506	
Total debt	8,049	7,740	4%
Less: Cash and cash equivalents	1,207	1,336	
Total net debt	6,842	6,404	7%
Shareholders’ equity attributable to Johnson Controls ordinary shareholders	17,249	17,562	-2%
Total capitalization	$ 24,091	$ 23,966	1%
Total net debt as a % of total capitalization	28.4%	26.7%	

- Net debt and net debt as a percentage of total capitalization are non-GAAP financial measures. The Company believes the percentage of total net debt to total capitalization is useful to understanding the Company’s financial condition as it provides a 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 December 31, 2021, approximately $4.5 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.

- In the first quarter of fiscal 2022, the Company raised its quarterly dividend from $0.27 per share to $0.34 per share. The Company intends to continue paying quarterly dividends throughout fiscal 2022.

- The Company believes its capital resources and liquidity position at December 31, 2021 are adequate to meet projected needs. The Company believes requirements for working capital, capital expenditures, dividends, minimum pension contributions, debt maturities and any potential acquisitions or stock repurchases in the remainder of fiscal 2022 will continue to be funded from operations, supplemented by short- and long-term borrowings, if required. The Company currently manages its short-term debt position in the U.S. and euro commercial paper markets and bank loan markets. In the event the Company is unable to issue commercial paper, it would have the ability to draw on its $2.5 billion revolving credit facility which expires in December 2024 or its $0.5 billion 364-day revolving credit facility which expires in December 2022. There were no draws on the revolving credit facilities as of December 31, 2021 and September 30, 2021. The Company estimates that, as of December 31, 2021, it could borrow up to $2.9 billion based on average borrowing levels during the first quarter of fiscal 2022 on committed credit lines. The Company maintains a shelf registration statement with the SEC under which it may issue additional debt securities, ordinary shares, preferred shares, depositary 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. In addition, the Company held cash and cash equivalents of $1.2 billion as of December 31, 2021. As such, the Company believes it has sufficient financial resources to fund operations and meet its obligations for the foreseeable future.

- 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 December 31, 2021, 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	Stable

  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 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 December 31, 2021, 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 2022, the Company believes the long-term rate of return will approximate 7.00%, 3.70% and 5.30% for U.S. pension, non-U.S. pension and postretirement plans, respectively. During the first three months of fiscal 2022, the Company made approximately $41 million in total pension and postretirement contributions. In total, the Company expects to contribute approximately $100 million in cash to its defined benefit pension plans in fiscal 2022. The Company expects to contribute $3 million in cash to its postretirement plans in fiscal 2022.

- 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 the Luxembourg and Ireland holding and financing entities, other than amounts that can be provided in tax efficient methods, the Company could also elect to raise capital through debt or equity issuances. 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 consolidated financial statements for additional information on items impacting capitalization.

Restructuring

To better align its resources with its growth strategies and reduce the cost structure of its global operations in certain underlying markets, the Company has committed to various restructuring plans. Restructuring plans 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 actions to reduce cost of sales and SG&A due to reduced employee-related costs, depreciation and amortization expense.

- In fiscal 2021, the Company announced its plans to optimize its cost structure through broad-based SG&A actions focused on simplification, standardization and centralization, with the intent to deliver annualized savings of $300 million by fiscal 2023. Additionally, the Company announced cost of sales actions intended to drive $250 million in annual run rate savings by fiscal 2023. The one-time pre-tax costs associated with these actions are estimated to be approximately $385 million across all segments and at Corporate. During the three months ended December 31, 2021, the Company recorded $49 million of costs resulting from the 2021 restructuring plan. The restructuring action is expected to be substantially complete in fiscal 2023. The Company has outstanding restructuring reserves of $93 million at December 31, 2021, all of which is expected to be paid in cash.

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 (i) $625 million aggregate principal amount of 1.750% Senior Notes due 2030 (the “2030 Notes”), (ii) €500 million aggregate principal amount of 0.375% Senior Notes due 2027 (the “2027 Notes”), (iii) €500 million aggregate principal amount of 1.000% Senior Notes due 2032 (the “2032 Notes”) and (iv) $500 million aggregate principal amount of 2.000% Sustainability-Linked Senior Notes due 2031 (the “2031 Notes” and together with the 2032 Notes, the 2030 Notes and the 2027 Notes, the “Notes”), each issued by Johnson Controls International plc ("Parent Company") and Tyco Fire & Security Finance S.C.A. (“TFSCA”), a corporate partnership limited by shares (*société en commandite par actions*) incorporated and organized under the laws of the Grand Duchy of Luxembourg (“Luxembourg”).

TFSCA 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 Notes are the Parent Company’s and TFSCA’s unsecured, unsubordinated obligations. The Parent Company is incorporated and organized under the laws of Ireland and 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 following tables 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):

	Three Months Ended December 31, 2021	Year Ended September 30, 2021
Net sales	$ —	$ —
Gross profit	—	—
Loss from continuing operations	(57)	(212)
Net loss	(57)	(212)
Income attributable to noncontrolling interests	—	—
Net loss attributable to the entity	(57)	(212)

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

	Three Months Ended December 31, 2021	Year Ended September 30, 2021
Net sales	$ —	$ —
Gross profit	—	—
Income from continuing operations	14	223
Net income	14	223
Income attributable to noncontrolling interests	—	—
Net income attributable to the entity	14	223

The following table presents summarized balance sheet information as of December 31, 2021 and September 30, 2021 (in millions):

	December 31, 2021	September 30, 2021
Current assets	$ 1,405	$ 1,036
Noncurrent assets	271	280
Current liabilities	2,601	1,825
Noncurrent liabilities	7,192	7,260
Noncontrolling interests	—	—

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

	December 31, 2021	September 30, 2021
Current assets	$ 348	$ 465
Noncurrent assets	2,989	2,992
Current liabilities	2,512	1,660
Noncurrent liabilities	7,127	7,199
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, 2021 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 consolidated financial statements.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

As of December 31, 2021, the Company had not experienced any adverse changes in market risk exposures that materially affected the quantitative and qualitative disclosures presented in the Company's Annual Report on Form 10-K for the year ended September 30, 2021.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934, as amended ("Exchange Act"). Based upon their evaluation of these disclosure controls and procedures, the principal executive officer and principal financial officer concluded that the disclosure controls and procedures were effective as of December 31, 2021 to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time period specified in the SEC's rules and forms, and to ensure that information required to be disclosed by the Company in the reports it files or submits under the Exchange Act is accumulated and communicated to the Company's management, including its principal executive and principal financial officers, as appropriate, to allow timely decisions regarding disclosure.

Changes in Internal Control Over Financial Reporting

There have been no significant changes in the Company's internal control over financial reporting during the three months ended December 31, 2021 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 on February 15, 2017. On November 3, 2021, the court granted the Company's motion to dismiss the amended complaint. Plaintiffs have appealed to the United States Court of Appeals for the Seventh Circuit.

Refer to Note 22, "Commitments and Contingencies," of the notes to consolidated financial statements for discussion of environmental, asbestos, insurable liabilities and other litigation matters, which is incorporated by reference herein and is considered an integral part of Part II, Item 1, "Legal Proceedings."

ITEM 1A. RISK FACTORS

The following should be read in conjunction with, and supplements and amends, the factors that may affect the Company's business or operations described under "Risk Factors" in Part I, Item 1A, of the Company's Annual Report on Form 10-K for the year ended September 30, 2021. Other than as described in this Item 1A, there have been no other material changes to our risk factors from the risk factors previously disclosed in the 2021 Annual Report.

The following updates and replaces the risk factor entitled "Impacts related to the COVID-19 pandemic could have an adverse effect on our business, financial condition, results of operations and cash flows".

Impacts related to the COVID-19 pandemic could have an adverse effect on our business, financial condition, results of operations and cash flows.

The global outbreak of COVID-19 has disrupted economic activity around the world. As a result, we and our affiliates, employees, suppliers, customers and others have been and may continue to be restricted or prevented from conducting normal business activities, including as a result of shutdowns, travel restrictions and other actions that may be requested or mandated by governmental authorities. While a substantial portion of our businesses and facilities have been classified as essential in jurisdictions in which facility closures have been mandated, we can give no assurance that there will not be additional closures in the future or that our businesses and facilities will be classified as essential in each of the jurisdictions in which we operate.

The COVID-19 outbreak has impacted, and may continue to impact, our office locations, manufacturing and servicing facilities and distribution centers, as well as those of our third-party vendors, including the effects of facility closures, reductions in operating hours and other social distancing efforts. In response to the challenges presented by COVID-19, we modified our business practices, including restricting non-essential employee travel, implementing remote work protocols, and limiting physical participation in meetings, events and conferences, and we may take further actions as may be required by government authorities or that we determine are in the best interests of our employees, customers, partners and suppliers. These modifications to our business practices, including any future actions we take, may cause us to experience increases in costs, reductions in productivity and disruptions to our business routines.

In September 2021, the Biden Administration issued an executive order requiring U.S.-based employees, contractors, and subcontractors, that work on or in support of U.S. Government contracts, to be fully vaccinated. The executive order includes on-site and remote U.S.-based employees, contractors and subcontractors but permits limited exceptions for medical and religious reasons. However, the implementation and enforcement of the federal contractor mandate remains uncertain due to ongoing legal challenges. If the mandate is upheld and implemented, it is expected to be applicable to our federal contracting business. We have internally announced policies with respect to our U.S.-based employees to comply with this mandate if it is implemented. In addition, a number of our customers have issued vaccine requirements with respect to our employees who provide on-site service at customer facilities. It is also possible that additional vaccine mandates may be announced in other jurisdictions in which our businesses operate. Our efforts to comply with these mandates, including requiring that some or all of our employees be fully vaccinated against COVID-19, could result in increased labor attrition and disruption, as well as difficulty securing future labor needs, and could materially impact our ability to deliver services to our U.S. federal government customers and potentially other customers, which could in turn adversely impact our results of operations.

We may also experience impacts from market forces and changes in consumer behavior related to pandemic fears as a result of COVID-19. Although we experienced increases in both demand and volumes during fiscal 2021 as governments distributed vaccines and lifted COVID-19-related restrictions, challenges in achieving sufficient vaccination levels and the introduction of new variants of COVID-19 have and could continue to negatively impact our results of operations due to the extension or reinstitution of lockdowns and similar restrictive measures, limited access to customer sites to perform installation and service work, the delay or abandonment of projects on which we provide products and/or services, and the general adverse impacts on demand and sales volumes from industries that are sensitive to economic downturns and volatility in commodity prices. In addition, the Company has experienced and could continue to experience labor shortages at its facilities as the Company expands its production capacity to meet increased customer demand. Further, the COVID-19 pandemic could result in permanent changes in the behaviors of our customers, including the increased prevalence of remote work and a corresponding decline in demand for the construction and maintenance of commercial buildings. Any of these impacts could cause our stock price and the operating performances of our businesses to be adversely affected, which could require us to incur material impairment, restructuring or other charges.

Our management of the impact of COVID-19 has and will continue to require significant investment of time from our management and employees, as well as resources across our global enterprise. This may cause us to divert or delay the application of our resources toward new initiatives or investments, which may adversely impact our future results of operations. In addition, issues relating to the COVID-19 pandemic may result in legal claims or litigation against us.

The extent to which the COVID-19 pandemic continues to impact our results of operations and financial condition will depend on future developments that are highly uncertain and cannot be predicted, including the resurgence of COVID-19 and its variants in regions recovering from the impacts of the pandemic, the effectiveness of COVID-19 vaccines and the speed at which populations are vaccinated around the globe, the impact of COVID-19 on economic activity and regulatory actions taken to contain the impact of COVID-19 on public health and the global economy. The impact of COVID-19 may also exacerbate other risks discussed in Item 1A of our Annual Report on Form 10-K, any of which could have a material effect on our financial condition, results of operations and cash flows.

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

In March 2021, the Company's Board of Directors approved a $4.0 billion increase to the Company's share repurchase authorization, adding to the $2.0 billion remaining as of December 31, 2020 under the prior share repurchase authorization approved in 2019. 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 ended December 31, 2021, the Company repurchased approximately $0.5 billion of its ordinary shares on an open market. As of December 31, 2021, approximately $4.5 billion remains available under the share repurchase authorization.

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 December 31, 2021.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of the Publicly Announced Program	Approximate Dollar Value of Shares that May Yet be Purchased under the Programs
10/1/21 - 10/31/21				
Purchases by Company	4,444,772	$ 70.28	4,444,772	$ 4,742,679,758
11/1/21 - 11/30/21				
Purchases by Company	1,203,101	76.36	1,203,101	4,650,808,119
12/1/21 - 12/31/21				
Purchases by Company	1,561,159	78.04	1,561,159	4,528,969,522

During the three months ended December 31, 2021, acquisitions of shares by the Company from certain employees in order to satisfy employee tax withholding requirements in connection with the vesting of restricted shares were not material.

ITEM 6. EXHIBITS

INDEX TO EXHIBITS

Exhibit No.	Description
10.1	Amendment to Credit Agreement, dated as of December 2, 2021, by and between Johnson Controls International plc, and JPMorgan Chase Bank, N.A., as administrative agent (filed herewith).
10.2	Amendment to Credit Agreement, dated as of May 25, 2021, by and between Johnson Controls International plc, and JPMorgan Chase Bank, N.A., as administrative agent (filed herewith).
31.1	Certification by the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification by the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Periodic Financial Report by the Chief Executive Officer and Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	The following materials from Johnson Controls International plc's Quarterly Report on Form 10-Q for the quarter ended December 31, 2021, 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)
**	Management contract or compensatory plan

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: February 2, 2022

By: */s/ Olivier Leonetti*

Olivier Leonetti
Executive Vice President and
Chief Financial Officer

Exhibit 31.1

CERTIFICATIONS

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

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

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

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

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

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

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

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

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

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

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

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

Date: February 2, 2022

/s/ George R. Oliver

George R. Oliver
Chairman and Chief Executive Officer

Exhibit 31.2

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;

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

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

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

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

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

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

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

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

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

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

Date: February 2, 2022

/s/ Olivier Leonetti

Olivier Leonetti
Executive Vice President and
Chief Financial Officer

Exhibit 32.1

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 December 31, 2021 (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: February 2, 2022

/s/ George R. Oliver

George R. Oliver
Chairman and Chief Executive Officer

/s/ Olivier Leonetti

Olivier Leonetti
Executive Vice President and
Chief Financial Officer